

GALE
ENCYCLOPEDIA
OF U.S.
ECONOMIC
HISTORY

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VOLUME **1** **A-K**

THOMAS CARSON, EDITOR
MARY BONK, ASSOCIATE EDITOR

 **GALE GROUP**
Detroit
San Francisco
London
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Contents by Era

Many topics do not fit easily into the categories that we have created for them. Companies are placed in the era in which they were founded. Industries and people are placed in the era when they first flourished. Geographic terms have been placed in eras only when it seemed logical to do so. No attempt has been made to list historical economic terms. The reader is advised to use the index for terms that cannot be found in this table of contents.

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Preface

The *Gale Encyclopedia of U.S. Economic History* offers to students comprehensive coverage of American economic history from the Paleolithic Age to the present with an emphasis on the nineteenth and twentieth centuries. The topics selected for inclusion by our board of advisors have been chosen to support most textbooks on American history, and this work should be a useful tool for juniors and seniors in high school and first- and second-year college students who are beginning an investigation of the subject. The student will find articles on the Aztec, Maya, and Inca, because many texts begin with a chapter on the early history of our southern neighbors. The history of Native Americans has also been included, so articles can be found on Mound Builders, Plains Indians, Five Civilized Tribes, the Trail of Tears and many other topics. Successful women and minority leaders are also to be found. There is, of course, a wealth of material on the rise of the United States as an industrial power. Brilliant inventors, labor unionizers, robber barons, reformers, political leaders, and manufacturers of products as disparate as Colt revolvers and modern computer software can all be found on these pages.

The articles in this book have been selected by a distinguished board of nine advisors that represents both university and high school teachers and librarians. It includes people from different regions of the country and varied ethnic backgrounds. Five of them have doctorates in American History or a related area. Professor Charles K. Hyde, a specialist in U.S. Economic History from Wayne State University, not only helped in the selection of topics, but also read and commented on every article in the book. The encyclopedia is immeasurably stronger because of his contribution.

Professor Hyde divided American history into ten eras. We have had a research scholar write an overview essay for each of these eras, and we expect that these overviews will help the beginning student place the whirl of facts presented in this book into its proper

context. These eras will also provide the basis of organization for our table of contents and our chronology.

The book includes 1,003 articles; about half are economic terms and historical and geographic definitions. These articles are somewhat shorter than the others, and they include no bibliography. They will give rather concise explanations of such terms as Prairie, Cumberland Gap, Santa Fe Trail, or Knights of Labor. About 200 of these terms are economic in character, defining such concepts as Laissez Faire, Aggregate Demand, and Pay Equity. It is hoped that their addition will make this book useful to the student of economics as well as the student of history.

The remaining half of the book consists of overviews, issues, biographies, state economic histories, historical events, and company and industry histories. Each of these entries have a “Further Reading” section that will direct the student toward other works on the subject and may serve as the basis for writing research papers. The “Further Reading” will average about five citations, ranging from on-line encyclopedia articles to scholarly monographs. The Issues essays, a special feature of this book, contain discussions of topics that are currently a subject of public debate, like the flat tax, or have been so in the past, like slavery. Matters of current scholarly dispute, such as whether the Spanish or the English treated Native Americans better, are also included among the Issues.

The book is organized in word-by-word alphabetical order. Most articles can be found under the full name of the entity and not the acronym. For example, IBM will be found under “International Business Machines” and not “IBM.” The exceptions to this rule are few. In some cases the acronym has become the company name, like the AT&T Corporation or RCA Victor. The OPEC Oil Embargo is our only instance of an event that contains an acronym, and it has been allowed to stand. A student who knows only the acronym should check the index to find the full name of the institution.



Introduction

Beginning students of American economic history and their teachers will find this encyclopedia to be a valuable source of information on the complex mosaic of people, businesses, industries, single events, and longer-lived movements and trends that together comprise the economic and social history of the United States. In teaching U.S. economic history over the past quarter-century, I have concluded that students struggle with the subject matter more than with other varieties of history. What makes the field difficult is the requirement that students learn basic economic concepts and at the same time come to grips with long-term, complex historical developments and trends. Students must also familiarize themselves with a long list of individuals and institutions, which were important forces in American economic and social history. In bringing all of this information together into a single reference work for the first time, this encyclopedia will be a valuable helpmate to students and teachers alike.

This encyclopedia has a variety of distinctive types of entries which is its real strength as a reference tool. The **Era Overviews** provide an overall chronological and thematic framework for more than four hundred years of American economic history. They help readers identify the major long-term economic changes within each era, providing a “big picture” focus. A second type of entry, **Issues in Economic History**, also emphasize long-term influences and policy issues, such as the role of immigrants in the national economy or the use of child labor. These entries remind the reader that issues or problems in economic history can extend beyond the boundaries of narrow chronological periods.

Students interested in the economic history of a particular colony or state will find the **Geographical Profiles** of great value. There is often a natural interest in the economic history of one’s own state or even a requirement that students learn their state’s history.

Textbooks sometimes discuss the economic development of individual colonies during the eighteenth century, but seldom carry that history into the nineteenth or twentieth centuries.

The more specific developments in U.S. economic history are analyzed using several complementary approaches. Entries that focus on **Key Events and Movements** take a broad approach to the causes and effects of major developments, while the **Biographies** emphasize the importance of the human actors in economic history. The **Historic Business and Industry Profiles** focus on the importance of profit-seeking firms or corporations and some of the key industries in the shaping of the economy over time.

Finally, the inclusion of **Economic Concepts and Terms** greatly aids the student who has little or no background in basic economics. American economic history textbooks for colleges and high schools typically assume that the student has completed at least one economics course and therefore is familiar with basic economic concepts. These textbooks rarely include a glossary.

The multiple approaches to U.S. economic history employed in this encyclopedia are its greatest strength. By including company and industry histories, biographies, key events and movements, critical issues in economic and social history, state economic histories, and the major eras in American economic development, these volumes enable the student to try various intellectual strategies in considering almost any topic. This encyclopedia will not only allow students to better understand materials presented in class and in readings, but will also serve as a basic resource and guide to further research.

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SETTLEMENT AND ECONOMIC DEVELOPMENT: THE COLONIES TO 1763

- 50,000-5000 B.C.:** During the last Ice Age, a migration of hunting and gathering peoples from Siberia cross over the “land bridge” (called Beringia) to North America. This land bridge is the result of the lower water levels caused by the large amount of water taken up in the glaciers. This migration of Paleo-Indians (ancient Indian people) disperses throughout the Western Hemisphere and develops different food cultures.
- 15,000-8000 B.C.:** Among the Paleo-Indian people living in what later comes to be North America some develop a characteristic stone spear point called the clovis point. It is used for hunting large animals.
- 400 B.C.–A.D. 1700:** Mound Builders occupy portions of eastern and central North America. They grow out of an older culture known to archaeologists as Mississippian. The early Mississippian built centers of a large trade network. The Mound Builders, without the aid of horses or mules, transport hundreds of tons of dirt to build burial mounds shaped like flat-topped pyramids. Some of these mounds are shaped like animals, such as the Great Serpent Mound of Adena, constructed in about A.D. 1000, near what becomes Cincinnati, Ohio. The Hopewell are also mound builders; they live in the area later known as eastern Ohio. The Cahokia mounds near what becomes St. Louis, Missouri, house a city of 40,000 people. Their peak development is around A.D. 1200.
- 800 B.C.:** The Maya civilization in the southeast Yucatan peninsula of the land that becomes Mexico reaches its height.
- 1000:** The Norse establish a settlement at L’Anse aux Meadows in Newfoundland.
- 1325:** The Aztec build the city of Tenochtitlán, a site on what later becomes Mexico City.
- 1492:** On his first exploratory voyage west across the Atlantic Ocean, Christopher Columbus encounters islands in the Caribbean Sea, mistakes them for the east Indies, and claims them for Spain.
- 1494:** Spain and Portugal divide the New World between them in the Treaty of Tordesillas.
- 1497:** John Cabot explores the coast of North America, up to the Delaware River.
- 1513:** Vasco Núñez de Balboa crosses the isthmus of Panama and discovers the Pacific Ocean.
- 1513:** Juan Ponce de León explores the coast of what comes to be the state of Florida.
- ca.1500-late 1800s:** Pandemics of European diseases for which the native populations of the Western Hemisphere have no immunity—smallpox, influenza, typhus, measles, etc.—run rampant through the Native American populations, killing as many as 95 percent of the people and reappearing periodically.
- 1518–1519:** Spanish conquistador Hernando Cortés invades Mexico, enters Tenochtitlán with an army, and takes Aztec emperor Montezuma II prisoner.
- 1530s:** Bartolomé de Las Casas, a Spanish priest and bishop in southern Mexico, criticizes the Spanish regime of exploitation, land theft, and murder of Native Americans.
- 1531–1533:** Spanish conquistador Francisco Pizarro subjugates the Inca civilization of Peru in the quest for gold.
- 1535:** French explorer Jacques Cartier discovers the St. Lawrence River while looking for a northwest passage to Asia.
- 1539–1540:** Spanish conquistador Hernando de Soto explores the southeastern region of what would

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become the United States and discovers the Mississippi River.

1540–1541: Spanish conquistador Francisco Vázquez de Coronado, at the head of a large expeditionary force, explores the southwestern region of what becomes the United States.

1542: Spain reforms its *encomienda* system. The Spanish *conquistadores* are no longer allowed to enslave Indian people in the New World, but they may still receive tribute in money and crops from the Indian population.

1550s–1560s: The English attempt to subdue Ireland through a brutal occupation and expropriation of Irish land. The English colonizers are led by a handful of adventurers—Sir Humphrey Gilbert, Sir Walter Raleigh, and Sir Richard Grenville—who believe the Irish to be savages. Their genocidal conduct of the war in Ireland shapes their attitudes towards the indigenous people that they meet in the New World.

1565: St. Augustine, Florida, is founded by the Spanish explorer Pedro Menéndez de Avilés.

1585–1603: A privateering war takes place between England and Spain.

1587: England establishes the lost colony of Roanoke off the Chesapeake coast. The expedition, composed of families, vanishes, leaving behind the cryptic inscription “CROATOAN” (the name of a nearby island) carved on a piece of wood.

1588: England—with the help of a big storm—defeats the great Spanish Armada.

1607: One hundred and four men and boys form an English settlement at Jamestown, Virginia; approximately one-half of the inhabitants die before the end of the year. Jamestown becomes the second oldest town in North America, after St. Augustine, and the first permanent British settlement.

1608: The French succeed in establishing a permanent settlement in Quebec.

1609: Henry Hudson explores the Hudson River.

1610: The Spanish establish Santa Fe in the northern Mexico territory.

1612: Jamestown planter John Rolfe begins experimenting with growing tobacco. Tobacco cultivation is soon thriving in Virginia.

1610–1680: During these years, most of the labor needs in the tobacco-growing Chesapeake are filled by indentured servants (who work for a landowner for a set period of time, usually seven years, after which they are free to settle anywhere they can find land to buy).

1616–1618: The “head-right” system, by which 50 acres are awarded to any person who pays for and sponsors transportation of a new worker to the Virginia plantations, is introduced to encourage immigration to Virginia.

1619: Carried aboard a Dutch vessel, approximately two dozen African people are transported to Virginia, possibly employed as indentured servants; other early African settlers on the English mainland colonies are most probably enslaved.

1619: The Virginia House of Burgesses (the colonial legislature) meets for the first time.

1620: Anchored on the *Mayflower* off of what becomes Cape Cod, Massachusetts, William Bradford and 41 Separatist Puritan heads of households sign the Mayflower Compact, establishing a community with the authority to make laws as necessary.

1621: The Puritans celebrate their first Thanksgiving at Plymouth.

1622: A Powhatan Indian confederation under the leadership of Opechancanough attacks English settlements along the James River in Virginia, killing about one quarter of the English colonists. The attack is prompted by the expansion of English settlement. It is the first large Indian attack against English settlers.

1624: The Dutch found the colony of New Amsterdam, which is later renamed New York.

1630: John Winthrop and the Massachusetts Bay Company, composed of English Puritans, sail to Massachusetts Bay and establish a colony.

1634: James I grants the Calvert family a proprietary charter for Maryland. The Calverts, who are Catholic, establish freedom of religion in the colony.

1635: Roger Williams escapes deportation to England for championing the rights of the Native Americans. Williams takes the public position that the English king has no right to grant land to Englishmen when the land already belongs to the Indians. Williams is expelled from Massachusetts. He founds Rhode Island and its first town, Providence, and drafts its

first constitution, which declares the separation of church and state and the freedom of religious expression.

1636: The colony of Connecticut is founded.

1630–1640: There is a “great migration” of English peasants to the New World. These peasants are frequently the wandering refugees of the enclosure movement of the sixteenth and seventeenth centuries, when the peasants’ leases to English farmland are terminated and the land is enclosed by hedges and turned over to sheep pasturage. Rather than starve, the peasants often become outlaws or “sturdy beggars,” given to larceny, robbery, and poaching on the local lords’ land. Parliament passes harsh laws and the peasants, when caught in some misbehavior, are sometimes given the option of being hanged or being transported to Virginia as indentured servants.

1636: Harvard College is founded in Massachusetts.

1636–1637: Pequot Indians attack the new settlement of Wethersfield and kill a handful of English settlers. A detachment of Massachusetts citizens and their Narragansett Indian allies attack a Pequot town on the Mystic River, killing upwards of 400 Pequots, mostly women and children.

1638: Anne Hutchinson is banished from Massachusetts for professing an inner awareness of God and of the certainty of salvation.

1642–1648: The English Civil War, fought ostensibly as a struggle of different religious groupings (Catholics, Anglicans, and various strains of Puritans) to dominate the English government, also reflects a social revolution going on in England in which a non-titled gentry and merchant class demand a greater say in the running of government.

1644: Indians again attack English settlements in Virginia. This marks the second great Indian attack against settlers in the region.

1649: As the concluding act of the English Civil War, Catholic King Charles II is beheaded and Oliver Cromwell, the military leader of the Puritans, becomes the “Protector” of the nation and rules England until his death in 1658.

1651, 1660: The English Parliament passes the first of the Navigation Acts, which stipulate that the trade between New England and England has to be shipped on English or colonial ships. Granting this monopoly

to colonial merchant ships, the Parliament went on to rule that certain exports from the colonies could only be traded with England, not with other European nations. The other main Navigation Acts are passed in 1663 and 1676. They refine the rules of trade between the mainland colonies, England, Europe, the West Indies, and Africa.

1652–1654: A trade war between the English and the Dutch begins.

1660: Charles II (and the House of Stuart) is restored to the English throne after the conclusion of the English Civil War and Cromwell’s Protectorate.

1662: The Puritan notion of town government includes a religious dimension of active participation in the church. The “selectmen”—those who take care of the town government between elections—are generally strong church members. But the Puritan notion of the church is that it is a community of “saints” who have already experienced God’s grace and are assured of salvation. As the towns’ populations grow, there is a diminishing proportion of the population who can say that they have had this religious experience. Especially among the younger people, Puritans seem to be more interested in working on their farms and in raising their families than in church life. This leads to a change in the Puritan doctrine about the church. Solomon Stoddard, a theologian and pastor in Northampton, Massachusetts, proposes the “Halfway Covenant” in 1662. It holds that a person’s profession of faith, rather than his or her experience of God’s grace, is sufficient to become a member of the church and that their offspring can be baptized.

1663: The Carolina colony is chartered. Most of its white settlers are the so-called adventurers from Barbados and other West Indies islands whose slave economies rest mainly on sugar cane production and refining.

1664: The Dutch colony of New Netherlands is seized by an English fleet and renamed New York.

1670s: Indentured servitude is on the decline; slavery rises in the Chesapeake and in the South.

1675–1676: King Philip’s War (or Metacomet’s War) begins in outlying parts of Massachusetts as the Wampanoag Indian tribe reacts to English encroachment on their land. The two-year conflict results in great loss of life and destruction for both sides. Twelve New England towns are leveled, and for every 10 white men of fighting age, one loses his

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life or is captured. The Indians, however, are overrun within a few months and their power is broken.

1676: Bacon's Rebellion pits Virginia's small frontier farmers against Governor William Berkeley. At issue is the attempt of Governor Berkeley and the English administration to restrain the incursions of the frontier farmers into Indian land. The short-lived rebellion reveals the tensions between the land-hungry small farmers, many of whom were former indentured servants, and the well-to-do tidewater colonial elite and British administration.

1680: The Pueblo revolt against the Spanish presence in northern Mexico.

1681: Charles II grants William Penn a proprietary charter in the land between Maryland and New York. Penn establishes his Frame of Government, which allows for the creation of an assembly, council, and governor's office in Pennsylvania.

1686: As part of the War of the Spanish Succession (1702–1713), known as Queen Anne's War in America, James Moore, the English governor of South Carolina, attacks Saint Augustine, Florida, burning outposts and missions in Apalachee, or northern Florida.

1688: During the bloodless Glorious Revolution the English Parliament deposes Stuart King James II and installs Mary (James' Protestant daughter) and her husband William (of the Dutch House of Orange) as limited monarchs, subordinate to Parliament.

1689: John Locke publishes *Concerning Toleration*, a key issue in the English Civil War.

1690s: South Carolina develops a strong economy in rice production.

1691: John Locke publishes *Two Treatises of Civil Government*, in which he argues that men establish governments and thus they can change or abolish governments. He says that both in a state of nature and in a civil society man has the absolute right to protect his life, liberty, and property. The revolutionary implication in this is that if the political system threatens life, liberty, or property, man has the right to overthrow it.

1692: Witchcraft trials take place in the town of Salem, Massachusetts. Nineteen people, mostly older women, are thought to be witches and are executed.

1696: A 15-member Board of Trade and Plantations, answerable to the king's ministers, is established in

England to oversee commercial (trade and fishing) and political (powers of appointment and legislative review) matters in the American colonies.

1699: The French found Mobile, New Orleans, and Pensacola settlements on the Gulf coast.

1701: Sieur de Cadillac, a French explorer, founds Detroit on a strategically valuable narrow section of the sailing route through the Great Lakes.

1704: The first regular newspaper—*The Boston Newsletter*—makes its appearance in the colonies.

1720: Slave rebellion breaks out in New York City. Nine whites die and 21 slaves are executed.

1732: The Georgia colony is chartered.

1730s–1740s: In order to forestall the secular and non-religious direction of culture in the colonies, theologians and church leaders set out to inject a new evangelical religious message into the popular culture. Circuit riding preachers cover the colonies in nighttime camp meetings and the emotional preaching spreads like wildfire, especially among the poor white farmers, sometimes seated in the same audiences with slaves, who are also powerfully affected by the message of redemption. Preachers from England like George Whitfield evangelize on the grace of God to those who would take their own salvation seriously. Others, like Jonathan Edwards of Massachusetts hold forth on the depravity of sinners and the horrors of hell. The movement is called the Great Awakening, and it becomes an important aspect of early American life which links the colonies together in a shared culture.

1739: The Stono slave rebellion breaks out, the first major slave uprising in the southern mainland English colonies. The rebellion kills 25 whites. Over 30 slaves are executed.

1740s: South Carolina begins to cultivate indigo.

1754–1763: The French and Indian War is fought between Great Britain, its colonies and European and Indian allies, versus France and its Indian and European allies.

1754: The Albany Plan, formulated by Benjamin Franklin, is rejected. It would have joined the colonies in a defense against the French and would have established an inter-colonial council to handle relations with the Native Americans..

1759: During the war with France the British capture Quebec.

1760: The French army surrenders to the British in Montreal.

1763: The Treaty of Paris is signed, concluding the French and Indian War; Britain is given Canada and all French territory east of the Mississippi River and Florida.

THE AGE OF REVOLUTION, 1763–1790

1763: England issues the Proclamation of 1763. This document prohibits English colonists from settling on the western side of the Appalachian watershed. It is meant to prevent unnecessary friction between the colonists and the Indian tribes. It also makes it easier to tax the colonists. The declaration itself, however, is frequently violated and a robust farming culture springs up in the Ohio valley.

1765: To defray the cost of the French and Indian War in North America, the British impose the Stamp Act on the American colonies as a means of raising tax revenue.

1765: Protests and riots break out in response to the Stamp Act.

1766: Parliament repeals the Stamp Act.

1767–1781: “Regulator Movements” in South Carolina and North Carolina protest the lack of representation of poorer, back country farmers in the colonial assemblies, which are dominated by the established, well-to-do plantation owners of the tidewater coastal plains.

1767: The Townshend Acts are passed in Parliament. They establish new import taxes on trade goods like paper, glass, and tea. Unlike previous import taxes on the colonies, the Townshend Acts are levied against items shipped from England, rather than from the European mainland. The money that they raised was to be used to pay the salaries of the royal officials stationed in the colonies.

1770: The Boston Massacre occurs, in which British troops fire on a Boston mob that is pelting them with icy snowballs in retaliation for the British troops’ practice of supplementing their meager wages by “moonlighting” after-hours on laborer jobs, thus taking employment away from American workers.

1773: Members of the protest group the Sons of Liberty, dressed as Indians, sneak aboard a British

merchant ship lying at anchor and dump its cargo of 90,000 pounds of tea into Boston Harbor.

1773: The Committees of Correspondence publicize the grievances of the colonial population and discuss the options open to the colonists.

1774: The Coercive (or Intolerable) Acts pass in England and close Boston Harbor, attacking Massachusetts’ right to self-rule and subjecting the populace to the indignities of the Quartering Act, which gives the military authorities the right to require colonial subjects to house their troops and horses. Instead of abandoning Massachusetts to fend for itself, the rest of the colonies send delegates to the First Continental Congress in Philadelphia to debate the means of resistance open to them. They also draft a Declaration of Rights and Grievances which combines a feigned submission to England’s authority with a clear determination to obey only those acts of Parliament that they judge to be “in the mutual interest of both countries,” an unforgivable act of insolence in British eyes.

April 1775: The British decide to raid a site where the colonial rebels were said to have stored weapons. They march from Boston to Lexington and Concord, Massachusetts, initially dispersing the rag-tag American defenders, but they are unable to defend themselves against the sniping that wears on throughout the day.

May 1775: The Second Continental Congress meets and calls for the creation of an army to resist the British.

1775–1781: A war of national self-determination breaks out between the British and the Americans. The war is marked by the British attempt to corner the Americans and fight large battles to determine the outcome of the war. Instead, under the command of British-trained General George Washington, the Americans fight a war of mobility and harassment, with few large battles. Canada elects to remain loyal to the British crown.

1776: Thomas Paine publishes *Common Sense*, an immensely successful propaganda tract urging separation from England.

1776: Thomas Jefferson drafts the *Declaration of Independence* for the Second Continental Congress.

1776–1777: The first state constitutions emphasize the distrust of the Americans for a system of strong central government, which they had experienced under British rule. For instance, the authors of the

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Pennsylvania state constitution refuse to create the office of governor.

1777: The Continental Congress drafts the Articles of Confederation, which accords little authority to the central government and vests most governing power (including the right to tax) in the states.

October 1777: In the Battle of Saratoga, New England militiamen surround the British army under General Burgoyne and force its surrender. This convinces the French that the Americans might actually win the war. Their long-term enmity with the British leads them to render important aid to the Americans, both in military provisions and in the use of the French fleet and the participation of French volunteers like General LaFayette.

1780: Pennsylvania becomes the first state to abolish slavery.

September 1781: General George Washington maneuvers the British, under the leadership of General Cornwallis, into a trap. Supported by French soldiers and by the French fleet at Yorktown, Cornwallis is forced to surrender his army of 7,000 soldiers and the British Parliament sues for peace.

1781: The *Articles of Confederation* are ratified.

1783: Under the Treaty of Paris the British recognize American independence.

1784, 1785, 1787: The Northwest Ordinances devise a systematic way to divide up and sell the land and to bring new states into the nation out of the Old Northwest territory east of the Mississippi River and north of the Ohio River, which Britain gave up in the Treaty of Paris.

1786: Thomas Jefferson authors the *Virginia Statute for Religious Freedom*, establishing “freedom of conscience” as the basis of the protection of all religious beliefs.

1786: Shays’ Rebellion grows out of a post-war economic depression, caused in part by war-time inflation and England’s dumping of manufactured goods on the American market once the war was over. This hurts the infant manufacturing industry. In addition, the shaky financial markets and the collapsing monetary system lead the state and local governments to raise taxes. Small farmers—many of them veterans of the Revolutionary War—begin losing their farms for non-payment of loans and taxes. In western Massachusetts they raise a rebellion, which the weak central government of the Articles

of Confederation finds itself almost unable to put down.

1787: The new nation’s political elite meet in Philadelphia, Pennsylvania, in February 1787, to write a *Constitution* devising a stronger national government. The resulting document operates on the principle of “checks and balances” between the branches of government and between the state and national governments.

1787-1788: Debate rages over whether the *Constitution* should be ratified. Anti-Federalists fear that the *Constitution* gives too much power to the central government and threatens democracy. Some Anti-Federalists call for a bill of rights guaranteeing specific individual liberties. James Madison, widely regarded as the “architect of the *Constitution*,” collaborates with Alexander Hamilton and John Jay in a series of articles collectively known as the *Federalist Papers*. These argue that the country is large enough that no single faction will be able to lord over the others, and that the variety and vitality of the economy require a strong central government to assure the stability of a representative democracy. Madison drafts the Bill of Rights, which become the first ten amendments to the *Constitution* in December 1791.

1787: Delaware, Pennsylvania and New Jersey ratify the *Constitution* and join the Union.

1788: Georgia, Connecticut, Massachusetts, Maryland, South Carolina, New Hampshire, Virginia, and New York join the Union.

1789: North Carolina becomes a state.

1789: The Judiciary Act of 1789 becomes law. The act defined the basic structure of the federal judicial system consisting of the Supreme Court, the District Courts, and the Circuit Courts.

1789: The *Constitution* is ratified by 11 of 13 states. George Washington is elected President of the United States.

1789: The French Revolution begins.

WAR AND COMMERCIAL INDEPENDENCE, 1790-1815

1790: Secretary of the Treasury Alexander Hamilton’s proposals for federal funding of the states’ Revolutionary War debt and for creating a national bank both become law. The proposals encounter

opposition from Thomas Jefferson and James Madison, but do help the two to define their Republican, agrarian, states' rights politics.

- 1790:** The District of Columbia is created.
- 1790:** Rhode Island joins the Union.
- 1791:** Vermont becomes the fourteenth state.
- 1791:** Alexander Hamilton submits his *Report on Manufactures*. This part of his program advocates aid and protection for U.S. manufactures. The legislation does not meet with favor in Congress, although much of it later becomes law.
- 1792:** Kentucky becomes the fifteenth state.
- 1792:** President Washington is reelected.
- 1793:** The Fugitive Slave Act passes through Congress and is signed into law, making it a crime to harbor a fugitive slave or to interfere with his or her arrest.
- 1793:** Eli Whitney invents a workable version of the cotton gin (engine) to remove seeds from cotton.
- 1793:** France enters a more radical phase of the French Revolution and begins guillotining (beheading) its internal enemies, including King Louis XVI. It soon becomes involved in war with England, Holland, and Spain, who are determined to stamp out the revolution before it spreads to their soil. France begins to exert pressure on the United States for support against England, arguing that France's support had been invaluable to the success of the American Revolution against England and that the United States was obligated under the Alliance of 1778 to help France. Washington and the Federalist government grant diplomatic recognition to France but issue a Neutrality Proclamation declaring the U.S. intention to remain uncommitted to either side but to trade with all.
- 1793:** The French send Edmond Genêt to try to convince the Americans to reciprocate with military aid. Rather than presenting himself in Philadelphia to President Washington, Genêt lands in Charleston, South Carolina, and goes about contracting with United States citizens to engage in a privateer war against England. Although Thomas Jefferson and the Republicans favor supporting France and create the "Democratic-Republican Societies" in support of France, the relations between France and the United States remain cool.
- 1794:** The Jay Treaty, the Federalist attempt to normalize relations with Great Britain, is signed.

The United States wants British troops to vacate its frontier posts, and it also wants British assaults on U.S. shipping to cease. The British comply with the first item and ignore the second. The treaty is unpopular in the United States, especially among Jefferson and the Republicans.

- 1794:** The Whiskey Rebellion breaks out in western Pennsylvania in reaction to the federal government's levying a tax on whiskey. President George Washington and Secretary of the Treasury Alexander Hamilton lead a federal force of 15,000 soldiers to disperse the rebels.
- 1794:** At the Battle of Fallen Timbers west of what later becomes Toledo, Ohio, General Anthony Wayne, supported by the British (who held a fort in the vicinity), defeats the formidable Miami Indians.
- 1795:** Pinkney's Treaty is signed. With this treaty Spain gives U.S. citizens the right to navigate the Mississippi River and to use the facilities in New Orleans to off-load river boats and reload onto ocean-going ships. The treaty also fixes the northern boundary of Florida at the 31st parallel and Spain promises to restrain Indian attacks across the border.
- 1796:** John Adams is elected president.
- 1796:** Tennessee becomes a state.
- 1796–1797:** Relations between the United States and France deteriorate to the point that the French navy begins to waylay U.S. merchant ships and imprison the crews. The French also refuse to receive U.S. diplomat Charles Cotesworth Pinckney and, when Cotesworth is joined by John Marshall and Elbridge Gerry to negotiate these disagreements with the French government (called the "Directory"), they are solicited for a bribe by three French officials before negotiations could begin. The Americans refuse and the issue becomes known as the XYZ affair, after the acronym given the three French ministers in a report that U.S. President John Adams turns over to Congress. In spite of the sympathy to the French cause on the part of the Republicans as well as the fact that the relations between the United States and England are equally tense, U.S. public outrage against France is widespread. Hostile naval encounters occur between the French and the United States navies. This period (1798–1799) is called the Quasi War with France.
- 1798:** Following the leadership of the Federalist Party, Congress passes the Naturalization Act, making it more difficult to become a U.S. citizen. Congress

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also passes the Alien and Sedition Acts, repressing political opposition.

1798: Jefferson and Madison write the Virginia and Kentucky Resolutions, successfully arguing for the limited and delegated nature of the federal government's power under the *Constitution*.

1800: Thomas Jefferson is elected president. It marks the first time that political power changes hands from one party to another and is peacefully accomplished. The Republican Congress repeals the Alien and Sedition Acts.

1800: President Adams sends another three-man commission to Paris to negotiate an end to the Quasi War. The new First Consul of France, Napoleon Bonaparte, receives the Americans and composes a new treaty relieving the U.S. of any obligations dating from the Alliance of 1778 and facilitating trade between France and the United States.

1801-1815: The Barbary Wars are fought.

1803: England and France become embroiled in the Napoleonic Wars.

1803: Chief Justice John Marshall rules in *Marbury v. Madison* that the Judiciary Act of 1799 is unconstitutional. This establishes a precedent—the power of judicial review over legislation. The federal judiciary, including the Supreme Court, now successfully asserts the power of ruling a law unconstitutional. This increases the power of the judiciary in the system of “checks and balances” between the different branches of government.

1803: Napoleon sells a vast expanse of land to the United States in the Louisiana Purchase, almost doubling the size of the nation.

1803: Ohio becomes a state.

1804: By order of President Jefferson, William Clark and Meriwether Lewis begin a long expedition into the territory recently acquired in the Louisiana Purchase. They return two-and-a-half years later with copious notes and observations of the Great Plains and the Oregon territory.

1804: Jefferson is elected for a second term as president.

1805: Both England and France begin to stop and board U.S. merchant ships to check for deserting members of their own nation's merchant marine (called impressment).

1807: Robert Fulton builds the steamboat *Clermont*. This changes shipping patterns, as shallow draft, paddle wheeler steamboats ply the rivers with bulk loads of staple products, livestock, and people. By the 1810s steam locomotion is applied to ocean-going packet ships, a development which quickens the pace of international commerce and alters immigration patterns.

1807: The *Chesapeake* affair, in which a U.S. Navy ship is fired on, stopped, and boarded by the British frigate the *Leopard*, occurs. The British remove a handful of American sailors, charge them as deserters of the British Navy and hang one of them. Between 1803 and 1812 over 6,000 American sailors are similarly subject to impressment.

1807: Faced with the problem of stopping impressment when the United States did not have sufficient naval forces to prevent it from happening, Jefferson calls for a total embargo on all U.S. shipping. This causes a major unemployment crisis, especially in the New England ports.

1809: Jefferson introduces the Non-intercourse Act, which declares the United States is ready to trade with any nation other than Great Britain and France and pledges to resume shipping with either England or France if they stop violating U.S. shipping rights.

1811: William Henry Harrison's army wins an important battle at Tippecanoe, in land that later becomes the state of Indiana. This victory disrupts the plans of the Shawnee leader called Tecumseh to form an Indian confederation to resist white incursions onto Indian land.

1812: Louisiana joins the Union.

1812: Congress declares war on Britain, which is already preoccupied with a larger war against Napoleon in Europe. In the War of 1812 neither the Americans nor the British are able to win a definitive victory.

1812: The British successfully blockade the Chesapeake and Delaware Bays. By 1813 the blockade extends to all the New England ports and the southern ports on the Gulf of Mexico.

1813: The Boston Manufacturing Company, under the leadership of Francis Cabot Lowell, installs a power loom for manufacturing textiles at Waltham, Massachusetts.

1813: The Americans, led by Commander Oliver Perry, win a naval victory on Lake Erie, gaining

control of the Northwest Territory. Tecumseh sides with the British, captures Detroit, and is killed in the Battle of the Thames, in Ontario, but the Americans are unable to break Canada off from the British Empire.

1814: The British defeat Napoleon and are able to concentrate their attention on the war with the United States. In 1814 they raid and burn Washington, D.C., but are unable to take Fort McHenry in the Baltimore harbor.

1815: U.S. forces, under the command of General Andrew Jackson, win the concluding military encounter in the Battle of New Orleans.

EARLY REPUBLIC TO CIVIL WAR: 1815–1860

1816: Indiana becomes the 19th state to enter the Union.

1816: Connecticut abolishes the property qualification for white male voters.

1817–1818: General Andrew Jackson fights a two-year campaign against Florida Indians.

1817: Mississippi becomes a new state.

1817: The Rush-Bagot Treaty limits the number of warships that the United States and Canada can have on the Great Lakes.

1817: Construction begins on the Erie Canal in New York.

1818: The National Road reaches Wheeling, Virginia.

1818: The Convention of 1818 establishes a border between Canada and the United States from the Lake of the Woods in Minnesota west to the Rocky Mountains.

1818: Illinois becomes the 21st state to join the Union.

1819: The Panic of 1819 occurs.

1819: John Quincy Adams negotiates the Adams-Onís Treaty, in which Spain cedes Florida to the United States and the boundary between Spanish and U.S. land is defined all the way to the Pacific Ocean.

1819: Alabama becomes a state.

1820: Maine becomes a state.

1820: The order of admission to statehood in relation to balancing the pro- and anti-slavery forces in the

Republic results in a crisis over the admission of Missouri as a slave state. Henry Clay devises a compromise in which Missouri joins the Union as a slave state; Maine is split off from Massachusetts and admitted as a free state, and no future slave states can be admitted north of Missouri's southern border.

1821: Missouri joins the Union.

1821: After an 8-year guerilla war of national liberation, Spain recognizes Mexico's independence.

1822: Founded in 1816 as a philanthropic precursor to the Abolitionist Movement, the American Colonization Society begins resettling freed African American former slaves to the West African country of Liberia in 1822 on land purchased from local tribes.

1823: Prompted by Secretary of State John Quincy Adams, President James Monroe announces the Monroe Doctrine, forbidding further European intervention in the emerging nations of the Western Hemisphere.

1825: The Erie Canal is completed.

1828: The Tariff of Abominations spawns a controversy between the North and South: Congress passes a tariff bill which strikes the political leadership of the South as contributing to high prices for consumer goods with no provisions to soften the impact on the agrarian South.

1830: The Baltimore and Ohio Railroad opens for operation.

1831–1838: The Trail of Tears becomes the name for a forced migration of the Cherokee Indian Nation from Georgia to Indian Territory west of the Mississippi River.

1831: William Lloyd Garrison begins to publish the Abolitionist newspaper, *The Liberator*.

1831: Nat Turner's bloody uprising in the southeastern part of Virginia kills 57 whites and results in the death of 200 slaves.

1831: Cyrus McCormick brings out the first mechanical reaping machine.

1832: Controversy brews between Andrew Jackson and Nicolas Biddle over the re-chartering of the Second National Bank.

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- 1832:** The Nullification Crisis pits North against South in a contest over states' rights versus national sovereignty.
- 1834:** Women workers at the Lowell, Massachusetts, textile mills go on strike.
- 1834:** The British Empire abolishes slavery.
- 1836-1842:** The Seminole Indians are forced to migrate from Florida to land west of the Mississippi River.
- 1836:** White Americans living in Texas secede and fight Mexican General Santa Anna. Victorious at San Jacinto in 1836, Texas declares itself a Republic.
- 1836:** Arkansas becomes a state.
- 1837:** Michigan becomes a state.
- 1841:** Frederick Douglass begins his abolitionist lecturing career.
- 1841:** The first wagon train bound for California leaves Independence, Missouri.
- 1844:** A telegraph line links Baltimore, Maryland, and Washington, D.C.
- 1845:** Texas joins the Union, precipitating the Mexican-American War.
- 1844-1848:** Tensions build between the United States and Mexico, and, in 1846, the Mexican War breaks out. American General Winfield Scott captures Mexico City and the Mexican forces are defeated in 1847. Signed in 1848, the Treaty of Guadalupe Hidalgo cedes New Mexico and California to the United States.
- 1845:** Florida joins the Union.
- 1845:** The Irish potato famine begins, stimulating mass immigration to the United States.
- 1846:** Iowa joins the United States.
- 1846:** Brigham Young leads the trek of Mormons to Utah.
- 1847:** In Missouri, the slave Dred Scott files a lawsuit against his owner to secure his freedom, using the argument that his master had taken him into free territory, at which point he was no longer a slave.
- 1848:** Wisconsin becomes the 30th state to join the Union.
- 1848:** Regularly scheduled steamship service is established between New York and Liverpool, England.
- 1849:** The California gold rush begins.
- 1850:** California joins the Union.
- 1850:** Henry Clay and, later, Stephen Douglas devise the Compromise of 1850 to resolve the sectional crisis over slavery resulting from the Mexican War. A series of practical trade-offs are arranged, but they do not resolve the root causes of the contention, and the country does no more than buy itself another decade of peace.
- 1850s:** The Abolitionist Movement gains powerful support from women like Sojourner Truth, Harriet Tubman, and Harriet Beecher Stowe, who in 1852 publishes her novel, *Uncle Tom's Cabin*, depicting the plight of slaves in the South.
- 1854:** In return for the support of a block of southern senators for the Kansas-Nebraska Act, authorizing a transcontinental railroad line, Illinois Democrat Stephen Douglas agrees to include language repealing the Missouri Compromise by opening up the western territories of Kansas and Nebraska as possible slave states. Douglas agrees to have the slave or free labor status of these new states determined by popular sovereignty by way of a vote on the permissibility of slavery in state constitutions. This creates a firestorm of protest in the North and leads many northerners to renounce their membership in the Democratic Party.
- 1854-1855:** Free labor and slave labor supporters flock to Kansas, where the state constitution referendum on slavery becomes a mini-civil war. Five thousand armed pro-slavery "Border ruffians" from Missouri stuff the ballot boxes, while 1,000 antislavery "Free Soil" settlers, armed and supported by the abolitionist New England Immigrant Aid Society, refuse to abide by the fraudulent result. Two sets of competing state capitals and forts are established. Pro-slavery supporters establish a base at Lecompton, while antislavery advocates set up in Lawrence. Topeka remains the territory's central city. Raids, arson, and murder characterize the subsequent campaigns and the several votes on the constitution, none of which support slavery.
- 1854:** The Republican Party is founded and builds its membership out of the disintegration of the Whig Party, the northern Democratic Party, the Free Soil Party, and the anti-immigrant "Know Nothing"

Party. The Republican Party has no support in the South. It picks up northern anti-slavery forces who defect from the Democratic Party over the Dred Scott decision and the Kansas-Nebraska Act.

1857: The Panic of 1857 and falling prices for agricultural products aggravate sectional tensions between the North and the South.

1857: Roger Taney, Chief Justice of the Supreme Court, writes the majority opinion in the Dred Scott case, holding that Dred Scott, as a slave and, moreover, as a Negro, had “no rights which the white man was bound to respect.”

1858: Minnesota becomes a member of the Union.

1859: Oregon becomes a state.

1859: Abolitionist John Brown, his sons, and a few other supporters briefly seize the Harpers Ferry Federal Armory, convinced that this act will precipitate a massive slave rebellion across the South, bringing an end to slavery. A detachment of federal forces led by Colonel Robert E. Lee captures Brown, who is hanged.

1860: Abraham Lincoln, the leader of the Republican Party, running on a platform of confining slavery to the states in which it is already established, is elected to the presidency.

CIVIL WAR AND INDUSTRIAL EXPANSION, 1860–1897

1861: Seven southern states secede from the Union and form the Confederate States of America. Four additional states join the Confederacy after the firing on Fort Sumter in Charleston (South Carolina) Bay.

1861: Kansas becomes the 34th state to join the Union.

1861–1865: The Civil War demonstrates both the skill of southern military leadership and the overwhelming strength of the northern economy, which slowly grinds the secessionist movement into the ground.

1862–1864: Freed from the presence of southern members of Congress, absent now in secession, the Republican Party passes its program—the Homestead Act granting government land to small farmers; the Morrill Land Grant Act setting aside government land to fund agricultural and engineering colleges; the raising of protective tariffs to shield U.S. industry from foreign competition; the National

Bank Act establishing a national system of banks to enforce standards on state banks and to restrict the circulation of state banks’ currency notes; the passage of the first income tax and other war taxes; and the railroad acts subsidizing the transcontinental railroad. This monumental legislative accomplishment sets forth the economic agenda that facilitates the industrialization of the country.

1863: Composed of a population of mostly antislavery small white farmers with a tradition of hostility to Virginia’s plantation-based political elite, West Virginia secedes from confederate Virginia and becomes the 35th state to join the Union.

1863: President Lincoln’s executive order issued in the summer of 1862, becomes effective on January 1, 1863, declaring that all slaves in the states in rebellion are henceforth and forever free. It says nothing about slavery in other states.

1863: In his December 1863 Proclamation of Amnesty and Reconstruction President Lincoln announces a mild program of bringing the South back into the Union. This was the “10 percent plan” by which (with the temporary exception of military or political leaders) he would pardon all white southerners and readmit each southern state back into the Union whenever 10 percent of the number of voters in the 1860 election swore allegiance to the Union. The states also had to pass laws guaranteeing African Americans their freedom and providing for their education.

1863–1865: General William Tecumseh Sherman engages in “total war,” involving civilian populations through laying waste to southern agricultural resources in his “March to the Sea.”

1864: President Lincoln vetoes the Wade-Davis Bill, a more stringent process of readmission of the Confederate states to the Union than Lincoln preferred.

1864: Nevada is admitted to the Union.

1865: The Commander of the Confederate Armies, Robert E. Lee, surrenders his forces to General Ulysses S. Grant at Appomattox Courthouse, ending the rebellion.

1865: President Lincoln is assassinated in April 1865. Vice President Andrew Johnson becomes president.

1865: The Freedman’s Bureau is established to educate, feed, locate families of, and oversee the labor relations

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of former slaves. The Bureau also helps the most destitute of the white population.

1865: Congress reconvenes in December 1865 and refuses to seat Southern representatives. It establishes the Joint Committee on Reconstruction and passes the Thirteenth Amendment, ending slavery.

1865–1890: Sharecropping grows in the South, where the tenant farmer rents land for shares of the crop.

1865–1890: A crop-lien system of credit extends itself into the South, a region with too few credit institutions. The local merchant extends high-interest credit to small farmers. Often the small farmer owes more at the end of the harvest than he had at the beginning of the sowing season. If the farmer gets too far behind in his payments the merchant may repossess his land. Many small farmers, both African American and white, lost land in this manner and became tenant farmers on land they once owned.

1866: Congress passes its Civil Rights bill over President Johnson's veto. This ends the period of presidential Reconstruction and begins the period of congressional Reconstruction, in which the Republican Party, led by the "radical Republicans," tries to continue and complete the revolution that the Civil War had brought on in the South.

1866: The Ku Klux Klan organizes secretly to terrorize African Americans or "scalawag" white Republicans who try to vote. Southern legislatures begin passing "black codes" based on segregation laws imposed on freed slaves in the pre-Civil War South. These black codes restrict African Americans to agricultural labor and clamp down on their mobility.

1866: Congress passes the Fourteenth Amendment, defining citizenship and seeking to preserve the rights of ex-slaves to "due process of law."

1867: The National Grange is founded.

1867: The Military Reconstruction Act passes Congress as part of a package of legislation outlining the congressional plan for Reconstruction.

1867: Nebraska becomes the 37th state to join the Union.

1867: Congress passes the Tenure of Office Act to cut back on President Andrew Johnson's ability to obstruct congressional Reconstruction.

1868: Most of the southern states are readmitted to Congress under the congressional Reconstruction plan.

1868: President Andrew Johnson is impeached, but not convicted, and he remains in office.

1868: Ulysses S. Grant is elected president.

1868: The open-hearth steel production technique is first used in the United States.

1869: Congress passes the Fifteenth Amendment, guaranteeing that voting can not be denied because of "race, color, or previous condition of servitude."

1869: The Knights of Labor is founded.

1869: The first transcontinental railroad is completed at Promontory Point in Utah.

1870: Mississippi becomes the last southern state readmitted to the Union.

1870: New York City begins operation of an elevated railway system.

1870: John D. Rockefeller founds the Standard Oil Company.

1871: The Ku Klux Klan Act represses the Klan and drives it underground.

1871: Chicago experiences a great fire, devastating the city.

1872: The Freedman's Bureau is dismantled.

1873: Barbed wire is invented and puts an end to open-range cattle drives.

1873: The U.S. economy enters a quarter century of instability marked by recurrent panics and brief recoveries.

1874: The Women's Christian Temperance Society is founded.

1875: The Specie Resumption Act, which seeks to retire the inflationary Civil War "greenback" currency, is passed by Congress. This pleases bankers and creditors, but angers workers, small farmers, and debtors.

1875: The Whiskey Ring scandal embarrasses the Grant administration. Grant's Attorney General discovers that members of his department were cheating the government out of taxes on distilled alcohol. This recalls several other Grant-era scandals. One was the *Crédit Mobilier* scandal. It comes to light in 1872 that the *Crédit Mobilier* construction company paid bribes to Congress and to members of Grant's Cabinet to cover up fraudulent contracts

awarded in the construction of the Union Pacific Railroad. Grant's vice president, Schuyler Colfax, resigns in disgrace.

- 1876:** Alexander Graham Bell invents the telephone.
- 1876:** Chief Sitting Bull and 2,500 Sioux and Cheyenne Indians kill General George Armstrong Custer and his entire regiment at the Battle of Little Bighorn.
- 1876:** Colorado joins the Union.
- 1876:** Almost 82 percent of eligible voters cast ballots in a disputed election resulting from the Compromise of 1877. Republican candidate Rutherford B. Hayes is declared the winner. The South receives various favors including control of the federal patronage in their region, federal aid for the Texas and Pacific Railroad, and the withdrawal of the last of the federal troops. After the departure of the federal troops African Americans in the South enter a period of political repression and social degradation.
- 1877:** Mine owners and Pinkerton agents hang 11 Molly Maguires. A group of Irish miners in the coal mines around Scranton, Pennsylvania, the Molly Maguires use violence and the threat of violence in the struggle with management.
- 1877:** Railroad workers go on the first nationwide strike.
- 1878:** Some African Americans, unwilling to live under the increasingly repressive social segregation of the New South, migrate to the North or, like the Exodusters, to Kansas or other western states.
- 1879:** The California state constitution is amended to outlaw the hiring of Chinese laborers.
- 1879:** Thomas A. Edison invents the incandescent light bulb.
- 1880:** The Chinese Exclusion Act, which limits the number of Chinese allowed to enter the country, is passed by Congress.
- 1881:** The Tuskegee Institute is founded by Booker T. Washington.
- 1880s:** In the face of movement towards political alliance between African Americans and white Farmers' Alliances (also called Populists), southern state legislatures pass voter registration laws such as the grandfather clause, the poll tax, and the literacy test, which disenfranchise African American voters and disrupt the class-based politics of the early Populists.
- 1883:** The Pendleton Act is passed by Congress, creating the civil service as an alternative to political patronage.
- 1883:** The Supreme Court rules that the Fourteenth Amendment forbids state governments from discrimination, but does not apply to individuals or private organizations, such as businesses.
- 1884:** The first skyscraper is built in Chicago.
- 1886:** A bomb blast during a riot in the Chicago Haymarket Square kills seven police officers. Police open up with gunfire and four people are killed. The state rounds up eight anarchists and hangs four of them.
- 1886:** Cigar worker Samuel Gompers helps form the American Federation of Labor, an organization of trades unions which believes in strikes and contracts, but does not advocate political or social change.
- 1887:** The Interstate Commerce Act, meant to regulate the railroads, passes Congress.
- 1887:** The Dawes Severalty Act passes Congress. This legislation attempts to convert the reservation Indians into small farmers by abolishing the tradition of communally-owned land.
- 1889:** In Chicago, Jane Addams founds Hull House, the first "settlement house" center of food, shelter, and assimilation for the urban immigrant poor.
- 1889:** North Dakota and South Dakota join the Union on the same day, November 2.
- 1889:** Montana and Washington become the 41st and 42nd states, respectively, to be admitted to the Union.
- 1890:** Idaho and Wyoming join the Union in July 1890.
- 1890:** The Sherman Anti-Trust Act becomes law.
- 1890:** At the last major confrontation between U.S. troops and Native Americans in the Battle of Wounded Knee in South Dakota, U.S. Army troops of the Seventh Cavalry (Custer's old regiment) use machine guns to kill 200 Ogalala Sioux Indians. Twenty nine U.S. soldiers also die.
- 1890s:** "Jim Crow" laws enforcing social segregation are passed by southern state legislatures, and in the 1890s the lynching (execution without trial) of African Americans averages 187 per year.
- 1890:** Congress passes the Sherman Silver Purchase Act.

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- 1892:** Striking workers at the Carnegie Steel Company in Homestead, Pennsylvania, win a battle against the strike-breaking Pinkerton Detective Agency, but they lose the strike, and the Amalgamated Association of Iron and Steel Workers disbands.
- 1893:** Severe economic depression resulting from agricultural and manufacturing over-production and financial panic settles in for the next four years.
- 1893:** Historian Frederick Jackson Turner writes an article speculating on the meaning of the fact that, according to the Census Bureau, the frontier, as a continuous line of development, no longer exists.
- 1894:** Jacob S. Coxey, an Ohio small businessman, leads “Coxey’s Army” of unemployed on a futile march to Washington, D.C., to pressure Congress to enact legislation that will employ the jobless to improve and maintain public works.
- 1894:** The Pullman strike is put down by federal judges.
- 1895:** Booker T. Washington, an African American spokesman for self-improvement, gives his 1895 Atlanta Exposition speech in which he tries to convince his (mostly white) audience that if they hire African Americans, employers will find them to be good and grateful workers who will not make any demands on the political system or on the race etiquette of the South.
- 1896:** The Populist Movement, which adopts the “fusion” strategy of supporting the Democratic Party’s presidential candidate, William Jennings Bryan, goes down in defeat as Republican William McKinley wins the presidential election.
- 1896:** Utah becomes the 45th state admitted to the Union.
- 1896:** In *Plessy v. Ferguson* the Supreme Court rules that social segregation of the races in interstate travel is not in conflict with any constitutional amendment or federal statute as long as equal facilities exist for the African Americans.
- 1896:** The Alaskan gold rush begins.
- 1898:** In part due to articles that appear in the sensationalist “yellow journalism” press, the U.S. public registers disgust with the repressive policy of the Spanish government towards its colony, Cuba, which is fighting a guerilla war of national liberation led, until his death in battle in 1895, by José Martí. To emphasize its displeasure with the bloody counter-insurgency, the United States sends the battleship *Maine* to Havana. While at anchor in Havana harbor the *Maine* blows up. The United States promptly goes to war with Spain.
- 1898:** The United States mounts an amateurish, but successful campaign against the demoralized Spanish forces occupying Cuba. Assistant Secretary of the Navy Theodore Roosevelt quits his post, organizes an irregular cavalry regiment called the Rough Riders, and participates in an assault on Kettle Hill. Meanwhile, the United States attacks the Spanish south Pacific colony of the Philippines. Here, Commodore George Dewey and the U.S. fleet destroys the Spanish fleet.
- 1898-1902:** The Philippines becomes the site of another guerilla war of independence against Spain. When the United States proceeds to set up its own colonial administration, the Philippine movement for national liberation and its guerilla army led by Emilio Aguinaldo, resolves to expel the new invaders.
- 1898:** The Treaty of Paris ends the Spanish-American War. It cedes Puerto Rico and the Philippines to the United States and recognizes Cuban independence.
- 1898:** In reaction to the U.S. acquisition of an empire as a result of the war with Spain, the Anti-Imperialist League develops. Although never strong enough to deter the U.S. policies of imperial aggrandizement, the Anti-Imperialist League, including such personages as Jane Addams, Andrew Carnegie, Samuel Gompers, Mark Twain, and former President Grover Cleveland, stakes out a position of opposition to empire (frequently mixed with isolationism).
- 1899:** In an attempt to make up for the fact that the United States had not participated in carving China up into spheres of influence like the other European trading powers had, Secretary of State John Hay releases the Open Door notes, advocating that each nation trading with China should afford equal trading rights within its sphere of influence to all other trading nations. The Europeans receive this proposal with skepticism.
- 1900:** Although the roots of muckraking stretch back well into the nineteenth century, this genre of social

exposé becomes more popular and more influential in suggesting targets of Progressive reform. Prominent muckrakers include Lincoln Steffens, Ida Tarbell, and, on the issue of lynching, African American journalist Ida B. Wells.

1900: The Social Gospel movement establishes a link between religious culture (mainly Protestant) and social reform. It imbues a crusade-like quality to Progressive era reform struggles. In addition to the Settlement House movement, its manifestations include the Salvation Army. By 1900 the Salvation Army has over 20,000 volunteers in service to the urban poor.

1900: The Boxer Rebellion breaks out against foreign trading powers in China. The Boxers are a secret martial arts society and a focal point for Chinese nationalist resentments against imperialist European policies. During the summer the Boxers besiege the foreign diplomatic compound in Beijing. Five thousand U.S. troops join an expeditionary force to help rescue the diplomats. The experience converts the European trading powers in China (especially England and Germany) into accepting the American Open Door policy.

1901: President McKinley is assassinated. Vice President Theodore Roosevelt becomes president, causing some consternation in business circles where Roosevelt is regarded as an impulsive “cowboy.”

1901: When Cuba attempts to compose its own constitution after Spain is expelled, the United States intervenes with the Platt Amendment. This U.S.-suggested addendum to the Cuban constitution restricts Cuba’s right to enter into treaty relations with nations other than the United States. It also grants the United States the right to intervene in Cuban affairs to protect U.S. life and property and grants the United States the right to naval stations on Cuban territory.

1901: Robert LaFollette is elected governor of Wisconsin. He introduces many progressive reforms such as the regulation of the railroads, increasing the proportion of state workers under the civil service, the direct election of senators, and the measures of initiative, referendum, and recall.

1902: The Bureau of the Census is created.

1902: The Reclamation Act of 1902 is enacted, which sets aside money from the sale of public land to irrigate portions of the south and the west, an example

of the progressive approach to “managing” the nation’s natural resources.

1902: President Theodore Roosevelt directs his Justice Department to file an anti-trust lawsuit against the Northern Securities Company, a railroad holding company assembled by financier J.P. Morgan.

1903: The Women’s Trade Union League is founded.

1903: The Roosevelt administration creates the departments of Labor and of Commerce.

1903: Congress passes the Elkins Act, which gives the Interstate Commerce Commission the right to end railroad rebates, a reform endorsed by the railroads.

1903: After Colombia refuses to accept the U.S. offer of \$10 million plus \$225,000 per year for the 100-year lease of a 6-mile-wide canal zone spanning the isthmus of Panama, a “revolution” against Colombia takes place, and the new nation of Panama is promptly recognized by the United States. The United States signs the same deal with Panama that the Colombians had rejected and continues the construction of the Panama Canal.

1904: Theodore Roosevelt runs for reelection as president (and wins) on the platform of the Square Deal, which promises a kind of class-neutral politics and a determination to use the powers of the federal government to bring about reform where it is justified.

1904: As friction begins to build between Germany and its debtor nation, Venezuela, President Theodore Roosevelt announces the Roosevelt Corollary to the Monroe Doctrine. It says that if any newly emerging Latin American republic fails to meet its financial obligations to European creditors the United States will step in to reorganize that country’s economy so that it can pay its debts, rather than witness the violation of the Monroe Doctrine (which in 1823 warned European powers to refrain from interfering in the affairs of any new nation in the Western Hemisphere).

1906: The Hepburn Railroad Regulation Act is passed by Congress and signed into law.

1906: In his novel *The Jungle*, Sinclair Lewis exposes conditions in the meat-packing industry.

1907: Overproduction of agricultural and industrial goods results in the Panic of 1907. The power of the financial establishment is illustrated when financier J.P. Morgan moves adequate assets into several New

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- York City banks to prevent their closure and thus props up public confidence in the financial system.
- 1907:** The “Great White Fleet,” consisting of 16 white battleships symbolizing U.S. economic and military strength, embarks on a world tour, including Japan.
- 1907:** Oklahoma becomes the 46th state to join the Union.
- 1907:** Congress passes the Pure Food and Drug Act.
- 1908:** Henry Ford begins production of the Model T automobile.
- 1908:** Seeking to avoid the militaristic foreign policy of his predecessors and asserting the mutually beneficial results of commerce between developed and undeveloped nations, President Howard Taft develops the foreign policy of Dollar Diplomacy.
- 1909:** The National Association for the Advancement of Colored People is formed and is led in its early years by W.E.B. DuBois.
- 1910s:** The clubwomen movement comes into existence, as urbanization and middle-class family culture afford a moderate degree of leisure to some women. The clubwomen usually support reform movements, such as restrictions on child labor or the campaign against poor conditions of work for women employed in factories. Some women also become active in the anti-lynching movement and in the campaign for women’s suffrage.
- 1910:** Responding to stories in the press concerning immoral conditions in the cities and the danger to young single women of being abducted and exploited by “white slave trade” prostitution rings, Congress passes the Mann Act, making it a federal crime to transport women across state lines for immoral purposes.
- 1911:** One hundred and forty-six workers die in the Triangle Shirtwaist Factory fire.
- 1911:** The Taft Justice Department files an anti-trust suit against the United States Steel Company.
- 1911:** Although the roots of the anti-alcohol movement stretch back decades into the early Republic period, the temperance movement reaches a crescendo of activism in this period. In 1911 the Women’s Christian Temperance Society claims 245,000 members, the largest organization of women to this point in U.S. history.
- 1912:** The New Mexico territory is admitted to the Union.
- 1912:** In the presidential election of 1912 Democrat Woodrow Wilson, running under the slogan of the New Freedom, bests both Republican William Howard Taft and Theodore Roosevelt, who runs under the slogan of New Nationalism and the banner of the newly formed Bull Moose Progressive Party.
- 1912:** Arizona joins the Union.
- 1913:** The Sixteenth Amendment to the *Constitution* passes, giving Congress the power to levy an income tax.
- 1913:** With the Underwood-Simmons Tariff the Wilson administration succeeds in passing a reduced tariff. This fulfills one of the pledges of the New Freedom, in that it would bring more competition and cheaper goods. It creates the conditions for more trade. It also lowers the amount of revenue that the tariff brings in. In order to off-set this revenue decline, the Congress includes a provision for a moderate income tax in the Underwood-Simmons Tariff.
- 1913:** The Federal Reserve Act passes Congress, creating a dozen regional Federal Reserve banks, owned and controlled by the banks in the district.
- 1913:** Implementing a demand of the Populist Movement twenty years before, the Seventeenth Amendment to the *Constitution* replaces the election of senators by state legislatures with the direct election of senators.
- 1914:** The Clayton Anti-Trust Act is passed. This version of anti-trust legislation explicitly excludes labor unions from prosecution as trusts engaged in restricting the free flow of commerce. Samuel Gompers calls it “the Magna Carta of Labor.”
- 1914:** The Panama Canal opens.
- 1914:** When the Western Federation of Miners stage a strike in the coal fields of Ludlow, Colorado, the state militia and the strike-breakers attack the workers’ tent colony with rifle fire, causing the death of 39 people, including eleven children.
- 1914:** President Woodrow Wilson creates the Federal Trade Commission, a bipartisan body to oversee commerce and insure orderly competition.
- 1914:** Henry Ford begins to manufacture automobiles through the use of the moving assembly line.
- 1914:** World War I begins in Europe.

- 1914:** The war-time boom begins.
- 1915:** President Wilson declares the U.S. neutrality towards the war in Europe.
- 1915:** Germany's submarine warfare, affecting U.S. vessels, brings the United States very close to war, but when Wilson delivers an ultimatum on the subject, the German high command pledges to stop sinking neutral vessels.
- 1915:** The Great Migration of African American people from the rural south to the urban north begins.
- 1916:** Running on the slogan, "He kept us out of war," Wilson wins a second presidential term.
- 1916:** The Keating-Owen child labor law is enacted, forbidding the use of child labor in any goods shipped across state lines.
- 1916:** Margaret Sanger organizes the New York Birth Control League.
- 1917:** Congress legislates literacy tests for immigrants.
- 1917:** The British intercept and decode the "Zimmerman telegram," sent by the German Kaiser's foreign secretary to the German ambassador in Mexico, offering to furnish Mexico with military supplies for an invasion of the southwest United States and promising that Mexico would regain the territory that it had lost to the United States in the Mexican War. This, along with the fact that the German U-boats resume unrestricted submarine warfare, leads Wilson to ask Congress for a declaration of war against Germany.
- 1917:** In a series of events with profound implications for the history of the United States and the world, the Russian Revolution begins. The utopian fantasy of communism, which had occasionally expressed itself in American intellectual circles, now becomes a reality as the Russian Communist Party, taking advantage of the extreme social crisis precipitated by World War I, seizes control of Russia.
- 1917:** The War Industries Board is created and in March 1918, Wilson turns it over to the leadership of Wall Street financier Bernard Baruch. Its mission is to allocate resources between the war effort and the civilian economy and to plan all aspects of the economy. It makes some important contributions in this area, but is generally too cumbersome and inefficient to fulfill its mission.
- 1917:** Congress passes the Espionage, Sabotage, and Sedition Acts, severely restricting the rights of free speech.
- 1918:** Wilson releases his Fourteen Points, emphasizing the democratic and peaceable nature of U.S. war aims.
- 1918:** The National War Labor Board promises workers the right to join unions, grants equal pay for women doing equal work, and concedes the 8-hour day in return for a no-strike pledge for the duration of the war.
- 1918:** Eugene V. Debs, formerly head of the American Railway Union and leader of the American Socialist Party, makes a speech against World War I and is jailed.
- 1918:** The Eighteenth Amendment, prohibiting the production, transportation, and sale of alcohol, is adopted.
- 1918:** At the end of World War I, President Wilson sends an "expeditionary force" of American troops into the Soviet Union. During the three years of the Russian civil war the U.S. troops engage in limited supportive actions for the "White Army" of the old Russian regime. Gradually, however, the Bolshevik Party (led by Vladimir Ilyich Lenin) and the Red Army (led by Leon Trotsky) consolidate Soviet control over Russia and over the nations that made up the Russian Empire. Unable to decisively influence the course of events, the American troops withdraw by 1920. The actions of the American expeditionary force create a climate of mistrust between the United States and the Soviet Union.
- 1919:** The peace treaty of Versailles is negotiated and signed, but Wilson cannot convince the Senate to accept the League of Nations as a forum for international conflict, a concept in which Wilson had personally invested much of his energy. Wilson succumbs to a stroke while on a speaking tour in an attempt to "go over the Senate's head" and rally support for the Versailles treaty among the American people.
- 1919:** The conclusion of the war brings both an increased level of class conflict, with massive strikes in steel, meatpacking, and shipyards, and an alarming increase in racial violence, including race riots in East St. Louis and Chicago.
- 1919:** Alfred Sloan introduces the installment plan with the General Motors Acceptance Corporation. Consumer credit arrangements begin to play a prominent role in marketing.

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1920: Alarmed at the level of class conflict, the anarchist bombings, and the increasingly radical rhetoric of working class leaders, A. Mitchell Palmer, the Progressive Attorney General under Wilson, and his assistant, J. Edgar Hoover, lead the Palmer Raids in early January. Mostly directed against immigrants, the Palmer raids, arrest about 6,000 people. Five hundred are eventually deported.

1920: The Nineteenth Amendment is ratified, granting women the right to vote.

PROSPERITY DECADE, 1920–1929

1920: The economy goes into recession.

1920: The first commercial radio broadcast airs.

1920: Warren Harding, running on a platform of “normalcy,” is elected to the presidency.

1920: Two anarchists, Bartolomeo Vanzetti and Nicola Sacco, are arrested and convicted of murder in Braintree, Massachusetts, in what most observers believe is a politically motivated case.

1920s: The Ku Klux Klan, the “night riders” of Reconstruction fifty years earlier, revive in 1915 and flourish during the 1920s, a manifestation of the culture war between the urban and rural sections of the country. Membership peaks in 1924.

1920s: Poor farming management and ignorance of erosion causes the topsoil in several western states to erode during the 1920s. Dust storms result, devastating the remaining topsoil and turn everyday life into an ordeal. Many farmers migrate to the west coast.

1920: A bumper crop causes farm prices, already in decline, to drop further.

1921: The National Association of Manufacturers and the Chamber of Commerce mount an anti-union campaign called the American Plan. They attack the union shop, in which workers have to belong to a union to get a job. Under the American Plan workers sign “yellow dog contracts” in which they pledge not to join or aid the union movement.

1921: The first issue of the *Reader's Digest* appears. This publication is for busy people who do not have enough time to read many books. It purports to condense the essential significance of a book into a few pages.

1921: The economy is in mild recession although productivity is rising rapidly.

1921: Congress passes immigration restriction legislation which sets the total limit of immigration at 350,000 per year distributed on the basis of three percent of the number of each nationality living in the United States in 1910.

1921: Secretary of the Treasury Andrew Mellon encourages Congress to repeal the excess-profits tax on corporations.

1921-1922: The Washington Naval Disarmament Conference is hosted by U.S. Secretary of State Charles Evans Hughes, who proposes that the naval powers of the world should freeze production of battleships and maintain the presently existing ratio of ships in the water. Initially meeting with enthusiastic approval from the delegates of the different nations, the resulting Five-Power Agreement proves unable to stem the building of cruisers, submarines, destroyers, and eventually, aircraft carriers. It is still an important diplomatic event as the first disarmament conference and treaty.

1922: Congress passes a higher protective tariff with the Fordney-McCumber Tariff.

1922: Italian fascist rebel Benito Mussolini's Brown-shirts march on Rome, Italy.

1923: The Teapot Dome scandal and several other scandals besmirch the reputation of the Harding administration.

1923: Calvin Coolidge becomes president when Harding dies in office.

1923: The stock market enters a six-year expansion.

1923: *Time* magazine begins publication.

1924: Nellie Taylor Ross of Wyoming and Miriam Ferguson of Texas become the first women to be elected U.S. governors.

1924: Businessman Charles Dawes puts forward a plan to have American bankers fund the reparation payments that Germany is required to pay other European nations after World War I. The recipients of the reparations use the funds to pay off the war debt that they owe the United States.

1924: Congress passes the Indian Citizenship Act, which makes all Native Americans citizens of the United States.

- 1924:** The National Origins Act reduces the total immigration to 150,000 per year and apportions it on the basis of the numbers of each nationality immigrating in 1890, thus favoring northwest Europe over southeastern Europe.
- 1924:** Senator Charles McNary and Representative Gilbert Haugen pass a bill to sell farm surpluses abroad. President Calvin Coolidge vetoes the bill in 1924 and again in 1927.
- 1925:** John Scopes is convicted of teaching evolution in a Tennessee high school.
- 1925:** F. Scott Fitzgerald publishes *The Great Gatsby*.
- 1925:** The Brotherhood of Sleeping Car Porters is founded by A. Philip Randolph.
- 1926:** Treasury Secretary Mellon convinces Congress to cut income and estate taxes in half and to eliminate the gift tax.
- 1927:** “Lucky Lindy,” Charles Lindbergh, sets a record for the first transatlantic solo airplane flight.
- 1927:** Despite an international protest movement in their behalf, Sacco and Vanzetti are executed.
- 1927:** The first “talky” film, *The Jazz Singer*, is released.
- 1927:** Amelia Earhart becomes the first woman to fly an airplane solo over the Atlantic Ocean.
- 1927:** In *Nixon v. Herndon* the Supreme Court uses the Equal Protection Clause to strike down a Texas law barring African Americans from voting in Democratic Party primaries.
- 1928:** The highly speculative Miami real estate market collapses.
- 1928:** Al Smith, a Catholic New York City Democrat, sets a precedent by obtaining the Democratic Party nomination to run for president. He loses to Herbert Hoover, an engineer and an able Republican Progressive who had coordinated the aid to European refugees during World War I and had served as Secretary of Commerce in the Coolidge administration.
- 1928:** In the Kellogg-Briand Pact the major military powers of the world (except for the Soviet Union) sign an agreement outlawing war as a means of conflict resolution. Unfortunately, it has no enforcement provisions.

DEPRESSION AND WORLD WAR II, 1929–1945

- 1929:** The decline of the stock market in October 1929 marks the beginning of the public awareness of the Great Depression, although the agricultural sector of the economy had been suffering from depressed prices and profits for almost ten years.
- 1930:** The Smoot-Hawley Tariff is enacted. This extremely high tariff depressed foreign trade at the very moment the economy needed to be pulled out of depression.
- 1930:** Novelist John Dos Passos brings out the *U.S.A.* trilogy. With its “newsreel” actualities and its evocation of a complex and dynamic national culture, this portrait of American life in the late 1910s catches the United States on the edge of modernity.
- 1931:** The Federal Reserve System raises interest rates. This depresses business investment at a time when it needs to be stimulated.
- 1931:** The economic crisis spreads to Europe. Burdened by reparations or loan repayments after World War I, the governments of Europe (especially Germany) are tempted to print money. Although some observers call for the United States to cancel its debts, others like President Calvin Coolidge refuse to consider this measure and expect full repayment. This, plus high tariffs and an isolationist attitude of seeking to avoid involvement in Europe’s problems, reduce the ability of the United States to play a constructive role in the growing European political crisis of the 1930s.
- 1931:** The Scottsboro affair, in which eight African American teenagers are sentenced to death for supposedly raping two white women on a boxcar in which they were all traveling, creates controversy. The lack of evidence and the nature of the testimony indicates the innocence of the accused, and the International Labor Defense, a Communist Party legal support committee, defends the “Scottsboro boys” and eventually gains their freedom.
- 1931:** The U.S. Communist Party stages an unemployment march on Washington, D.C.
- 1931:** Japan invades Manchuria.
- 1931:** Secretary of State Henry Stimson is instructed by President Hoover to withhold diplomatic recognition of any territorial boundary change as a result of Japanese aggression in Asia. This becomes

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known as the Stimson Doctrine, and it has little effect. Japan continues to assert itself in the region.

1932: The Reconstruction Finance Corporation is established.

1932: The Farmers' Holiday Association forms in Iowa.

1932: Twenty thousand Bonus Marchers, veterans who in 1924 had been awarded a \$1,000 "bonus" by Congress for their service in World War I, rally in Washington, D.C., and demand that the bonus be distributed immediately. (It was payable in 1945.) President Hoover refuses, violence breaks out between the marchers and the Washington police force, and Hoover sends in the U.S. Army to clear the marchers out of their tent city. The violence leaves at least two marchers and one baby dead.

1932: Herbert Hoover runs for a second term as president, but the paralysis that has seized the economy, plus Hoover's lack of warmth as a campaigner, leads the American people to vote in overwhelming numbers (57.4 percent) for Franklin Delano Roosevelt, a member of the New York Hudson Valley aristocracy and a distant cousin of former president Theodore Roosevelt. Franklin Roosevelt gives no clear indication of his program, other than to promise in his speech accepting the Democratic Party nomination that he pledged a "New Deal" for Americans.

1933: In February 1933 bank depositors begin withdrawing their savings. The movement accelerates and becomes a panic when banks begin running out of funds to meet the depositors' demands.

1933: The following New Deal programs are passed by Congress and signed by the president: the Emergency Banking Act; the Economy Act; the Civilian Conservation Corps; the Agricultural Adjustment Act; the Tennessee Valley Authority; the National Industrial Recovery Act; the Federal Emergency Relief Act; the Homeowners' Refinancing Act; the Civil Works Administration; and the Federal Securities Act.

1933: Adolph Hitler is elected Chancellor of Germany.

1933: Francis Townsend, retired California physician, proposes the "Townsend Plan" of "priming the pump" of consumer spending through a government pension to senior citizens.

1933: The United States recognizes the Soviet Union, and the two establish diplomatic ties.

1934: The Southern Tenant Farmers' Union is organized by members of the Socialist Party of America. Convinced that the economic depression is an aspect of the worldwide unraveling of capitalism and committed to the strategy of building a biracial coalition of poor people to bring about change, the American Socialist and Communist Parties during the 1930s "point the way" towards reform, but lose members to the Democratic Party and its popular standard-bearer, Franklin Roosevelt.

1934: Brought on by several years of drought, as well as the mechanization of agriculture (with tractors and disk plows disrupting the root systems of plains grasses which normally retain moisture in the soil), twenty-two giant dust storms ravage the west and the south. The storms carry away tons of soil and ruin agriculture until the early 1940s, when the rains return and the demand for agricultural goods once again brings the planting of crops.

1934: The following New Deal programs are created in 1934: the National Housing Act; the Securities and Exchange Act; and the Homeowners' Loan Act.

1934: Conservative critics of Roosevelt form the Liberty League.

1934: Huey Long, governor of Louisiana, originally supported Franklin Roosevelt but now demands the redistribution of wealth with the "Share-Our-Wealth" Societies.

1935: Father Charles Coughlin, the "radio priest" who had supported the New Deal, now finds President Roosevelt too mild and establishes the National Union for Social Justice. Eventually, Coughlin drifts into support for fascism.

1935: John L. Lewis, head of the United Mine Workers, takes his union out of the craft-conscious American Federation of Labor in order to lead the unionization of the semi-skilled workers in mass production industries.

1935: The following New Deal programs are passed by Congress and signed by the President in 1935: Works Progress Administration; National Youth Administration; Social Security Act; National Labor Relations Act; Public Utilities Holding Company Act; Resettlement Administration; Rural Electrification Administration; Revenue Act ("Wealth Tax").

1935: In an attempt to avoid in the future what some believed to be a connection between the profit motives of U.S. armament producers and the U.S.

entry into war, the Congress passes Neutrality Acts in 1935, 1936, and 1937. They prohibit the sale of arms to belligerent nations and direct the president to inform American travelers of the possibility of harm as a result of traveling near war zones.

1935: The Supreme Court rules that the National Industrial Recovery Act is unconstitutional.

1935: Huey Long is assassinated.

1935: Italy invades Ethiopia.

1936: Franklin Roosevelt signs the Soil Conservation and Domestic Allotment Act.

1936: John L. Lewis and like-minded labor leaders form the Congress of Industrial Organizations (CIO) to “organize the unorganized” and aggressively expand the union movement with the adoption of innovative organizing tactics, such as the sit-down strike.

1936: Roosevelt wins a record 61 percent of the votes for president in 1936.

1936: The Spanish Civil War begins. Fascist Germany and Italy supply weapons and volunteers to the right-wing rebellion of the Falange under Ferdinand Franco. The United States, as well as the nations of western Europe, refuses to intervene on the side of the democratic socialist Spanish loyalist forces. Only the Soviet Union and its allies send aid. A volunteer army of International Brigades, including the 3,000 Americans in the Abraham Lincoln Brigade, travel to Spain to fight, but although they suffer high casualties (about a third of the Americans die in Spain), the Franco rebellion overwhelms its opposition.

1936: Germany reoccupies the Rhineland, which France has held since World War I.

1937: In order to defeat the conservatives on the U.S. Supreme Court, Roosevelt proposes to expand the size of the court, which would have allowed him to appoint a number of new justices. This infuriates his opponents and distresses his allies and he drops the idea, but his administration is sullied by the act.

1937: Japan invades China.

1937: Roosevelt signs the Farm Security Administration and the National Housing Acts into law.

1937: In a bitter strike of the Steel Workers’ Organizing Committee against the “Little Steel” companies, a

Memorial Day picnic and march to the Republic Steel plant in Chicago is fired upon by police. Ten workers are killed. Known as the Memorial Day Massacre, this act of state violence on behalf of the employer effectively breaks the strike.

1938: Germany annexes Austria.

1938: Congress passes and Roosevelt signs into law the Second Agricultural Adjustment Act and the Fair Labor Standards Act.

1938: At a Munich conference, British Prime Minister Neville Chamberlain tries to appease Hitler by allowing German troops to occupy a German-speaking portion of Czechoslovakia.

1938: As the economy seems to have rebounded in 1937, the Roosevelt administration reduces government allocation of funds for the Works Progress Administration and other programs. The economy slips back into recession (called the Roosevelt Recession) and does not pull out of it until the threat of World War II prompts hiring at the factories engaged in the 1940 military build-up.

1939: Fearing that the west European powers are maneuvering to set up a bloody war between Germany and the Soviet Union, a scenario in which the western democracies could “pick up the pieces” after the combatants had bled themselves dry, Stalin stuns the world by signing a non-aggression pact with Hitler. This allows the Soviets to industrialize and to build up its stock of military hardware, but it confuses and demoralizes the communist parties of western Europe and the United States.

1939: Germany invades the whole of Czechoslovakia.

1939: Germany invades Poland. World War II begins in Europe.

1939: John Steinbeck’s *The Grapes of Wrath* is published and tells the story of the “Okies” and the trek of migrant farmers from the drought-plagued great plains to California.

1939–1940: The Soviet Union invades Finland, Estonia, Latvia, and Lithuania.

1940: Germany rolls across western Europe in a mechanized warfare called the “Blitzkrieg.”

1941: The lend-lease plan gives aid to Great Britain while still maintaining neutrality.

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1941: Germany invades the Soviet Union.

1941: Although the United States is not yet at war, Churchill and Roosevelt meet on a British destroyer near Newfoundland and outline a set of shared goals, including the “destruction of Nazi tyranny.” The charter also calls for the national self-determination of colonial holdings, a goal that Churchill embraces with much less enthusiasm.

1941: A. Philip Randolph threatens to bring thousands of African Americans to a march on Washington, D.C., protesting discrimination against African American workers in the defense industry. As a result of this demand, Franklin Roosevelt creates the Fair Employment Practices Commission, which handles these complaints and impresses on employers the need to project the spirit of the “double ‘V,’” victory against fascism abroad and against racism at home.

1941: Roosevelt imposes an embargo on petroleum and scrap iron shipping to Japan.

1941: Japan bombs Pearl Harbor, Hawaii, largely destroying the U.S. Pacific fleet. The next day, the United States declares war on Japan, Germany, and Italy.

1941: Work on the Manhattan Project (the atomic bomb) begins.

1942: The Office of Price Administration is created to fight inflation by freezing prices, wages, and rents.

1942: The War Production Board (WPB) is created to coordinate the production of military goods. In part because of the daunting nature of this mission, and also because of the ineffectual performance of its leaders, the WPB is generally unsuccessful in this goal, although the economy does manage to produce a huge output of weapons and other materiel.

1942: The Japanese take the Philippines.

1942: Japanese American citizens are locked up in concentration camps as Americans begin to imagine that citizens of Japanese descent constitute a “fifth column” of saboteurs and spies for Japan. Their private possessions are often stolen when they are forced into the camps.

1942: The Congress on Racial Equality (CORE) is founded.

1943: Racial confrontations occur between African Americans and whites in Detroit and between Mexican Americans and white sailors in Los Angeles.

1944: The Allied amphibious invasion of Normandy takes place.

1944: The United States retakes the Philippines.

1944: In a meeting at Bretton Woods, New Hampshire, the United States and other western powers discuss post-war recovery programs. They create the International Monetary Fund and the International Bank for Reconstruction and Development, also known as the World Bank.

1944: In the summer of 1944 the Allies meet at Dumbarton Oaks to plan the structure of the proposed United Nations.

1945: Western European and American troops meet the Red Army in Berlin, as the German army is destroyed.

1945: After a three month siege, the United States captures Okinawa, Japan, at a cost of 11,000 U.S. and 80,000 Japanese lives.

1945: The United States drops the atomic bomb on Hiroshima and Nagasaki.

1945: The United Nations Organization meets in San Francisco to plan its post-war future.

POSTWAR PROSPERITY, 1945–1973

1945: In February 1945, Joseph Stalin, Winston Churchill, and Franklin Roosevelt meet in Yalta, a resort on the Black Sea, to discuss the outlines of post-war Europe. They all agree to partition Germany. Stalin agrees that, once Germany is defeated, the Red Army will help the United States defeat Japan. In return, the Soviet Union will repossess the Kurile Islands, north of Japan, as well as southern Sakhalin Island and Port Arthur, which Russia lost to Japan in the Russo-Japanese War (1905). The Allies, however, fail to reach agreement on the shape of post-war Europe.

1945: Franklin D. Roosevelt dies; Harry Truman becomes president.

1945: The Potsdam Conference between Churchill, Stalin, and Truman, is held in a Berlin suburb in July 1945, and confirms what the Yalta Conference already

revealed in February of the same year: there are serious disagreements between the Allies. One is over the Polish question. The Red Army occupies Poland and, intent on acquiring a set of “buffer states” to prevent future invasion from the West, Stalin has already installed a pro-Soviet government. At Yalta, Stalin agreed to a vague date sometime in the future for holding free elections in Poland, but he never does so. Instead, in the weeks after Yalta, the Soviets proceed to create more buffer states in Eastern Europe. In light of the U.S. possession of a working nuclear bomb, President Truman adopts an aggressive stance and “talks tough” to the Soviet diplomats at Potsdam, but without gaining any concessions.

1945: Japan surrenders on August 14, 1945.

1946: Post-war inflation and the desire to “catch up” with the substantial price increases during the war prompt U.S. railroad workers and the coal miners to go on nation-wide strikes.

1946: The Philippines are given independence by the United States.

1946: The dominance of the Democratic Party in national politics since 1933 is finally broken as the Republicans gain control of Congress.

1946: Dr. Benjamin Spock publishes *Baby and Child Care*, the “Bible” for baby boomer infants and children’s home diagnosis.

1946: Truman submits a domestic program called the Fair Deal. The name recalls the powerful New Deal program and the coalition that supported it. But, although the specifics of the Fair Deal—an expansion of Social Security benefits, public housing, federal aid for the St. Lawrence Seaway, and a national health plan—recall the New Deal, the drift of post-war politics is in a conservative direction and most elements of the program fail to win enough votes for passage.

1946: George F. Kennan, a career diplomat stationed in Moscow in 1946, sends a “long telegram” to the State Department in which he discusses “the sources of Soviet conduct.” Later published as an article in *Foreign Affairs* under the pseudonym Mr. X., Kennan’s argument is that historical circumstances have made the Soviet Union expansionist and that Marxism-Leninism has provided a rationale for this behavior. He says that the best way to deal with Soviet expansionism is to quarantine the U.S.S.R.

until it runs out of revolutionary energy and settles down to a consumer-based economy.

1946: In a speech at Fulton, Missouri, the former Prime Minister of Great Britain Winston Churchill predicts that the world to come will be marked by the struggle between democratic and totalitarian systems of government. He notes that Eastern bloc nations are being turned into satellites of the Soviet Union, and he uses the image of an “iron curtain” that is descending across Europe.

1947: President Harry Truman reformulates George Kennan’s arguments and presents them in a speech to Congress as the Truman Doctrine, the essence of which is that the United States will henceforth “support free peoples who are resisting attempted subjugation by armed minorities or by outside pressures.”

1947: Secretary of State George C. Marshall unveils the Marshall Plan, a \$12 billion package of aid to a devastated Western Europe, as a way to decrease the attractiveness of socialism.

1947: The Brooklyn Dodgers sign Jackie Robinson, the first African American to play in a regular position in Major League baseball.

1947: The National Security Act passes Congress and is signed into law. The Act creates the National Security Council (NSC), which advises the president on foreign policy, and the Central Intelligence Agency (CIA), which coordinates the intelligence apparatus and also engages in extra-legal covert activity in foreign lands to forward the interests of the United States.

1947: The first suburban tract housing at Levittown, New York, is built.

1947: Puerto Rico is given commonwealth status.

1947: The House Un-American Activities Committee begins holding hearings to investigate the charge leveled by some members of Congress that the federal government has been lax in allowing communists to infiltrate the government.

1947: The Truman administration institutes loyalty review programs to insure the patriotism of government employees and to weed out subversive elements that might have become ensconced in government jobs. By 1951 over 2,200 government workers have either resigned or been terminated.

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- 1947:** The Taft-Harley Act is passed, making it harder to organize and maintain unions, a result of language such as Section 14-B, which permits states to pass “right to work” laws outlawing union shops (where a worker is required to join the union after being hired).
- 1948:** The Soviets react to the merger of the U.S., British, and French sectors of Germany into one zone, “West Germany,” by blockading shipments of food and other necessities to the western zones of Berlin. (Berlin lies inside East Germany.) Rather than try to open up the land corridors by force, the Western powers agree on a closely coordinated airlift of supplies to the city. For ten months the Berlin airlift successfully provisions the city, until the East Germans open the corridors again.
- 1948:** The United Nations partitions Palestine and establishes the state of Israel.
- 1948:** Alger Hiss, a New Deal liberal and formerly a valued member of the State Department, is accused of being part of a ring that passed classified information to the Soviet Union in 1937 and 1938. Hiss sues his accuser, former communist Whittaker Chambers, for libel and loses the case, at which point he is convicted of perjury. He goes to jail for several years and the incident casts a shadow over the reputation and the careers of many New Deal liberals, including members of the movie industry like the “Hollywood Ten,” the directors who refuse to answer the House Un-American Activities Committee’s inquiries concerning their politics.
- 1948:** The United Automobile Workers’ Union and General Motors agree to an automatic cost-of-living factor in the calculation of wages.
- 1948:** The New Deal political coalition comes under considerable stress as the Democratic Party splits into three parties—the conservative States’ Rights, or Dixiecrat Party in the South, led by Strom Thurmond, the left-wing Progressive Party, under the leadership of Henry Wallace, and the mainstream Democratic Party under Truman. In spite of this division, labor mobilizes behind Truman, who wins an upset election.
- 1949:** Twelve nations sign the North Atlantic Treaty Organization (NATO), a mutual defense pact and a standing military force in Western Europe, to guard against aggression by the Soviet Union. The U.S. Senate ratifies the treaty. The Soviets spearhead their own mutual defense organization, the Warsaw Pact.
- 1949:** President Truman issues an executive order ending racial segregation in the U.S. military.
- 1949:** The Soviet Union explodes its first atomic bomb years earlier than expected, and the United States loses its monopoly on nuclear weapons.
- 1949:** The Chinese Communist Revolution takes place, and the former government of China flees to Taiwan.
- 1950:** The National Security Council issues its report, NSC-68, which recommends that the United States assume the leadership of the forces opposed to the expansion of the Soviet bloc. This means that wherever such an expansion appears likely, the United States must take up the struggle against it. To do this, the United States must provide itself with a strong and flexible defense capability, not just a nuclear deterrent.
- 1950:** North Korea invades South Korea in late June 1950. The peninsula was partitioned at the end of World War II. Syngman Rhee runs a corrupt government in the South. Kim Il Sung, the North Korean head of state, builds a Spartan, dictatorial, socialist state and introduces land reform, which wins him the support of the peasantry. The North Korean invasion brings a coordinated response from members of the Security Council of the United Nations (minus the Soviet Union, which is boycotting the Security Council sessions to protest communist China’s exclusion from the body). U.N. forces battle North Korea and its Chinese allies until a treaty is signed in 1953. The treaty produces a limited victory, with an armistice line at the 38th parallel that must be patrolled at considerable expense in the future.
- 1950:** President Truman relieves General Douglas MacArthur of command in Korea for publicly criticizing Truman’s handling of the war. MacArthur flies home to a ticker-tape parade and addresses Congress; his popularity considerably exceeds Truman’s. Still, Truman’s action comes to be understood as a stand in favor of the subordination of military to civilian authority.
- 1950:** In a speech at a rally in Wheeling, West Virginia, Wisconsin Senator Joseph McCarthy begins leveling the charge that the federal government is rife with communists.
- 1950:** Congress passes the McCarran Internal Security Act, requiring all communist organizations to register with the government and publish their records. Truman vetoes the bill, but Congress overrides the veto.

- 1951:** Two members of the Communist Party, Julius and Ethel Rosenberg, are sentenced to death for leaking secrets concerning the atomic bomb to the Soviet Union. Two years later, after massive worldwide protests reminiscent of the Sacco and Vanzetti case in the 1920s, the Rosenbergs are executed by electrocution.
- 1952:** Dwight D. Eisenhower, military hero and head of NATO forces, is elected president on the Republican ticket.
- 1953:** The economy slips into a recession.
- 1953:** The CIA collaborates in the overthrow of Mohammed Mossadegh, the prime minister of Iran, who may have been maneuvering towards the nationalization of the oil industry in Iran. Mossadegh is replaced by the shah of Iran, Mohammed Reza Pahlavi, who cooperates with the West in the development of his country's oil resources.
- 1953:** Stalin dies.
- 1954:** In *Brown v. Board of Education* the U.S. Supreme Court rules that "separate" can never be "equal" in school systems and directs the Topeka School Board to move "with all deliberate speed" to integrate its schools.
- 1954:** After Senator Joseph McCarthy continues to make unsubstantiated accusations against individuals and even against the U.S. Army, the fact that his committee hearings are televised help to turn the investigation into a revelation of his own bullying tactics and character assassination. He loses most of the support that he enjoyed earlier in the 1950s. Congress censures him, and within a few years he dies from the effects of alcoholism.
- 1954:** In Guatemala the CIA helps to overthrow the newly elected Jacobo Arbenz Guzman, a leftist with whom the United Fruit Company (an American firm with extensive plantations in Guatemala) does not feel entirely comfortable.
- 1954:** The Vietnamese nationalist forces, the Viet Minh, defeat the French army at Dien Bien Phu.
- 1955:** The industrial unions of the CIO rejoin the trade unions in the AFL. George Meany heads the united organization, the AFL-CIO.
- 1955:** The Montgomery Bus Boycott, a year-long struggle, begins when African American seamstress and Secretary of the Alabama NAACP, Rosa Parks, refuses to move from her seat in the front of a bus in order to let a white man sit down. Dr. Martin Luther King, Jr., emerges from the struggle with a reputation as a formidable speaker and charismatic leader, urging the rank and file civil rights adherents to practice the discipline of passive resistance and creative non-violence.
- 1956:** The Federal Highway Act is passed and signed by President Eisenhower.
- 1956:** The Hungarian Revolution is repressed by the Soviet Union. Although the Radio Free Europe (West European broadcasts into Soviet dominated East Europe) had encouraged the rebellion, the West was not in a position to do anything when the Russian tanks rolled across Hungary.
- 1956:** One hundred and one southern congressmen pledge "massive resistance" to the Supreme Court rulings on desegregation.
- 1956:** U.S. Secretary of State John Foster Dulles suspends a loan to Egypt for financing of the Aswan Dam project on the Nile River. Dulles takes the action to punish the Egyptians for their friendly relations with the Soviet Union. This prompts Egyptian leader Gamal Abdel Nasser to seize the Suez Canal and use its revenues to build the dam. This, in turn, leads Israel, Great Britain, and France to attack Egypt. The United States fears the attack on Egypt might alienate other oil rich Arab states so it supports a Soviet-sponsored U.N. resolution condemning the attack. Nasser, like a number of Third World leaders after him, learns the technique of playing the United States and its allies off against the Soviet Union and its allies.
- 1957:** The Civil Rights Act of 1957 is passed. More a declaration of principles than a serious piece of legislation, the law has few enforcement powers.
- 1957:** President Eisenhower orders the National Guard into Little Rock, Arkansas, to assist in desegregating a high school.
- 1957:** The Southern Christian Leadership Conference forms under the leadership of Martin Luther King.
- 1957:** The post-World War II baby boom peaks.
- 1957:** The U.S. economy slips into recession again.
- 1957:** The Teamsters are investigated for corruption.
- 1957:** The Soviet Union launches *Sputnik*, the first earth orbiting satellite. This feat also alerts the United States to the fact that the Soviet Union possesses extremely powerful booster rockets.

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- 1958:** The National Defense Education Act is passed, providing broad support for education.
- 1958:** The John Birch Society, a grass roots anticommunist organization, is formed.
- 1958:** The National Aeronautics and Space Administration (NASA) is formed.
- 1959:** Alaska becomes the 49th state to be admitted to the Union.
- 1959:** In line with a call from the Comintern to the colonial and underdeveloped world to engage in wars of national liberation against colonialism and imperialism, the National Liberation Front in Vietnam is formed.
- 1959:** Hawaii becomes the 50th state to enter the Union.
- 1959:** Fidel Castro and the 26th of May Movement seizes power in Cuba.
- 1959:** Soviet leader Nikita Khrushchev visits the United States.
- 1960:** A U.S. U-2 spy airplane is shot down over the Soviet Union, embarrassing President Eisenhower and destroying a planned U.S.-Soviet summit meeting in Paris, France.
- 1960:** John F. Kennedy is elected president.
- 1961:** In his farewell address Eisenhower warns of the growth of the “military-industrial complex.”
- 1961:** The Congress on Racial Equality (CORE) calls for “freedom rides” to establish the right of African American people to have access to a racially integrated public transportation system. On May 14 a Greyhound bus carrying freedom riders near Anniston, Alabama, is surrounded by an angry white mob that burns the bus and beats its occupants. The local hospitals refuse to treat the injured freedom riders.
- 1961:** The Alliance for Progress is created by President Kennedy.
- 1961:** East Germany erects the Berlin Wall to stop the escape of its citizens to the West.
- 1962:** The stunning failure of the United States-backed invasion at the Bay of Pigs by Cuba’s anticommunist exiles embarrasses American policy makers. Their belief that most Cuban people are looking for an opportunity to overthrow the Castro regime is disproved.
- 1962:** Michael Harrington publishes *The Other America*.
- 1962:** Students for a Democratic Society (SDS) form at a UAW recreation center in Port Huron, Michigan.
- 1962:** In order to protect themselves from the threat of another U.S. backed invasion similar to the Bay of Pigs attack, Cuba accepts the Soviet Union’s aid in building nuclear missile silos in Cuba. In what becomes known as the Cuban Missile Crisis, U.S. president John F. Kennedy faces down Soviet leader Nikita Khrushchev and the missiles are withdrawn. The possibility of a large nuclear war has a sobering effect on both the Americans and the Soviets.
- 1962:** Rachel Carson publishes *Silent Spring*, a manifesto of the environmental movement.
- 1963:** Medgar Evers, head of the Mississippi NAACP, is assassinated in the front yard of his home.
- 1963:** John F. Kennedy proposes a strong Civil Rights Bill.
- 1963:** The Civil Rights March on Washington, D.C., along with Martin Luther King’s “I Have a Dream” speech legitimizes the Civil Rights Movement in the eyes of many Americans for the first time.
- 1963:** In Vietnam the large protest demonstrations led by Buddhist monks, some of whom engage in self-immolation (dousing themselves with gasoline and setting themselves on fire) plus the South Vietnamese government’s brutal repression of political dissent leads to the CIA-approved assassination of Ngo Dinh Diem. This sets off a series of coups in South Vietnam that further delegitimize the South Vietnamese political leadership.
- 1963:** Betty Frieden’s *The Feminine Mystique* is published.
- 1963:** President John F. Kennedy is assassinated in Dallas, Texas. Lyndon Johnson is sworn in as president.
- 1963-1966:** Lyndon Johnson’s Great Society programs are approved by Congress.
- 1964:** President Johnson initiates tax cuts, following through on a promise of President Kennedy’s.
- 1964:** Johnson announces the War of Poverty.
- 1964:** The Volunteers in Service to America (VISTA) is created.

- 1964:** Lyndon Johnson goes before Congress to speak in favor of federal protection of civil rights, publicizing his support to the American people.
- 1964:** The Economic Opportunity Act passes Congress.
- 1964:** The “freedom summer” of 1964 brings volunteers, both African American and white, from the north to Mississippi in a drive to register African Americans to vote. White repression of this campaign leads to a number of murders of both African American and white volunteers.
- 1964:** The British rock group The Beatles make a tour of the United States. Their immense success highlights the growing importance in the economy of the youth culture of the baby boomers.
- 1964:** Responding to pressure from Lyndon Johnson, Congress breaks a southern filibuster and passes the Civil Rights Act of 1964, the first such effective show of congressional power on the civil rights issue since Reconstruction.
- 1964:** After being told that North Vietnamese PT boats had attacked the destroyer *Maddox* with torpedoes in international waters, Congress passes the Gulf of Tonkin Resolution, which gives the American president the power to engage in hostile action to protect American lives. President Johnson uses this resolution to justify a massive commitment of troops and a huge bombing campaign (called Rolling Thunder) in North as well as in South Vietnam. The Gulf of Tonkin Resolution becomes known as the “blank check.”
- 1964:** Lyndon Johnson wins the presidential election of 1964, convincingly beating Republican candidate Barry Goldwater.
- 1964:** The Berkeley campus of the University of California is the site of the Free Speech Movement.
- 1965:** The Immigration Reform Act does away with the national origins aspects of previous immigration acts. Under the new law, all candidates for immigration are evaluated equally without regard to the nation from which they came.
- 1965:** The race riot in the Watts neighborhood of Los Angeles tellingly describes the change in race relations as the Civil Rights Movement moves out of the south and into the north and west of the country.
- 1965:** For the first time since Reconstruction the Voting Rights Act of 1965 gives federal protection to people trying to register to vote or to exercise their right to vote.
- 1965:** Teach-ins on the war in Vietnam are staged on college campuses.
- 1965:** The United States sends combat troops to Vietnam and begins a build-up which will peak in 1969 at well over half a million troops.
- 1965:** Ralph Nader publishes *Unsafe at Any Speed*, an exposé of the General Motors Corporation and the Corvair automobile.
- 1965:** Anti-war protests begin on college campuses.
- 1965:** Malcolm X is assassinated in New York City.
- 1966:** Medicaid is enacted.
- 1966:** Huey P. Newton and a handful of other militants in Oakland, California, form the Black Panther Party.
- 1966:** Senator J. William Fulbright, chairman of the Senate Foreign Relations Committee, begins to hold open hearings on the war in Vietnam.
- 1966:** Partly in reaction to the disturbances on the state’s college campuses and in the ghettos, Ronald Reagan is elected governor of California.
- 1966:** The National Organization for Women is formed.
- 1966:** The U.S. Supreme Court decides *Miranda v. State of Arizona*, defining new standards for the protection of the rights of criminal suspects.
- 1967:** Thurgood Marshall becomes a justice on the U.S. Supreme Court.
- 1967:** An anti-war march on the Pentagon takes place.
- 1967:** A police raid on an after-hours tavern leads to a race riot in Detroit, in which 43 people die, mostly from rifle fire by National Guard troops.
- 1967:** Martin Luther King, Jr., speaks on Vietnam. This transforms King into more than a spokesman on civil rights. By linking the war with the situation of African American people King may have been elaborating a platform from which to address the entire nation.
- 1968:** The Tet offensive by Viet Cong communist guerillas in South Vietnam occurs, taking the United States and South Vietnam by surprise. Although a military catastrophe for the Viet Cong, the Tet offensive demonstrates the will of communists in

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Vietnam to continue fighting and successfully undermines support for the war in the United States.

1968: The Youth International Party (YIPPIES) is founded. The YIPPIES' threats to run naked through the streets of Chicago during the national Democratic Convention and to spike the Chicago water supply with hallucinogenic drugs struck most mainstream Americans as both incomprehensible and outrageous.

1968: Skewered by his inability to extricate the country from the twin crises of Vietnam and mounting racial antagonism, on March 31, 1968, President Lyndon Johnson announces his decision to not seek the Democratic Party nomination for reelection.

1968: The My Lai massacre of 200 Vietnamese civilians becomes public knowledge. The killing of women, children, and the elderly by U.S. soldiers under the command of Lieutenant William Calley is brought to light through the actions of a helicopter pilot who intervened to prevent further bloodshed and an army photographer who took pictures of the carnage.

1968: Martin Luther King, Jr., is assassinated.

1968: Robert Kennedy, brother of John F. Kennedy and a candidate for the Democratic nomination for president, is assassinated.

1968: The Democratic National Convention in Chicago takes place in the midst of a violent confrontation between thousands of anti-war demonstrators and the Chicago police department, some of which is broadcast on live television.

1968: George Wallace founds the American Independent Party and in the election of 1968 pulls votes away from Hubert Humphrey, the Democratic Party candidate for president.

1968: Richard M. Nixon is elected president.

1969: President Nixon begins withdrawing U.S. troops from Vietnam.

1969: The Woodstock rock festival takes place.

1969: Senator George McGovern is appointed head of the Democratic Party's Internal Rules Reform Committee.

1969: Neil Armstrong, a U.S. astronaut, becomes the first human being to walk on the moon.

1969: The Stonewall riot in New York City signals the beginning of the openly public gay rights movement.

1970: President Nixon authorizes the invasion of Cambodia to constrict supply lines from North Vietnam to South Vietnam.

1970: At Kent State University in Ohio, National Guard troops fire on Vietnam war protesters, killing four. At Jackson State University in Mississippi, two African American civil rights protesters are shot to death by police.

1970: The Environmental Protection Agency is created.

1970: The Occupational Safety and Health Agency (OSHA) is created.

1971: The *New York Times* publishes the *Pentagon Papers*. They reveal that during the Johnson administration the Department of Defense deliberately lied to the public about the effectiveness of U.S. policy in Vietnam.

1970-1971: To curb inflation, President Nixon submits the Economic Stabilization Act of 1970 to Congress; the act imposes a ninety-day freeze on all wages and prices.

1972: President Nixon begins revenue sharing.

1972: Congress approves the Equal Rights Amendment.

1972: The Committee to Re-elect the President (CREEP) is formed.

1972: The SALT I treaty is signed. This treaty between the United States and the Soviet Union freezes the total number of intercontinental ballistic missiles at existing levels. The treaty says nothing about the implementation of new types of weapons such as missiles with multiple warheads or missiles on submarines.

1972: President Nixon visits communist China, an historic first which not only opens the possibility of exporting consumer durable goods to this vast new market, but also offers the strategic opening of further splintering the Sino-Soviet bloc.

1972: The United States risks a hostile Soviet reaction with the mining of Haiphong Harbor in North Vietnam.

1972: A break-in is discovered at the Democratic Party headquarters in the Washington, D.C., Watergate office complex.

1972: President Nixon is reelected.

1972: President Nixon orders an unusually heavy bombing of North Vietnam during the Christmas holidays.

1973: A woman's right to end pregnancy by abortion is upheld by the Supreme Court in *Roe v. Wade*.

1973: Vice President Spiro Agnew resigns, leaving office under a cloud of suspicion concerning his involvement in bribery and kickback deal while in the office of vice president and while governor of Maryland.

1973: The Vietnam Peace Treaty signed.

THE CONTEMPORARY WORLD, 1973-PRESENT

1973: Members of the American Indian Movement (AIM) hold a demonstration at Wounded Knee.

1973: The Paris Peace Accords allow the United States to withdraw from Vietnam, but fighting continues between the South Vietnamese government and the communists.

1973: The Yom Kippur War occurs. Israel is able to recover from the surprise attack and defeat the Egyptian forces in the Sinai peninsula. The United States intervenes to re-establish balance in the region, rather than support an unqualified Israeli victory.

1973: In response to the Yom Kippur War, the Oil Producing and Exporting Countries (OPEC) cartel imposes an embargo on shipments of oil to the United States from 1973 to 1974. This embargo forces the United States to confront its dependence on foreign sources of oil.

1973: The Watergate scandal turns into a national crisis of authority.

1974: Gerald Ford is appointed to fill the unfinished term of President Nixon's previous vice president, Spiro Agnew.

1974: Congress begins impeachment proceedings against President Nixon for participating in a cover-up of the Watergate burglary of the National Democratic Party headquarters in 1972.

1974: OPEC raises the price of crude oil.

1974: President Nixon resigns and Gerald Ford becomes president. President Ford soon pardons Nixon of any crimes he may have committed.

1974: The Supreme Court rules in *Bradley v. Milliken* that cross-district school busing is not a proper remedy for segregation in the schools.

1974: Inflation and unemployment ("stagflation") begin to plague the U.S. economy.

1975: South Vietnam is defeated by communist forces and the nation is reunited under the leadership of the Communist Party of Vietnam.

1976: Democrat Jimmy Carter wins the presidential election against Republican Gerald Ford.

1976: Chinese communist leader Mao Zedong dies.

1977: President Carter pardons Vietnam-era draft resisters.

1977: The Department of Energy is created.

1977: President Carter negotiates the end of the 100-year lease on the Panama Canal and the return of the canal to the government of Panama.

1978: The Supreme Court rules on affirmative action in the case of *Bakke v. University of California*. The ruling does not terminate affirmative action, but it does limit the use of quotas to attain affirmative action goals.

1978: Proposition 13, a referendum rolling back property taxes, passes in California, signifying the arrival of a grassroots tax revolt.

1978: The Panama Canal Treaty is ratified.

1978: In October 1978 Congress passes and President Carter signs the Airline Deregulation Act. This act is a sign of the general move towards deregulating industries that had prospered for decades under the protective wing of the regulated sector of the economy. The result of airline deregulation, as was also the case in trucking and telecommunications, was the sudden destabilization of rates and carriers and labor relations in the airline industry.

1978: The federal government bails out the ailing Chrysler Corporation with a \$1.5 billion loan. The company recovers and pays the loan back early.

1978: The United States normalizes diplomatic relations with China, which is now led by Deng Xiaoping.

1978-1979: President Jimmy Carter acts as a go-between in the Camp David talks between Egyptian President Anwar Sadat and Israeli Prime Minister Menachem Begin. The talks produce the Camp David Accords, a peace treaty between Israel and

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Egypt that ends 31 years of warfare. The achievement also solidifies the reputation of Jimmy Carter as a skilled negotiator.

1979: The Three Mile Island nuclear power plant suffers an accident and damages the public perception of the safety of nuclear power.

1979: The shah of Iran, a long-time U.S. ally, is deposed by Islamic fundamentalists. Islamic militants soon seize 53 hostages at the American embassy. The hostage takers demand the return of the shah to face trial. The shah, who is undergoing unsuccessful cancer treatment in the United States, is exactly the kind of westernized and cosmopolitan national leader that the Islamic militants despise. The hostage crisis continues to the end of Carter's presidency.

1979: President Carter negotiates SALT II, a second arms limitation agreement with the Soviet Union.

1979: The first national march on Washington, D.C., for gay and lesbian rights attracts 100,000 participants.

1979: In Nicaragua, the leftist Sandinista rebels succeed in driving the Somoza family from power and set up a reform-minded regime with close ties to Cuba.

1979: The Soviet Union invades Afghanistan in what many Americans see as an attempt to secure access to the massive oil supplies of the Persian Gulf. The invasion leads President Carter to withdraw the SALT II treaty from the Senate without ratification, and contributes to an already worsening relationship between the United States and the Soviet Union.

1980: During the 1980s the number of Asian legal immigrants to the United States exceeds the number of Hispanic legal immigrants.

1980: Cuban "boat people," the *Marielitos*, flood Florida.

1980: The United States boycotts the 1980 Olympics in Moscow.

1980: Ronald Reagan beats Jimmy Carter in the 1980 presidential election.

1981: On the same day Ronald Reagan is inaugurated as president, the American hostages in Iran are released.

1981: Ronald Reagan fires the air traffic controller members of the PATCO union for going on strike, citing the fact that as civil service employees they did not have the right to strike. This action encourages a "get tough" attitude which became the hallmark

of labor-management relations during the Reagan years.

1981: Sandra Day O'Connor is appointed to the U.S. Supreme Court as its first female justice.

1981: Reagan convinces Congress to agree to substantial tax reductions and to also cut the federal budget in many areas. Defense spending is increased substantially, however, leading to large budget deficits throughout the Reagan administration.

1981: The United States begins supporting the *Contra* anticommunist rebels in Nicaragua.

1981: The AIDS epidemic makes its first appearance in the United States.

1982: The Equal Rights Amendment to the Constitution fails to be ratified by the states.

1982: The economy falls into deep recession.

1982: National unemployment reaches 11 percent.

1982: The United States invades Grenada when a leftist group of rebels with ties to Cuba seizes control of the state.

1982: The recession brings inflation down as a weak market depresses prices; subsequently, interest rates begin to drop, and the economy rejuvenates itself with fresh inflows of capital.

1982: The nuclear freeze movement builds upon a popular fear of nuclear war.

1982: United States troops are killed in a truck bombing in Beirut, Lebanon.

1982: President Reagan strongly advocates the development of a so-called "Star Wars" nuclear defense system (orbiting satellites with laser guns to shoot down incoming ballistic missiles before they reenter the Earth's atmosphere). Despite scientific criticism, billions of dollars are spent on the Strategic Defense Initiative during the Reagan administration. The program fails to produce a working defense system.

1983: A pastoral letter on nuclear war is released by the Catholic bishops in the United States.

1983: The unemployment level stands at 10.2 percent.

1984: Unemployment is at 7.1 percent.

1984: The fear of urban violence and the availability of handguns leads to more urban violence. When

four African American youths try to shake down Bernard Goetz in a New York City subway, he pulls out a gun and shoots them.

1984: Geraldine Ferraro receives the Democratic Party's nomination for the vice presidency.

1984: Reagan is reelected president, defeating Democrat Walter Mondale.

1985: Mikhail Gorbachev becomes head of the Communist Party and the Soviet government. He ushers in the period of *glasnost* (open discussion) in the Soviet Union.

1985: Homeless "street people" become a familiar sight in most big cities.

1985: Crack cocaine becomes the drug of choice on the U.S. illegal drug market.

1986: The Iran-Contra scandal, in which Iran was supplied with U.S. weapons in return for the Iranian contribution to the right-wing Contra rebels fighting a guerilla war against Nicaragua's Sandinista government is revealed.

1987: U.S. bombers strike Libya in an effort to "take out" Libyan President Muammar al Qaddafi, widely held to be engaged in state-supported terrorism.

1987: The Iran-Contra hearings determine that President Reagan was not involved in the Iran-Contra dealings, but several of his senior staff members are prosecuted. The scandal undermines public confidence in government.

1987: Although the economy is recovering from recession, investor psychology is still shaky, and a 508-point drop occurs on the New York stock market in one day.

1988: Republican George Bush and his running mate, Dan Quayle, defeat Democrat Michael S. Dukakis and Geraldine Ferraro in the 1988 presidential election.

1988: The Soviets agree to withdraw from Afghanistan.

1989: Germany begins to reunify as the Cold War grinds to an end. The Berlin Wall is dismantled, and the communist parties of Eastern and Central Europe are weakened. Rather than maintain the safety net features of socialist societies, these nations attempt the difficult transition to free-market economies.

1989: On March 1989 the Exxon oil tanker *Exxon Valdez* runs aground in Prince William Sound, Alaska.

Eleven million gallons of oil befoul 728 miles of coastline.

1989: Pro-democracy demonstrators in Tiananmen Square in Beijing, China, are shot down at the order of the Chinese government.

1989: After Panamanian troops harass several U.S. soldiers and kill one of them, the Bush administration sends 12,000 U.S. troops to Panama to arrest its dictatorial leader, Manuel Noriega, a former informant for the CIA, so that he can be tried on drug trafficking charges.

1990: The system of apartheid begins to fall apart in South Africa. The United States has taken a strong position against apartheid since the U.S. Civil Rights Movement demanded, in protest, that U.S. companies divest themselves of stock in South African companies.

1990: Congress passes and the president signs the Americans with Disabilities Act.

1990: In spite of his campaign promise, "Read My Lips: No New Taxes," and in light of burgeoning budget deficits, President George Bush raises taxes.

1990: The U.S. economy slips into recession.

1991: In the Persian Gulf War, the United States and its allies rain destruction on the armed forces of Iraq. The small but oil-rich nation of Kuwait which Iraq had occupied, is liberated.

1991: President George Bush nominates African American conservative jurist Clarence Thomas to the Supreme Court, only to be confronted with the testimony of Anita Hill, who alleges that in a previous job Thomas persistently subjected her to sexual harassment. Most senators vote to confirm Thomas.

1992: After the beating of an African American motorist, Rodney King, by Los Angeles police, and after the accused police officers are acquitted by an all-white suburban jury, the city goes up in flames. In the resulting race riot, the largest and bloodiest in the twentieth century United States, over 50 people die.

1992: Democrat William Jefferson Clinton defeats George Bush in the presidential election.

1993: Congress raises taxes to shrink the federal deficit.

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- 1993:** Congress ratifies the North American Free Trade Agreement (NAFTA) which lowers tariffs, principally with Mexico and Canada.
- 1994:** Congress rejects President Clinton's plan for a national health care system.
- 1994:** For the first time since 1952, the election of 1994 gives the majority of both houses of Congress to the Republican Party and brings in many new Republican legislators pledged to shake up the Washington establishment and to pass tax reductions and term limits. Led by Congressman Newt Gingrich of Georgia, the Republican Congress engages in many political battles with President Clinton, including one that shuts down the government for several weeks.
- 1995:** Perhaps as a result of a booming economy and low levels of unemployment, the national crime rate declines significantly.
- 1995:** Congress passes and the president signs bills on welfare-to-work, a minimum wage increase, and minor reforms in the health care system.
- 1997:** The Justice Department files an anti-trust lawsuit against the Microsoft Corporation.
- 1998:** Already under investigation for possible sexual harassment and illegal real estate deals, President Clinton denies reports that he engaged in a sexual relationship with Monica Lewinsky, a former White House intern. If true, the reports would mean that Clinton lied under oath during investigations into the sexual harassment suit brought by Paula Jones.
- 1998:** President Clinton admits to having engaged in a relationship with Monica Lewinsky which was "not appropriate," but denies that he lied under oath.
- 1998:** Accusing him of perjury and obstruction of justice, the U.S. House of Representatives votes along party lines to impeach President Clinton.
- 1999:** President Clinton is acquitted by the Senate, which cannot muster a majority to convict him and remove him from office—much less the required two-thirds vote. The vote is largely along party lines. No Democrat votes to convict.



ABOLITION

The Abolition movement wanted to put an end to (abolish) slavery. The success of the anti-slavery campaign in Great Britain, which prohibited the slave trade in 1807, significantly strengthened the cause in the United States. The U.S. government outlawed slave trade the following year, and in the 1830s the revival of evangelical religion in the North gave the movement to emancipate African American slaves an even stronger impetus. Those Abolitionists believed that it violated Christian beliefs for one human being to own another. They called for an end to slavery, although the system was crucial to the agrarian economy of the southern states.

Leaders of the abolition movement included journalist William Lloyd Garrison (1805–79), founder of an influential anti-slavery journal; Theodore Dwight Weld (1803–95), leader of student protests and organizer of the American and Foreign Anti-Slavery Society; and brothers Arthur and Lewis Tappan (1786–1865; 1788–1873), prominent New York merchants who co-founded the American Anti-Slavery Society. Writers such as Harriet Beecher Stowe (1811–96), author of *Uncle Tom's Cabin* (1851–52), helped strengthen the abolitionist cause and were instrumental in swaying public opinion. But the nation remained mostly split along North-South lines. A middle ground was occupied by the Free-Soilers, who would tolerate slavery in the South but believed it should not be extended into new parts of the country. The slavery controversy deepened with the Compromise of 1850, which proved a poor attempt to assuage tensions. The legislation was prompted by the question of whether slavery should be extended into Texas and into territories gained in the Mexican War (1846–48). The Congressional compromise allowed for Texas to be a slave state. California was to be admitted as a free state (slavery was prohibited). Voters in New Mexico and Utah would decide the slavery question themselves, while the slave trade was to be prohibited in Washington, DC. Congress also passed a strict fugitive slave

law. The question arose again in 1854 when Kansas and Nebraska were added to the Union. Kansas became a proving ground for both sides, but the slavery question remained unresolved. In the hands of some activists the abolition movement became violent: In 1859 ardent abolitionist John Brown (1800–59) led a raid on the armory at Harper's Ferry (in present-day West Virginia), which failed to emancipate slaves by force. The slavery question for the South was not answered until President Abraham Lincoln (1861–65) issued the Emancipation Proclamation in January 1863. The Thirteenth Amendment, passed by Congress in January 1865, banned slavery throughout the United States.

***See also:* Emancipation Proclamation, Fugitive Slave Act, Harpers Ferry Armory, Kansas-Nebraska Act, Slavery, Thirteenth Amendment**

ADAMS-ONIS TREATY

The Adams-Onis Treaty, officially called the Transcontinental Treaty, was signed in 1819 by the United States and Spain. The treaty, which was ratified on February 21, 1821, settled boundary disputes between the two countries. The terms of the earlier Louisiana Purchase (1803) failed to specify fully the boundaries of the territory that the United States had acquired from France. Britain and the United States soon disagreed over the Louisiana Territory's northern boundary. Spain and the United States reached an impasse over where the boundary lay between the U.S. territory and Spanish America—Spain's possessions in Florida, along the Gulf Coast, and in the Southwest. The terms of the Adams-Onis Treaty were negotiated by U.S. Secretary of State (later elected president) John Quincy Adams (1767–1848) and Spanish Minister to the United States Luis de Onis (1762–1827). The treaty established the line of demarcation between the new republic and Spanish territorial claims. The countries agreed that the western boundary of the United States began at the mouth of the Sabine River (which today forms the

Addams, (Laura) Jane

border between western Louisiana and eastern Texas). From there the boundary ran at a northwest angle until it reached 42 degrees north latitude. It then followed this line of latitude west to the Pacific Ocean. Territory lying east and north of this line belonged to the United States; territory lying west and south of this line belonged to Spain. By this treaty the United States gained all of Florida and a southern strip of Alabama and Mississippi (collectively called the Old Southwest). Spain retained its claim to the Southwest, which was roughly the area of present-day Texas, New Mexico, Colorado, Utah, Arizona, Nevada, and California. As part of the treaty, the United States agreed to pay \$5 million in claims of U.S. citizens against Spain. The claims were made by people who had settled Florida, predominately the panhandle (then called West Florida), while it was still a possession of Spain.

See also: Convention of 1818, Louisiana Purchase, Manifest Destiny, Old Southwest

ADDAMS, (LAURA) JANE

(Laura) Jane Addams (1860–1935), a social reformer, internationalist, and feminist, was the first American woman to win the Nobel prize for peace. Best known as the founder of Chicago’s Hull House, one of the first social settlements in North America, she was widely recognized for her numerous books and articles, social activism, and international efforts for world peace.

Addams was born in Cedarville, Illinois, on September 6, 1860, the eighth of nine children of Sarah and John Huy Addams. When she was only two, her mother died in childbirth. Her father, a prosperous businessman and Illinois state senator, was a friend of President Abraham Lincoln and a widely respected leader in the community.

In 1881 Addams graduated from Rockford College (then Rockford Women’s Seminary), the valedictorian of a class of 17. Over the next six years, while intermittently studying medicine, she traveled and studied in Europe, battled an illness characterized by chronic exhaustion, and underwent surgery for a congenital spinal defect.

Confronted with the limited career opportunities available to women in the late nineteenth century, Addams searched for a way to be of service to society. In 1888, at age 27, during a second tour of Europe, she and a college friend, Ellen Gates Starr, visited a pioneering settlement house called Toynbee Hall in a desperately poor area of London. This visit crystallized



Jane Addams.

in their minds the idea of opening a similar facility in one of Chicago’s most underprivileged working-class neighborhoods.

The two friends returned home to a city that Lincoln Steffens, a famous writer of the period, described as “loud, lawless, unlovely, ill-smelling, new; an overgrown gawk of a village, the teeming tough among cities.” In 1889 Addams acquired a large, vacant mansion built by Charles Hull in 1856 at the corner of Halsted and Polk Streets. She and Ellen Starr moved in and opened the doors of Hull House on September 18, 1889.

The settlement house was an immediate success. By the end of its second year, Hull House was host to two thousand people every week and was soon famous throughout the country. Journalists, educators, and researchers came to observe its operations, well-to-do young women gave their time and effort, and well-known social workers and reformers lived at the settlement and assisted in its activities.

Hull House eventually included 13 buildings and a playground as well as a camp near Lake Geneva,

Wisconsin. Facilities included a day nursery, a gymnasium, a community kitchen, and a boarding club for working women. Among the services provided were the city's first kindergarten and day care center. Hull House also offered college-level courses in various subjects; training in art, music, and crafts; and the nation's first little theater group, the Hull House players. An employment bureau, an art gallery, and libraries and social clubs for men, women, and children were among other services and cultural opportunities offered to the largely immigrant population of the neighborhood.

As her reputation increased, Addams expanded her vision to focus on many crucial social issues of the time. Local activities at Hull House gave way to national activities on behalf of the underprivileged. In 1906 she became the first woman president of the National Conference of Charities and Corrections. She led investigations on midwifery, narcotics consumption, milk supplies, and sanitary conditions. In 1910 she received the first honorary degree ever awarded to a woman by Yale University.

In 1914, at the onset of World War I (1914–1918), Addams worked for peace, refusing to endorse American participation in the war. For her opposition, she was expelled from the Daughters of the American Revolution and widely attacked in the press. She devoted herself to providing relief supplies of food to the women and children of the enemy nations. In 1915 she accepted the chairmanship of the Women's Peace Party and, four months later, was named president of the International Congress of Women. That organization later became the Women's International Peace League for Peace and Freedom, of which Addams remained president until her death.

In 1931, with Nicholas Murray Butler, Addams was named a cowinner of the Nobel prize for peace. Hospitalized for heart problems at the time of the award ceremony, she was unable to deliver the Nobel lecture in Oslo. She died in 1935 of cancer; appropriately, her funeral service took place in the courtyard of Hull House.

See also: Tenements

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ADVERTISING INDUSTRY

The earliest forms of advertising included simple signs that merchants put over their doors to inform the public about what was for sale inside. Posters, pamphlets, and handbills began appearing in England following the invention of movable type in Germany around 1450. Advertising became a part of newspapers when they first appeared in England in the seventeenth century and in America at the beginning of the eighteenth century. Magazine advertising followed in the early nineteenth century.

During the 1700s Great Britain made great advances in advertising. Handbills and trade cards were common. A wide variety of goods were advertised. For example, one of the most exciting subjects of advertising was the New World. Historians have commented that posters and handbills lauding the wonders of the New World may have hastened emigration there.

During the eighteenth century advertising could be found in the British colonies in America—a practice that, centuries later, achieved a great level of refinement and popularity in the new nation. Advertising in the colonies, however, initially had little impact. Since America was predominantly wilderness and farm country, many people lived in comparative isolation. In addition, ads appearing in newspapers were often illegible and poorly written.

Improvements in printing technology and a new advertising philosophy led to advances in U.S. advertising in the larger cities during the 1820s and 1830s. New York's penny press newspapers began to make their advertising more understandable and accessible to common readers. Finally in 1848 the *New York Herald* began changing the newspaper's ads daily. This expansion created a need for advertising agencies.

Advertising agencies began to emerge in the United States in the 1840s. They sold space in newspapers and magazines for commission. The commission system allowed the agency to collect a fee for placing an

Advertising Industry

ad in a given newspaper or journal. It became established that agencies were compensated by their clients, that is, agencies represented the newspapers and periodicals in which advertising appeared. In 1875 George Rowell, who pioneered buying advertising space in bulk, announced that he would reverse the relationship and act on behalf of the advertisers. Soon F.W. Ayer introduced a new arrangement, the "open contract," in which terms were vague, and the agency was permitted to represent the advertiser over an indefinite period of time. It created a dynamic, long-term relationship between advertiser and agency that was generally healthy for the industry.

Changes in the American marketing system in the 1880s made modern advertising models possible. Previously the market was dominated by wholesalers who purchased goods in large lots and sold them in smaller lots for a profit. During the 1880s, however, manufacturers of packaged goods began to package, brand, and distribute their products throughout the country. This change introduced a need for advertising on a national level. These advertisers provided agencies with a new set of clients with higher standards than those who sold to only local markets. For example, packaged goods manufacturers wanted their advertising to create a bond of trust with the consumer, so their advertising needed to be more truthful.

Throughout the nineteenth century the most widely advertised products were patent medicines. Even as late as 1893 more than half of all advertisers who spent more than \$50,000 annually on advertising were patent medicine manufacturers.

For firms making durable and non-durable goods advertising served many purposes. It helped introduce new products and suggested new uses for those already existing. It could also reach new audiences to inform them about established products that were unfamiliar to them. Heavily advertised products were safer to stock and easier to sell because advertising created consumer demand and brand loyalty.

During the 1890s the advertising industry grew dramatically. By 1897 more than 2,500 companies were conducting large-scale advertising campaigns. This expansion was the result of the increased use of brand names and trademarks and growing newspaper distribution. Copywriters also contributed to the growth. In 1892 N.W. Ayer & Son agency in Philadelphia hired its first copywriter to create an advertisement. Previously it had simply bought advertising space from newspapers and magazines and sold it to advertisers. Now agencies could provide both art and copy for their clients.

In 1900 the major agencies included J. Walter Thompson, N. W. Ayer & Son, and Lord & Thomas. In the nineteenth century J. Walter Thompson had persuaded several literary magazines to carry advertising, and by 1900 his agency was creating ads for thirty of the most popular women's and general interest monthly periodicals. J. Walter Thompson can be credited with transforming magazines into an advertising medium.

The Chicago agency Lord & Thomas, which later became Foote, Cone & Belding, is credited with developing a now-common form of advertising that stressed salesmanship. It originated with Albert Davis Lasker, who joined the agency in 1898 and was its sole owner from 1912 to 1942. Lasker, along with copywriter John E. Kennedy, were the founders of the "reason-why" school of advertising. Until its advent, the industry was mainly concerned with keeping the client's name before the public. Lasker innovated by adding the element of persuasion (stressing benefits to the consumer). He argued that an advertisement must give the consumer a specific reason for buying a product. This new approach later earned him the title, "the father of modern advertising."

During the 1920s the introduction of radio in the United States gave advertising an impetus that carried it through the Great Depression (1929–1939) and World War II (1939–1945). When radio was first introduced, many people felt that radio advertising should be prohibited. This view was supported by then Secretary of Commerce Herbert Hoover (1874–1964). By the end of the decade, however, advertisers began to use radio's advantages as an advertising medium by injecting elements such as drama and immediacy into commercials.

With the formation of the NBC and CBS radio networks in 1926 and 1927, respectively, radio became an important medium for advertisers. Ad agencies created nighttime radio programs as a way to communicate their client's message. They also created daytime radio dramas that became known as "soap operas" (a term that was first applied to the dramas created for consumer product giant Proctor & Gamble).

During the 1920s advertising agencies were transformed into professional organizations offering specialized services. Market research was used to gain a better understanding of the prospective audience, and agencies developed separate departments and operating units, including research and art departments (which were added to complement copy-writing services). Ad budgets soared.

Following World War II, the introduction of television laid the foundation for an advertising boom in the 1950s. By 1948 one million U.S. homes had television sets; the first coast-to-coast network was established in 1951. It was a period marked by numerous changes: ad agencies added more staff; new agencies were formed; mergers strengthened those already existing. From 1950 to 1980 advertising expenditures increased tenfold.

After World War II the U.S. advertising industry began spread throughout the world. American companies began to sell again to markets that they had entered before the war and compete in new ones. Offices were set up abroad, and the major agencies became multinational to serve their multinational clients such as Coca-Cola, Ford Motor Company, Eastman Kodak, General Foods, and many others. In the 1980s and 1990s, U.S. advertising came to dominate the international market. There were, however, some notable exceptions. For example, London's Saatchi & Saatchi, became a giant by acquiring smaller shops located in strategic cities around the world. The Dentsu agency was the principal company in Japan. France also had its own dominant agencies.

By 1980 U.S. advertising expenditures were more than \$55 billion, or about two percent of the gross national product. Sears, Roebuck and Co. was the nation's largest advertiser, spending \$700 million in national and local advertising. From 1976 to 1988 U.S. spending on advertising grew faster than the economy as a whole. TV advertising was mainly responsible for this growth. In 1988, as the country began slipping into an economic recession, there was a slowdown in advertising spending. U.S. ad spending would not recover until 1993, when U.S. advertising spending reached \$140.6 billion.

At the time of the economic recession industry analysts began to question the effectiveness of traditional advertising to sell products and services. They offered several possible explanations: consumers were becoming less receptive to the continual barrage of advertising messages, and they grew more price conscious and less brand loyal.

Technological innovations also had an impact on traditional advertising. The proliferation of alternative communication, including the rise of cable television, changed the way advertisers could reach their audience. Advanced market research techniques allowed companies to gather a wealth of data about their customers and consumers in general. This data could be effectively used to create a database marketing program. Direct marketing increased in usage and

popularity. In addition to traditional advertising, clients began demanding agencies provide integrated marketing programs that combined a variety of elements such as direct mail, direct response, database marketing, coupon redemption, in-store promotions, and other, similar techniques. Although large advertising agencies could offer their clients a range of marketing services, smaller agencies seemed better able to adjust to the changing marketing needs of their clients. This ability made smaller agencies the fastest-growing segment of the advertising industry in the early 1990s.

In spite of the growth of smaller agencies, advertising in the 1990s was dominated by large marketing conglomerates that owned several well-known advertising agencies. These conglomerates were formed through acquisitions and mergers. The largest included WPP Group PLC (which, among others, owned ad agencies J. Walter Thompson and Ogilvy & Mather); Omnicom Group Inc. (which held BBDO Worldwide Network and DDB Needham Worldwide Network and several independent agencies); Interpublic Group of Companies (whose holdings included McCann-Erickson Worldwide, Lintas: Worldwide, Dailey & Associates, and The Lowe Group); and True North Communications Inc. (which, among other agencies, owned Foote, Cone & Belding and Bozell, Jacobs, Kenyon, & Eckhardt Inc.).

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AFFIRMATIVE ACTION (ISSUE)

In 1996 a majority of Californians voted for Proposition 209, a state law which attacked affirmative action programs by stating that race, sex, color, ethnicity, or national origin could not be used to “grant preferential treatment” in the areas of “public employment, public education, or public contracting.” The Civil Rights Initiative (CCRI) organized the campaign. A member of the University of California Board of Regents argued that affirmative action programs, in place since the 1960s, have hurt more than helped African Americans.

Clearly, the political atmosphere had changed dramatically in the United States since the Civil Rights Act of 1964 and the Voting Rights Act of 1965. These measures inaugurated a massive campaign to dismantle legal segregation and to protect the rights of African Americans under federal law. A decade earlier the Supreme Court handed down the landmark case of *Brown v. Board of Education* (1954). In the *Brown* case a unanimous Court ruled that state and local governments could no longer maintain racially segregated educational institutions. The Court argued that schools separated by race would always create inferior institutions for black children because isolation “generates a feeling of inferiority as to their status in the community that may affect their hearts and minds in a way unlikely ever to be undone.”

In a commencement address at Howard University in June 1965, President Lyndon B. Johnson (1963–1969) stated that guaranteeing basic equal freedoms was not enough; the nation also had to work toward an “equality of result.” However, in a legislative compromise, the actual Civil Rights Act of 1964 disavowed using quotas as an anti-discrimination measure. In September 1965, President Johnson issued Executive Order (EO) 11246, which required employers to search aggressively for qualified minority applicants through such methods as advertising and recruitment in minority communities. It did not establish a means of enforcement to ensure candidates were now considered in a “color-blind” pool of applicants. In addition, EO 11246 did not include gender discrimination, which would be added a few years later.

The willingness of the public to provide a level playing field to the disadvantaged was again undermined in the 1970s and 1980s when economic recessions created a tight labor market. More of the nation began to view job opportunities as a zero-sum game. This perspective suggested that when an individual belonging to a minority was hired under affirmative

action, someone else, probably a white male, was disqualified. As this kind of attitude towards affirmative action became more pervasive, the Supreme Court in 1977 took up a case that addressed “reverse discrimination:” *Regents of the University of California v. Bakke* (1977). Allen Bakke and other higher-ranked white applicants were rejected from the University of California Davis Medical School and argued they had been discriminated against in order to fill a given number of slots with minority applicants. In a majority decision the Supreme Court struck down U.C.-Davis’s racial-quota system and ordered Bakke admitted. However, the Court also found that it was acceptable to take race into account as a positive factor in admissions as a way to create a diverse student body. Affirmative action as a system remained intact although institutions were no longer allowed to blatantly use quotas to enforce desegregation.

Some critics of affirmative action want it abolished altogether. They argue that the programs hurt those they intend to help by implying the inferiority of African Americans through the hiring or admitting of less qualified black candidates to jobs and colleges. Opponents of affirmative action claim that these programs lead African Americans to think of themselves as victims of past racial injustices rather than to encourage self-reliance. In addition, critics claim that the country needs “color-blind” policies. In their eyes, affirmative action has already done away with the discriminatory policies and practices that existed prior to the concrete gains of the Civil Rights Movement of the 1960s. Other scholars, such as William Julius Wilson, argue that we need “race-neutral” affirmative action. Rather than help the majority of poor African Americans, Wilson claims affirmative action aids mostly upper stratum African Americans and other minorities. He argues that programs based on socio-economic status would provide opportunities to those who most need it in U.S. society including poor whites.

Critics often misrepresent affirmative action in the heated debate. First, the public debate about the issue has been misrepresented solely as a “black and white” issue, even though women and Latinos are important beneficiaries of the opportunities afforded under affirmative action programs as well. In addition, anecdotal evidence is usually used when instances of reverse discrimination are noted. However, in general, companies and colleges often have to decide between white men and African Americans or women who are equally qualified, and race and gender serves as a tie-breaker.

On the other side of the debate, affirmative action supporters provide four major reasons why affirmative

action is not only necessary but needs to be strengthened. They say African Americans in the United States were historically harmed by racism and slavery. Historical oppression makes it necessary to give African Americans a head start, leveling the playing field and providing everyone with a fair opportunity. In a 1965 speech President Lyndon Johnson (1963–1969) supported this position, making an analogy to a running event, saying that if one runner got ahead of another whose legs were shackled together, it would be unfair merely to remove the shackles. Instead, in order to ensure a fair race, the shackled runner must be allowed to make up the “40 yards” he lost while in chains.

IN A COMMENCEMENT ADDRESS AT HOWARD UNIVERSITY IN JUNE 1965, PRESIDENT LYNDON B. JOHNSON STATED THAT GUARANTEEING BASIC EQUAL FREEDOMS WAS NOT ENOUGH; THE NATION ALSO HAD TO WORK TOWARD AN “EQUALITY OF RESULT.”

Another argument in support of affirmative action is that it is needed to overcome the racism still evident in the workplace and education system. Although the number of wealthy and middle class African Americans has increased greatly since the 1960s, a “glass ceiling” still remains as an obstacle to the advancement beyond entry-level jobs for most black men and women.

The third reason given for the need for affirmative action is that it increases diversity at jobs and colleges. By working and studying next to people from diverse backgrounds, some corporate leaders and college admissions officers argue, workers become more productive and students learn more from experiencing different perspectives and cultures. Supporters of affirmative action also suggest that companies can serve their customers better by including more personnel with diverse backgrounds in their decisions.

The fourth argument for these programs is that a social need is addressed by hiring minorities through affirmative action. For example, an African American doctor who grew up in a poor neighborhood might decide to go back and serve the community with his or her medical degree. A good example is the doctor who was admitted to medical school in the place of Allen Bakke. Dr. Patrick Chavis is an obstetrician gynecologist with a practice that serves mostly Medicaid patients in a poor neighborhood in Los Angeles. Another example of the way social needs may be met is that an African American female scientist is more likely to pursue research interests that may improve the health

of black women, historically neglected as research subjects, than would a white researcher.

Several conclusions can be drawn about affirmative action despite its controversial nature. First, discrimination and racism still operate in the workplace and the education system in the United States. Second, countless African Americans, women, and Latinos have benefited from a higher education and higher income by taking advantage of affirmative action programs. Third, the benefits to society in raising the income and educational level of minorities outweigh the rarer instances of “reverse discrimination” which take place.

On the other hand, since the original purpose of the civil rights movement was to remove barriers based on race, creed, etc., affirmative action seems to many like a step backward that breeds its own injustice. They maintain that it is as unfair to discriminate against European Americans as it was to discriminate against African Americans, and the children are not responsible for the sins of their parents. It is not the state’s job to redress the wrongs of history but to provide equal justice for all. According to this view, society is best served by treating everyone impartially, and in the long run talent will receive its reward. This argument has had the better of it in the public debate, because the national trend since the 1980s has been to reverse policies which overtly favor minorities, women, and the disadvantaged.

See also: Civil Rights Movement, Jim Crow Laws

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AFRICANS ARRIVE IN VIRGINIA, 1619

One stormy day in August of 1619 a Dutch man-of-war with about 20 Africans on board entered port at the English colony of Jamestown, Virginia. Little is known of these newly arrived people: the first Africans to set foot on the North American continent. At this time the slave trade between Africa and the English colonies had not yet been established, and it is unlikely that the 20 or so newcomers became slaves upon their arrival. They were perhaps considered indentured servants, who worked under contract for a certain period of time (usually seven years) before they were granted freedom and the rights accorded to other settlers. Their historic arrival, however, marked the beginning of an atrocious trend in colonial America, in which the people of Africa were taken unwillingly from their motherland and consigned to lifelong slavery. The robust economic growth of the English colonies was caused largely by this exploitative institution.

Many scholars agree that the captain and crew of the Dutch ship stole their valuable human cargo from the San Juan Bautista, a Portuguese merchant-slaver that had been making its way from the West African port town of Luanda, Angola to Vera Cruz. The raid of the Portuguese ship took place on the high seas and when the Dutch adventurers arrived in Virginia they traded the Africans to Jamestown settlers in exchange for food. If these Africans indeed hailed from Luanda, which was then the newly established capital of the Portuguese colony of Angola, it is likely that they had been trading with Europeans for years, that they spoke a language in common with these Europeans, and that they were Christians. It is possible that these characteristics enabled them to escape a life of slavery, which was to become the fate of the more ethnically and linguistically diverse groups of Africans that arrived in North America in later years.

The social status of the first Africans in Jamestown was confusing, and perhaps deliberately ambiguous. Records from 1623 and 1624 list the black inhabitants of the colony as servants, not slaves. In these same records, however, white indentured servants are listed along with the year in which they were to attain freedom; no such year accompanies the names of black servants. Freedom was the birthright of William Tucker, the first African born in the colonies. Yet court records show that at least one African had been declared a slave by 1640, the year that slavery was officially instituted in Jamestown. After the legalization of slavery by the Virginia colony, the African population began to rise slowly and steadily. The

Whatever the status of these first Africans to arrive at Jamestown, it is clear that by 1640, at least one African had been declared a slave. This African was ordered by the court “to serve his said master or his assigns for the time of his natural life here or elsewhere.”

PBS Online, Africans in America: America's Journey Through Slavery, 1998

number of blacks increased from 23 in 1625 to approximately three hundred in 1650.

Economic interests propelled the rise of slavery throughout the seventeenth century in colonial Virginia, where tobacco was the cash crop that held the promise of wealth. At first settlers in the colonies looked to England for workers. Arriving from overseas English laborers cleared the fields for the planting and harvesting of tobacco, which sold for a high price in the 1620s and 1630s. The influx of a British workforce, however, did not last; in the 1660s the price of tobacco plummeted, and the Great Plague diminished England's population. After a fire devastated London, the reconstruction of the city created jobs for laborers, who preferred to remain at home. When these events led the colonial settlers to look elsewhere for field workers, they resorted to the slave trade, which had been active in Europe since the Portuguese first explored the African coast in the fifteenth century.

Tobacco, coffee, sugar, and rice were the colonies' chief exports, and the production of these cash crops required a hearty and dependable workforce. Meanwhile the contracts of indentured servants were expiring, depleting the plantations of laborers. Attempts were made to enslave Native Americans, but these were largely unsuccessful. The settlers found it difficult to subdue the Native American people, who knew the land and who lived in unified communities that had the means of self-defense. The European slave trade provided New World settlers with culturally disparate African captives who had been forcibly uprooted from their homeland and stripped of their ability to defend themselves. Although many Africans rebelled and resisted enslavement, most found themselves unable to escape the bondage that was to be their tragic fate.

Less than one hundred years after the arrival of the first Africans in Virginia the institution of slavery was firmly in place. By the turn of the eighteenth century more than a thousand Africans were arriving each year via merchant-slave ships. Sea routes were established: Sailors voyaged from England to Africa, where they



The first Africans arrived in the American colonies in 1619. By 1640, the institution of slavery was officially established in at least one of the colonies.

offered goods in exchange for slaves, then departed for the New World colonies where settlers purchased the slaves and put them to work. While colonial America profited from the Africans' labor, the slave trade became a tremendously lucrative business in itself. At the expense of a people held captive, colonial America's plantation economy and the slave trade industry flourished for many years to come.

See also: Slavery, Sugar, Tobacco, Triangular Trade

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THE AGE OF REVOLUTION, 1763–1790 OVERVIEW

At the end of the French and Indian War (1754–1763), British North America was a scattered patchwork of individual colonies that had been allowed to develop their own economic and political systems during a previous 40-year period of neglect by the government in London. By 1790, Americans had worked together to end British rule, cooperated to form a political union, created a centralized federal constitution, and were beginning to deal with the huge economic consequences and responsibilities of being a united nation. In order to undergo such a transition, Americans had to fight a bitter revolution and to endure difficult economic changes that would shape their country for decades to come.

Although the American colonies were primarily agricultural, farming varied from region to region. In the southern colonies, slave labor produced a large surplus of tobacco and wheat for overseas trade, frequently handled by wealthy Scottish merchants (called “factors”) who held monopolies licensed by the British crown. Slavery was present in the South and in some of the northern colonies, like New York. It had a different function there, however—many of the slaves in New York City worked as domestic servants. In general, slavery was much less important in other colonies, like Pennsylvania, where smaller family farms that produced goods mainly for their own use were the norm.

With the exception of some areas of the mid-Atlantic colonies, ordinary Americans owned land in numbers that far exceeded their counterparts in Europe. Merchants in New England and in the port cities of the middle colonies enriched themselves (and their British counterparts) by importing and exporting rum, ship masts, sugar, and tea, among other trade goods. During the early 1700s the British government had been content to let colonial economies develop on their own because, even though the colonists dodged many taxes, the mother country profited from colonial economic activity and the colonies played an important

THE ARTICLES OF CONFEDERATION VS. THE CONSTITUTION		
The Federal Government is Empowered to:	Under the Articles of Confederation:	Under the United States Constitution:
Declare War and make peace	Yes	Yes
Control foreign affairs	Yes	Yes
Create a postal system	Yes	Yes
Coin money	Yes	Yes
Impose taxes	No	Yes
Utilize state militia	No	Yes
Trade regulation	No	Yes
Organize a court system	No	Yes
Protect copyrights	No	Yes
Take other necessary actions to manage the federal government	No	Yes

This table highlights the different powers given to the federal government by the Articles of Confederation and the U.S. Constitution. The Articles of Confederation created a weak central government, unable to deal with the nation's economy.

part of the economic theory of mercantilism that defined the relationship between governments and their colonies.

The close of the French and Indian War brought Great Britain's "benign neglect" to an end. The British government spent more than one million pounds on colonial defense during the war, and a series of new activist Prime Ministers decided that the colonies should bear a fair share of the taxes that would be needed to pay back Britain's war debt. Although the colonials paid taxes that were at least 25 times lower than the British living in England and only one-fifth that of the Irish, they did not react well to attempts to raise their taxes over the next ten years. The vast majority of the colonial population were loyal British citizens, but they had grown used to levying their own taxes in local assemblies for the upkeep and improvement of the colony.

Economic resistance sparked a movement for political change as colonists protested an increasingly strict series of commercial laws and taxes passed by the British Parliament between 1764 and 1774. The British government attempted not only to control trade (which

they had done since the first Navigation Acts in 1651 and 1660). They also tried to raise taxes to pay off the shortfalls in the British Exchequer and they passed restrictions on colonial paper money that was virtually worthless in Britain. The Sugar Act (1764) and the Tea Act (1773) tried to increase revenue by taxing these vital imports and they tried to stop smuggling. To do all this they appointed Customs Agents and founded Admiralty Courts. Another set of laws—the Stamp Act (1765), the Townshend Revenue Acts (1767), and the Declaratory Act (1766)—placed duties on a wide variety of goods, such as legal documents, glass, and lead. Parliament also restricted American trade outside the British empire and declared Parliament's authority to legislate for the colonies "in all cases whatsoever."

Colonists resisted all of these measures through a variety of means. Intellectuals like Philadelphia lawyer John Dickinson wrote pamphlets denouncing Parliament's right to tax without colonial representatives giving their consent. Merchants and workingmen formed paramilitary clubs called the Sons of Liberty. Crowds of ordinary men and women harassed individual tax collectors, held public protest meetings, and even resorted to dumping East India Company tea into Boston Harbor in December 1773 at the Boston Tea Party. The "Committees of Correspondence" encouraged communication among resistance leaders in different colonies, and after 1774 the First Continental Congress organized boycotts of British luxury items like tea and silk cloth.

Disagreements over economic issues led Americans to begin to question the rationale of political authority of Great Britain. When Parliament dissolved the Massachusetts legislature, closed Boston Harbor, shut down colonial courts, and quartered troops in private homes in 1774, some Americans prepared to take resistance to a higher level. The restrictive economic policies, even though several of them had been repealed, inspired colonists to work together as never before, and reaction spread far beyond Massachusetts. In the Quebec Act of 1774 the British tried to enforce a previous restriction on American settlement west of the Allegheny Mountains (designed to keep settlers from clashing with Native Americans and to facilitate the collection of taxes). This raised the ire of the frontier population who, to that point, were largely indifferent to the quarrels of their city cousins.

Though not all Americans agreed that greater resistance was necessary, some colonists began to stockpile weapons and to train for war. The conflict turned violent on April 19, 1775, when British troops were dispatched to capture weapons and agitators in Lexington and Concord, Massachusetts. They met

armed resistance from citizen militias. Meanwhile, a revolutionary assembly called the Continental Congress mobilized for armed conflict, and the American Revolution (1775–1783) began.

In 1775 the Second Continental Congress—not yet a proper national legislature—was ill-prepared to finance a war. Although the Congress on July 4, 1776 produced a stirring Declaration of Independence based on the ideas of representative government that had been advanced by British philosopher John Locke, the American Revolution had to confront a serious financial challenge. Seven years of warfare created both economic problems and opportunities as the upheaval of war affected the circumstances of individual Americans. Loyalists who opposed the war and the secession from Great Britain often found their property confiscated or destroyed by unsympathetic “mobs” or by local governments. One hundred and eighty thousand men volunteered for military service in the Continental Army or the state militias. Women assumed control of businesses and farms in unprecedented numbers while their fathers or husbands were away. African American slaves freed themselves from bondage by seeking protection from the British Army or joining the American armed forces themselves. Farmers faced confiscation of their property by foraging armies, especially as the war shifted to the middle states and to the South. Some city dwellers carried on business under enemy occupation.

The government faced constant conflict over how to finance the war and supply the military. The Continental Congress had no powers to enforce state tax contributions to pay for the war, so they mainly solved their financial difficulties through securing loans and by printing money. Congress and the states ordered almost \$400 million worth of paper money to be printed, despite the fact that hard currency reserves (the gold and silver that was supposed to back up paper currency at the time) probably never exceeded \$30 million. The unfortunate result of so much paper currency was inflation, which continued throughout the war. Financial problems persisted, although foreign loans flowed in after France signed a treaty of alliance with the United States in 1779. The national government was almost bankrupt by 1780, and troops threatened to mutiny over lack of pay just as the fighting grew fiercer. Prominent Philadelphia merchant Robert Morris was appointed superintendent of finance in early 1781, and his efforts to shore up national credit as well as his advocacy of a charter for the Bank of North America probably helped the American army triumph at the climactic Battle of Yorktown in October 1781.

Morris remained at the helm of the national economy until the war was formally concluded in 1783.

Some individuals, such as “privateers” who were commissioned to capture British ships and keep the profits for themselves, or merchants who charged outrageous prices for food, profited from the war. Others, mainly the poor or the Loyalists (who abandoned their houses and fled the country), suffered from high prices or from the disruption that the war caused to the agricultural economy. The British imposed a blockade on the eastern seaboard and both imports and exports declined. This led some enterprising merchants in cities like Philadelphia to consider founding a manufacturing sector to produce goods that could no longer be imported. State controls on prices and wages did little to even out the economic effects of the war.

The relative weakness of the central government, which Americans had chosen in reaction to British rule, caused many financial difficulties during the American Revolution that continued after the war. The Articles of Confederation, which were proposed in 1777 as the United States’ first national written constitution, called for a Congress in which each state had one equal vote. But the problems with such an arrangement became clear when the document itself was not accepted by all the states until 1781. Under the Articles, the national government controlled credit and could charter banks, but could not directly tax American citizens. Realizing that taxation would be necessary to pay off war debt, Morris proposed an amendment to the Articles that would have allowed Congress to impose a 5 percent tax or “impost” on imports. Even though by 1782 twelve states had ratified the amendment, the proposal failed because Rhode Island, the smallest state, refused to agree. Constant squabbling among the states, over western land claims and other issues, contributed to continued financial chaos throughout the 1780s.

The fact that the Revolution was not only a successful rejection of British rule but also contained elements of a social revolution became clear when, after the war a new breed of leaders came to power in the United States, particularly in state legislatures. Businessmen, merchants, and even tradesmen who had acquired a comfortable standard of living now questioned the traditional authority of the landed elite that, in tandem with the British officials, had controlled colonial American society. In the South, the slaveholding class grew worried as the first organized antislavery movement in American history took aim at the basis of their wealth. Tenants in western New York revolted against their landlords and demanded equal opportunity to buy land. But although the Revolution

was “made” through the blood and the sweat of ordinary Americans, it was led by a class of entrepreneurs—the commercial and financial elite of New England and Philadelphia as well as the rich, slave-holding farmers of the South. These leaders of the economy argued that the pursuit of profit was not incompatible with the “virtuous” American political ideal.

Inflation continued after the war, and some people began to view paper currency as almost worthless. Other people, small farmers mostly, found it easier to pay the mortgages with cheap money. Meanwhile, a trade imbalance with Great Britain plunged the United States, which still relied on the former “mother country” for the majority of its imports and exports, into a depression. While the national government under the Articles of Confederation could not impose taxes to pay off debt, many individuals were heavily taxed by their states. Veterans who received western land grants in return for wartime service often sold off their claims to land speculators, who in turn drove up prices for those who chose to relocate to the west. Urban poverty increased in every region. When creditors began to demand that individual debtors pay their bills in hard currency, dramatic social unrest resulted. The most famous incident occurred in 1786 when Revolutionary veteran Daniel Shays led a band of unhappy debtors who took over a government arms depot in western Massachusetts. Shays’s rebels was put down by the Massachusetts militia, and conservatives all over the country worried that financial unrest might cause the downfall of the nation.

Ultimately, political leaders were convinced that the national government needed to be revamped in order to solve the country’s economic problems. Delegates from each state met in Philadelphia in May 1787 to discuss a possible alteration of the Articles of Confederation, but by the time the convention had concluded in September, they had debated and drafted a whole new Constitution. This Constitution proposed a more powerful federal government that would exercise authority over internal and external trade, taxation, national debt, and the money supply. The Constitution created a two-branch legislature (as well as an executive and judicial branch), and provided an easier mechanism for amendments.

When the Confederation Congress sent the document to the states for ratification, its supporters, the Federalists, claimed that the new government was necessary to resolve the nation’s financial ills. Alexander Hamilton, James Madison, and John Jay urged the

public to accept a powerful central government. On the other side of the issue stood a loose group, the Anti-Federalists, who opposed ratification and wished to maintain the power of the states. The Anti-Federalists, including Samuel Adams and John Hancock, disliked the Constitution for different reasons, one of which was the lack of a bill of rights. After Federalists promised to add a bill of rights, the conventions in 11 of the 13 states (the necessary two-thirds margin) approved the Constitution by June 1788.

George Washington, leader of the army during the American Revolution, took office as the first president of the United States in 1789. As a member of Virginia’s slave-holding elite, Washington was just the type of man who had exercised the greatest economic power in colonial America. Now he came into office as the democratically elected head of a republic. The country still faced financial instability, and it was unclear whether the new Constitution would solve all of the economic challenges posed by the American Revolution, but the citizens of the United States could look forward to economic opportunities never dreamt of by colonial subjects of the British crown.

See also: American Revolution, Articles of Confederation, Boston Massacre, Boston Tea Party, French and Indian Wars, Proclamation of 1763, Stamp Act, Sugar Act, George Washington

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AGGREGATE DEMAND

Aggregate demand is the total amount of goods and services that U.S. consumers and businesses are willing to buy at specific price levels. As prices for goods and services fall, consumers, businesses, and government agencies tend to buy more. In addition to the consumption of goods and services aggregate demand includes the money consumers and firms invest in government expenditures and net exports (that is, exports minus imports). When aggregate demand increases aggregate supply generally rises to keep up with it. Aggregate supply is the total output or production of goods and services.

Aggregate demand increases when consumers spend more or save less, when businesses believe the profitability of their investments will increase, or when the government spends more or lowers taxes. Aggregate demand will also rise when foreign consumers or businesses increase their purchases of U.S. products, when U.S. consumers buy fewer imports and more U.S. products, and when the money supply is increased. Because each of these factors can change fairly quickly, aggregate demand is more unpredictable than aggregate supply.

Aggregate demand can also be more easily shaped by government policy than aggregate supply can. British economist John Maynard Keynes (1883–1946) popularized the view that the best way to increase aggregate demand is to raise government spending or cut taxes. On the other hand so-called monetarists like Milton Friedman (b. 1912) argue that aggregate demand is best stimulated by lowering interest rates or loosen the supply of money circulating in the economy. Keynes believed that the Great Depression was caused by the federal government's failure to come to the rescue of an inherently unstable U.S. economy. Friedman argued that the Depression would never have occurred if the government had not sharply tightened the money supply in the late 1920s and early 1930s.

Between 1945 and 1990 the U.S. Federal Reserve never allowed the U.S. money supply to shrink as dramatically as it had just before and during the Great Depression. During this forty-five year period there were no major depressions. Those who followed Keynes argued that fiscal policy rather than money supply was the best way to pump up aggregate demand. But when the administration of President Ronald Reagan (1981–89) sharply lowered income tax rates in the early 1980s, aggregate demand remained largely unaffected.

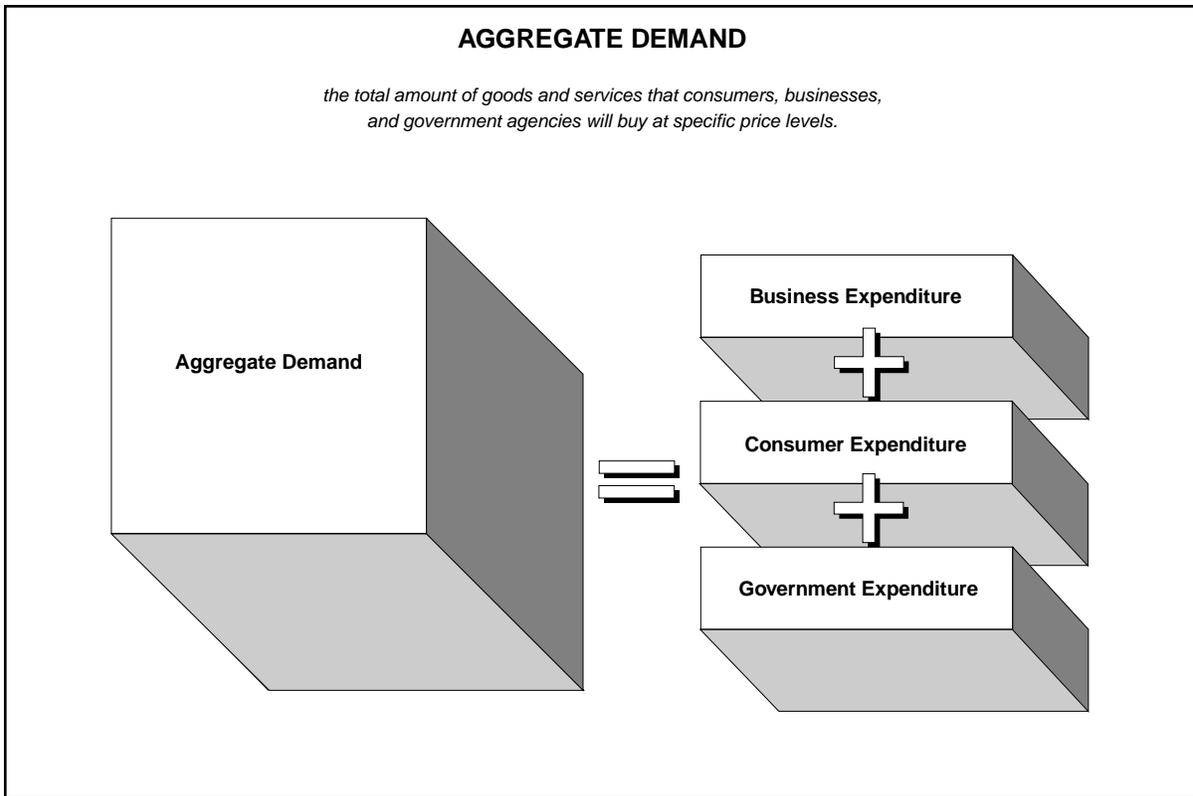
See also: Federal Reserve System, Milton Friedman, John Maynard Keynes, Keynesian Economic Theory, Ronald Reagan

AGGREGATE SUPPLY

Aggregate supply is the total amount of goods and services that U.S. businesses are prepared to produce for sale to buyers at various price levels. When the demand for businesses' products increases, the prices they charge for those products tend to rise. Businesses will then increase the supply of those goods. When the prices for goods and services fall, aggregate supply also tends to fall.

With a constantly growing U.S. population the demand for goods and services generally rises over time. Aggregate supply rises to meet that demand. But aggregate supply is affected by more than just prices and demand. The number of businesses competing in a market, the effects of technology on worker productivity, the costs of paying workers or buying raw materials, and even the weather can affect the total amount of goods and services businesses produce for sale. For example, a drought can destroy wheat farmers' crops, lowering the supply of wheat they can bring to market. The federal government can stimulate the growth of aggregate supply by spending less than it takes in taxes. This frees up money to be invested in opening new businesses and factories. The government can also implement tax policies that reward businesses and individuals for investing, or that lower the costs of doing business.

In 1929 the wealth of many consumers and businesses was wiped out by a stock market crash. The United States experienced the worst drop in aggregate supply in its history. This process resulted in the Great Depression. Demand for goods and services fell, prices dropped, and businesses cut back the production of goods because they could not make a profit on them. All these events were the result of consumers and businesses having less money to spend on goods and services. After World War II aggregate supply skyrocketed. According to some economists, this happened because the federal government's huge spending on the war effort had resulted in surplus wealth among consumers and businesses. Businesses increased aggregate supply to meet this new demand. During the energy crises of the 1970s U.S. aggregate supply fell



The table illustrates aggregate demand, the total amount of goods and services businesses, consumers, and government agencies will buy at specific prices.

because the rising price of oil increased the costs to businesses of producing goods and services.

See also: OPEC Oil Embargo, Stock Market Crash

AGRICULTURAL EQUIPMENT INDUSTRY

The mechanization of agricultural equipment in the mid-nineteenth century began a period of rapid change and advancement for the agricultural industry. Mechanization made the processes of planting and harvesting quicker and reduced the industry’s reliance on manual labor. Until mechanization began in the 1850s, farmers used hand tools made of wood or iron. The industrial revolution and the modernization of equipment sometimes brought rebellions by rural workers who feared machines would eliminate their jobs.

These fears were not completely unfounded. By using machine work in place of many tasks traditionally done by laborers, mechanized equipment did lessen the agricultural industry’s dependence on manual labor. In 1850, the first threshing machines were created

independently by Cyrus McCormick (1809–1884) in the United States and Patrick Bell in Scotland. Plow improvements enabled farmers to work easily in different types of soil, while technological advances mechanized the planting and measurement of corn. An early breakthrough came in the 1850s, in Galesburg, Illinois, when George W. Brown developed the first semi-mechanized method of corn planting using a horse-drawn machine that manually dropped seed. These first innovations stimulated further inventions. For example, “furrow openers” or shoes were placed on the front of the vehicle to prepare the soil. Seed-dropping became more refined, which allowed the vehicle operator to pay closer attention to where the corn was placed. Hay rakes, hay-loaders, harvesting machines, and milking machines also appeared at about this time.

Steam power, which came to be used on farms in the 1860s, made mechanized equipment a vital part of the farming industry. It rapidly turned the curve of development upward by expanding into so many areas of farming technology that in 1860 the U.S. Patent Office issued hundreds of new patents. Among these were patents for harvesters, shellers, huskers, cultivators, and cob crushers for corn, as well as smut machines and seed drills.

When the first gasoline-powered tractor was built in 1901, most American farmers could not afford it, but in 1917 automobile entrepreneur Henry Ford offered his Fordson tractor for \$397, a price that made the product much more accessible to farmers. Seven years later International Harvester introduced its versatile Farmall tractor with removable attachments. One such attachment was the cultivator, which could penetrate the soil at different depths. Other attachments included rotary hoes that could chop up weeds, and spraying devices that could spray in circles of up to 100 feet. Gasoline-driven tractors came into wider use during the 1920s and 1930s, increasingly replacing the horse for farm labor. Between 1940 and 1960, five million tractors replaced an estimated twelve million horses.

The era of the western and southern farmer coincided with the era of the railroad, as it was the rail system during the second half of the nineteenth century that allowed the farmer to get his crop to market. Advancements in the transportation industry in the early twentieth century had a profound impact on agriculture. The truck and the airplane both significantly contributed to the production and transportation of farm products. After they first appeared on farms between 1913 and 1920, trucks changed the marketing and production patterns of farm products. Their importance to harvesting the fields was paramount because they could haul items such as fertilizer, feed, crops, and livestock. Later on, the development of portable refrigeration units allowed trains and trucks to carry freshly slaughtered meat to market. Trucks also carried pigs to centralized meatpacking centers in the cities.

Farmers found many uses for the airplane in farm work. In the early twentieth century, one of the first uses for the airplane was to scatter poison dust over cotton fields infected by the pink bollworm. Other early tasks included dusting against disease and insects, spreading fertilizer, transporting breeding livestock, and dropping bales of hay to livestock stranded in snowstorms. The use of the truck and the airplane helped alleviate many problems faced by agricultural workers, such as crop failure due to disease or insects.

At the same time improvements in steam power and gasoline-driven vehicles continued. The versatile Farmall tractor in the early 1900s replaced the steam-driven reaping and threshing machine that was first introduced in the 1880s. Despite wide use of the Allis Chalmers' All-Crop Harvester as early as 1936, however, crop harvester advancements were delayed because of World War II (1939–1945). The All-Crop was a diesel-driven combine with a capacity for mass-harvesting, but consumers still preferred the more affordable picker-sheller machines, which were more

affordable if less advanced. The use of silos and improved storage methods eventually gave the All-Crop Harvester an unbeatable advantage in the farm implement market.

The advancements in agricultural equipment slowed in the latter half of the twentieth century and some of the industry's old standbys began to weaken. During the 1980s, American farmers bought about 50,000 large tractors, but by the 1990s only a little over 20,000 were purchased. Combine harvesters also began to lose their appeal. Only 130,000 were sold during the 1980s compared to 300,000 in the 1970s. This trend continued into the 1990s. Showroom viewing of new farm equipment became less popular, creating a swollen inventory in early 1991. Farmers were also subject to a variety of short-term hazards like the old problem of excess yields, which caused prices to drop. Also, high interest rates brought many farm bankruptcies in 1991.

Tied to the always shaky farming sector, the economic highs and lows of the agricultural equipment market also continued to affect employment in the farm implement industry. In the early 1990s tractor and industrial truck manufacturing was concentrated in 139 factories in the five-state region of Michigan, Wisconsin, Indiana, Ohio and Illinois. The manufacturing of farm machinery generated large revenues and employed a substantial number of people. In 1993 Deere & Company, a leader in the industry, employed 36,500 and had sales of \$7 billion. Another industry leader, J.I. Case, employed 7,000 and generated sales of \$3.7 billion.

See also: Agriculture Industry, Cyrus McCormick

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AGRICULTURE INDUSTRY

From the founding of Virginia in 1607 until the late 1890s agriculture played a predominant economic role in the United States. The early settlers adopted the Native American practices of growing corn, squash, and tobacco. Initially corn was the primary food crop, while tobacco was exported to earn foreign exchange. In New England most farmers raised multiple food crops as well as livestock, producing enough for their family needs with some surplus goods for sale.

Agriculture in the South became more specialized and commercialized than in the North. By the late seventeenth century tobacco, rice, and indigo became major commercial crops. Production expanded rapidly in conjunction with the plantation system that utilized the labor of African American slaves. Cotton became an important commercial crop with the invention of the cotton gin in 1793 by Eli Whitney (1765–1825).

At the beginning of the nineteenth century significant changes occurred in the farming sector of the economy. Tens of thousands of settlers migrated west to settle in the Ohio and Mississippi valleys between the time of the American Revolution (1775–1783) and the American Civil War (1861–1865). This produced the vast productive potential of grain and livestock farmers. By 1860 the United States had 2,044,077 farms. The U.S. government actively supported the farming community by promoting liberal public land policies, developing canal and rail transportation and reallocating choice farmland from Native Americans to prospective settlers.

Prior to the American Civil War the introduction of animal power and labor-saving machinery provided one of the greatest advances in agricultural history. Innovations such as iron plows, threshing machines, grain drills, and cultivators became common. The McCormick agricultural equipment company in Chicago led the mechanization of farming. In 1800 it took approximately 56 man-hours to plant and harvest one acre of wheat. By 1840, with mechanization the same acre of wheat took only 35 man-hours to achieve the same result.

Agriculture became the engine behind the U.S. economic development in the first half of the nineteenth century. By 1860 the two million farms in the United States produced 838 million bushels of corn, 172 million bushels of wheat, 5.4 million bales of cotton, and millions of pounds of tobacco. Increasingly farmers began to sell their produce to purchase manufactured goods. In 1860 farm products comprised 82

percent of U.S. exports. This helped support the foreign exchange used for investment in U.S. manufacturing and transportation.

IN 1800 IT TOOK APPROXIMATELY 56 MAN-HOURS TO PLANT AND HARVEST ONE ACRE OF WHEAT. BY 1840, WITH MECHANIZATION THE SAME ACRE OF WHEAT TOOK ONLY 35 MAN-HOURS TO ACHIEVE THE SAME RESULT.

Following the American Civil War agricultural expansion accelerated at an even higher rate with the migration of farmers to the Great Plains. Further, with the end of slavery, African American sharecroppers worked on hundreds of thousands of small farms in the South. Between 1860 and 1916 the number of farms grew from two million to 6.4 million. Farm acreage doubled from 407 million to 879 million acres. With the increased acreage and the introduction of better machinery, the production of commercial crops continued to increase tremendously. The great deflationary crisis of the last third of the nineteenth century stemmed from precisely this “crisis of over-production” in agriculture. Productivity on the farm had outstripped the market demand for farm produce. From about 1873 to the end of the century, this glutted farm commodity market became a drag on the rest of the economy. It also produced a strong protest movement in the Farmers’ Alliance movements and the Populist challenge. Farmers did not always know what lay behind their distress. At different points they blamed the railroads, the elevator (crop storage facilities) companies, and the bankers. But they eventually focused on the need for “parity,” a government subsidy for a fair return on their outlay of labor and capital.

By World War I (1914–1918) the agricultural landscape of the United States settled into regional patterns. Farmers in the Northeast focused on dairy, poultry, and fruits and vegetables for the urban market. In the Midwest grain crops such as wheat, corn, and barley supported a thriving cattle and hog business. The region of the Great Plains from Texas to the Canadian border became known as the nation’s breadbasket, with wheat being the primary commercial crop. Agriculture in the Rocky Mountain States focused on cattle and sheep raising, while most of the crops in the Far West depended on irrigation. In the South cotton continued to be the main cash crop until after World War II (1939–1945).

After World War I the overproduction crisis continued to trouble American agriculture, with farm prices generally in decline. None of the measures taken

by the U.S. Government solved the problem of low returns to farmers. However in 1933, during the Great Depression, Congress passed the Agricultural Adjustment Act, which introduced a wide range of federal programs to help the farmer. These programs—which involved paying farmers to leave their land fallow in order to create a shortage in farm commodities and an upturn in prices—continued throughout the rest of the twentieth century. Government payments to farmers in 1934 totaled \$134 million; by 1961 payments increased to \$1.5 billion and by 1987 to \$22 billion.

In the 1930s agriculture underwent significant changes due to the advancements in technology and the introduction of science to farming. The use of the gasoline tractor ended the horse age of farming shortly after World War II. The continued development of better machinery made the farming industry less labor-intensive. The contribution from science included the growing use of chemicals for fertilizers and insecticides, and the breeding of hybrid strains producing better crops and healthier livestock. These and other developments increased the nation's agricultural productivity without a proportionate increase in acreage. The amount of farmland in use remained constant at about 1 billion acres between 1930 and 1980. However crop production increased dramatically. For example, corn production increased from 20 bushels an acre in 1930 to about 110 bushels half a century later. In 1980 one-third of farm production was sold overseas and agricultural exports made up about 20 percent of the nation's foreign sales.

By the end of the twentieth century, new trends emerged in agriculture. These include organic farming and the reduced use of chemicals in response to health and environmental issues. Crop and livestock production has also changed as farmers made increased use of biotechnology and genetic engineering. Farmers continue to have increased capabilities to cultivate more land and handle more livestock with less labor. This resulted in a sharp increase in the average size of farms and a rapid decline in the number of farmers. In 1940 there were 6.1 million farms averaging 215 acres in size. By 1980 only 2.4 million farms remained, averaging 431 acres. In spite of this trend over 90 percent of farms in the United States continue to be operated by families rather than agricultural corporations.

Throughout U.S. history farming was an important economic activity. By the end of the twentieth century it became a business that required skilled labor, capital, and good management. In addition, most people in the United States had little direct contact or involvement with this industry. By the 1980s the number of people living on farms had declined to less

than 2.5 percent of the population. Agriculture had shifted from a simple commercial venture to a specialized business.

See also: Agricultural Equipment Industry, Populist Movement, Subsistence Agriculture

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AIR TRAFFIC CONTROLLER STRIKE

With dramatic increases in commercial airline traffic following World War II (1939–45), Congress established the Federal Aviation Agency in 1958, which it later renamed the Federal Aviation Administration (FAA). Congress entrusted the agency with many responsibilities related to air travel in the United States, including the control of both civil and military use of U.S. airspace for purposes of safety and efficiency. To fulfill its charge, the FAA established and operated a network of airport control towers and 20 air route control centers spaced across the nation. Air traffic controllers manning the towers and centers guided planes from takeoff to landing by using of radar and verbal communication with pilots. As air travel steadily grew, air traffic controllers were increasingly subjected to high levels of stress, since they directed numerous airliners carrying thousands of persons in an crowded sky.

By passing the Airline Deregulation Act in 1978, Congress lifted broad federal controls over airlines including approving new carriers, setting ticket prices, and limiting air routes. A surge of new airlines and air routes further taxed the already stretched air control system. Increasingly tight airline schedules placed

Air Traffic Controller Strike

more pressures on the controllers themselves. The FAA employed more than 16,000 controllers by the end of the 1970s. Finally, in August of 1981, in protest of the stressful working conditions, and demanding higher salaries, 11,000 air traffic controllers went on strike. Their union, Professional Air Traffic Controllers Organization (PATCO), organized the work stoppage. As public employees they were forbidden to strike and PATCO's action was deemed illegal. The strike threatened to have a major economic impact on the nation and international trade as well. Consequently, President Ronald Reagan (1981–89) gave the strikers three days to return to work or be fired. When most striking controllers refused to return, they were fired and PATCO dissolved. In the wake of the firing, the FAA quickly imposed new restrictions on air traffic flow. The agency temporarily reduced the number of flights by one third to ease demands on overworked centers and answer public fears of safety concerns. In desperate need of experienced controllers, for more than a decade the FAA hired retired former employees in areas with critical personnel shortages.

BUT REPLACING THE AIR TRAFFIC CONTROLLERS WASN'T ONLY MEANT TO SAVE MONEY. IT ALSO LET MANAGERS IN EVERY INDUSTRY KNOW THAT IT WAS O.K. TO FIRE STRIKERS. AND WORD GOT OUT, AS GREYHOUND, PHELPS DODGE AND EASTERN AIRLINES BROKE MAJOR STRIKES BY HIRING REPLACEMENTS.

"A Day in the Life," *The Nation*, February 19, 1996

The shortage of fully skilled and experienced air traffic controllers significantly affected airline operations. It was difficult to increase the number of full-performance level controllers since many of those who were not fired retired or moved up into management positions. During the summer and fall of 1984 significant disruption of airline schedules occurred. The understaffed system inspired policies that would rather error on the side of caution during times of bad weather, but the airlines found this conservative approach very expensive. Airlines claimed flight delays caused by undermanned controller facilities and outdated equipment was costing the industry a fortune. Traffic bottlenecks at major airports, such as New York and Chicago, were frequent and led to flight disruptions across the country.

As new airlines attempted to break into the larger markets in the aftermath of airline deregulation, they found the restrictions associated with the rebuilding of the controller work force a difficult hurdle. Some argued that it would have been less costly and less

disruptive to air travel over the long term to give the controllers the raise they were requesting in 1981. Nonetheless, since air traffic continued to boom, others believed that President Reagan was right to uphold the principle that government workers are forbidden to strike. More than a decade later, President Bill Clinton (1993–) invited the previously fired air traffic controllers to apply for their jobs.

Following the firings, the FAA had also pledged to overhaul and modernize the air traffic control system. The agency developed the National Airspace System Plan, which had estimated budget of almost 16 billion dollars for implementation. Although some new hardware, such as Aircraft Situation Display computers, was installed by 1990, the aging system remained only partially updated with newer equipment despite approximately a half billion dollars spent. Although a largely computer-automated system was in the development stage during the 1990s to address the ever increasing air traffic levels of commercial flight, the FAA was accused of moving too slowly in developing and approving new flight control systems.

Repercussions of the 1981 mass firing may have significantly extended into the U.S. labor movement. The actions by Reagan sent a message to private industry that firing striking workers and hiring replacements was an acceptable practice. Some observers considered the firing of the controllers a watershed event in U.S. labor relations. Statistics on union activism indicated that between 1960 and 1981, approximately 275 strikes occurred in the United States annually and involved 1.3 million workers each year. Between 1981 and 1992, the annual number of strikes fell to 56 and involved just over 400,000 workers annually. The peak era of labor strikes was clearly the early 1970s.

See also: Ronald W. Reagan

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AIRLINE DEREGULATION

The first airlines began appearing in the United States following World War I (1914–1918). By the 1930s the federal government had granted exclusive rights to domestic airmail routes to four airlines: American Airlines, United Air Lines, Eastern Air Lines, and TransWorld Airlines (TWA). (Also among the first of U.S. airlines, Pan American was granted rights for international mail routes.) Government regulation of airlines began in 1938 when Congress created the Civil Aeronautics Board (CAB) to set fares, select routes, and license new carriers. Meanwhile airline passenger loads escalated from fewer than 6,000 passengers annually in the 1930s to a total of 200 million by the mid-1970s. But discount fares were nonexistent and flying continued to be a luxury. For four decades no new major airlines were licensed and few newly proposed routes approved as the four airlines managed to hold onto their lucrative contracts and routes. Competition was intentionally muted to ensure stability for both airlines and passengers.

By the 1970s high inflation, low national economic growth, escalating fuel costs, and rising labor costs hit the airline industry hard. Deregulation supporters claimed that it was decades of inefficient regulation by the CAB that was taking its toll. The near monopoly held by the five major airlines originally chartered in the U.S., they argued, had to end. In October 1978, Congress passed the Airline Deregulation Act. With the intent of promoting competition in the industry, the act gave airlines virtually unlimited freedom to establish new routes and drop existing routes, to merge and form alliances, and to enter or exit the market without CAB approval. The airlines were also free to raise or lower rates as they chose and service standards were eliminated. Only safety regulations remained. On top of this, the deregulation era also created the opening for hard-nosed management to pursue a much more aggressive—some might say union-busting—policy. Some observers pointed to Eastern Airlines' chief executive officer Frank Lorenzo as an example of this trend.

The effects of deregulation of the airline industry were immediately felt as airfares dropped in some

cases to record low levels and passenger loads increased. Newly formed no-frills airlines appeared, such as People Express. But with the formation of the Middle East oil cartel in 1979 the price of jet fuel skyrocketed and airline profits dropped. In 1981, struggling under the demands of significantly more daily flights, air traffic controllers went on strike for higher pay and better working conditions. In response President Ronald Reagan (1981–1989) suddenly fired 11,000 controllers and requested that airlines temporarily reduce their number of flights by a third. Fuel prices and the controllers' firing greatly reduced opportunities for new airlines to break into the larger markets.

When new airlines managed to enter the smaller air traffic market, they entered a hostile business climate. The larger companies lowered prices to artificially low levels and drove out competition. Thus increased competition—the goal that convinced Congress to deregulate—was thwarted by such monopolistic pricing strategies. Charges of unfair business practices escalated. Some airlines went heavily into debt and teetered on the edge of financial disaster. Fears rose concerning air safety being compromised as airlines sought to cut expenses by skimping on maintenance costs and hiring less experienced pilots. In 1990 Eastern Airlines was indicted for poor and dishonest aircraft maintenance practices. The following year the company went out of business.

Deregulation continued to transform the industry: nonstop flights from coast to coast were no longer as profitable. Instead, the major airlines established “hubs,” or central points, at certain cities—United in Chicago, American in Dallas-Ft. Worth, Northwest in Minneapolis-St. Paul, and Delta in Atlanta. By 1992 twelve major hubs existed; competition was dampened further because at these localities the dominant carrier greatly influenced flight choices for transferring passengers. Approximately 80 percent of transferring passengers rode the same airline for their entire journey. One strategy of larger airlines was to set ticket prices for flights out of smaller airports at rates as much as 20 percent lower than at hubs. Such fare discounts tended to drive out new start-up carriers; later prices would often rise to hub-level fares once competition was removed.

Deregulation also spurred computerization of reservations and “frequent-flier” programs. Because of anti-trust concerns, the government required each airline to create its own reservation system rather than a single, shared system. This requirement further reduced competition by limiting the access of information to passenger and booking agents. The major airlines also introduced “frequent flier” offers to attract

Airline Industry

and maintain customers. Such programs gave large, broadly-based airlines the opportunity to offer loyal customers bonus rides for flying a single airline extensively. Sometimes, such practices significantly reduced airline revenues and often eliminated competition (which also drove up fares).

Between 1989 and 1992 industry instability peaked as some large carriers (notably Pan American) ceased operations; a number of mergers took place as well. Airline earnings fluctuated wildly. Some airlines, such as Continental and TWA, reorganized under bankruptcy. Still others, including Northwest, received cash infusions from foreign airlines. In some cases, unions helped companies avoid financial disaster by accepting wage reductions in return for part ownership of the airline. At one carrier, United Airlines, employees gained majority control in return for major pay and benefits cuts. Stability returned in 1993 when new airlines began to appear that did not attempt to compete with the major airlines and their hub systems.

By the end of the twentieth century, debate still raged over the impact of deregulation on airline competition, service, profitability, and safety. Some smaller commuter airlines serving hubs, often in a restrictive alliance with a major airline, proved they could survive in the deregulation era, but mid-level carriers were largely uncompetitive with the big airlines. Smaller communities suffered economically from declining air service and increasing prices due to the anti-competitive strategies of the large carriers who, for their part, often found it unprofitable to compete in these communities. Business fares for all routes significantly increased through the 1990s. Some degree of new regulation for the industry and subsidies for smaller carriers was sought by deregulation critics to stimulate competitive pricing, guarantee safety, and better serve a broader range of communities.

See also: Air Traffic Controllers Strike, Airline Industry

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AIRLINE INDUSTRY

On December 17, 1913, in St. Petersburg, Florida, the first airline contract in United States history was signed. Salesman and motorboat racer Percival E. Fansler knew that the city of St. Petersburg was dependent upon the winter tourist trade for its economic survival. In order to reach St. Petersburg from Tampa, tourists had a choice of travelling two hours across Tampa Bay by steamer, a 12-hour train ride, or a day trip by automobile over rough terrain. Fansler believed that by air, the trip from Tampa to St. Petersburg would only take 20 minutes. Fansler shared his idea with a pioneer aircraft manufacturer, Thomas W. Benoist. Enthusiastic St. Petersburg business and civil leaders signed a contract with Benoist to operate an air travel business with two flying “boats” and pilots. On January 1, 1914, the first day of operation, thousands of people turned out for a downtown parade. In a short speech Fansler boldly stated, “What was impossible yesterday is an accomplishment today, while tomorrow heralds the unbelievable.” Pilot Anthony H. Jannus then pushed the aircraft throttle to full and lifted off from the water, soaring into history.

On May 15, 1918, the nation’s first scheduled air mail service began between Washington, DC, and New York, using military pilots as part of the armed forces’ wartime training program. By August a civilian-operated U.S. Air Mail Service was initiated by Otto Praeger, second assistant postmaster general in charge of all mail transportation. In 1919 the Post Office took on the monumental task of supplying an overnight airmail service by flying 755 miles from New York to Chicago. The government’s expert body on aviation, the National Advisory Committee for Aeronautics (NACA), stated in its annual report that the Post Office was making “a substantial contribution in the practical development of commercial aviation.”

The best coast-to-coast mail record of 72 hours was shattered on February 22–23, 1921, when airmail

pilots made the transcontinental crossing in 33 hours and 20 minutes. The push for faster airmail service with aircraft not as technologically advanced came with a human price tag—twelve postal airmen were killed in 1920. The *New York Times*, however, observed in 1921: “There are critics who think that the Post Office Department’s air mail service is dangerous and costly, but nothing ventured, nothing gained. The modern world demands efficiency and speed; aviation is international and competitive. The United States has distanced all countries in transportation of mails through the air.”

When Congress passed the Air Mail (Kelly) Act of 1925, it helped give private airlines the opportunity, through competitive bidding, to serve as mail carriers. The Air Commerce Act of 1926 would designate and establish airways, license pilots and aircraft, investigate accidents, and maintain aids to air navigation. These acts drew businessmen and financiers into aviation, which led to the creation of new air transportation companies. The U.S. government’s involvement in the industry came in the form of regulatory agencies, congressional acts, and appointed commissions.

The dramatic transatlantic solo flight of Charles A. Lindbergh (1902–1974) on May 20–21, 1927, captured the fascination of the American people. Amid new public enthusiasm there was a frenzy to get in on the ground floor of the aviation industry. Early airplane manufacturers such as William Boeing (1881–1956), Claud Ryan, and Donald Douglas (1892–1981), began manufacturing airplanes designed specifically for passenger travel. Air transportation continued to develop, and by 1930, there were 43 scheduled airlines in the United States. Better radio communications, revolving beacon lights, and more accurate weather services improved airway facilities and safety records. Air traffic and profits increased during the early 1950s. The American economy flourished as passenger sales rose dramatically from \$17.3 million in 1950 to \$38 million in 1955. The airliner was well on its way to replacing the train and the ocean liner in long distance travel.

Thirty years after the end of World War II (1939–1945), the American airframe and engine industry enjoyed a prosperous period with the jet-propelled airliners of Boeing, McDonnell-Douglas, Lockheed, and other U.S. firms. Passenger transportation became the largest source of airline revenue, followed by freight and mail. Intense competition arose from the cost-per-seat-per-mile afforded to each passenger. The giant carriers, United, American, TWA, and Eastern Airlines continued their domination of the industry and accounted for more than half the seat-mile productivity

of the entire industry. Jumbo jets were introduced in the 1970s, and seated 400 to 500 tourist-class passengers. The wide-bodied jets also contributed to the chronic congestion at many airports. By the mid-1970s the airline industry was plagued by shifts in regulatory procedure, labor unrest, high fuel costs, corporate mismanagement, airport congestion, crowded skies, and public concerns ranging from safety and service to air and noise pollution. The Airline Deregulation Act of 1978 removed governmental control of routes and fare pricing with the intention of encouraging competition and increasing efficiency. Some effects of deregulation were felt immediately, as heavy competition led to lower ticket prices.

Unprepared for the effects of an inflation-ridden world economy and the lowest boarding rate in 50 years, airlines throughout the world suffered financial losses in the early 1980s. Scrambling to increase passenger numbers, airlines began to overbook flights in an attempt to fill every seat. Budgets were cut in the quality and quantity of passenger food, as well. Although these tactics did cut airline costs, customer satisfaction reached an all-time low. This trend continued into the late 1990s, as many airlines struggled to find a solution to financial difficulties, and some failed. The number of people traveling by air, however, continued to increase, and for those airlines that can survive the competition the future looks bright.

As aerospace technology develops, significant changes and advances in design, safety, electronics, and computer science evolve. The airline industry also benefits in all aspects from high-tech communication technology. More than eight decades ago, salesman and motorboat racer Percival E. Fansler’s novel idea of “a real commercial line, running from somewhere to somewhere else” took flight, and despite its difficulties, became what is perhaps the most important technological innovation in history.

See also: Air Traffic Controllers Strike, Airline Deregulation, Boeing

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ALABAMA

Alabama, traditionally one of the nation's poorest states, has survived the demise of a one-crop economy, the upheaval of a civil war, a revolution in race relations, and the challenges of a modern industrial economy. While the state still has many difficulties to overcome, it continues to be an important contributor to the nation's economy.

The first Europeans to arrive in Alabama found the land inhabited by Creek, Cherokee, and Chickasaw Indians. The Spanish first entered Mobile Bay during the sixteenth century. Hernando de Soto (c.1496–1542) entered the Mobile Delta via Tennessee in 1540. In the early 1700s French explorers established the first permanent settlement at Mobile. The British took over the territory by terms of the Treaty of Paris in 1763 but lost it again to Spain in 1780. The United States did not gain title to the land until after the War of 1812 (1812–1814). In 1814 a force led by Andrew Jackson (1767–1845) drove off most of the remaining Indian tribes, opening up the territory to white settlement. After this time many immigrants from southern states poured into Alabama in hopes of acquiring good land on which to grow cotton, a newly profitable crop in the South. Though still sparsely populated, Alabama became a state in 1819.

Alabama remained an almost entirely agricultural state for some decades to come. Cotton was the major crop though sorghum, corn, oats, vegetables, and livestock also were important. The farm economy, particularly on large plantations, was based on slave labor. By 1860 the number of slaves in the state constituted 45 percent of the population. Large planters, only about one percent of the total, owned 28 percent of all of the state's wealth and wielded the most power in the state legislature both before and after the American Civil

War (1860–1865). They lived in columned mansions, which according to historian Virginia Van der Veer Hamilton, "betray[ed] their owners as among America's conspicuous consumers, free from Puritan scruples about showiness and lavish expenditure even when heavily in debt."

Small farmers, by contrast, led a hardscrabble life in Alabama at this time. In his *Journey in the Back Country*, Frederick Law Olmsted, a New York journalist who toured the South in 1853, noted that these farmers were hardworking yet reaped only minimal crops for their efforts. "They are very ignorant," he said. "The agriculture is wretched and the work hard."

The large planters led the movement to secede from the Union, and Alabama joined the Confederate States of America in 1861. Montgomery served as the Confederate capital until it was moved to Richmond in May of 1861, and Alabama native Jefferson Davis was elected president. After the South's defeat in 1865, a Reconstruction (1865–1877) government ruled the state for six years. It aroused the hatred of most Alabama whites, who resented both the radical Republicans and the blacks they placed in positions of power.

Although cotton was still "king" after the Civil War, many readjustments were necessary in Alabama. Without the free labor provided by slavery, landowners had to rely on landless farmers called sharecroppers who paid rent in cotton for the land they worked. This system tended to perpetuate a culture of dependency and deep divisions between wealthy landowners and poor sharecroppers.

The state attempted to diversify the economy in the 1880s and 1890s by encouraging industry, particularly the iron industry, in cities like Birmingham. The presence of coal fields and veins of iron in the state made this industry possible. In the early days in the iron mills, according to Hamilton, "Hammers rose and fell eighty strokes a minute, their steady throb audible for four to five miles on still days." Labor unrest, along with controversy over the leasing of convicts to work in the factories, plagued the iron business. The 1894 strike at Birmingham's Tennessee Coal, Iron, and Railroad Company (TCI) ended with capitulation by the workers. Thereafter labor made few strides in the state until the mid-1930s. In 1907 U.S. Steel, the country's largest steel maker, bought-out TCI. Birmingham, like its sister city in England, had become an important manufacturing city by this time.

Cotton milling also became a vital industry, employing mostly poor farm people who had lost their land after the war and were forced to work long hours

Alabama

for low wages. By 1900 nearly 9,000 workers, including children, were employed in Alabama mills. Episcopal rector Edgar Gardner Murphy led a reform movement to prevent the exploitation of child workers, who often worked 12 hours a day for as little as 15 cents a day. In 1907 the Alabama legislature set the minimum age for workers at 12, limited the work week for children to 60 hours, and forbade those under 16 from working all night.

WHEN [RURAL ELECTRIFICATION] FINALLY REACHED HER, A RURAL [ALABAMA] HOUSEWIFE EXPRESSED HER HEARTFELT GRATITUDE: "WONDER OF WONDERS, THIS DELIVERY FROM THE PRISON OF ISOLATION AND DARKNESS AND DRUDGERY."

Carl Elliott, *Annals of Northwest Alabama*, 1958

The increasing number of tenant farms in the state led to unrest among farmers in the late nineteenth century. In the 1890s many farmers joined the Grange, a cooperative organization for farmers, and, along with factory workers, supported the Populist Party in a vain attempt to overthrow longtime Democratic rule. Both African Americans and poor whites were becoming more and more disenfranchised by state Democratic administrations.

During the Great Depression of the 1930s Alabama was harder hit than most other states. One-third of the population was out of work, and private charities were overburdened. The New Deal programs of President Franklin D. Roosevelt (1933–1945) helped Alabama, one of the most destitute states, even though the federal government was viewed with suspicion by the people of Alabama. This period saw the shortening of the workweek, reform of child labor practices, and guarantees of the right to join a union. The Tennessee Valley Authority made many new industries possible, and the Rural Electrification Act brought people in remote areas from subsistence living into the twentieth century.

World War II (1939–1945) revived Alabama's industry, but the postwar period saw another relapse. War plants stood empty, and many blamed the labor and marketing practices of U.S. Steel for Birmingham's failure to compete successfully with plants in the East. In the late 1940s the Interstate Commerce Commission equalized freight rates, making it again profitable to produce steel in Birmingham.

The civil rights struggle of the mid-twentieth century brought white Alabama citizens into direct conflict with the national government. The first in a

series of protests by African Americans—the Montgomery bus boycott of 1955—took the form of an economic boycott. The young African American preacher Dr. Martin Luther King, Jr. rose to prominence during this time of social change. Since the 1960s African Americans in Alabama have gained some of the political and civil rights they sought. Their economic status, while improved, remains much behind that of whites.

Alabama has resisted progressive changes such as education, health care, and the taxation that would pay for these social programs and bring the state to the level of most other states. The tax system is regressive and even exempts from taxation the property of giant lumber companies at their market value. No property taxes go toward education, putting Alabama near the bottom of all the states in funding schools. Infant mortality is also high in the state, and in 1990 more than 20 percent of the people in Alabama lived below the federal poverty level. Citizens of the state also had difficulty recovering from the serious recessions of the 1970s and 1980–1982, which caused the loss of 39,000 jobs in manufacturing.

Alabama, however, made some important economic strides during the last few decades of the twentieth century. The economy diversified from its heavy dependence on steel. Alabama employment opened up for thousands of workers in the food, textile, metal, electronic equipment, and transportation equipment industries in the 1990s. Birmingham's U.S. Steel spent well over one billion dollars in 1984 to improve the Fairfield steel plant, and in 1997 Mercedes Benz began producing a sport utility vehicle in the town of Vance. The state provides a number of tax incentives for new businesses, and the Alabama Development Office provides assistance in financing.

See also: *Civil Rights, Civil War (Economic Causes of), Civil War (Economic Impact of), King Cotton, Reconstruction, Sharecropping*

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ALABAMA CLAIMS

During the Civil War, the Confederacy contracted with private ship builders in Liverpool England to refurbish ships for combat. The *Alabama* was one such ship. Although the British Foreign Enlistment Act of 1819 had forbidden the construction of foreign warships, the American Confederacy was still able to evade the letter of the law and purchase a number of cruisers from Britain. Confederate cruisers destroyed or captured more than 250 American merchant ships and caused the conversion of 700 more to foreign flags. By the end of the war, the U.S. Merchant Marine had lost half of its ships.

The Alabama Claims were brought against Great Britain by the United States for the damage caused by several Confederate warships, including the *Alabama* and the *Florida*. Recognizing that the affair might be used against Great Britain in some future conflict British Foreign Minister, the Earl of Clarendon, met with American ambassador Reverdy Johnson, and determined to submit the claims to arbitration.

When the Johnson-Clarendon Convention came before the U.S. Senate, Charles Sumner (1811–1874), chairman of the Committee on Foreign Affairs, opposed it on the ground that British encouragement of the Confederacy had been responsible for prolonging the war for two years, and that this cost should also be assessed against Britain. These “indirect claims,” which Sumner did not name, were variously estimated at more than \$2 billion, and Sumner implied they might be settled by the cession of Canada to the United States. The British refused to recognize the validity of the indirect claims, and the problem remained unsettled until 1871, when the Alabama claims were referred to an arbitration tribunal by the Treaty of Washington. Meeting in Geneva, the arbitrators excluded the indirect claims, but they awarded the United States \$15.5 million for the losses caused by the Confederate vessels.

The Geneva Arbitration was praised by many nations for establishing a precedent for the peaceable settlement of international disputes. Most historians today believe that the raider warships’ worst effect, rather than prolonging the course of the American Civil War, was on the U.S. Merchant Marine, which was not able to regain its pre-war standing for many years.

See also: Arbitration, Civil War (Economic Impact of)

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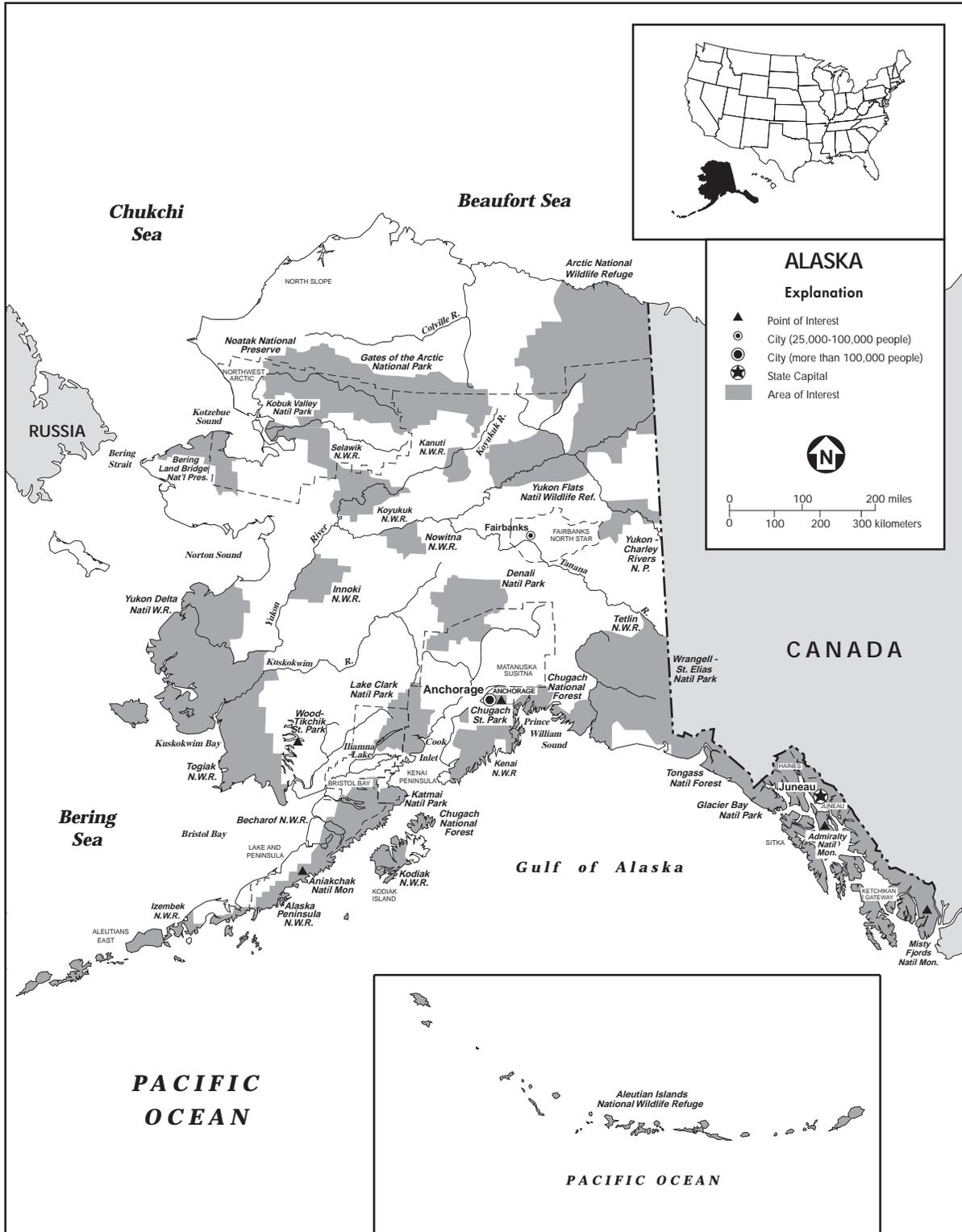
ALASKA

At first, dismissed as a foolish venture, the purchase of Alaska from Russia in the 1870s was little more than a curiosity to most people in the United States. The idea that an ice-ridden territory so far from mainland United States could have any future value to the nation was not widely accepted. But the discovery of gold on the territory, and later oil, put a new light on the possibilities of Alaska. Those willing to brave the Alaska frontier in search of valuable resources eventually established permanent settlements, which formed the basis of what became the 49th state.

Agess after the ancestors of America’s aboriginal people crossed a land bridge which then connected northern Siberia with Alaska, Russian explorers came to the area in the 1700s. The first permanent Russian settlement was on Kodiak Island; by the early 1800s, the Russian American Company was given control over the region, with headquarters at Sitka. The Russians had great difficulty with Indian uprisings, the depletion of the sea otter, and changes in the fur trade. Viewing the Alaskan colonies as a drain on their resources, the Russians agreed to sell them to the United States for \$7.2 million in 1867. Some U.S. citizens were not at all impressed with Secretary of State William H. Seward’s (1801–1872) success in acquiring Alaska, calling it “Seward’s folly” or “Seward’s icebox.” The territory was at first administered by the U.S. Army and then by the U.S. Customs Service.

The economic potential of “Seward’s icebox” was first apparent when gold was discovered at Juneau in 1880. After prospectors moved into the eastern

Alaska



interior, they also discovered gold on Forty-Mile River and at Circle. The most important gold strike, however, was in the Klondike region of Canada in 1896; soon a stampede of prospectors was crossing Alaska's Yukon and other regions. They established some of the first permanent towns in the interior.

Still a wild country with few transportation networks, Alaska nonetheless began to develop its considerable fishing and timber resources. These industries benefited when the Alaska Railroad, started in 1914, connected Anchorage and Fairbanks with Seward, a newly created ice-free port. As more and more people moved into Alaska Congress voted to grant it territorial status in 1912.

Gold continued to be mined in the territory though at a slower pace. The population began to decline in the second decade of the century and the territory saw a general state of depression throughout the 1920s. World War II (1939–1945) showed the nation that Alaska, with its proximity to Japan and the Soviet Union, was important strategically. Federal construction and military installations were increased in the territory even after the war.

Development in Alaska was accelerated considerably when the U.S. government built the Alaska Highway, an extension of the Alaska Railroad, and other facilities such as docks and airfields. These wartime and postwar improvements brought many more military personnel and civilians into Alaska. Wanting the same rights as other U.S. citizens, the newcomers pressured Congress to make Alaska a state. In 1959 they succeeded, when Alaska became the 49th state, the first one not contiguous to the lower 48 states.

The use and allocation of lands in Alaska have always been sources of controversy. The 1971 Native Claims Settlement Act provided extensive land grants to aboriginal residents of the state but did not end the controversy over land use and ownership. The discovery of oil in 1968 and in 1974 caused another economic boom in the state but also aroused the anger of environmentalists who feared damage to the state's delicate ecosystem from a proposed Alaska oil pipeline. In 1970 after an oil crisis brought on by Middle East suppliers panicked the U.S. public, much of the opposition melted; the Trans-Alaska Pipeline was built, taking oil from Prudhoe Bay to Valdez and establishing Alaska as one of the leading energy sources for the United States.

The boom created by oil enabled the state to decrease its dependence on the federal government,

increase services to its citizens, and abolish the state income tax. Other private industries did not develop as fast as the state had hoped, however. Moreover, since 82 percent of the state's revenue came from oil, Alaska was highly susceptible to the vicissitudes of the oil market. This became evident in the mid-1980s, when Middle East oil overproduction drove Alaska oil prices down from \$36.00 to \$13.50 a barrel. Alaska lost 20,000 jobs in the four years after 1985, and the state government lost two-thirds of its revenue. At the same time oil reserves in the state were being rapidly depleted.

Further damage to Alaska's oil industry occurred on March 24, 1989, when the oil tanker *Exxon Valdez* ran aground in Prince William Sound, contaminating 1,285 miles of shoreline, including the sound and its wildlife refuge, the Gulf of Alaska, and the Alaska Peninsula. After a long series of suits by the federal and state governments, Alaska received a \$1.025 billion settlement from Exxon. Exxon claims that the Prince William Sound sustained no permanent damage; Alaska's citizens, who maintain there is still visible evidence of oil contamination, are less convinced even after years of cleanup efforts.

A modest economic recovery occurred in the early 1990s, with significant growth in the fishing industry. An important segment of Alaska's economy, the seafood industry accounted for wholesale values of three billion dollars in 1990. Oil and gas production, however, continued to decline, reducing mining jobs by 11 percent in 1992; and by 1997 the decreasing supply of timber caused log exports to decline by 50 percent. During the 1990s Alaska was also engaged in a battle with the federal government over the rights to revenues from mineral leasing on federal land. Despite economic setbacks Alaska still ranked nineteenth among all states in 1996 in per capita personal income. This distinction was offset, however, by a cost of living 25–35 percent higher than the average for the other states.

As oil production declined in Prudhoe Bay in the early 1990s the state government again was forced to cut back state services. The governor of Alaska, Toby Knowles, pressured Congress to open a new area in the Arctic National Wildlife Refuge to oil and gas exploration. Again, environmentalists loudly disputed the wisdom of such a move, despite the favorable attitude of the Republican Congress. President Bill Clinton (1993—) said he would veto any such legislation. In 1998 another controversy erupted in Congress over a proposed road over a marshy wilderness from King Cove to an airstrip on Cold Bay. Proponents called it a boon to development; opponents called it a threat to the environment.

Alaska Purchase

Alaska remained highly dependent on its limited network of transportation links at the end of the twentieth century. Though the Alaska Railroad with 480 miles of track was not connected to any other North American line, it was accessible to other rail routes by rail-barge service. Crude oil and other freight from Alaska was shipped mostly from Valdez, Kenai/Nikishka, and Anchorage. The Alaska Marine Highway System provided ferry service to 32 communities in southeast and southwest Alaska. Most of the consumer goods used by Alaskans were shipped from the port of Seattle; though freight costs were still high, they were smaller than by overland routes. The Alaska Highway was the only major road link with the rest of the United States. Other roads within the state were sparse and often unimproved. Many small airports across Alaska accommodated travelers seeking other ways of traversing the state.

See also: Alaska Pipeline, Alaska Purchase, Environmentalism, Exxon Corporation

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ALASKA PURCHASE

In the mid-nineteenth century, the most economically advanced and powerful nations of Europe, such as Britain, France, and Spain, began to scramble for colonies in Asia and Africa. They shared similar motivations—to increase their economic strength through expanding trade networks and to extend their political clout through a worldwide presence. The relatively untapped resources of products and people in Asia and Africa created a trading boom for European imperial nations and increased their international prestige. In the face of growing European imperialism, the relatively young United States began to look about for its own expansion opportunities.

The opportunity was found in the United States' backyard. The region of Alaska had for years been a Russian territory. As early as 1854 and 1860 the United States and Russia had been involved in unsuccessful attempts to arrange a purchase of the land, which spanned 586,400 square miles. U.S. westward expansion, once propelled by the doctrine of manifest destiny, had cooled with the additions of Texas, California, and the Oregon territory. Improvements in transportation, including a growing network of roads, canals, and railroads, made settlement and trade in the U.S. states and territories easier. Though some political friction remained over Russian enforcement of an 1824 treaty forbidding Americans from direct trade with the Alaskan natives, Americans frequently visited the Russian harbors in Alaska, to the profit of both sides.

Alaska was explored and claimed by Russia in the mid-eighteenth century and contained numerous coastal cities with busy trading businesses. Russian population in the region, however, was low and concentrated mainly along the coastline. One of the more advanced coastal cities was Sitka. Settled in 1830, Sitka was known for its commerce and culture, and was the seat of a lucrative fur trade. Aleuts from the nearby islands gave the land the name Alaska and provided pelts for export. A multitude of Indians, Aleuts, Eskimos, and Russians worked in Sitka's warehouses, shops, flour mill, bakery, tannery, arsenal, and shipyard. Cities similar to Sitka lined Alaska's coastline.

The California gold rush in the early 1850s led to a surge in America's western population. Trade out of coastal cities such as San Francisco prospered, and American pioneers and traders soon turned their attention northward. They came to Alaska to investigate its resources and found a wealth of timber, coal, copper, gold, and oil, as well as the world's richest salmon fishing grounds. These discoveries reinvigorated U.S. interest in the area.

After 100 years of poor management and regular indifference on the part of the Russians, the territory's profitability had declined markedly by the time of the American purchase. Russia, having turned its attention to East Asia and fresh from defeat in the Crimean War of 1854, needed revenue and was willing to part with its North American territory to get it. The Russian minister to Washington, D.C., Edouard de Stoecki, and U.S. Secretary of State William H. Seward successfully arranged the 1867 purchase of Alaska for the bargain amount of two cents an acre—a total of \$7.2 million. Both sides thought they were getting the better deal.

Though the land was rich in natural resources and would prove to be a boon in fisheries and fur, the

purchase met a dubious response from the American public. Critics of the purchase referred to it as Seward's Folly or Seward's Icebox. American pioneers and traders, however, did not hesitate. Between the purchase date in 1867 and the final Alaskan gold rush in the Klondike tributaries (1896–1897), people flocked to the region, looking to make their fortunes. With the first discovery of gold in Juneau in 1881, there was never a dearth of gold seekers. Large gold strikes at Nome brought more people in a gold rush fever and, behind them, came suppliers of physical and mining needs, who also profited from the region's booming resources. Others came to Alaska to break through the mountain barriers and explore its interior, mapping the Upper Yukon, stringing telegraph line, exploring northern Alaska to the Arctic Ocean, and discovering the glacier-lined shores of 40-mile-long Glacier Bay.

CRITICS OF THE PURCHASE REFERRED TO IT AS SEWARD'S FOLLY OR SEWARD'S ICEBOX. AMERICAN PIONEERS AND TRADERS, HOWEVER, DID NOT HESITATE. BETWEEN THE PURCHASE DATE IN 1867 AND THE FINAL ALASKAN GOLD RUSH IN THE KLONDIKE TRIBUTARIES (1896-1897), PEOPLE FLOCKED TO THE REGION, LOOKING TO MAKE THEIR FORTUNES.

Almost completely disorganized from a governmental standpoint, the human stampede to Alaska finally resulted in the passage of the 1884 Organic Act, which placed Alaska under a collection of federal laws and Oregon state laws. Congress enacted a second Organic Act in 1912, providing for land ownership, mail service, and civil government (as the Territory of Alaska). This form of government prevailed until 1959, when Alaska became the forty-ninth state in the federal union.

See also: Alaska, Alaska Pipeline, Manifest Destiny

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ALASKAN PIPELINE, BUILDING OF

Native Eskimos in the Alaska territory first showed oil samples to Russians, who were looking for a northwest passage through the land in the early eighteenth century. The United States acquired the Alaska territory from Russia in 1867, and many American pioneers came to the land to take advantage of its vast natural resources, including fur, fishing, and gold. But it wasn't until the mid-twentieth century that the significance of Alaska's oil reserves were fully realized. In 1968 the oil company Atlantic Richfield discovered a large oil field in Prudhoe Bay, Alaska. Once the word was out, other companies flocked to the area. British Petroleum and Humble Oil companies joined Atlantic Richfield to coordinate their efforts as a single discovery unit. Other coalitions soon followed. Oil exploration experts projected Alaskan oil reserves on the same scale as the Middle East giants.

The best method to access Alaska's vast reserves was a pipeline which, though expensive, would allow for non-stop use of the product. A preliminary study outlined problems of constructing a pipeline across the state. One of the major stumbling blocks to its construction was the presence of permafrost, which covered much of the projected near-800 mile route. In addition, the pipeline would have to contend with severe climatic conditions, ranging from minus 70 F in the winter season to plus 90 F in the summer, as well as logistical problems in transporting and maintaining workers and equipment in a bleak, inhospitable terrain.

Alaska's North Shore yielded the largest oil reserves, and in September 1969 the state held a sale on oil leases in that area. Around 40 oil companies participated. Bidders were allowed one year to carry out exploration work, decide the value of the leases offered, and place a bid. Alaska gained \$900,040,000 from the lease sales, equaling a historically high average rate of \$2,180 per acre of oil. Most white Alaskans were thrilled with the sale. Native Alaskans and Eskimos, however, were not. They felt the transaction ignored their ownership of the land. Sympathetic environmentalists, fearing destruction of the land's natural landscape and habitat, joined in their opposition and successfully persuaded the courts to put a five year freeze on the development of the oil-rich land.

Native and environmentalist concerns about the use of the land resulted in several developments. Under the Alaska Native Claims Settlement (1971), aboriginal owners—native Alaskans and Eskimos—were accorded rights to the land, and eight oil companies paid for the privilege of working this land. Forty million acres

Alaskan Pipeline, Building of



The 800 mile Trans-Alaska pipeline carries a peak flow of 1.2 million barrels worth of crude oil a day. This is a pumping station north of Fairbanks, Alaska.

were placed into 13 native-owned-and-administered, profit-making regional corporations. Conservationists also won a provision according 80 million acres to the creation of new national parks, forests, wildlife refuges, and preserve, wild scenic rivers.

Meanwhile, oil companies geared up for production and formed the Alyeska Pipeline Service Company, a consortium to build and operate the Trans-Alaska Pipeline System (TAPS). At the same time, the oil-producing nations of the Middle East determined to take control of the oil trade. With the 1973 OPEC oil embargo, petroleum became a precious commodity. The United States looked for ways to alleviate the affects of the hard-hitting embargo. Alaska held the answer. The legal logjam on the development of Alaska's oil resources were overridden by congressional authorization, and construction on the Trans-Alaska Pipeline System began.

A U.S. Interior Department environmental impact study resulted in about 200 technical and environmental stipulations in the right-of-way agreements signed by the oil companies, the State of Alaska, and the

Interior Department. These restrictions, combined with the rugged terrain, required the most sophisticated pipeline ever designed. A master of engineering, the Trans-Alaska Pipeline System cost \$9 billion, paid for by private industry. It runs from Prudhoe Bay, on Alaska's northern Arctic Circle Coast, and zigzags southwest across nearly 800 miles to the seaport of Valdez on the Gulf of Alaska.

Before actual construction could begin, crews selected the route through aerial mapping and ground surveys. The state granted permits allowing a pipeline width of 50 to 200 feet (15 to 61 meters), maintaining restrictions in accordance to conservation laws. A highway was built to transport manpower (20,000 people at the height of construction) and supplies along the construction route. A main concern in constructing the pipeline was to protect it from erosion. Towards this end, corrosion-resistant aluminum and plastic pipe were used to construct the pipeline, which was then pointed with asphalt and wrapped in a blanket of protective material. Refrigerated brine pumped through pipes four miles below the pipeline protects it from permafrost. Bulldozers dug trenches in the spring of

1974, and sideboom tractors laid the pipe, long sections of which were welded together to form a continuous conduit, which was tested under hydraulic pressure to ensure it could handle the traffic of oil. Parts of the pipeline necessarily ran underwater. Barges lowered this section of the pipeline underwater and weighted it with concrete or steel anchors to overcome buoyancy. To address environmental concerns, 400 underpasses and pathways were provided over buried pipeline for migrating wildlife.

The Trans-Alaska Pipeline System travels for almost 800 miles, 425 feet of which run on a high-rise ditch above ground, made from 78,000 eighteen-inch diameter vertical supports planted in permafrost so delicate that a one-degree temperature increase could upset its balance. The remainder of the pipeline runs underground or under water. The pipeline is subject to incredible air temperature stress (ranging from 60 F to minus 60 F). Friction generated from pumping oil at a pressure of up to 1,180 pounds per square inch keeps the oil heated to 135 F. In addition, heavy insulation can maintain the oil at a pumpable temperature for as long as 21 days, in case of a winter stoppage.

Several precautions were devised to protect the pipeline from the environment and the environment from the pipeline. Violent earthquakes have struck within 50 miles of the pipeline's route, so it was designed to withstand shocks of 8.5 on the Richter scale. In addition, should a break occur in the pipeline, over 140 automatic or remote-controlled valves are in place to eliminate an average of 15,000 barrels worth of oil spills.

Individual wells pump crude oil to a central location along the route. From Prudhoe Bay, which has a sea level height of 4,800 feet (1,463 meters) in the Brooks Range, the long distance pipeline crosses 34 major rivers and streams, traversing the Alaska Range at 3,500 feet (1,067 meters) before descending to Valdez. Once oil arrives there, tankers carry it primarily to West Coast and to Japanese refineries.

The oil began flowing in 1977, travelling through pipes controlled by devices and valves operated mainly from points hundreds of miles away. Eight pumping stations, located 50 to 75 miles (80 to 120 kilometers) apart along trunk lines, maintain the flow of oil at desired velocities. Communication to stations along the pipeline occur through radio, teletype, telephone and voice amplifiers and enable the entire system to be shut down within ten minutes if necessary. Peak flow through the Trans-Alaska Pipeline System amounts to 1.2 million barrels of crude oil daily.

See also: Alaska, Alaska Purchase, Petroleum Industry

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ALLEN, PAUL GARDNER

Businessman-billionaire Paul Allen (1953–) recalled in 1995, "I remember having pizza at Shakey's in Vancouver, Washington in 1973 and talking about the fact that eventually everyone is going to be on-line and have [electronic] access to newspapers and stuff." Paul Allen realized that vision when he and his childhood friend, Bill Gates (1955–), co-founded the Microsoft Corporation in 1975. Their motto was "a computer on every desktop and Microsoft software in every computer."

Paul Allen was born in Seattle, Washington in 1953. His parents were both librarians and they helped both he and his sister Jody develop a wide variety of interests. From a young age, Paul Allen visited museums, art galleries, and concerts of every kind. Allen attended Lakeside School in Seattle, where he met Bill Gates. When a teletype terminal that was connected to a remote mainframe computer was installed in the school, Allen and a group of other high school kids became addicted to this early computer technology. Alongside Bill Gates, Allen became one of the first "computer nerds." Allen and his friends spent their free time around the computer and spent their money exploring the machine's possibilities. Allen later said, "I was just in love with the technology and wanted to understand it."

In 1971 Paul Allen and Bill Gates started their first computer business venture in Seattle, the Traf-O-Data Co. They developed a computerized way to analyze traffic volume data. When Intel Corp. introduced the 8008 microprocessor chip in 1972, Allen recognized that this chip could help them build smaller and more

Allocate

efficient traffic-counting computers. With that advance in technology Allen and Gates now had the idea and the tool (the microchip) to build computers for a fraction of the cost of using conventional electronics components.

Allen pursued some college during the early 1970s but became bored. He tried to convince Bill Gates to work with him in the computer business, but Gates, then a student at Harvard University, was still unconvinced of the computer's future.

PAUL ALLEN AND BILL GATES CREATED MORE WEALTH THAN ANY BUSINESS PARTNERS IN THE HISTORY OF CAPITALISM.

Brent Schlender, *Fortune*, October 2, 1995

Then, in 1975, the cover story of *Popular Electronics* magazine featured a new computer called the Altair 8800, which was to be manufactured by a company in Albuquerque, New Mexico, called MITS, and sold at a low price. This computer would be low priced. Allen and Gates recognized that anyone who bought an Altair would need one essential component: software. Without a predetermined set of commands and operations, programming the Altair would be a nightmare. Working day and night in a garage in Albuquerque, Allen and Gates adapted the application they had developed for their Traf-O-Data computers and created a new software program to operate the Altair. Their software was inexorably linked to the success of the hardware it was designed to operate, a practice that became a standard formula for success at Microsoft Corporation.

By the late 1970s Allen and Gates' new company, Microsoft Corp., was flooded with business. They moved operations to the Seattle suburb of Bellevue, Washington. At their new business location they invented the personal home computer. According to Brent Schlender in *Fortune* magazine (October 2, 1995) their invention "created more wealth than any business partners in the history of American capitalism."

In 1982, Paul Allen was diagnosed with Hodgkin's disease, a form of cancer. He spent two months receiving radiation therapy. Then, at age 30, he dropped out of active participation in Microsoft. The cancer caused Allen to reconsider his life. He traveled widely, spent time with his family and, instead of returning to Microsoft, he decided to pursue other business ventures. In 1997, Allen officially left Microsoft and his position as its resident "idea man." At the same time he was listed in *Forbes* magazine as one of the three richest men in the world. (One of the two leading him on the list was his old friend Bill Gates.)

By 1997, Allen had invested nearly two billion dollars (part of which he received upon leaving Microsoft) in broad investment allocations ranging from software companies, multi-media and electronic entertainment companies, and others. Allen hoped to use his money to pursue software development and businesses that would help "wire the world" for computers. He also invested a sizeable amount in the Seattle Seahawks football team.

In addition to his entrepreneurial pursuits, Allen also engaged in philanthropy. He helped establish a popular music museum in Seattle and created the Experience Music Project [EMP] Foundation, which funds music and arts projects in the Pacific Northwest. Other philanthropic foundations he created include organizations devoted to community service, medical research, and forest preservation.

See also: Computer Industry, Bill Gates, Microsoft Corporation

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ALLOCATE

In economics, the idea of allocation is directly related to the ideas of demand and scarcity. Generally speaking, consumers' demands usually exceed the resources that society has available to satisfy those demands. Moreover, western economists largely agree that while people's desires are, by nature, unlimited; the resources available to meet those desires are limited. The economy or marketplace must therefore find a way to "decide" which resources should be allocated to meet particular consumer desires.

The term *allocation* refers to the efficient distribution of a society's economic assets (capital, raw materials, human resources) to satisfy the demands of consumers for various products and services. An example of an economy where resources are allocated inefficiently could be a marketplace in which television manufacturers made many more black-and-white televisions, (which consumers do not want) than color televisions (which consumers do want).

In an economy like that of the United States, however, resources are usually allocated efficiently. If consumer demand for seventeen-inch computer monitors, for example, grows stronger, the marketplace will automatically transfer the resources and materials away from other uses to meet that demand. Taking a cue from the prices that consumers are willing to pay, the marketplace "knows" when to begin making more seventeen-inch monitors and fewer fifteen-inch monitors. Consumer demand for seventeen-inch monitors increase if consumers are willing to pay more for a seventeen-inch monitor than they would have in the past. When companies realize that, they can make more profit for seventeen-inch monitors than they were able to in the past; in turn, companies allocate their resources to make more seventeen-inch monitors to meet the changing demand.

The Scottish economist Adam Smith (1723–90) is credited with being the first to explain how the changing preferences of individual self-interested consumers could, like an "invisible hand," force the marketplace to spontaneously and efficiently reallocate resources to meet consumer demand. Even at the inception of a U.S. economy, technological advances and changing consumer demand has forced the marketplace to allocate resources away from once popular products to new uses. Wooden teeth, hoop skirts, flintlock rifles, steam locomotives, gas lamps, vacuum tube radios, and 78 RPM phonograph records are only a few of the thousands of the once-commonplace goods that vanished from the market because the economy's productive assets were reallocated to different products.

See also: **Laissez-Faire, Scarcity, Adam Smith**

AMERICAN FEDERATION OF LABOR (AFL)

The American Federation of Labor (AFL) was originally founded in 1881 as the Federation of Organized Trade and Labor Unions. Trade union leaders representing some fifty thousand members in the United States and Canada formed the group in Pittsburgh,

Pennsylvania. As a part of reorganizing in 1886, the association of unions changed its name to the American Federation of Labor and elected their president, Samuel Gompers (1850–1924). For nearly forty-years he shaped the AFL by fostering a policy that allowed member unions autonomy.

Unlike the open-membership policy of the Knights of Labor (from whom the AFL gained numerous members in 1886), the AFL decided to organize by craft. This decision, however, was no inhibition to growth, since its member unions included a total of 140,000 skilled laborers. Similarly, the AFL departed from pursuing long-term, abstract goals such as Knights leader Terence Powderly's objective of making "every man his own master—every man his own employer." Instead, the AFL focused its efforts on specific, short-term goals such as higher wages, shorter hours, and the right to bargain collectively (when an employer agrees to negotiate with worker representatives, usually labor union representatives).

In the 1890s the AFL was weakened by labor violence which raised public fears over labor unions. A July, 1892, strike at the Carnegie Steel plant in Homestead, Pennsylvania, turned into a riot between angry steelworkers and Pinkerton guards. The militia was called in to monitor the strike; five months later, the strike ended in failure for the AFL-affiliated steelworkers. Nevertheless, membership of the AFL grew to more than one million by 1901 and to 2.5 million by 1917. At that time the AFL included 111 national unions and 27,000 local unions.

The AFL inaugurated many important advances on behalf of laborers. By collecting dues from its members, the federation was able to create a fund to aid striking workers. By avoiding party politics, they were able to seek out and gain the support of labor advocates regardless of political affiliation. The AFL worked to support the establishment of the U.S. Department of Labor (1913) which, in turn, administered and enforced statutes promoting the welfare and advancement of the American work force. The AFL also supported the passage of the Clayton Anti-Trust Act (1914), an important piece of legislation which protected the interests of organized labor in three important ways. Price fixing was outlawed (the practice of pricing below cost to eliminate a competitive product). Executives could no longer manage two or more competing companies (a practice called interlocking directorates). And corporations were prohibited from owning stock in a competing corporation.

See also: **Clayton Anti-Trust Act, Congress of Industrial Organizations (CIO), Samuel**



AFL president George Meany (*left*) and CIO president Walter Reuther (*right*) officially opened the AFL-CIO convention on December 5, 1955, that joined these historically divergent organizations.

Gompers, Homestead Strike, Knights of Labor, Labor Movement, Labor Unionism, Trade Unions

AMERICAN PLAN

The American Plan was an employer offensive against unions in the years immediately following World War I. Spawned in the conservative reaction to the great changes that accompanied the First World War, this anti-union drive was promoted by the National Association of Manufacturers and driven by the anti-foreign violence of nationalist groups like the American Legion and the American Protective League. The American Plan included anti-boycott associations, the open shop drive, and the general message that unions were un-American havens of immigrant radicals.

The American Plan received impetus from the Red Scare, a government campaign against war-time dissent. This campaign peaked with the government's

reaction to a huge wave of strikes and anti-capitalist violence that broke out in 1919. Like the American Plan, the Red Scare identified radicalism with immigrants and unions. A. Mitchell Palmer, Attorney General under President Woodrow Wilson, and his ambitious assistant, J. Edgar Hoover, orchestrated the "Palmer Raids," a round-up of immigrants on New Year's Day, 1920.

The combined result of this repressive atmosphere of the American Plan plus the Red Scare was the shrinking of the size of the labor movement. The number of unionized workers, which had grown by 1.5 million from 1917 to 1919, fell again from a total of 5 million in 1920 to less than 3 million in 1929.

See also: **Woodrow Wilson**

AMERICAN PLANTS

American plants are broadly defined as those plants native to North, Central, and South America as

well as the Caribbean islands. When the Europeans first arrived in the Western Hemisphere in 1492, they discovered an abundance of indigenous foods unknown to Europe. Many of these plants had been cultivated by the Native Americans for hundreds of years and had provided for their subsistence. Some of these indigenous plants became staples in European and U.S. diets such as maize (corn), sweet potatoes, potatoes, peppers, plantains, pineapples, wild rice, squash, tomatoes, cacao (chocolate beans), peanuts, cashews, and tobacco. Moreover, because early explorers transported these plants back to Europe, their cultivation spread to suitable climates around the world.

See also: Corn, Potatoes, Rice, Tobacco

AMERICAN RAILWAY UNION (ARU)

Founded in June 1893 by labor organizer Eugene Debs (1855–1926), the American Railway Union (ARU) was an industrial union for all railroad workers. The union grew quickly and met with early success before its demise a few years later. Within a year of its founding, the ARU established 125 locals, and membership increased daily. In April 1894, ARU workers at the Great Northern Railroad voted to strike in response to wage cutting. The strike shut down the railroad for 18 days before the company agreed to restore wages. The union triumphed.

Later that same year workers at the Pullman Palace Car Company, which manufactured railcars in Pullman, Illinois (near Chicago), went on strike, protesting a significant reduction in their wages. In 1894, Pullman was a model “company town” where the company founder George W. Pullman (1831–1897) owned all the land and buildings and ran the school, bank, and utilities. In 1893, in order to maintain profits following declining revenues, the Pullman company cut workers’ wages by 25 to 40 percent, but did not adjust rent and prices in the town, forcing many employees and their families into deprivation. In May 1894 a labor committee approached the Pullman company management to resolve the situation. The company, which had always refused to negotiate with employees, responded by firing committee members. The firings incited a strike of all 3,300 Pullman workers.

Pullman leaders were able to break the strike by attaching their cars to U.S. Mail trains. Since it was illegal to interfere with the delivery of the mail, Pullman workers now broke federal law when they obeyed

their leader Eugene Debs and refused to return to work. President Grover Cleveland (1893–1897) ordered federal troops to insure the passage of the mail trains. Government intervention led to violent confrontations, and the strike was broken.

The American Railway Union was destroyed by the Pullman strike failure. Despite public protest, Eugene Debs was tried for contempt of court and conspiracy and was imprisoned for six months in 1895.

See also: Eugene Debs, Pullman Palace Car Company, Pullman Strike

AMERICAN REVOLUTION

The American Revolution (1775–1783) was a rebellion of 13 of Great Britain’s North American colonies. The colonies won their independence from the British crown and went on to form the United States of America. Although the revolution began as a civil war, France, Spain, and the Netherlands eventually joined the American side, transforming the struggle into an international conflict.

The revolution had not only national but also global significance: it defined the character of the modern political system by establishing a pattern of rule based on democratic constitutional governance. At the time, the American Revolution was a lone and fragile challenge to the prevailing monarchical and autocratic systems of rule on the European continent and elsewhere. By the twentieth century, however, the American model of governance achieved global currency. Virtually all governments—democratic or otherwise—now attempted to legitimate their rule by invoking the “the will of the people.” Even avowedly authoritarian governments usually argued that the suppression of democratic freedoms was only temporary.

The decision to go to war stemmed from fundamental differences between Britain and the American colonies over the legislative and fiscal authority of the British Parliament—specifically, the power of the parliament to tax the colonies without their representation in that institution. The conflict came to a head as Britain set out to levy new taxes on the colonies to meet the costs of the French and Indian War (1754–1763). Although Britain was victorious in the war, which concluded with the Treaty of Paris in 1763, its treasury was significantly depleted. The fiscal burden grew even larger when Britain decided to keep its forces at near full strength in the colonies in the event of renewed hostilities with France. Britain expected the



Washington and the main American force settled into winter quarters at Valley Forge, Pennsylvania. The privations endured by the troops that winter were extensive, and many died from starvation and exposure to the elements.

colonies to help pay its war debts and to support its standing armies in North America.

Through a number of acts—including the Sugar Act (1764), the Stamp Act (1765), and the Townshend Duties (1767)—the British Parliament sought to raise revenue in the colonies. Americans vehemently responded to these impositions, arguing that their colonial legislatures alone had the authority to levy such taxes since the colonists enjoyed no representation in Parliament. Britain remained adamant. Increased colonial resistance led to the imposition of the Coercive Acts in 1774. These were attempts by Parliament to restrict the power of local colonial government, particularly in Massachusetts, a hot-bed of revolutionary agitation. This effort at repression had the opposite effect, mobilizing the other colonies to join Massachusetts in protest. While at the beginning most colonists were willing to remain British subjects, as the conflict escalated they became convinced that full independence was necessary. The colonies began to prepare for armed resistance.

The success of colonial arms against the British owed much to the leadership of George Washington (1732–1799) and to the intervention of France. In June 1775 the delegates to the Second Continental Congress unanimously approved Washington’s appointment as commander in chief of the newly created Continental Army. This decision was based in part on political

considerations. Northern revolutionaries, who had dominated thus far in the struggle against the British, saw Washington’s appointment as a means to bind the South to the perilous venture. The fact that Washington did not display aggressive political ambitions and did not seem likely to use his military powers for political purposes also weighed heavily in his favor. The delegates also understood that Washington’s military training and experience, together with his personal authority, were unmatched assets to the insurgent colonies.

Washington now faced a Herculean task. The colonials stood alone against the enormous power and prestige of Britain’s armed forces, fielding only a ragtag collection of national volunteers (“Continentalists”) and inexperienced state militias that served for only months at a time. There was no coherent system to produce and distribute munitions, supplies, and clothing, all of which remained in grievous shortage throughout the war. To make matters worse, there was no legitimate and effective national government that might improve these perilous conditions. Instead, Washington had to deal with a weak Continental Congress and 13 fractious state governments that jealously guarded their rights and prerogatives.

Against all odds Washington overcame these crippling disabilities. Skillfully maneuvering amid domestic political and economic obstacles and periodic opposition from within the Continental Congress, he forged

an army that eventually stood toe-to-toe with British regulars, either winning the field or retreating in good order.

The road to this outcome was long and hard. The heady first encounters with the Redcoats at Bunker's and Breed's Hill, and then the British evacuation of Boston under American pressure in March 1776, were followed by a string of defeats. Yet Washington was at his best when disaster seemed unavoidable. He turned the seemingly endless and demoralizing retreat from New York and through New Jersey into victory in late 1776 when he forded the partly frozen Delaware River and defeated superior British and mercenary forces at Trenton (December 1776) and Princeton (January 1777). These bold and unexpected victories energized the American army and public, as did the victory of American forces under Horatio Gates at Saratoga in October 1777.

Despite these successes, the future still appeared bleak. Washington and the main American force settled into winter quarters at Valley Forge, Pennsylvania, after suffering important (and humiliating) defeats at Brandywine (September 1777) and Germantown (October 1777). The privations endured by the troops that winter were extensive, and many died from starvation and exposure to the elements. The army was further decimated by desertions and a widespread failure to reenlist. Nevertheless, the Continental Army emerged rejuvenated in the spring of 1778. Under Washington's supervision, Baron Friedrich von Steuben transformed what remained of Washington's force into a disciplined and effective fighting weapon.

Equally important, the stalwart resistance and dogged survival of American arms (especially the American victory at Saratoga in New York state) convinced the French in May 1778 that the colonial forces had a good chance of winning the war. This led them to lend vital support to Americans in their struggle. Now France would have a chance to defeat its old rival, after being ousted from so many of its colonial possessions by Britain in the French and Indian War. Ironically, Washington, who had fought with the British against France, now became a willing instrument of the French attempt to knock Britain from the global chessboard. The coup de grace for the British came in October 1781 with a masterstroke by Washington. Commanding the combined American and French forces, Washington brilliantly maneuvered to envelop Yorktown, Virginia, by land and by sea, trapping British General Lord Cornwallis and forcing him to surrender. The independence of the colonies was now assured. As the opponents met at Yorktown to discuss

Washington's terms of surrender, the shock and enormity of the American victory was poignantly underlined by the British band as it played "The World Turned Upside Down."

See also: Townsend Acts, George Washington

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AMERICAN REVOLUTION, LOYALTY TO GREAT BRITAIN DURING (ISSUE)

From a potential pool of about 800,000 men, the Continental Army was never able to attract more than 20,000 during the American Revolution (1775–1783). One important reason for the discrepancy in numbers was that the American Revolution had few ideological supporters. On one side, an educated group of middle-class patriots composed of lawyers, merchants, and planters led an underclass of farmers and urban laborers who were enticed by radical ideas regarding the evils of aristocratic privilege. On the other side were loyalists, a less vocal group of Crown civil servants, landed wealth, and Anglican clergy. Caught in the

middle were the majority of colonists with no perceived economic interest or political loyalty. These colonists acted as a buffer between patriots and loyalists, maintained economic production purely out of self-interest; their presence perhaps prevented an all-out, “total” war during the American Revolution.

Even those patriots who were quick to bear arms during the early years of the War were not fighting for independence—they were fighting for their rights as Englishmen within the British Empire. Although many did believe that independence would inevitably come, most colonists maintained loyalty to King George III of England who, they assumed, was being misled by corrupt court ministers conspiring to enslave the colonies. Even as late as May, 1775, when the Second Continental Congress met in Philadelphia, the assembly insisted that the colonies were protecting themselves from these ministerial “conspirators” and that reconciliation would occur as soon as the King restrained his advisers. For many American colonists, the benefits of membership in the British Empire had offset its costs. Naval protection, access to a large free-trading area, easy credit, cheap manufactures, and restricted foreign competition had all contributed to a strong sense of loyalty to Britain and the Crown.

EVEN THOSE PATRIOTS WHO WERE QUICK TO BEAR ARMS DURING THE EARLY YEARS OF THE WAR WERE NOT FIGHTING FOR INDEPENDENCE—THEY WERE FIGHTING FOR THEIR RIGHTS AS ENGLISHMEN WITHIN THE BRITISH EMPIRE.

As many as twenty thousand Loyalists fought with the British. In New York, the Tory Rangers and the Royal Greens, and in the Southern states, Tarleton’s Legion and Rawdon’s Volunteers all fought bravely for the British Crown. But their numbers were never as great as was expected. In the Mohawk, Wyoming, and Cherry valleys and at King’s Mountain and Hanging Rock their organization and training didn’t match their courage.

One of the most visible signs of British loyalty before and during the war was land. Before 1775 British officials in the colonies had obtained large estates granted by the crown. Sir John Wentworth, governor of New Hampshire had extensive land in that colony. In 1775 Sir John Johnson inherited 200,000 acres in New York from his father while the Van Cortlandt, Smith, De Lancey, Bayard, and Philipse families owned as much as three hundred square miles of land. Sir William Pepperrell guarded a thirty mile tract of land along Maine’s coast while Sir James

Wright, royal governor of Georgia held twelve plantations totaling more than 19,000 acres and worth over \$160,000.

By 1781 the tide had already changed in favor of the patriot cause. Anyone still remaining neutral was likely to be mistaken for a Loyalist, which by that time, carried serious consequences and costly penalties. Loyalist homes were attacked, their jobs lost, and all legal action was denied them. In order to raise money to meet the escalating costs of war, many states began confiscating land once owned by loyalists. Those serving in Britain’s armed forces or leaving a state under the protection of British troops were likely to have their land, homes, and estates seized and sold at public auction. Beginning in 1777 states began the practice of banishing prominent Loyalists and everywhere Loyalists ran the risk of being tarred and feathered.

By 1783, it is estimated that as many as eighty thousand Loyalists went into exile. A thousand left Boston in 1776 with British Commander William Howe while four thousand left Philadelphia in 1778 with Commander Henry Clinton. A few thousand left Charleston and New York with the British at the end. Most went to Florida, Jamaica, Saint John, Halifax, and Britain.

The state of New York raised about \$3,100,000 from sale of some 2,500,000 acres from 59 loyalists. After the war, 2,560 loyalists petitioned the British government to compensate for property losses. By the terms of the Treaty of Paris (1783), Congress was not to oppose the collection of debts and the states were urged to restore Loyalists property. The Loyalists received awards amounting to 3,292,000 pounds sterling from the British government but none from the states themselves who refused to “make good” on their promises.

Historians have failed to adequately recognize the significance of the size and fate of the loyalist element in the American economy. Their disappearance was immensely important not only in terms of the large estates they left behind, but also with respect to the void their absence made within the social and economic structures of the old colonial aristocracy. The vacuum left room at the top for a new generation and a new class of newly-rich U.S. citizens.

See also: American Revolution

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AMERICAN SMELTING AND REFINING COMPANY

Meyer Guggenheim (1828–1905) a man of humble beginnings, arrived in Philadelphia from Switzerland in 1847. Struggling to support his family, he sold household goods in the coal towns of northeast Pennsylvania. Peddling goods led Guggenheim to manufacture a polish for stoves. Realizing the profits to be made from manufacturing, Guggenheim began to produce and sell lye, a synthetic coffee, and other goods. Guggenheim eventually built a prosperous wholesale business in household goods. By 1868, Meyer Guggenheim had fathered seven sons, whom he trained to become one of the best management teams in the nation.

Sending two sons overseas, Guggenheim established machine-made lace factories in Switzerland, which enabled him to import and sell fine laces and embroideries into the United States under the firm name of “M. Guggenheim’s Sons.” In 1879, at the age of 51, Meyer Guggenheim had amassed a fortune. After acquiring interests in Colorado lead and silver mines in 1881, Guggenheim invested \$20,000 for operational costs. These proved to be some of the richest mines in the area. By 1888 they were producing approximately \$750,000 a year. The Guggenheim metal empire had just begun.

Meyer Guggenheim became aware that smelters generated more profit than the mining of ore. In 1888 he built a smelter in Pueblo, Colorado, and started the Philadelphia Smelting and Refining Company. With

his next step, Guggenheim consolidated some of his various businesses, including his share of Philadelphia Smelting, under the name of “M. Guggenheim’s Sons.” Guggenheim then delegated various duties among his seven sons.

The Guggenheims had been importing ore from Mexican mines for their Pueblo smelter. With the introduction of the McKinley Tariff Act of 1890, this proved to be a far more expensive venture. The Guggenheims went on to build two smelters in Mexico, taking advantage of the cheaper Mexican labor rates, and they were able to avoid the tariffs. With the passing of the Sherman Silver Purchase Act (where the U.S. Treasury Department agreed to buy four million ounces of silver every month) in 1890, the price of silver rose sharply. In 1895, in addition to being one of Mexico’s largest industrial giants, the Guggenheim smelter operations were producing in excess of \$1 million a year.

In an attempt to dominate the nonferrous metal industry, Henry H. Rogers (1840–1909) along with William Rockefeller and brothers Adolph and Leonard Lewisohn formed the United Metals Selling Company in the 1890s. The even larger launch of the American Smelting and Refining Company (officially renamed ASARCO in 1975) was assembled in 1899. This included the amalgamation of 23 other smelters. The Guggenheims refused an invitation to join the American Smelting and Refining Company. Instead, they formed the Guggenheim Exploration Company. With the assistance of son Daniel Guggenheim (1856–1930), the Guggenheims had mining operations in all parts of the world by the end of the nineteenth century.

Problems arose for American Smelting in 1900; mineworkers were striking against 12-hour days and the company’s capital was estimated at too high an amount. American Smelting began to flounder. Daniel Guggenheim’s strategy to drive the price of lead and silver down by flooding the market, worked. As ASARCO stock prices fell, Daniel Guggenheim bought it up. In April 1901, under the Guggenheim’s terms, American Smelting and Refining Company and the Guggenheim family, merged. With the Guggenheims having controlling interest, Daniel Guggenheim became chairman of the board and president of ASARCO; Solomon Guggenheim became treasurer; and Isaac, Murray and Simon Guggenheim were named as members of the board. Expansion and acquisitions continued as Daniel Guggenheim increased the family business holdings to include mines in Bolivia, Chile, Alaska, and the Congo. When Daniel Guggenheim resigned as president in 1919, Simon Guggenheim assumed leadership of American Smelting and Refining Company.

Murray and Solomon Guggenheim, also gave up their board positions, at that time.

At the start of the Great Depression (1929–1939), American Smelting and Refining Company was the largest refiner of nonferrous metals in the world with a net income of about \$22 million. Business declined though, and by 1932 ASARCO had suffered a \$4.5 million deficit. ASARCO continued to expand, despite hard times, and acquired a huge source of scrap metal with the purchase of Federated Metals Incorporated. In 1934, ASARCO invested \$8 million in a mine at Mount Isa, Australia, which supplied copper during World War II (1939–1945). The huge extent of the mine's copper deposit was not known until 20 years later.

Upon the death of Simon Guggenheim in 1941, ASARCO's bylaws were changed to make the of chairman of the board into the chief executive officer. Francis H. Brownell, already chairman in 1941, was in charge until Roger Straus, son-in-law of Daniel Guggenheim, took over in 1947. A member of the Guggenheim family was always at the helm of ASARCO until 1958, when John D. MacKenzie became the chief executive officer.

A prolonged copper strike in 1959 kept ASARCO's 13 U.S. smelters and refineries shut down for one hundred and thirteen days. Due to the decline in lead and zinc prices, ASARCO focused on copper mining, entering the 1960s still the world's leading custom smelter. By 1963, ASARCO was the forth-largest copper producer behind Kennecott, Anaconda, and Phelps Dodge. Copper comprised nearly two-thirds of ASARCO's revenue in the early 1970s, with aggregates, lead, molybdenum, silver, specialty chemicals, and zinc taking up the balance. From 1974 to 1978, labor problems, market fluctuations, and anti-pollution regulations, impeded the growth of ASARCO. Despite the high demand for copper in the early 1980s, the price was dropping due to a copper glut on the market—ASARCO lost \$304 million in 1984. Richard J. Osborne stepped in as CEO and chairman of the board in 1985. Osborne restructured, renegotiated, and redeveloped ASARCO's financial health, and by 1987, ASARCO had bounded back.

ASARCO increased its copper holdings and continued to diversify with the purchase of two more chemical companies. The mining operations were suspended at two silver mines in 1992, due to a drop in the price of silver. In 1994, ASARCO sold its gold-mining operations in Australia. A leader in mining, refining, and smelting of nonferrous metals, ASARCO's interest in mined copper reached one billion pounds, for the first time in 1996, indicating that this company's firm

hold on the copper industry would continue well into the 21st century.

See also: Daniel Guggenheim

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AMERICAN SYSTEM OF MANUFACTURES

The American System of Manufactures was an innovative method for producing finished goods. In essence, the American System of Manufactures relied on precision machining of parts so that the total product was standardized and featured interchangeable parts. The earliest practitioners of the American System were small arms manufacturers.

It was earlier thought that Eli Whitney, who designed the cotton gin, was responsible for the innovation regarding the interchangeability of parts in small arms manufacturer. This claim was erroneous, however. Most scholars now believe that another inventor by the name of Simeon North deserves credit for that advance. In 1798 the U.S. federal government awarded an order of five hundred “horse pistols” to North, who organized production so that one individual did only one operation.

This innovation of using the division of labor in manufacture was important, but it was only one element of the American System. In 1808 North received another order from the federal government—this one for twenty thousand pistols. The contract stipulated that the parts were to be interchangeable: “the component parts of pistols, are to correspond so exactly that any limb or part of one pistol may be fitted to any other pistol of the twenty thousand.” (Hounshell, 28)

The system had far-reaching effects on American industry. It spelled the end of the handicraft methods of cottage industry and accelerated the move of American laborers from their home enterprises to factories. It made for more reliable repair of the finished product. It also allowed industrial managers to hire unskilled labor to produce a great number of goods at once, rather than one at a time. By the mid-1800s the system had revolutionized manufacturing. New technologies combined with the nation's plentiful raw materials and an ever-growing number of laborers to transform the United States into a leading manufacturing society.

See also: Mass Production

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AMERICAN TOBACCO COMPANY

The story of the American Tobacco Company begins with Confederate veteran Washington Duke, a tobacco trader in North Carolina during the post-Civil War period. In 1878 Duke and his two sons, James Buchanan Duke (1856–1925) and Benjamin N. Duke (1855–1929), founded W. Duke, Sons & Co. It was part of a plan that eventually enabled them to have corporate control over almost the entire U.S. tobacco industry. In 1890 the Duke family created a trust, known as the American Tobacco Company, the result of a merger of the five principal cigarette manufacturers of this era: Goodwin & Co., Williams S. Kimball & Co., Kinney Tobacco Co., Allen & Ginter, and W. Duke, Sons & Co.

In 1911 the U.S. Court of Appeals determined that this tobacco trust was in violation of the Sherman Anti-Trust Act. The trust was ordered to break down into 16 separate corporations. The emerging leaders were Liggett & Myers, R.J. Reynolds, Lorillard, and the American Tobacco Company—which retained the title of the now defunct trust.

In 1912 Percival Hill, an assistant to James B. Duke, became president of the American Tobacco Company. Because of his gentle manner and his preference for being a follower instead of a leader the company lost ground under his guidance. His son, George Washington Hill, became president of the company in 1925. He was a more aggressive and efficient leader and is credited with introducing more



Cigarette smoking became extremely popular among women during the 1920s. The direct advertisement campaigns featuring beautiful women contributed to this increase in female smokers.

people to smoking than anyone else in history. Between 1917 and 1938, Hill spent approximately \$250 million in advertising. Hill also made cigarette smoking extremely popular among women during the 1920s. The slogan “Reach for a Lucky instead of a sweet”

Americans with Disabilities Act (ADA)

inspired many women to switch from eating candy to smoking cigarettes. It also seemed to appeal to weight-conscious women who believed that smoking was a healthful practice. Advertisements featured beautiful young women smoking Lucky Strike cigarettes, the most recognized brand in the United States by the 1930s. During this time many show business and news personalities, including Rita Hayworth, Frank Sinatra, and Jack Benny, were paid to promote Lucky Strikes on the radio.

The American Tobacco Company made financial gains during the 1920s and 1930s, finally attaining market leadership in 1940. Brilliant examples of product promotion occurred during World War II (1939–1945). The war effort needed dyes and Hill transformed this into a windfall for the company. Eliminating the need for dyes in product packaging, Hill changed the Lucky Strike packages from green to white and came up with the slogan “Lucky Strike Green has gone to war.” He also developed the slogan LS/MFT (Lucky Strike Means Fine Tobacco)—which was clicked in Morse code over the radio. These strategies succeeded in introducing more people to smoking.

The death of George Washington Hill in 1944 signaled the end of the American Tobacco Company as a leader in the cigarette industry. An increasing amount of people were switching to filter-tip cigarettes, but the American Tobacco Company still relied heavily on the popularity of its Lucky Strike and Pall Mall brands, which did not have filter-tips until 1963, long after the other important manufacturers had converted. In the 1950s, the British Medical Resource Council and the American Cancer Society published reports claiming that tobacco was a danger to heavy smokers. Further suggestions from the medical community implied that smoking could lead to high blood pressure, heart disease, lung cancer, and numerous other health problems. On January 1, 1966, cigarette packaging was required to carry health warnings. Cigarette advertising on television was prohibited in the United States on January 1, 1971. As a result of these developments, Lucky Strikes and the American Tobacco Company continued to decline both financially and in the public’s eyes.

In order to avoid financial disaster, the American Tobacco Company began to diversify. It purchased Sunshine Biscuits and James Beam Distilling in 1966, followed by Bell Brand Foods and Duffy-Mott in 1968. The company changed its name to American Brands in 1970, and that same year bought a variety of office equipment companies. Franklin Life Insurance was purchased in 1979.

By 1998, the company was known as Fortune Brands, Inc. and had extended its reach worldwide, with offices as far as Hong Kong, Singapore, and Buenos Aires, Argentina. Products offered included distilled spirits, office supplies, hardware, golfing equipment, cigarettes, and home improvement goods. The company’s sales surpassed \$5 billion in 1998.

See also: James Buchanan Duke, Tobacco Industry, Tobacco Trust

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AMERICANS WITH DISABILITIES ACT (ADA)

The Americans with Disabilities Act (ADA) is a revolutionary piece of civil rights legislation. The law is designed to protect the civil rights of people who have physical and mental disabilities, in a manner similar to the way that previous civil rights laws have protected people who are of various races, religions, and ethnic backgrounds. The ADA mandates changes in the way that both private businesses and the government conduct employment practices and provide products and services to the general public to ensure that all Americans have full access to, and can fully participate in, all aspects of society. It was the first federal law that required privately-financed businesses to provide physical accessibility in existing buildings. The ADA requires the removal of barriers that deny individuals with disabilities equal opportunity and access to jobs, public accommodations, government services, public transportation, and telecommunications. On July 26, 1990, President George Bush signed the ADA into law.

The legal structure of the ADA is based on those of the Civil Rights Act of 1964 and the Rehabilitation Act of 1973, and much of its wording is taken directly from these earlier Acts.

AMES, OAKES

Oakes Ames (1804–1873) was a U.S. manufacturer and five-term member of the United States House of Representatives. He was the principal financier of the Union Pacific Railroad, the eastern half of the first transcontinental railroad. Unfortunately, in his zeal to complete this railroad project, Ames made several errors in judgment. His questionable business practices eventually led to his censure by Congress.

Oakes Ames was the eldest son of Oliver Ames, Sr. and Susannah Angier, born on January 10, 1804, in Easton, Massachusetts. His father was a socially prominent manufacturer who owned a well-known shovel factory. Ames attended local schools until he was sixteen and then spent some months at the Dighton Academy.

Ames had an early interest in business. As a teenager he and his younger brother, Oliver, Jr. (1807–1877), began working for their father as general laborers. They started at the bottom of the company and worked long hours at a variety of tasks. Both boys worked their way up to management positions. When their father retired in 1844, Oakes and Oliver, Jr. reorganized the company under the name Oliver Ames and Sons and served as co-presidents.

The Ames brothers rapidly expanded the already successful business. The California gold rush, the settlement on the Western frontier, and the growth of the railroad industry all fueled demand for their products. In addition, the company was awarded several government contracts to supply equipment during the American Civil War (1861–1865). By 1865 Oliver Ames and Sons was worth over \$8 million.

A successful businessman, Oakes Ames became involved in politics as a member of the Republican Party when he was in his fifties. He served as a close business advisor to the governor of Massachusetts. In 1862, at age of fifty-eight, Ames ran successfully for the Massachusetts second district seat in the United States House of Representatives. He was reelected four times and served in Congress until his death. As a Congressman Ames served on committees related to manufacturing and railroads.

The Ames brothers shared an interest in railroads and, in 1865, extended that interest to business ventures. Oliver Ames and Sons built the four-mile long Easton Branch Railroad. It began at a shovel works in Stoughton, Massachusetts, and continued to a connection with a line bound to Boston. Railroad-related business pursuits continued. In 1865, the brothers became interested in the Union Pacific Railroad, the eastern half of the first transcontinental railroad under construction. They joined a company called the *Crédit Mobilier*, the construction company and investment project for the railroad.

The *Crédit Mobilier* was organized by T.C. Durant, vice president of the Union Pacific to solve the railroad's financial difficulties and to complete the building of the railroad. It was a complex and corrupt scheme in which a small group of financiers contracted with themselves or their associates to construct the railroad, charging exorbitant prices for their services. Durant and his cronies pocketed huge profits for construction that was often faulty.

Dissension within the ranks of the *Crédit Mobilier* led to a reorganization of the company and its railroad interests. Oakes Ames stepped into the leadership of the *Crédit Mobilier* and his brother Oliver became president of Union Pacific Railroad. Oakes Ames won contracts to construct the Union Pacific railroad line. He then reassigned the contracts to trustees who served as stockholders of the *Crédit Mobilier*. The Union Pacific gave cash to the *Crédit Mobilier* to construct the railroad. The *Crédit Mobilier* instead used much of the money to buy stocks and bonds in Union Pacific at face value. These were later sold in the open market at a large profit for the investors, who all served the *Crédit Mobilier* company.

Thus, while the Union Pacific railroad line was slowly being built, the *Crédit Mobilier* investors were getting rich. This labyrinthine way of doing business garnered large profits for the investors. It was a cut-throat way of doing business, but was not uncommon at the time. The practices, however, did draw the attention of the United States Congress. As a Congressman, Oakes Ames was expected to support free market activities. In reality, his business practices appeared more like that of a monopoly. When Congress started to raise questions about this practice Ames sold Union Pacific stock to other members of Congress, also at face value. When this was revealed he was then accused of buying political support for his business interests.

In 1872 two Congressional committees were formed to investigate whether or not the government had been defrauded by the *Crédit Mobilier*. Certain members of

Congress wanted Ames expelled for illegal business practices. Ames defended himself by claiming his motives were purely patriotic because the railroad was important for the development of the country. He also argued that he had not become wealthy from the business dealings because the railroad was \$6 million in debt at the time of its completion. Many members of Congress and the public agreed that while Ames had compromised legal principles he was not consciously corrupt. However, his desire to complete the Union Pacific project had clouded his ethical judgment. In the end Ames was not expelled from Congress, but he was censured.

After the *Crédit Mobilier* scandal, Ames returned to his hometown, depressed and in poor health. He suffered a stroke and died a few days later, on May 8, 1873. The memorial hall in North Easton was dedicated to him in 1881, and in 1883 the Union Pacific erected a monument in his name in Sherman Summit, Wyoming.

See also: Oliver Ames, Railroad Industry, Transcontinental Railroad, Union Pacific Railroad

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AMES, OLIVER

Oliver Ames (1807–1877) was a successful manufacturer, businessman, and politician. He is best known for his role as director of the Union Pacific Railroad, the eastern half of the first transcontinental railroad. Ames helped finance the project and oversaw its construction.

Oliver Ames was born on November 5, 1807 in Plymouth, Massachusetts, one of six sons born to Oliver Ames and Susanna Angier. His father owned a successful shovel manufacturing company in Bridgewater, Massachusetts. Ames was raised in North Easton, 20 miles south of Boston. At the age of 21 he went to study law at the Franklin Academy at North Andover. He studied there for 18 months and worked briefly in an attorney's office. After this short introduction to law, Ames decided that he did not enjoy working in an office and joined his father's company.

Oliver Ames and his brother Oakes Ames joined their father at the Ames Shovel Works. They entered the company at the bottom, working 10-hour days, six days a week. By the early 1840s, both boys had worked their way up to management positions. In 1844, Oliver Sr. retired and Oliver Jr. and Oakes reorganized the company as Oliver Ames and Sons. The boys served as co-presidents of the firm.

The company owned a water-powered plant that produced several types of tools, but specialized in shovels. They established a foothold in the market by creating a lighter shovel. At first the new product was thought to be less durable than the older, heavier shovels. But the lighter shovels allowed workers to be more productive and the product proved a great success. The company supplied shovels to thousands of western settlers and California gold miners. In addition, the growth of the railroad industry fueled the demand for the Ames' products. By 1860 the company was worth over 4 million dollars.

Oliver Ames also had an interest in politics. In 1852 he was appointed as a Whig to the Massachusetts State Senate. In 1857 he was popularly elected to the same position. His stint in politics, however, was brief. After his second term, Ames chose not to run for reelection and instead returned to his business interests.

In the 1850s Oliver and his brother became increasingly interested in the budding railroad industry. In 1855 they built the four-mile Easton Branch Railroad from the shovel works in Stoughton, Massachusetts, to a point where it connected to a Boston-bound line. Ames later served as director of the Old Colony and Newport Railroad, which took control of the Easton Branch Railroad.

During the American Civil War (1861–65) Oliver Ames and Sons won several government contracts to supply shovels, swords, and other equipment. By 1865 the firm's worth had increased to 8 million dollars and the Ames brothers had surplus money for investing. They decided to invest their money in the railroad

industry, particularly in the Union Pacific Railroad, which was the eastern half of the first transcontinental railroad. Oliver and Oakes purchased large quantities of stock in the Union Pacific *Crédit Mobilier*, a construction company and investment project for the Union Pacific. Ames was able to invest a large amount of money in the project. He invested more than 1 million dollars of his own money into the railroad and raised an additional 1.5 million dollars on the credit of the family business. In addition, the Ames brothers placed the resources of their factories at the disposal of the railroad.

In 1866 Oliver Ames became acting president of the Union Pacific Railroad and was elected as president from 1868 to 1871. With Oliver's careful management and financial backing, the railroad flourished. Four-fifths of the line was built during his tenure as president. Despite engineering difficulties, rough terrain, and labor problems, the project was finally completed on May 10, 1869, when the Union Pacific Railroad met with the Central Pacific Railroad at Promontory, Utah. The company's success, however, was marred by a financial and political scandal involving Oakes Ames and the *Crédit Mobilier*. While Oliver Ames was never directly involved in the affair, the events occurred during his presidency of the company. In one sense it was tribute to him that the railroad was completed in spite of the enormous loss of revenue because of graft.

In 1871 Ames left the presidency of Union Pacific, though he remained a director until his death. He returned his attention to the shovel company, which was on the verge of bankruptcy because of the extensive financing of the railroad. Oliver put that company back in order and also pursued business interests with banks and other railroads.

Ames was not only a successful businessman, but also a philanthropist. He was a devout Unitarian and donated a large sum of money for a new Unity church and parsonage in North Easton. He also contributed funds for a Catholic church and a Methodist meeting house. In his will Ames left money for a library, public schools, and local roads in his hometown of North Easton. Oliver Ames died in that town on March 9, 1877.

See also: Oakes Ames, *Central Pacific Railroad, Union Pacific*

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AMUSEMENT PARKS

Amusement parks developed in the United States during the last decade of the 1800s. In 1893 Chicago hosted the World's Columbian Exposition, the equivalent of a world's fair. One of the highlights of the event was a "pleasure wheel," built by American mechanical engineer George W. Gale Ferris (1859–96). Measuring 250 feet (76 meters) in diameter, the ride could carry sixty people at a time. The excitement and success of the Chicago fair inspired businessmen to build permanent outdoor carnivals elsewhere.

The first sizeable park was built at Coney Island in Brooklyn, New York, which had been a recreation area since the mid-1800s. In 1897 it opened under the name of Steeplechase Park. In addition to a roller coaster, it included New York's first Ferris wheel. When New York City extended its subway in the 1920s to reach Coney Island, the resort became accessible to the masses, with whom it was very popular. It offered an escape from the monotony of daily life and showed that American industry could produce machines that were just plain fun.

Coney Island became the model for amusement parks around the country. In 1906 the Dream City amusement park opened in Pittsburgh, Pennsylvania. As a byproduct of an increase in American leisure time (between 1890 and 1920 the average work week in manufacturing dropped from 60 hours to 47.4 hours), recreation areas were part of the mass culture that was beginning to emerge in the United States at the turn of the century.

The model for amusement parks was reinvented in July, 1955, by American entrepreneur and entertainment mogul Walt Disney (1901–66), who opened Disneyland, a multi-acre theme park in Anaheim, California. The park included rides based on Disney



The "Pleasure Wheel" as built by G. W. G. Ferris contributed to the excitement and success of American Amusement Parks.

movies, featured roving movie characters such as Mickey Mouse and Donald Duck, and held daily parades on Main Street. Music, stage shows, and shops were all included in the price of admission—all entertainment was geared toward amusement for the whole family. In the decades that followed, carnival-like amusement parks gave way to theme parks inspired by Disneyland.

See also: **Baseball, Bicycles, Walt Disney**

ANASAZI INDIANS

Anasazi is a Navajo word meaning "ancient peoples." These early Native Americans settled throughout the canyon and mesa (flat-topped hill) country of the Southwest. Their culture had emerged in the Four Corners region (Arizona, New Mexico, Colorado, and Utah) by A.D. 400.

The Anasazi moved from subterranean dwellings (called pit-houses) and constructed aboveground masonry buildings, some with more than 1,200 rooms. Ruins at Mesa Verde (Colorado), Chaco Canyon (New Mexico), and Montezuma Castle (near Flagstaff, Arizona) are examples of distinctive Anasazi dwellings that were built into the sides of canyons and mesas. For this reason the Anasazi are commonly called Cliff Dwellers.

The Anasazi, who also produced a distinctive pottery, were one of the three major cultures of Southwestern Indians. (The others were the Mogollon and

the Hohokam.) People of the modern Pueblos of Arizona and New Mexico descended from different branches of the Anasazi. Among the Anasazi descendants are the Pueblo, Hopi, and Zuni American Indian tribes.

See also: **Pueblo Indians, Southwestern Indians**

ANDERSEN, ARTHUR EDWARD

Arthur Andersen (1885–1947) was the founder and senior partner of Arthur Andersen and Company, the Chicago-based accounting firm that grew to become an international company known for its many services, including auditing, tax services, and specialty consulting in areas such as technology applications. Andersen established his company's focus on maintaining a strong organization through education, training, enlightened corporate policies, and a fundamental understanding of economic and business trends.

Born in 1885, Andersen achieved early success. In 1908, at age twenty-three, Andersen was the youngest Certified Public Accountant (CPA) in Illinois and one of only 2200 CPAs in the country. The previous year he had joined Price Waterhouse and Co. as a senior accountant, a position he held until 1911, when he joined Jos. Schlitz Brewing Company as controller.

While working as an accountant in the private sector, Andersen was also teaching accounting at the college level. At just twenty-seven years of age he was asked to head the department of accounting at Northwestern University. He received his Bachelor's degree from Northwestern five years later in 1917.

In 1913 Andersen and a partner, Clarence DeLany, founded their own accounting firm, Andersen, DeLany and Company. The firm soon had important corporate clients, including ITT, Briggs and Stratton, Colgate-Palmolive, and Parker Pen. DeLany left the firm in 1918 when it adopted its current name, Arthur Andersen and Company. Under Andersen's direction the firm, which was licensed in most states to offer accounting and auditing services, grew quickly.

Andersen considered himself an educator—he continued to teach at Northwestern for a decade after the founding of Andersen, DeLany and Company. Simultaneously, he continued his work as an accountant. In 1953, when he was elected to the Accounting Hall of Fame at Ohio State University, he was cited for his "contributions as an educator and outstanding practitioner."

Throughout his career, Andersen emphasized a broad view of the accountant's role: "The thoroughly

trained accountant must have a sound understanding of the principles of economics, of finance, and of organization. It has been the view of accountants up to this time that their responsibility begins and ends with the certification of the balance sheet and statement of earnings. I maintain that the responsibility of the public accountant begins, rather than ends, at this point.” Under the motto “Think Straight-Talk Straight,” Andersen challenged traditional accounting practices by going beyond the balance sheet to understand the effect of sheer numbers on a particular business. Thus, members of the firm were encouraged to use their auditing skills to contribute to a client’s overall success.

UNDER THE MOTTO “THINK STRAIGHT-TALK STRAIGHT,” ANDERSEN CHALLENGED TRADITIONAL ACCOUNTING PRACTICES BY GOING BEYOND THE BALANCE SHEET TO UNDERSTAND THE EFFECT OF SHEER NUMBERS ON A PARTICULAR BUSINESS.

Anderson’s reputation grew and he was invited in 1938 to become the first salaried president of the New York Stock Exchange. He declined the offer in order to devote his energies to his expanding accounting practice. By the end of the twentieth century Arthur Andersen and Co. was among the largest of the nation’s Big Six accounting firms.

Throughout his life Arthur Andersen was active in professional organizations, civic and community services, and education. He wrote numerous articles for professional journals and several pamphlets on economic issues. He was widely recognized as an authority on financial affairs and was often called upon to provide expert analysis in legal cases and advice as a member of various boards. He served as chairman of the board of Certified Public Accountant examiners for the state of Illinois; director of the State Bank and Trust Company of Evanston, Illinois; trustee for Chicago’s Century of Progress, and president of the board of trustees at Northwestern University. Arthur Andersen died in 1947.

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ANDREESEN, MARC

The creative mind behind Netscape Communications Corporation, Marc Andreesen (1971–) became a Silicon Valley legend and a multimillionaire well before his thirtieth birthday. The explosive growth of Internet commerce in the last decade of the twentieth century was directly attributable to his co-invention of the first widely used browser for finding and retrieving Internet information. In 1998, just five years after its founding, American Online, Inc. (AOL) acquired Netscape in a \$9.6 billion deal. As part of the merger Andreesen, still only twenty-seven, signed on as chief technology officer of AOL.

Born in 1971, Marc Andreesen grew up in New Lisbon, Illinois. As a boy, Andreesen was fascinated with computers. Before he was ten he had taught himself BASIC programming by reading a book. In the seventh grade his parents gave him his first computer. While a student in computer science at the University of Illinois, Andreesen was introduced to the Internet. In the early 1990s the Internet was primarily used by scientists who could navigate through its complex codes.

In 1992, while working part-time at the National Center for Supercomputing Applications (NCSA) at the university, Andreesen and a friend, Eric Bina, began to speculate on the potential of the World Wide Web. Working nights and weekends the two developed a program, eventually named *Mosaic*, that incorporated elements of Web navigation, text display, and sound.

When Mosaic was demonstrated in January 1993 it was an immediate hit, and by the time Andreesen graduated in December of that year, several million free copies of NCSA Mosaic had been distributed over the Internet. Andreesen recognized the commercial applications of the project, but NCSA was not prepared to take commercial advantage of the program it owned copyright for.

Following graduation Andreesen took a job in Silicon Valley, but a legendary e-mail message soon changed his life. The message was from James H.

Anti-Immigration Laws

Clark, co-founder of Silicon Graphics Inc., one of the computer industry's early success stories. Clark had resigned from his company and was looking for a new venture. He asked Andreesen if he would be interested in forming a company to create a commercially viable, improved version of the Mosaic browser.

In April 1994 Clark invested some \$3 million in the new firm, which began with three employees with offices in Mountain View, California. The new company was first called Mosaic Communications Corporation, but after the University of Illinois contested the use of the name, the fledgling firm was christened Netscape Communications.

By December 1994 Netscape had released its revolutionary browser, the Netscape Navigator. Almost immediately the new browser became the industry standard. Within only a few months Netscape claimed 70 percent of the browser market. It offered users speed, sophisticated graphics, and a special encryption code that secured their credit card transactions on the Web.

When Netscape made an initial public stock offering of 3.5 million shares in August 1995, an unprecedented stock frenzy ensued. Investors bought the stock in record numbers. Opening at \$28 a share, the stock closed at \$58 1/2, making Netscape's market value \$2.3 billion. With Netscape's continuing strong showing on the booming stock market of the late 1990s, Clark, Andreesen, and many of the company's employees became extremely wealthy. Four years later electronic commerce had transformed the way the nation did business. Nearly every advertisement, for example, included a web address. Banking and investing, travel arrangements, and personal shopping on the Internet had become routine. Automobile and home purchases could be negotiated on-line. Some analysts predicted that Internet commerce could reach \$3.2 trillion, or 5 percent of all sales worldwide by 2003.

At first the new browser faced virtually no competition, but in 1995 Microsoft Corporation introduced the Explorer, which it bundled free with its popular Windows software. In the last years of the twentieth century, as Netscape and Microsoft battled for the browser market and in the courts, Netscape began to lose its market share. A landmark federal anti-trust trial began involving Microsoft's alleged attempts to obstruct Netscape from competing for a fair share of the lucrative browser business. In late 1998, before that trial was completed, Netscape was purchased by AOL.

See also: Computer Industry, Information Superhighway, Internet, Netscape

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ANTI-IMMIGRATION LAWS

Anti-immigration laws are congressional acts that regulate the conditions under which residents of foreign countries may enter the U.S. to live permanently. Such laws usually contain provisions that have the effect of discouraging or prohibiting certain classes of persons from immigrating. Vested with almost total authority over immigration, Congress initially began stemming the tide of immigrants in the late nineteenth century. Between 1865 and 1890 a great wave of immigrants came to the U.S., mostly from northwest Europe (especially England, Ireland, Wales, Germany, and Scandinavia). In 1875 Congress passed the first restrictive immigration statute, barring criminals, anarchists, polygamists, and prostitutes from entry. Other anti-immigration laws passed in 1882 and 1892 barred admission to persons who were insane, had a loathsome or contagious disease, or were likely to become dependent on governmental assistance. Congress passed a series of Alien Contract Labor laws in 1885, 1887, 1888, and 1891, which precluded immigrants from entering the U.S. to work under contracts made before their arrival and prohibited U.S. employers from advertising job opportunities in other countries.

Between 1890 and 1914 a second wave of 15 million people immigrated to the U.S., mostly coming from eastern and southern Europe (Poland, Russia, Ukraine, Slovakia, Croatia, Slovenia, Hungary, Greece,

Rumania, and Italy). By World War I (1914–1918) there was a growing belief that the country was becoming overcrowded. Many Americans complained that new immigrants were taking good jobs and depressing wages by working for little money. Congress responded by passing immigration laws in 1917, 1921, and 1924. The 1917 law created literacy, physical, and economic standards for aliens seeking admission, and barred immigration from many of the Asian and Pacific islands. The 1921 law established a quota system, under which the total number immigrants from any one nation in a given year could not exceed three percent of the number of foreign-born residents of that nationality living in the U.S. during 1910. The 1924 law lowered the cap to two percent. Immigration slowed dramatically during the Great Depression, as economic opportunities in the U.S. dwindled. In some years during this period the number of Americans emigrating from the U.S. actually exceeded the number of foreigners seeking admission. Immigration did not pick up again until after World War II (1939–1945), when Congress recognized two new categories of immigrants: wives and children of American citizens who had served abroad in the U.S. armed forces.

See also: Chinese Exclusion Act, Immigration

APPALACHIAN MOUNTAINS

Named for the Apalachee Indians, the Appalachian Mountains form a great continental divide which runs roughly parallel to the eastern seaboard of the United States. On the eastern side of the mountains waterways drain into the Atlantic Ocean; on the western side they drain into the Gulf of Mexico. The Appalachians extend 1,500 miles (2,400 kilometers), from Quebec's Gaspé Peninsula to Birmingham, Alabama. The chief ranges include the Notre Dame (in Quebec), the White Mountains (in New Hampshire), the Green Mountains (in Vermont), and the Catskills (in New York). South of New York the Appalachians divide into three sections: farthest to the east lie the Blue Ridge Mountains (which include the Appalachians' tallest peaks, in the Black Mountains of North Carolina); the middle section is called the Great Valley (which includes the Cumberland, Lehigh, and Shenandoah valleys); the western-most section is the Ridge-and-Valley Province (whose western boundary is formed by the Cumberland and Allegheny mountains).

Although the mountain range was a barrier to the settlement of the country, British acquisition of the territory west of the Appalachians in 1763 prompted people to cross the mountains and move into the fertile

land beyond them. In the late 1700s settlers followed the Great Valley south to the Cumberland Gap near the intersection of North Carolina, Kentucky, and Tennessee. They followed the narrow trails forged by Native Americans—widening them for wagons. The chief trail was the Wilderness Road forged by U.S. pioneer Daniel Boone (c. 1734–1820). Settlers also followed a western route to the Ohio River through the river valleys of Pennsylvania and into Pittsburgh. In 1811 construction of a federal route called the National Road began. The northernmost westward trail was the Mohawk, which ran through New York state. It followed the southern shores of the Great Lakes. In 1825 the completion of New York's Erie Canal aided westward movement. By the 1840s railroads crossed the mountain range.

On this frontier farmers cultivated crops in the valleys. Settlers were mostly Scots-Irish, English, and German. The principal products in the northern regions included apples, barley, hay, potatoes, wheat, and dairy. Chief products in the South included corn, tobacco, and poultry. Trees from the Appalachians were cut for the U.S. furniture industry, centered in North Carolina. Approximately 50,000 square miles (130,000 square kilometers) of the mountains were rich in coal and other mineral deposits. These resources were important to the economies of Alabama, Kentucky, Pennsylvania, Virginia, and West Virginia.

See also: Back Country, Cumberland Gap, Erie Canal, National Road, Maysville Road, Subsistence Agriculture, Wilderness Road

APPRECIATION

The term *appreciation* has several specific uses in economics but in general it refers to an increase in value over time. At the level of macroeconomics (or the study of entire economic systems), appreciation is often used to describe the rise of the value of one currency *vis-à-vis* (in relation to) another. For example, when U.S. travelers can buy more foreign goods with their dollar in one year than they could in an earlier year, we say that the dollar has “appreciated” in comparison to the foreign currency. It is also possible for the U.S. dollar to appreciate *vis-à-vis* one currency but depreciate relative to another. For example, between January 1979 and January 1981 the U.S. dollar appreciated in value relative to the German mark (U.S. travelers could buy more marks with their dollar than earlier); during the same period the U.S. dollar depreciated relative to the British pound (the dollar bought



The setting sun over the Appalachian Mountains, at Stone Mountain, Virginia. The Appalachian Mountains extend 1,500 miles forming the eastern continental divide of the U.S.

fewer pounds). (Note that the terms *revaluation* and *devaluation* are used instead of *appreciation* and *depreciation* when referring to changes in a currency's value brought about by the action of that currency's government. For example, if country A's currency has appreciated relative to other global currencies, the country's government may "devalue" its currency so its goods will be more attractively priced in the international marketplace.)

Appreciation is also used to describe the increase in market value of an asset such as a home or a stock over time. For example, buying a home is considered an excellent investment because individual homes often appreciate in value when the property values in their neighborhood rise, even if the individual homeowner made no improvements to his or her own home. Similarly, the value of the stocks of many large corporations appreciated in value since the bull market of 1982 began. For example, investors who bought \$1000 in the stock of computer storage firm EMC Corp. in 1991 (but no additional stock) saw their \$1000 appreciate in value to more than \$18,000 five years later.

See also: Currency, Depreciation

ARBITRATION

Arbitration is the process by which two parties agree to submit a dispute they cannot settle on their own to a third party, or arbitrator, whose decision is final and binding on both sides. Disputing parties resort to arbitration when they have reached a point where the only alternative is a lawsuit or a strike. In some cases arbitration is required by law. Arbitration is common in disputes over construction contracts, landlord-tenant contracts, and even salary disagreements in professional sports. After evaluating the dispute, the arbitrator either sides with one of the parties or tries to find a solution that is fair to both. He may be appointed by the two parties or assigned by a court. The arbitrator may be a respected individual or panel of individuals or a professional arbitrator hired through organizations like the American Arbitration Association.

Arbitration proceedings differ from lawsuits. They are faster and cheaper, and arbitrators have greater flexibility than law courts because they do not have to assign "blame" to one of the parties. Arbitration proceedings are ideally suited to complex disputes where the arbitrator has specialized expertise in the

subject matter of the dispute, and they enable the disagreeing parties to maintain greater privacy over the arbitration process.

Commercial or contract arbitration arose in medieval Europe to settle disputes when the law was no help because the disputing merchants lived in different political or legal systems. By the nineteenth century the United States had developed a voluntary arbitration system in which workers and owners freely submitted their labor disputes to an “umpire” for resolution. In 1926 the American Arbitration Association was established to create a trained pool of professional arbitrators. Nine years later, the National Labor Relations Act was passed, making it easier for workers to use arbitration to bargain collectively for better labor agreements. The need for quick resolution of labor disputes during World War II (1939–1945) increased the number of arbitrated labor disputes. The passage of the Arbitration Acts of 1947, 1970, and 1990 strengthened the process of arbitrating commercial disputes, made the process more uniform, and established procedures for resolving disputes with foreign companies. In 1960 the landmark “Steelworkers’ Trilogy” Supreme Court case limited the role of the courts in overturning arbitration cases, paving the way for today’s independent, legally binding arbitration decisions.

See also: **Collective Bargaining, Strike**

ARIZONA

Arizona is known to most people in the United States as a haven for vacationers and retirees. With its hot, arid climate and scenic wonders, it offers many advantages to those seeking unusual terrain or refuge from northern winters. The state, however, is much more than just a refuge. For over a hundred years it has been an important source of livestock and minerals. Moreover, after waters from its rivers were diverted into the rest of the state, Arizona has emerged as an important producer of manufactured goods and farm crops.

The first Spanish explorers in Arizona found a number of Native American tribes subsisting on hunting, gathering, and limited farming. Four Spanish expeditions set out between 1539 and 1605 across the upland plateau and lower desert in failed attempts to find riches. Franciscan friars also came to proselytize among the Hopi and Pima Indians, establishing a large mission at the site of present-day Tucson. The first important European settlement was a military outpost at Tubac, north of Nogales; this outpost was moved to

Tucson in 1776. The Spaniards treated most of the outposts in the territory as merely way stations to California, thought to be a more desirable area for colonization.

When war started between Mexico and the United States in 1846, over the U.S. annexation of Texas, Col. Stephen W. Kearny and Lt. Philip Cooke led troops across Arizona on their way to California. With the defeat of Mexico in the Mexican War (1846–1848) most of present-day Arizona became part of the United States as part of the Mexican Cession. Thousands of U.S. citizens passed through the region during the California Gold Rush of 1849. In 1850 Arizona was formally organized as part of the territory of New Mexico, with a southern strip added by the terms of the Gadsden Purchase in 1853.

By the early 1860s the federal government was planning road and railroad routes through Arizona in an effort to provide better links to California. The Army put up forts to protect travelers from the Indians, and the government established overland mail service. Citizens of Arizona unsuccessfully tried to join with southern New Mexico in a new territory when they became dissatisfied with their territorial government at Santa Fe. The region was declared part of the Confederacy during the American Civil War (1861–1865), but Union troops occupied the region. The U.S. Congress declared Arizona an official territory in 1863.

Gold and silver mining were the mainstays of Arizona’s economy during the 1850s and 1860s. Jackson Snively first discovered gold on the Gila River, 20 miles above the Colorado. Those who rushed in to pan for gold earned as much as \$125 a day for their efforts, and Gila City soon became a boom town with gambling halls, saloons, and temporary dwellings for the prospectors. Gold mines were also established along the Colorado and in the interior mountains, and silver was discovered in Tombstone and other districts.

As military posts sprung up to protect the influx of people and the towns they created, the cattle industry benefited from the increased demand for beef. Irrigated farming developed and Phoenix became an agricultural center. Cattle ranching continued to expand in the 1870s after the Apache Indian threat subsided. At first driven in from Texas and Mexico to supply the armies that protected Arizona, cattle soon became a major source of income. Along with lumbering and mining, cattle ranching flourished when the Southern Pacific Railroad reached Tucson in 1880; the Atlantic and Pacific (later merged with the Santa Fe) offered service to California through Flagstaff in 1883. Copper mining became more profitable than silver mining by the 1890s.

During the late nineteenth century political power responded to the needs of the merchants and capitalists with strong ties to California and the East, such as the mining and railroad interests, by calling for statehood for Arizona. The movement for statehood was slow to attract interest on the federal level but in 1912 Arizona finally became the 48th state.

During World War I (1914–1918) the copper industry continued to grow. Problems with the lack of water were partially solved in 1917 when the Salt River Valley Project was opened, providing enough water for agricultural development in central Arizona. The Goodyear Tire and Rubber Company soon established large farms in the Salt River Valley to produce pima cotton. Labor unrest followed much of this expansion. More than one thousand striking miners were deported from the cities of Bisbee and Jerome in 1917. In the 1920s a general depression closed banks, discouraged agriculture, and shut down mines. Local promoters tried to bring relief by encouraging highway building and tourist resorts.

In the 1930s Arizona suffered from the Great Depression (1929–1939), as did the rest of the country. A copper tariff brought some relief to the mining industry and federal relief and recovery funds also helped through the initiation of irrigation and public works projects. During World War II (1939–1945) recovery occurred rapidly as camps were built in the state for military troops, prisoners of war, and displaced Japanese Americans. The meat, cotton, and copper industries thrived, and many processing and assembly plants were built in the state.

Following the war Arizona developed a truly modern economy. Wartime production was replaced by peacetime manufacturing, which soon became the major source of income in the state, especially in the Phoenix and Tucson areas. The state made itself attractive to industry with a favorable tax structure, plenty of electric power, an available labor pool, and low land costs. The advent of air conditioning also made business and living more bearable in Arizona's torrid heat.

Like the rest of the southwest "sun belt" states, Arizona grew phenomenally during the 1970s and 1980s, increasing in population by 39 percent between 1973 and 1983. During the same period total employment grew by 49 percent and personal income by 218 percent. The most prosperous areas were the populous Maricopa and Pima counties, with a far lower income level in most other counties. This distribution of wealth in large part overlapped the ethnic composition of the state, with much of Arizona's large Mexican American population among the poorest citizens of the state.

Despite this fact, Arizona politics were traditionally conservative, a political characteristic reinforced by the presence of many retirees. Statewide in 1995, only about eight percent of its workers belonged to labor unions.

The problem of water supply continued to plague Arizona in the late twentieth century. To address this issue, in 1985 the Central Arizona Project (CAP) was built, diverting water from the Colorado River to the rest of the state. This project included a \$3 billion dollar network of canals, tunnels, dams, and pumping stations. CAP was controversial; many felt that the water supply exceeded demand and that the water was of poor quality.

Modern Arizona's major products include electronic components, non-electrical machinery, copper, cattle, and cotton. Some of the important electronics and technology-related industries in the state include Motorola, Allied Signal Aerospace, Honeywell, Hughes Missile Systems, and Intel. Next to the technology industry, the state's biggest employer is tourism. Twenty-two national parks and monuments are located within the state, the most popular of which is Grand Canyon National Park. Lake Mead and other lakes created during water reclamation projects attract vacationers, as do Indian reservations and dude ranches. In 1996 the state ranked 36th among the 50 states in per capita personal income.

See also: Mexican Cession, Sun Belt

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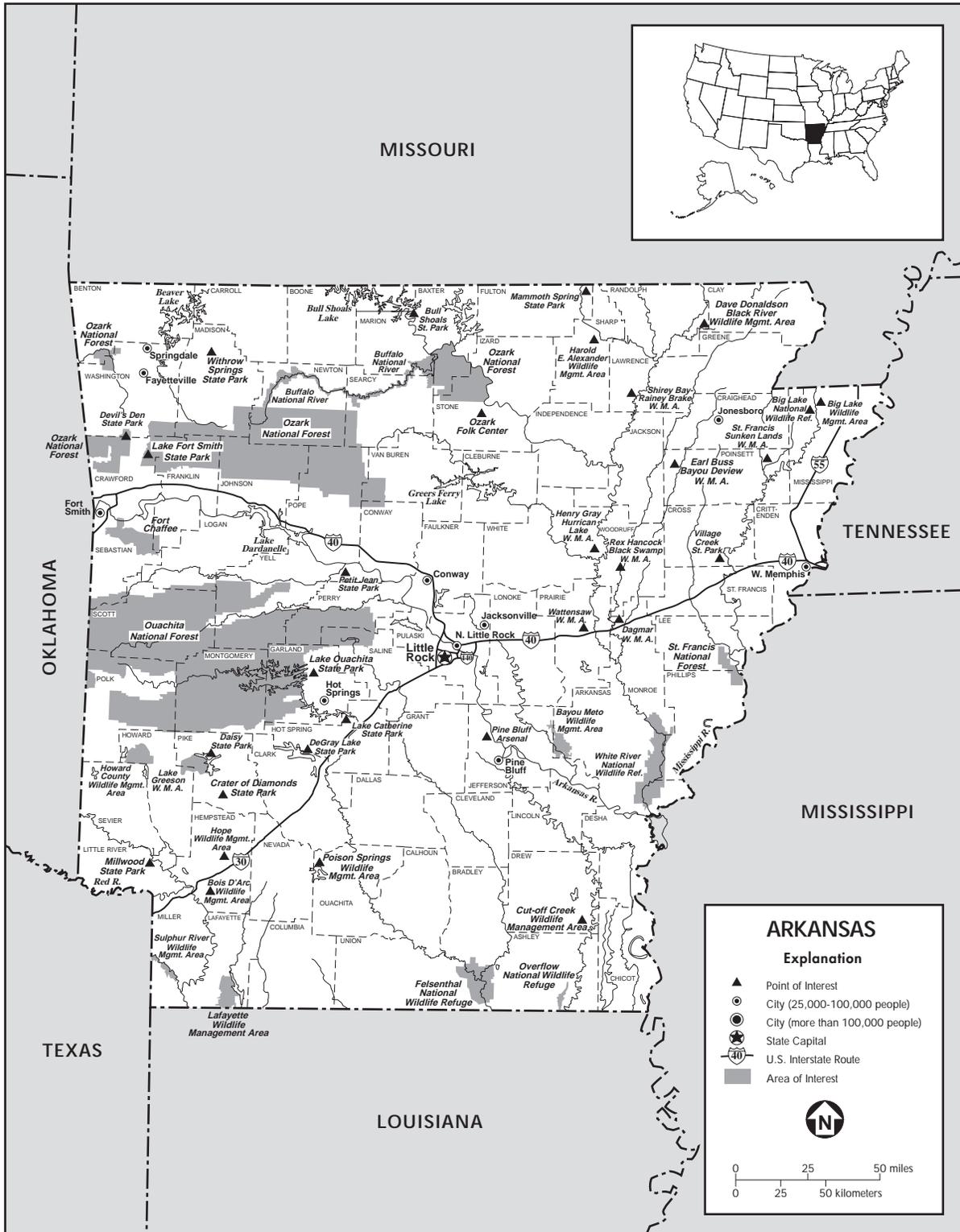
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ARKANSAS

Arkansas has maintained a certain backwoods reputation in spite of its attempts to modernize and industrialize. At first totally dependent on the cotton crop grown on slaveholding plantations, the state was

Arkansas



State of Arkansas.

forced to diversify its agriculture after the Civil War. Today agriculture is only a small part of the state's economic output; such sectors as manufacturing, mining, and services are far more important to the state's economy. Arkansas continues to struggle to provide employment for its poorest citizens, many of whom lack education and job skills.

Hernando de Soto (c.1496–1592) led the first Spanish expedition into Arkansas in 1541. In 1673 a French expedition headed by Father Jacques Marquette (1637–1675) and Louis Jolliet (1645–1700) entered the territory, as did Robert Cavelier, Sieur de la Salle (1643–1687) in 1682. La Salle claimed the whole Mississippi valley for France. The first permanent European settlement was at Arkansas Post, at the confluence of the Arkansas and White Rivers. France held onto the territory until 1762 when it was ceded to Spain, although it was later returned to French control. The French sold Arkansas to the United States as part of the Louisiana Purchase in 1803. Initially, part of the Missouri Territory, Arkansas, became an independent territory in 1819 and entered the Union as a slave state in 1836.

Southern and eastern Arkansas fast became cotton-growing areas, with the large plantations run by slave labor which characterized other southern states. The northern and western counties in the Ozark and Ouachita mountains were populated by smaller, poorer white farmers.

DEEP IN THE ARKANSAS CONSCIOUSNESS IS A TRAGIC SENSE THAT ACROSS THREE CENTURIES OF EXISTENCE AS A COLONY, TERRITORY, AND STATE ITS PEOPLE HAVE BEEN MISUNDERSTOOD AND PUT UPON.

Harry S. Ashmore, *Arkansas: A Bicentennial History*, 1978

In the mid-nineteenth century the state was beset by credit problems. The state's two largest banks failed in the 1840s, the government defaulted on bonds issued by one of the banks. A measure of the fatalism and distrust of banks on the part of the rural population is evident in the fact that the state constitution was amended to prohibit all banking in the state. After the American Civil War (1861–1865) banking was restored, but the state again defaulted on its obligations to pay off railroad bonds. Until 1917 Arkansas securities were not honored by New York banks.

Transportation was slow to develop in Arkansas. Before the Civil War, commerce developed along the rivers where freight was shipped by hand-propelled

keelboats and later, by steamboat. Thus the major towns in the state, such as Little Rock, Camden, Fort Smith, and Pine Bluff, grew along the waterways. Little Rock boasted over 300 steamboats docking in 1859. In the later nineteenth century towns were founded not only by the rivers but also in the interior. This happened in the 1870s, when the railroads began to traverse the state, laying 2,200 miles of track by 1890.

In 1861 after a period of hesitation the state voted to secede from the Union. After the South's defeat in 1865 a Reconstruction (1865–1877) government was established that was led by Governor Powell Clayton and other northern Republican politicians. The people in Arkansas hated the corruption and exploitation they suffered under these profiteering outsiders, whom they called carpetbaggers. They ruled the state until 1874 and left such a bad reputation that after Reconstruction, the Democratic Party was in power for many decades to come.

When the Confederacy collapsed property values in the South deflated rapidly. In order to restore agricultural productivity in Arkansas after the war a system of "sharecropping" was developed. According to historian Harry S. Ashmore "It would prove a blight to whites and blacks alike in the years to come, and at its worst it properly could be condemned as the replacement of slavery with a form of peonage. But it provided a means of survival for both races in a desperate time. . . ."

After Reconstruction Arkansas railroads promoted immigration from other states and from abroad, hoping for settlers to establish themselves on the land the railroads had received through government grants. The railroads also controlled large stands of virgin timber. By the 1880s the two largest landowners in Grant County were the St. Louis and Iron Mountain Railroad and the Muskegon Lumber Company of Michigan—the latter evidence that most of the lumbering profits were going out of state.

Arkansas was slow to modernize and did not really emerge from its agricultural past until after the Great Depression (1929–1939). Its farm economy gradually changed from total dependence on cotton to the growing of crops like rice and soybeans and the production of poultry. Cotton, formerly grown only on large plantations, began to appear in the northwest hill country. Tenant farming was the norm for several decades after the Civil War. Coal mining began in the late nineteenth century; the state also mined bauxite and produced oil. Lumbering was important until around 1909, when it decreased until reforestation began in the 1920s. Pulaski County's industrial development was

Arms Race

slowed down by the controversy over school integration in Little Rock in 1957, but development continued in the following decades.

In 1966 Winthrop Rockefeller became the first Republican governor since Reconstruction, bringing a new, businesslike image to the state. Though he warred constantly with a Democratic legislature he did encourage investment in the state. In the early 1970s the Arkansas River navigation system opened up a water route between the Mississippi River and Oklahoma, helping to promote industrial expansion in several river ports along the Arkansas River. By this time the tenant farmer economy had been virtually eliminated by farm mechanization and industrialization.

A later governor, William Jefferson Clinton, who became U.S. President in 1992, brought a number of reforms to the state in areas such as health insurance, education funding, and investment tax credits for corporations. Arkansas's constitution, however, requires a two-thirds majority vote of the legislature for new state income taxation and this had hampered the state government's efforts to improve the state's standard of living.

In the mid-1990s Arkansas's important industries were manufacturing, especially lumber and wood products, agriculture, forestry, and tourism. Over 40 percent of the state's annual gross product was now based on commercial, financial, and professional services. Some industries such as chicken processing, enjoyed close relations with the state's regulatory system. The state's per capita income was under \$17,000 in 1996, ranking it only 47th in the nation. Although a number of important labor reforms were passed at the beginning of the century Arkansas is not a strong union state, with only eight percent of workers claiming union membership.

See also: Keelboats, Reconstruction, Sharecropping, Steamboats

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ARMS RACE

Arms race is a term that refers to the intensely competitive and belligerent manner in which the United States and the Soviet Union developed their nuclear weapons systems between 1945 and 1989. When the U.S. dropped two atomic bombs (A-bombs) on Japan to end World War II (1939–1945), Soviet Premier Joseph Stalin (1879–1953) immediately assembled a team of physicists to begin work on a Russian A-bomb. Tripling the scientific budget, Stalin made clear that the team was to proceed expeditiously without regard to cost. Four years later, on August 29, 1949, the Soviets astounded the world by detonating their first A-bomb far ahead of schedule. The United States responded by beginning work on a bigger, more powerful bomb known as a hydrogen bomb (H-bomb). Detonated on November 1, 1952, America's first H-bomb exploded with a yield of 10.4 megatons, or a thousand times more powerful than the bomb dropped on Hiroshima, Japan. This time it only took the Soviet Union 9 months to catch up, as they tested their first H-bomb on August 12, 1953. Although the Russian bomb was a comparatively small device of 400 kilotons, a sampling of its radioactive cloud produced traces of lithium, an element the United States had not yet technologically harnessed. President Dwight D. Eisenhower (1953–1961) suggested replacing the escalating Superpower competition with nuclear cooperation, but opponents accused him of being soft on Communism.

In 1954 the Soviets tested the world's first H-bomb dropped from a bomber airplane. Three years later the arms race reached outer space, when the Soviets launched Sputnik. A group of satellites designed to measure the temperature and density of the earth's upper atmosphere, Sputnik was powered by intercontinental ballistic missiles (IBMs) that could reach the American soil in a few hours. Now fearful that it was losing the arms race, the U.S. government began investing heavily in national defense and technology. The National Aeronautics and Space Administration (NASA) was established in 1958, the same year that college students were offered millions of dollars in loans and grants to major in science, engineering, and mathematics. The United States also began stockpiling its nuclear arsenal. By 1962 the United States had over 27,000 nuclear weapons, 500 long-range bombers, and

It shall be the policy of this nation to regard any nuclear missile launched from Cuba against any nation in the western hemisphere as an attack by the Soviet Union on the United States, requiring full retaliatory response. . . . I call upon Chairman [Nikita] Khrushchev to halt and eliminate this clandestine, reckless, and provocative threat to world peace. . . . He has an opportunity now to move the world back from the abyss of destruction.

President John F. Kennedy, Television Address,
October 22, 1962

2,500 mid-range bombers that were at a constant state of full military readiness. The year 1962 also marked a turning point in the arms race. In October the Soviets began installing IBM launchers in Cuba, only 1,100 miles away from Washington, D.C. Although the United States already had nuclear warheads pointed at the Soviet Union from Western Europe, a U.S. naval blockade of Cuba and the nation's seeming willingness to go to war over the issue forced the Soviet Union to dismantle the missile launchers and remove them from the western hemisphere.

Having teetered on the brink of annihilation during the Cuban Missile Crisis, fewer people in the United States believed that a nuclear war was winnable. Instead, more Americans became convinced that a policy of Mutual Assured Destruction (MAD) was the most effective deterrent against either side launching a first strike. For the next 25 years both nations made efforts at arms control through bilateral accords, but fear, mistrust, and cheating on both sides got in the way. It was not until the Soviet Union itself collapsed in 1989 that the arms race between the two countries officially came to an end. The arms race cost Americans approximately \$5.5 trillion dollars, and contributed to the federal government's \$4 trillion debt in the 1980s, when spending on nuclear weapons systems skyrocketed. At the same time, the collapse of Communist Bloc countries in Eastern Europe has been largely attributed to the Soviet Union's failed efforts to keep its economy afloat while attempting to accelerate development of its own nuclear forces during this period.

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ARSENAL OF DEMOCRACY

Arsenal of Democracy was a phrase used by President Franklin D. Roosevelt (1882–1945) to describe the United States as he tried to arouse popular support for sending military aid to nations fighting against the Axis powers (Germany, Italy, and Japan, among others) during World War II (1939–1942). Re-elected to an unprecedented third term in November of 1940, Roosevelt had made an unqualified campaign pledge to keep the U.S. out of the war. But by the end of the year Great Britain lacked sufficient capital to pay for war materials necessary to defend itself against German air and naval attack. Roosevelt, speaking to the nation during a fireside radio broadcast on December 29, 1940, told the American people how their country's security hinged on the survival of Great Britain. The president explained that the United States must become "the great arsenal of democracy" in the struggle against global tyranny and dictatorship. In March 1941 Congress passed the Lend-Lease Act, which gave the chief executive broad authority to provide Britain and its allies with munitions, petroleum, industrial materials, agricultural products, and miscellaneous other goods and services that deemed in the interest of U.S. national defense. Over the next four years the United States provided the Allied cause with 44 million rounds of ammunition, 20 million machine guns and pistols, two million trucks, 107,000 tanks, and 93,000 ships.

See also: Lend-Lease Act, Franklin D. Roosevelt, World War II

ARTICLES OF CONFEDERATION

The Articles of Confederation comprised the governing document that was the forerunner to the *Constitution of the United States* (1789). Drafted by the



The July 26, 1946 atomic bomb test at the Bikini Atoll in the South Pacific. The development of nuclear weapons was an important aspect of the Cold War.

Second Continental Congress at York, Pennsylvania, on November 15, 1777, the Articles of Confederation went into effect on March 1, 1781, when the last state (Maryland) ratified the document.

The Articles provided the original thirteen states (Connecticut, Delaware, Georgia, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, and Virginia) with more power than the central government. Each state was given sovereignty and one vote in Congress. Congress, unable to levy taxes, had to rely on the states to do so. It was also left to the states to carry out the acts of Congress, whose powers were limited to declaring war and peace, managing foreign relations, commanding the military (an army and a navy), and issuing and borrowing money. But Congress had no authority to regulate commerce and each state was free to set up its own taxes, tariffs, and trade policies.

The inadequacies of the Articles of Confederation became clear in the first few years after they went into effect. In particular, as the post-war economy suffered a depression, the non-payment of farm mortgages and of taxes led to courts seizing the property of their citizens. This enraged the farming population, many of whom were veterans of the American Revolution (1775–1783). Many of these hard pressed farmers decided that the present government was no better than the British had been.

The most significant manifestation of this discontent was Shay's Rebellion (1786–1787). Daniel Shays,

who had been a captain in the Continental Army, led a band of several thousand disgruntled farmers throughout western Massachusetts stopping the courts from seizing land for non-payment of taxes. The money to put down the rebellion had to be loaned to the Continental Congress by Boston bankers. This crisis convinced many of the political leaders of the new nation to conclude that the Articles of Confederation had to be revised. Once the process of revision was underway, the entire document was replaced by the Constitution.

James Madison (1751–1736) was among those who realized that the Articles made for a weak national government. He and others such as Alexander Hamilton (1755–1804) led the movement to change that orientation even at the expense of the states. Eventually, Hamilton and Madison won the backing of the other leaders like George Washington (1732–1799), John Jay (1745–1829), and Thomas Jefferson (1743–1836). Thus, political consensus among the political elite of the new nation led to the Philadelphia Constitutional Convention (1787), where the U.S. Constitution was drawn up.

One lasting provision of the Articles of Confederation was the Ordinance of 1787. Adopted early in the era of westward expansion, the ordinance established guidelines for how the nation could enlarge itself. Un-surveyed wilderness would eventually attract settlers. A legislature would be elected as soon as the population included five thousand voting citizens (men only) and the territory would be eligible for statehood once its population had reached sixty thousand.

See also: Constitution, Continental Congress (Second), Alexander Hamilton, Thomas Jefferson, Shays' Rebellion, George Washington

ASIAN FINANCIAL CRISIS

The Asian financial crisis in the late 1990s had its roots in private sector borrowing. In years recent to that time, most of the afflicted countries ran budget surpluses or small budget deficits while private sector borrowing increased heavily, especially short-term and from abroad. For example, loans to Thai corporations from international banks doubled from 1988 to 1994. By 1997, Thai foreign debt stood at \$89 billion—four-fifths of the amount owed by private corporations. Most disturbingly, one-half of Thailand's debt was short-term, falling due all within one year.

The Asian economies collapsed when their export boom came to a halt and their short-term loans came due. In 1996 Thai exports stagnated because of a decline in demand from First World countries, especially from recession-ridden Japan. Also, opening domestic markets to outside money (under an early round of pressure from the International Monetary Fund) brought a deluge of short-term foreign investment and spurred heavy short-term borrowing from abroad, fueling a building boom. By the mid-1990s, speculative investments in everything from high-rise office towers to golf courses accounted for nearly 40 percent of growth in Thailand.

Thailand's bubble was not the only one to burst, for in 1998, the entire region endured a painful and extended drying-out process. Southeast Asian exports, from autos to computer chips, from steel to textiles, glutted international markets. The crisis was made worse by intensifying competition from Chinese exports. Foreign financial capital fled; domestic spending collapsed; banks failed at an unprecedented rate, and unemployment climbed. Suffering increased as large numbers of people across the region fell into poverty.

Most economists agreed that the Asian capital markets failed in three critical ways. First, there was too much capital. Lured by the prospect of continued double-digit growth, investors continued to put money into uncertain markets in spite of the widespread financial instability. Second, the capital markets and the banking system could not channel these funds into productive uses. Too much money went into real estate, and too little went into productive investments

likely to sustain the export boom. Third, there was no commitment. Too much capital rushed out too quickly. The excessive inflow of capital reversed itself at the first sign of trouble and fled with little regard for the actual strength of a particular economy.

As the 1990s drew to a close, most financial conservatives argued that international markets were stable, if subject to periodic excesses. These excesses could be traced back to a misguided interference in market economy. Conservatives believed the problem varied with the situation: industrial policy, crony capitalism (political connections guiding private sector investment decisions), or fixed exchange rates. But in each case, conservatives contended that the economies of Southeast Asia ran into trouble because non-market forces had a hand in allocating credit and economic resources better left to the financiers. Their solution was to end the non-market allocations of resources. Alan Greenspan (1926—), the chair of the U.S. Federal Reserve, concluded the Asian crisis would root out "the last vestiges" of artificially inflated and poorly managed markets and will ultimately be regarded as a milestone in the triumph of market capitalism.

Liberals disagreed. They contended that none of the leading economies of the region relied on government-managed industrial policies to direct economic growth. They maintained that crony capitalism was a constant, not a new element in the Southeast Asian economic mix; that it was just as present in the boom as it was in the crisis; and that there was no evidence that cronyism was responsible for turning investment in its speculative direction. They also contended that there was no reason to believe that greater transparency in financial transactions would have done anything to extinguish the speculative frenzy. For liberals, the root cause for the economic crisis of Southeast Asia, which threatened the onslaught of a worldwide depression, was the abrupt reversal of the excessively fast rise of capital inflows and the falling global demand for the exports from that region.

Liberals insisted that some sort of public policy that regulates capital, whatever its national origins, is most needed in Southeast Asia. They believed that only regulation demanding genuine accountability from both the cronies and the capitalists offered the prospect of genuine reform. They conceded that the crunch of economic losses and slack labor markets made reform more difficult. But they maintained that as long as the myth of infallible markets was punctured, movements organized, and the opposition to free markets was strengthened, the Asian financial crisis offered the opportunity and the potential to regulate capital.

Assembly Line

Surprisingly, the U.S. economy survived the crisis and remained relatively unharmed by it, despite significant drops in exports to Japan, South Korea, Thailand, and Indonesia. Economists pointed to three important factors contributing to the strength of the American economy. First, the Federal Reserve remained relatively passive during the crisis, which helped produce large gains in residential construction and commercial real estate. Second, the resiliency of the U.S. equity market boosted foreign demand for U.S. financial assets. Third, the fall of global commodity prices and U.S. import prices helped boost consumer real income in the United States by lowering inflation.

See also: Capital, Exchange Rates, International Monetary Fund, Recession, Speculation, Unemployment

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ASSEMBLY LINE

Developed in the early twentieth century, assembly line methods greatly increased the efficiency and productivity of manufacturing. The moving assembly line is a highly mechanized process that breaks manufacturing tasks down to the smallest detail. A product moves along a conveyor belt that is lined with workers. Each laborer performs one simple operation in the production process, so that by the time the product reaches the end of the line, it has undergone many different operations and is completely finished.

This method of mass product manufacturing can be done by largely unskilled laborers. It is an early example of the growing interaction between human laborers and machines in the workplace. The increased

production and efficiency not only allowed businesses to put more of their product on the market, but it also lowered the costs of production. This, in turn, decreased the cost of the product to consumers.

The assembly line was first used by the brewing, canning, milling, and meatpacking industries. The most successful early use of the assembly line is in the automobile industry. In 1913, Henry Ford (1863–1947) began to use the assembly line at his Ford Motor Company in Highland Park, Michigan. Ford used the method in the assembly of the flywheel magneto, a part of the automobile's electrical system. It showed such promise that a year later, in 1914, Ford introduced an electrically driven endless-chain conveyor to move entire auto chassis down the line for production. It was a success. Production increased from 475 cars in a nine-hour day to over 1200 cars in an eight-hour day. By using the moving assembly line, Ford Motor Company tripled production and reduced labor time per vehicle by almost 90 percent.

Since Henry Ford's success, the assembly line process has continued to grow. One development is the modular assembly. This process strives to increase efficiency by having parts of a whole product produced on subassembly lines before joining the main line for final production. For example, in the automobile industry the chassis, interior, and body would each be produced on their own subassembly line before joining together at the final stages of production.

The new assembly line methods being developed all aim to refine its original goal—to improve the production process by reducing the amount of time workers and machines spend on specific tasks.

See also: Automobile Industry, Colt Manufacturing, Ford Motor Company

ASSET

Assets are items that have value, which can be measured monetarily. There are two types of assets: tangible and intangible. Tangible assets, or touchable assets, are real, physical objects such as equipment, raw materials, furniture, and land. Intangible assets may represent something of economic value that is not cash or a physical item or place. Examples include patents, copyrights, trademarks, franchises, leases, technical expertise, and goodwill. Intangible assets represent long-term rights that have future value to a business. For instance, a copyright gives the owner the right to publish a literary or artistic work for the life of the creator plus 50 years. Goodwill is an intangible



Assembly line workers put the finishing touches on automobiles being manufactured at a Ford Motor Company plant in Detroit, Michigan.

asset because it represents the amount of money over the fair market value paid by the buyer to the seller in expectation of the ability of a business to generate higher than normal earnings.

Assets can also be divided in two ways—current and non-current. A current asset is cash or something that can be converted quickly into cash (usually under one year). Current assets may include marketable securities, notes receivable (formal written promises to receive a fixed amount of money at a future date of less than one year) and accounts receivable (money due from customers for services rendered) less allowance for uncollectables, inventory, supplies and prepaid items.

A non-current asset can be either tangible or intangible. A non-current tangible asset is something of value such as land, equipment, machinery, furnishings, or buildings, which is used to produce a good or service. The benefit of a non-current asset usually extends more than a year and cannot be quickly liquidated. The value of a non-current intangible asset such as a patent is spread out over a number of years. This

cost is called amortization. An asset is no longer an asset when it stops being economically viable to its owner.

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ASTOR, JOHN JACOB

The life of John Jacob Astor (1763–1848), a fur trader who became one of the wealthiest individuals in U.S. history, is a classic example of a rags-to-riches story. Born to a poor butcher in Waldorf, Germany, in 1762, he died 85 years later in New York with a fortune estimated in 1998 dollars at \$78 billion.

At age seventeen, Astor left Germany for England, where he learned English and worked for his brother, a musical instruments craftsman. After three years, John Astor had saved enough money to immigrate to the United States. In March 1784, after a long trans-Atlantic crossing, he arrived in New York with seven flutes and \$25. During the voyage, young Astor befriended a fellow German emigrant who had previously worked as a fur trader in the United States. The information that he gleaned from his new friend convinced him to make his career in the fur trade.

Starting out in the fur business as a clerk, Astor quickly moved on to work for himself. In 1786 he married Sarah Todd and, with the help of her \$300 dowry, opened a store on Water Street in New York where he sold musical instruments and bought furs. Both Astors were very involved in the new business and lived very frugally. Astor often left the shop in his wife's care when he traveled to what was then the U.S. frontier in search of furs. In 1789 Astor purchased his first Manhattan property: two lots on the Bowery Lane for \$625.

By 1800 Astor was worth \$250,000, and he was the leading fur dealer in the United States. Following a trip to London, England, in 1799, where he obtained a license to ship to any East India Company port, Astor became involved in trade with the Orient. He began expanding the scope of his business by shipping furs to China and importing Chinese silks and teas. A part of his profits from these ventures immediately went into real estate purchases in New York.

The success of the Lewis and Clark expedition in 1806 opened up the great fur lands of the U.S. Northwest. Astor was determined to establish an outpost on the Pacific Ocean. In the spring of 1811, the ship *Tonquin* arrived at the mouth of the Columbia River. A fort was built and the settlement was named Astoria. For once however, Astor's timing was poor; during the War of 1812 (1812–1814), his agent was forced by the



John Jacob Astor.

British to sell the outpost to Canada's Northwest Company for \$58,000.

Astor emerged from the war wealthier than ever. With a consortium of other businessmen, he bought \$2 million in bonds from the hard-pressed U.S. government, paying only 88 cents on the dollar. By the 1820s Astor's Manhattan properties had also become prime real estate; one of his holdings would include the famous intersection of 42nd Street and Broadway. When he saw the fur trade begin to decline, he sold out his commercial interests and turned his strong intellect and acquisitive instincts toward his real estate investments, buying up land in sparsely inhabited northern sections of Manhattan.

Astor did not sell off his land when prices soared; instead, he developed his properties by building commercial buildings and apartments on them. In the hands of his descendants, it was the Astor real estate in Manhattan that was critical to the spectacular growth of the family fortune, which reached \$200 million before 1900.

Astor, grieving over the death of his wife, spent his last 14 years administering to his estate and managing his properties. When he died in 1848 he was the richest man in the United States, leaving an estate of some \$20 million. His only public bequest was a comparatively insignificant \$400,000 to found a public library, the Astor Library, which was later consolidated with other

libraries as the New York Public Library in 1895. He left the remainder of his wealth to secure his family's immense fortune for the next century.

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AT&T CORPORATION

The AT&T story is the saga of a giant “natural monopoly” compelled to engage in periodic massive reorganizations in order to comply with the swings in government policy from non-regulation to regulation to de-regulation. The American Telephone and Telegraph Company (AT&T) was established by the American Bell Telephone Company in 1885 as its long-distance subsidiary. At the time the U.S. telephone system consisted primarily of unconnected local networks; Bell wanted to put a long-distance network in place before its patents expired in 1894. Theodore J. Vail, Bell's general manager since 1879, was named president of AT&T, but he left in 1887 over differences with Bell's Boston-based financiers.

As AT&T discovered it would be more expensive to lay underground cables for a long-distance telephone network, the company raised funds by selling bonds to public investors. Throughout its history, AT&T would raise money from the public through the sale of stocks and bonds, and for many years AT&T stock was the most widely held in the world. The need to attract investors disciplined AT&T to be an efficiently run company, even though it faced little competition for much of its history.

In 1892 the company completed a New York-Chicago long-distance line, and the following year Boston-Chicago and New York-Cincinnati lines were introduced. When Bell's patents expired in 1894, the

company faced increasing competition from independent telephone companies, especially in the West and Midwest. Bell was forced to expand more rapidly than it had planned, growing from 240,000 telephones in 1892 to 800,000 in 1899.

The rapid expansion in the last decade of the nineteenth century forced Bell to raise more capital. American Bell was based in Massachusetts, which imposed more regulatory interference to Bell's plans than did New York, where AT&T was based. As a result, the company reorganized and made AT&T the parent company of the Bell System, which it remained until the breakup of the company in 1984.

AT&T aggressively met the challenge from independent telephone companies, which were unable to compete with it for very long. Telephone systems sprouted like weeds in rural areas, increasing from 267,000 in 1902 to 1.4 million in 1907, a year in which independent phone companies operated 51 percent of all phones. AT&T's response was to slash phone rates, emphasize customer service, and buy out the failing independent companies. The company often used its political and financial clout to make it hard for the competition to survive.

As AT&T grew in the first decade of the twentieth century, its finances weakened, allowing financier J.P. Morgan to gain control of the company in 1907. Morgan and his investor group brought back Vail as president for the purpose of creating a comprehensive, nationwide communications system. At the time Vail took over AT&T's operations, it had more than three million telephones in service, but was plagued with a bad public image, low morale, poor service, numerous debts, and serious technological problems.

Vail was one of the first U.S. business leaders who knew how to balance the profit motive with the need to please customers. Within a decade he turned AT&T around and made it a model of corporate success. He improved the company's finances by selling bonds at a discount to shareholders. He increased the amount of research and development and laid the foundation for what would become Bell Labs in 1925.

Although Vail and Morgan were monopolists, they were unable to make AT&T the sole supplier of U.S. telecommunications services. After acquiring a controlling interest in Western Union in 1910 and buying out numerous independent telephone companies, Vail decided to sell Western Union in 1913 and allow the independents access to AT&T's long-distance lines. These decisions were made in response to growing anti-monopoly sentiments against AT&T and resulted in a better image for the company.

AT&T Corporation

In 1915 AT&T completed the first coast-to-coast long-distance line from New York to San Francisco. Thus, AT&T dramatized their linkup when Alexander Graham Bell and Thomas Watson re-enacted their famous first-ever telephone conversation between the two cities. AT&T was also able to send the first transatlantic message in 1915. With the telephone becoming a matter of national interest, pressure for federal regulation was growing.

AT&T provided significant support to the military during World War I (1914-1918) when its telephone network was used for military communications. It also set up radio and telephone communication lines in France. In 1918 the U.S. government took control of AT&T, making it a branch of the U.S. Post Office for the duration of the war. Once the government had control of the nation's telephone lines, however, it began to raise rates and introduce service connection charges. Popular support for government ownership quickly faded and in August 1919 the government gave up control of AT&T. Vail retired that same year.

With telephone communications made exempt from the Sherman Antitrust Act by the Graham Act of 1921, AT&T prospered during the 1920s. It expanded into side businesses, including radio and film. By 1932 AT&T had the second largest financial interest in the film industry which it sold in 1936; its national network of 17 radio stations was sold in the mid-1920s. In 1925 Bell Labs became a separate company, jointly funded by AT&T and Western Electric (AT&T's telephone equipment manufacturing subsidiary). Walter S. Gifford, who became president of the company and would serve in that capacity until 1948, exerted a strong influence on the growing telephone industry.

AT&T suffered during the first years of the 1930s when the Great Depression forced many families to give up their phones because they could no longer afford them. Sales at Western Electric fell from 411 million dollars in 1929 to 70 million dollars in 1933, and revenues from subscribers dropped from 1.05 billion dollars to 853 million dollars for the same period.

Americans soon found, however, that the telephone had become a necessity, not just a convenience and by 1937, phone connections exceeded pre-Depression levels. By 1939 AT&T controlled 5 billion dollars in assets—more capital than any other company had controlled up to that time. The immense size of AT&T prompted the newly formed Federal Communications Commission (FCC) to investigate AT&T's competitive practices. There were renewed concerns over AT&T's monopoly of telephone service. While the

FCC's final report was ignored as World War II (1939-1945) broke out, the findings would have an impact on the company later on.

AT&T AGGRESSIVELY MET THE CHALLENGE FROM INDEPENDENT TELEPHONE COMPANIES, WHICH WERE UNABLE TO COMPETE WITH IT FOR VERY LONG. . . . THE COMPANY OFTEN USED ITS POLITICAL AND FINANCIAL CLOUT TO MAKE IT HARD FOR THE COMPETITION TO SURVIVE.

During World War II, Western Electric and Bell Labs concentrated on military work. This government subsidized research turned into a cornucopia of invention with vast implications for the company in the post-war world. Research brought about patented "spin-off" inventions and technological innovations, like radar and microwave radio relay systems. Other applications based on war-time research included coaxial cable to carry television signals and the invention of the transistor, which eventually replaced the vacuum tube.

In 1949, following up on the FCC's investigation, the U.S. Department of Justice, filed a suit seeking to split Western Electric from AT&T. However, Western Electric's work during the 1950s on Nike anti-aircraft missiles, the air defense radar system, and other defense projects gave AT&T some leverage with the Justice Department. In 1956 AT&T settled the antitrust suit by agreeing to limit its business to providing common carrier service and to confine Western Electric to providing equipment to the Bell System.

During the 1950s AT&T improved telephone communications and lowered long-distance rates by making it possible to dial directly to other cities without using an operator. In 1955 it laid the first transatlantic telephone cable, which it owned jointly with the British Post Office and the Canadian Overseas Telecommunications Corporation. As the nation's economy boomed in the late 1950s, telephone usage reached unprecedented levels. Private lines replaced party lines, and telephone based services became more common. AT&T was in enviable financial shape.

AT&T became involved in satellite communications when it formed Bellcom to supply most of the communications and guidance systems for the U.S. space program from 1958 to 1969. The first AT&T satellite, Telstar, was launched in 1962. That same year Comsat was launched as a half public, half private company to handle U.S. satellite communications; AT&T owned a 27.5 percent interest at a cost of 58 million dollars.

AT&T spent more than 500 million dollars to develop another communications innovation, an electronic switching system, during the 1950s and 1960s. As the United States became more of an information-based society, the speed and automation of the system made possible huge increases in telephone hardware efficiency during the 1970s and 1980s.

AT&T's dominance in the communications industry again prompted concern about its monopoly status. In 1974 the company faced two antitrust lawsuits. One suit, brought by long-distance provider MCI, claimed AT&T was preventing it from competing in long-distance calling. The second suit, brought by the Department of Justice, called for the dismemberment of AT&T, charging that it had used its dominant position to stifle competition. As the Department of Justice suit dragged on, AT&T earned record profits in 1980 and 1981.

When the Department of Justice suit came to trial in 1981, both sides wanted to settle the case. AT&T wanted to enter the computer and information services business but was prevented from doing so by the 1956 consent decree. In 1982 AT&T was forced to set up a separate, unregulated subsidiary called American Bell to sell equipment and enhanced services. In January 1982 AT&T and the Justice Department reached an agreement to break up the Bell System, leaving AT&T free to compete in non-long-distance businesses such as computers. Final approval to the AT&T breakup was given in August 1983 by Federal Judge Harold Greene and the breakup became effective January 1, 1984.

At the time of the breakup, AT&T was the largest corporation in the world with 155 billion dollars in assets (even more than General Motors). After the breakup its assets were reduced to 34 billion dollars and net income dropped from 7.1 billion dollars to 2.1 billion dollars. Its 22 regional operating companies were divided into seven regional holding companies and AT&T was prohibited from using the Bell name.

The company was then organized in two major groups: AT&T Communications, which handled the company's long-distance services, and AT&T Technologies, which manufactured and marketed telecommunications equipment. The latter began concentrating on switching and transmission systems for telephone companies, an area in which AT&T was losing ground to competitors. American Bell became AT&T Information Systems and began investing heavily in computers.

In 1986 James E. Olson became chairman of AT&T, and Robert E. Allen became president. AT&T's

computer operations lost 1.2 billion dollars in 1986, due to the lack of acceptance of AT&T's newly developed Unix operating system. After Unix made some progress in 1986 and 1987, AT&T formed a consortium of Unix manufacturers that included Unisys and Sun Microsystems. AT&T won two major government contracts, including one to build a new government telephone system. When Olson died in 1988, Allen became chairman and CEO until 1997, when he was replaced by C. Michael Armstrong, former chairman of Hughes Electronics.

AT&T reported its first-ever loss in 1988, a staggering 1.7 billion dollars. Then in 1989 it had a 2.7 billion dollars profit, the largest since the breakup. With AT&T losing market share in long-distance services, regulators gave the company permission to match the low prices of its long-distance competitors such as MCI and U.S. Sprint. Long-distance service was the company's primary source of revenue, but it used its financial and information resources to enter other businesses. In 1990 it introduced its Universal Card, which combined the features of credit and calling cards. In 1993 it acquired McCaw Cellular for 11.5 billion dollars, making it the dominant provider of wireless communication services. AT&T's structure as an integrated services, equipment, and computer company was no longer appropriate for the rapidly changing industry;

In September of 1995, AT&T announced that it would be splitting into three companies. One, a "new" AT&T, would concentrate on providing communications services. A second company, Lucent Technologies, would work in the area of research and development of communications technologies. The third new company, NCR, acquired in 1996 for an exchange of stock valued at 7.3 billion dollars, would focus on transaction-intensive computing. NCR and Lucent Technologies became separate, independent companies, leaving telecommunications and long-distance services AT&T's core business.

AT&T itself split into three main divisions addressing specific markets: business markets, consumer markets, and wireless services. For 1997, business markets generated 22.03 billion dollars in revenue, consumer markets brought in 23.52 billion dollars, and wireless services generated 4.43 billion dollars. The company's net income was 4.6 billion dollars, down from the 5.9 billion dollars net income in 1996. Other businesses and divisions that remained attached to AT&T included AT&T Solutions (an integrated partner of the business markets division); the local services division (which led the company's efforts to enter local service markets); and AT&T Universal Card Services

Automobile Industry

(the company's credit card unit). These divisions were supported by Network and Computing Services, which ensured the reliability of AT&T products and services, and AT&T Labs, which created new technologies, products, and services.

Throughout its history, AT&T's financial strength allowed it to grow, improve, and make acquisitions. Its accomplishments included the multi-billion-dollar digitization of its entire network as well as its entrance into the international market in more than 200 countries. AT&T launched WorldNet to meet competition from the Internet arena and it also introduced DIRECTV, a television satellite system. At the end of 1998 AT&T announced it would acquire IBM's Global Network business for 5 billion dollars in cash. The IBM Global Network served large global companies, mid-sized businesses, and individual Internet users in 59 countries. At the beginning of 1999 AT&T acquired cable television giant, TCI (Tele-Communications Inc.), for 46 billion dollars, giving it 12.5 million cable subscribers who were also potential customers for local telephone service, a market AT&T was interested in developing. As the twentieth century drew to a close, AT&T's prospects looked bright. It continued to be on the cutting edge of technology and product development. As a polymorphous entity that acquired and divested itself of huge subsidiaries, it had outlasted the public's limited attention span and survived the threat of government regulation. Maybe it was a monopoly and maybe it wasn't. One thing was sure: the phone bills kept going up.

See also: Interstate Commerce Commission

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AUTOMOBILE INDUSTRY

Few industries have had a larger impact on the U.S. economy as the automobile industry. The development of the motor vehicle brought significant changes in twentieth century U.S. culture and society. The auto industry provided progressively easier and faster travelling and shipping and it spurred the development of elaborate highway systems linking cities and states. It also stimulated the creation of suburbs around major cities. The average person could now afford to travel easily from city to city and to commute to work from an outlying area. Owning an automobile became an indicator of financial success; some type of vehicle was within the reach of all but the poorest citizens. Autos were also one of the first products available for purchase on a payment plan, a financial arrangement that became a marketing mainstay of the U.S. economy. In the cities buses allowed large numbers of people to move easily from place to place at a low price. It also became commonplace to bus children to schools. The automobile also sparked the development of other industries such as petroleum and steel, as well as other support businesses such as gas stations, repair shops, and automobile dealerships. Emergency systems also depended on automobiles for getting people to hospitals and for putting out fires.

Not all of these improvements, however, met with success. For example, tractors and harvesters eventually became so sophisticated and expensive (including improvements that made the work less onerous, like air

conditioning and tape players) that it ran many farmers out of business. In general, farm implement technology based on internal combustion reduced the overall cost of harvesting crops such as corn or wheat by using machinery that did the work of several farmers in a fraction of the time. This, however, drove farm families off of their small farms and into the city.

The development of the automobile in the late nineteenth century had its foundations in the invention of the steam engine a century earlier. By the middle of the nineteenth century certain types of farm equipment had utilized the steam engine as a source of propulsion. Inventor Sylvester H. Roper developed and tested several steam carriages, which were shown in the East and the Midwest. In addition to the steam engine, other inventors tested electric and gasoline powered engines. Frank and Charles Duryea tested a gasoline-powered wagon in 1893. The development of these vehicles grew out of the carriage industries. Many bicycle companies also became involved in this process of improving automotive technology by providing parts such as ball bearings, wheels, and tires.

By the early part of the twentieth century, the gasoline internal combustion engine became the favorite choice for providing power to carriages, especially after the 1912 Cadillac combined the engine with the ease of an electric self starter. While electric and steam-powered motor vehicles remained popular for a while longer in the East, the Midwest became the home for many of the producers of gasoline powered autos. Ransom E. Olds (1864–1950) of Lansing, Michigan, switched from steam engines to the gasoline engine by the late 1890s, building the first in 1896. Production of his cars was limited until 1899, when Olds Motor Works was formed, a company that eventually became known as General Motors' Oldsmobile Division. Olds expanded production and in 1904 about 5000 were assembled, an impressive feat for the time. Many Olds employees, machinists and parts suppliers eventually left to form their own companies, such as Maxwell, the Reo Company, Hudson, Cadillac, and Dodge.

By 1903 the Ford Motor Company emerged as a rival to Olds by creating a sturdy but low-priced car which became very popular. The Model T, sold from 1908 through 1927, became one of the most famous cars of all time. With Ford's utilization of the moving assembly line, (c 1913–1914,) automobile yearly production soared to numbers in the millions by the 1920s.

World War I (1914–1918) caused a shortage in the materials used to produce automobiles, but production resumed in full as soon as the war ended. However, the

bottom fell out of the automobile market as the country entered a depression era (1920–1923). Many independent or smaller automobile companies went out of business. Larger companies struggled as well. Maxwell and Chalmers became part of a new company named Chrysler Corporation in 1925. In 1928 the Dodge Company also became a part of Chrysler. By the late 1920s most smaller companies had either disappeared or had been absorbed into one of the three major companies: Ford, General Motors, and Chrysler, known as The Big Three. General Motors, a leader of the industry during this time, developed some very successful managerial and marketing strategies, such as improvements in offering consumers installment credit, producing models in various price ranges that encouraged car owners to trade in for a more expensive model, and changing car designs yearly. Ford fell behind by holding on to the Model T until it had been long outdated; the company continued to struggle until the 1950s. Chrysler remained a strong second place to General Motors throughout the 1930s.

In the later 1930s automobile workers—both skilled and unskilled workers—turned to unions to protect their jobs. By the early 1940s the industry was fully unionized, but not without several violent confrontations. From 1937 to 1941 a bitter war of sorts was waged between the Ford Motor Company and the United Auto Workers. Several acts of violence occurred, fostering the animosity between auto workers and the large corporations.

During World War II (1939–1945) automotive factories were put to use producing vehicles, airplanes, airplane engines, and other related items for use in the war. At the end of the war consumer production was again booming as buyers replaced their aging autos. The Big Three continued to dominate automobile production throughout the mid-twentieth century. During the 1960s and 1970s laws were passed to improve safety, including the requirement of seat belts and a reduction in allowable automobile emissions. Fuel efficiency soon became an important issue because of the jump in gasoline prices in the mid-1970s. The automotive industry tried to break its habit of producing big cars and turned to the design and manufacture of smaller "economy" cars.

By the late 1950s foreign automobile manufacturers began to export cars such as Volkswagens, Hondas, Toyotas, and Datsuns. These cars became popular because of their efficient fuel consumption, contemporary design, and quality of construction. They soon became a threat to U.S. manufacturers. By 1980 Japan had become the primary producer of automobiles for

Automobile, Origin of

the entire world. U.S. auto makers rose to the challenge, revamping, restructuring, modernizing, “downsizing” and even giving concessions to the auto companies in the effort to protect jobs. The restructuring of the U.S. auto industry meant more machines and fewer workers, a prescription, which led to layoffs. Moreover, U.S. automobile companies bought into the foreign competition and thus became morally implicated in the erosion of the U.S. “middle class” standard of living.

The final decade of the twentieth century found the major automobile companies striving to please a demanding American consumer while asking for concessions from its unions and trying to compete with the foreign competition. New innovations included: the development and successful marketing of the sport utility vehicle (a lighter version of the truck that could be used both on and off the road), air conditioner coolant that would not pollute, and plans by General Motors to produce an electric car. At the end of the 1990s it remained to be seen whether these innovations would revitalize the U.S. automotive industry.

See also: **Assembly Line, Walter Chrysler, Chrysler Corporation, Henry Ford, Ford Motor Company, General Motors, Model T, Alfred Sloan, United Auto Workers**

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AUTOMOBILE, ORIGIN OF

The automobile was a four-wheeled vehicle powered by an internal combustion engine and used primarily for the transportation of people. It was the result of a series of inventions which began in 1769 when French military engineer Nicolas-Joseph Cugnot (1725–1804) built a steam-powered road vehicle. In the early 1800s other inventors also experimented with this idea and the steam-powered vehicle was put into production in Europe and the United States. A breakthrough in developing gas-powered automobiles came in 1860, when an internal combustion engine was patented in France. But a prototype of the twentieth century automobile wasn't “born” until 1885 when Germans Gottlieb Daimler (1834–1900) and Carl Benz (1844–1929) (working independently of each other) developed the forerunners of the gas engines used today. In 1891–1892 a French company Panhard et Levassor designed a front-engine, rear-wheel drive automobile. This concept remained relatively unchanged for nearly one hundred years. In 1896 the Duryea Motor Wagon Company turned out the United States' first production motor vehicle. The gas-powered cars were available for purchase that same year. Until 1900 Europeans led the world in the development and production of automobiles. But the first decades of the 1900s saw the U.S. auto industry take the lead, establishing Detroit, Michigan, as Motor City, U.S.A.

In 1908 Ford Motor Company (established 1903) produced the first dependable, easily maintained, and widely affordable automobile—the Model T. American consumers bought 17,000 Model Ts the year they were introduced at the price of \$850. The popularity of the “Tin Lizzie” (it was also nicknamed the “Flivver”) was met by stepped-up production: In 1917 Ford produced 700,000 Model Ts. The innovation of the moving assembly line (1914) steadily improved production time. This resulted in lowering of manufacturing costs and the decrease of the price of the car to the consumer (in 1924 the Model T sold for just \$295). Model T now became accessible to working class families. In the 1920s automobile registration in the U.S. climbed from eight million to 23 million.

The impact of the automobile on American life was profound and lasting. Public safety officials stepped

up to the ever-increasing demands of traffic control. Roads had to be improved and extended (in 1921 Congress passed the Federal Highway Act which provided federal aid for state roads; in 1923 a national highway system was conceived of). The oil industry worked to keep pace with soaring demand for petroleum and motor oils. Suburbs grew rapidly and businesses rushed to take advantage of the car craze. America's romance with the automobile launched related industries including roadside eateries, drive-in movies, motels, and billboard advertising along highways. The car transformed America into a mobile society. By the end of the twentieth century most Americans viewed the automobile as a necessity of life.

See also: Automobile Industry, Henry Ford, Ford Motor Company, Model T

AZTEC

The Aztec were a nomadic Native American people who settled in central Mexico during the fourteenth century. In 1325, they founded the city of Tenochtitlan (the site of present-day Mexico City). The Aztec were a poor tribe but during the 1400s they conquered neighboring peoples to build a powerful empire that dominated the region for two centuries.

Although they were hunters (primarily deer, rabbit, and fowl), their economy was based on agriculture. Among other crops, they cultivated corn, beans, squash, sweet potatoes, papayas, cotton, rubber, and cacao (the chocolate bean). They cleared forests by a slash-and-burn method and dug trenches to create irrigation systems. They also practiced step-farming in the highlands by cutting terraces into mountainsides to create arable (farmable) tracts of land.

The marketplace was central to Aztec life, and trade flourished. But since the Aztec had no form of money, merchants bartered rather than sold their goods.

They worshiped many gods, including the god of the Sun and the god of the Moon, for whom they built terraced pyramids at Teotihuacan, in central Mexico. The tallest pyramid, built to honor the Sun, reaches a height of 216 feet (66 meters). Their chief god was Quetzalcoatl, who represented the forces of good and light.

According to legend Quetzalcoatl would return one day from over the sea. This belief at first worked in the favor of Spanish conquistador Hernan Cortes (1485–1547) who arrived in central Mexico in November 1519. Aztec emperor Montezuma (1466–1520) initially mistook Cortes and his group for heavenly hosts and presented the Spaniards with gifts.

The impressive city of Tenochtitlan bedazzled the European explorers. Besides being a marvel of engineering (with a system of causeways, canals, bridges, and aqueducts), it was home to an estimated quarter of a million people (more densely populated than any Spanish city at that time). It was also a thriving trade and cultural center. The Spanish explorers called it a Venice of the New World.

When the Aztec revolted in 1520, Cortes put down the insurrection and went on to conquer them, claiming Mexico for the Spanish in August 1521. Mexico City became the seat of the viceroyalty (a province governed by a representative of the king or queen) of New Spain. This designation remained throughout the colonial period.

See also: Inca, Mesoamerica, Native Americans (Treatment of), New Spain (Viceroyalty of)



BABY BOOM

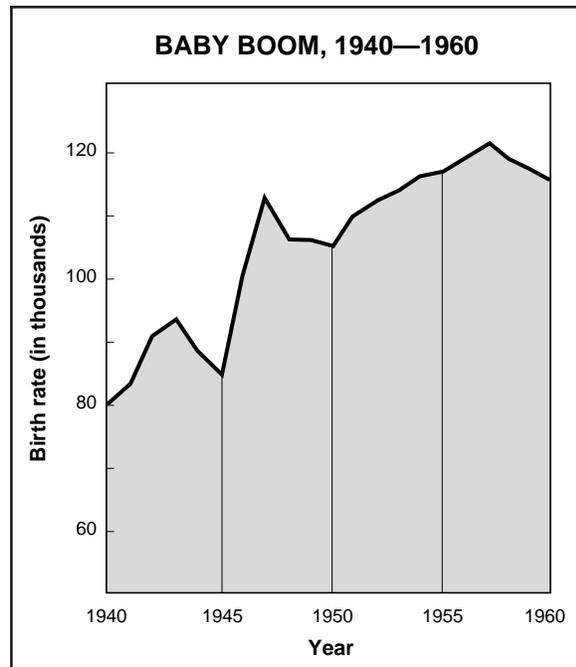
Baby Boom is a term that describes the explosion of childbirths in the United States between 1946 and 1964. The annual birthrate jumped 13 percent in 1946 to 3.4 million, and then climbed fairly steadily to a peak of 4.3 million in 1957. Thereafter the national birth rate leveled to approximately 4 million per year through 1964. In 1965 America experienced its first year of a “baby bust,” as births fell below 3.8 million. The national birth rate continued to decline until 1977 when Baby Boomers themselves started having children. Seventy-seven million children were born during the Baby Boom, as compared with 63 million during the previous generation (1909–1945) and 52 million in the subsequent generation (1965–1978). Several reasons have been proposed to explain the Baby Boom. First, millions of American servicemen returned home after World War II (1939–1945) ready to embrace life, settle down, and start families. Second, the U.S. to which these men came home was the most prosperous and powerful nation in the world, providing its citizens with an unprecedented degree of economic and physical security. Third, society traditionally encouraged American women to be homemakers. Fourth, both American men and women felt a sense of urgency in making the most of life, as they faced the uncertainties of the atomic age and recalled the painful memories of the Great Depression and World War II.

See also: **Post-War Boom, Suburbs (Rise of)**

BACK COUNTRY

Back country is a geographic term that dates back to the American colonial period. Sometimes also referred to as upcountry, the region called back country designated the lands that lie west of the Atlantic coastal areas where the Europeans first settled.

In the late 1600s and into the first half of the 1700s, immigrants landing at eastern seaboard did not



The annual number of births per thousand women 15–44 years old, 1940–1960. Following WWII there was a “Baby Boom,” so called because of the record increase of birth rates.

always integrate into the coastal and near-inland settlements of New England, the Mid-Atlantic, and the South. Many of these newly landed immigrants were Scotch-Irish and German who chose to make their homes in the interior—in the woods of New England, the foothills of the Appalachian Mountains, and the Piedmont of the Carolinas.

The back country regions soon flooded with newcomers, and the colonies were faced with the problem of how to extend their governments, schools, and churches to the new settlements. Because back country settlers were highly independent people, however, they sometimes rejected outside authority. Conflicts arose between the established societies to the east and the new settlements of the frontier. (Such differences were

Balance of Payments

felt even during the American Revolution [1775–1783]; back country settlers tended to remain loyal to Great Britain, because they felt they had little in common with the eastern establishment.)

Clashes between the old guard and the new arrivals in the Carolinas resulted in the Regulator movement (1765–1771), in which extremists became determined to bring law and order to the back country by their own hand. A direct conflict never ensued because the colonial governors pacified the lawless frontier by giving the back country settlers legislative representation and establishing schools in the interior.

See also: North Carolina, South Carolina, Tidewater

BALANCE OF PAYMENTS

The balance of payments is similar to the balance sheets bookkeepers maintain to keep track of their companies' credits and debits. But it does not focus on the cash flow of a single company. The balance of payments records the credits and debits of the entire U.S. economy with its foreign trading partners. If U.S. consumers, businesses, or the government spend more in foreign economies than those economies spend in the United States, the balance of payments is "in deficit." If the reverse is true, the U.S. balance of payments is "in surplus."

The balance of payments is not the same as the balance of trade. The balance of trade is only one of two major components in the balance of payments. The first component is the "current account." The "current account" is roughly the same as the balance of trade, and includes all short-term imports and exports of goods and services. The second component is the "capital account", which includes long-term investments and loans between the United States and foreign economies.

Before 1933 the United States and most of the industrialized world was on the gold standard. Applying this standard meant that all international currencies were valued in terms of how much gold they represented. Because of the Great Depression, Great Britain abandoned the gold standard in the early 1930s, but it was not until the Bretton Woods Agreement of 1944 that a new system based on the U.S. dollar instead of gold was implemented. Under this system a country could always "devalue" its currency relative to other countries' currencies if its balance-of-payments deficit became dangerously large. This would wipe out much of the deficit. The United States was the only country

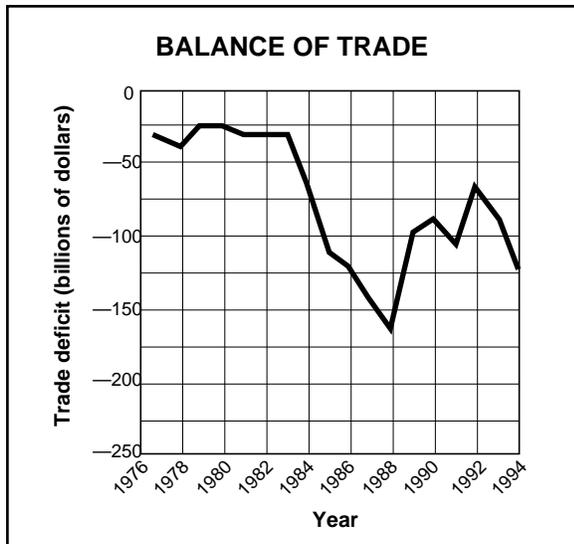
that could not devalue its currency to lower its balance-of-payments deficit. That restriction was applied because the Bretton Woods system valued all currencies against the U.S. dollar. President Richard Nixon (1913–94) abandoned the Bretton Woods Agreement in 1973, which enabled the United States to devalue the dollar when necessary. Since then all world currencies including the dollar may be exchanged freely on the world market at whatever rate the market will bear. The United States continues to accumulate balance-of-payment deficits, when the value of the dollar is strong compared to other currencies. Foreign goods and services are inexpensive relative to U.S. goods and services. The U.S. government offsets these deficits by selling U.S. government bonds to foreign investors attracted to the stable dollar.

See also: Bretton Woods Agreement, Gold Standard, Richard Nixon

BALANCE OF TRADE

As individuals, private businesses, and government agencies buy and sell goods and services around the world, they create a balance of trade. International trade is composed of exports and imports. (Exports are the goods and services produced within a country and sold to foreign countries. Imports are the goods and services that a country buys from other countries.) A country's balance of trade represents the difference between the value of its exports and imports. If a country has a trade surplus, or a favorable balance, then it is exporting more goods than it is importing. On the other hand, a nation may experience a trade deficit or unfavorable balance when its imports are greater than its exports. Because the balance of trade is a result of foreign trade, a surplus is called the foreign trade surplus and a deficit is called the foreign trade deficit. The balance of trade is considered a key component of a country's economic health. Soaring trade deficits slow economic growth because as more goods are imported, demand for domestic products falls.

During the 1980s and 1990s the balance of trade became a major issue in the United States. In 1975 the United States had a foreign trade surplus of \$10.4 billion, but afterwards it experienced foreign trade deficits. Although deficits are rarely good, it was not until 1983 that they became a serious problem. In that year, the U.S. foreign trade deficit started rising, going from \$38 billion in 1982 to \$170 billion in 1987. While the deficit decreased over the next five years it remained more than \$100 billion each year. The U.S. foreign-trade deficit rose in 1993 to \$115.8 billion. The



A trade deficit exists when a country imports more goods than it exports. There was a persistent trade deficit in the U.S. between 1976 and 1994.

top two trading partners for the United States were Canada and Japan; they, accounted for \$70 billion of the trading deficit that year. The United States had a \$10.7 billion trading deficit with Canada and a \$59.3 billion trading deficit with Japan. In 1993 the United States had trading surpluses with the United Kingdom and the Netherlands—\$4.7 billion and \$7.4 billion, respectively.

BALANCED BUDGET AMENDMENT

The creation of the U.S. federal government's annual budget is a lengthy, complex process. The process became even more complicated in the 1990s as some congressional members called upon Congress to enact a Balanced Budget Amendment to halt a growing federal deficit. The movement for a Balanced Budget Amendment, a Republican-backed initiative, gained steam after the 1994 elections that ushered in a Republican-controlled Congress. The Republican Party promoted an anti-tax and anti-spending platform and saw the amendment as a curb to federal spending. For four years in a row, however, the amendment failed to gain the necessary votes in Congress. (Even if the measure had won congressional approval it would have needed to be ratified by the states before it could become a Constitutional amendment.)

The proposed amendment called for the federal budget to be balanced by 2002 and would have required the president and Congress to weigh proposed

total spending against proposed total potential income. Opponents to the amendment believed that it would have restricted Congress from being able to deal with unforeseen situations such as a military crisis. However the amendment had a provision that a three-fifths majority of Congress could waive the requirement of a balanced budget in any given year. Critics also felt that balancing the budget should be accomplished through presidential and congressional restraint in the budget-planning stage.

The call for a balanced budget was not a new theme. Congress had passed many measures over the years to try to mandate a balanced budget with varying or little success. In 1986 the U.S. Supreme Court struck down a provision of the Gramm-Rudman-Hollings Act, which was passed by Congress in 1985. The act required the federal budget to be balanced within five years and failing that, there would be automatic across-the-board spending cuts. The Court ruled that this budget-slashing measure was in violation of the Constitution's doctrine of separation of powers.

See also: Budget Deficit

BALDRIDGE, MALCOLM HOWARD

Malcolm Baldrige (1922–1987) served as Secretary of Commerce for President Ronald Reagan (1981–1989). Once a successful manufacturing executive, he became a highly respected trade negotiator for the United States known for his straightforward, plain-spoken style. As Commerce Secretary he backed protectionist policies against countries that maintained restrictive import regulations against the United States. He also promoted free trade policies and business deregulation.

Baldrige was born October 4, 1922, in Omaha, Nebraska. He graduated from Yale University in 1944 with a Bachelor of Arts in English. Baldrige enlisted in the U.S. Army the year before his graduation from college and fought in World War II. Serving with the 27th Infantry Division, he participated in combat against the Japanese at Okinawa.

After Baldrige was released from the Army in 1946, he took a job as an iron worker for the Eastern Malleable Iron Company in Connecticut, where by 1960 he had worked his way up to company president. In 1962 the Scovill Manufacturing Company (later Scovill Inc.) hired him as an executive vice-president. He was later promoted president and Chief Executive Officer (CEO), and then finally to Chairman of the

Board of Directors. Under Baldrige's leadership, the company sold its brass milling operations and began to focus solely on manufacturing and distribution of household products such as Hamilton Beach appliances, Nutone remodeling products, Shrader hardware, and Dritz sewing notions. The company prospered under Baldrige's management, earning annual revenues of around \$950 million.

The U.S. Senate confirmed Baldrige as Secretary of Commerce on January 22, 1981. Since he had served in Connecticut as campaign chairman for then-Vice President George Bush (1981–1989) during the 1980 presidential primary election, Baldrige's appointment was viewed as a special gesture to the Vice President. Within a year he markedly increased the influence of the Department of Commerce and was eventually considered the most influential Commerce Secretary since former president Herbert Hoover (1929–1933) held the position.

Baldrige was a respected trade negotiator and participated in talks around the world. He was admired in the White House for treating all staff members with equal consideration. A straightforward communicator, he expressed himself simply and succinctly. Within his own department he discouraged the use of complicated bureaucratic language and issued a widely reprinted memo instructing Department of Commerce staff to use active verbs and avoid unnecessary adjectives and adverbs in letters and memos. During his term in office he slashed 30 percent from the department's budget and, while boosting productivity, also cut personnel costs by 25 percent.

With the U.S. trade deficit approaching \$170 billion in the 1980s Baldrige advocated an aggressive approach to deal with foreign trading partners who maintained unfair import policies. Although he advocated free trade and deregulation he did not hesitate to press for "fair trade" or protectionist policies when he felt such action was warranted. For example, Baldrige was at the forefront of the Reagan Administration's move to restrict Japanese imports, including automobiles. His position differed from that of other Reagan advisors, who initially were concerned that protectionist policies would raise prices for American consumers and have a negative impact on foreign relations. In efforts to increase trade Baldrige was a key figure in talks with China and the Soviet Union. He paved the way for U.S. companies in the global marketplace by opening up technology transfers with China, India, and what was then the Soviet Union. At home he was considered an influential negotiator between the administration and Congress.

Baldrige's Cabinet service was tragically cut short when he was killed in a rodeo accident on July 25, 1987. He was an experienced amateur rodeo rider and was practicing calf roping before a competition when his horse reared, fell, and crushed him. He suffered internal injuries to the heart and pancreas and died within a few hours of the accident. His death was a personal and professional loss to the entire Reagan administration. A month after Secretary Baldrige's death, the Malcolm Baldrige National Quality Award was established in his honor.

See also: Free Enterprise, Free Trade, Protectionism, Protective Tariff, Ronald Reagan

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BALTIMORE AND OHIO RAILROAD

In February 1827 the Baltimore and Ohio was chartered as the first railroad company in the United States of America by a group of Baltimore businessmen. Its establishment was a response to an emerging commercial rivalry and to a complex series of social, economic, and technological changes that were transforming the country in the first half of the nineteenth century. The settling of the agriculturally rich Ohio Valley and the rapid expansion of the population on the eastern seaboard, which generated chronic food shortages, demanded that a swift means of transportation be found to ship produce from the Midwest to the coast. The construction of the Erie Canal in 1825 gave New York City a gateway to the interior and a decided edge on Baltimore in their struggle for U.S. economic supremacy. In the 1820s Baltimore was a thriving commercial center of about 80,000 people with an aspiration

to become the nation's leading emporium. Until then it had depended upon the National Road to gain access to markets, but turnpikes were slow and expensive compared to water routes.

In 1826 two brothers, Evan and Philip Thomas, who were important members of Baltimore society, began to solicit support for the establishment of a railroad. In 1827 they were able to convince a number of leading businessmen to "construct a railway between the city of Baltimore and some suitable city upon the Ohio River." The Maryland legislature approved the incorporation of this enterprise on February 21, 1827. The \$3 million needed to support the venture was to be raised by the sale of 15,000 shares of stock at \$100.00 a share. Ten thousand would be offered by the state of Maryland and 5,000 by the city of Baltimore. The entire subscription was sold out in 12 days, and almost every family in Maryland brought shares in the company. Philip Thomas was its first president.

It was originally envisioned that either horses or the wind would provide the power for the train. On January 7, 1830, when the Baltimore and Ohio made first run, teams of horses pulled the cars, which ran on a narrow gauge track, the width of an English carriage. Evan Thomas, however, had been inspired to build a railway by the success of the Stockton and Darlington, an English company that in 1825 became the first to use a steam-powered locomotive to carry freight. Its performance impressed him on a trip abroad. So the Baltimore and Ohio began to experiment with steam engines almost from its inception. Peter Cooper built the first American-built steam locomotive, the Tom Thumb, in the shops of the B & O, and in August 1830 he demonstrated his invention on the company's tracks. Steam power soon became the standard means of propulsion, and as steam engines improved rapidly in the 1840s and 1850s, the cost of transporting freight dropped significantly.

In spite of its willingness to innovate, the Baltimore and Ohio had a rather slow start because of political problems and difficulties in laying track. It planned a 380-mile route that would cross the Allegheny Mountains and connect Baltimore with Wheeling, West Virginia, a city on the Ohio River. Although experts were hired to help with this difficult engineering project, there were many delays. By August of 1830 the line stretched only 13 miles to Elliot Mills, and Washington D. C. was not reached until 1835. The line did not arrive at Wheeling until 1852.

The rail line grew rapidly in the second half of the nineteenth century. Its extension to Parkersburg, West Virginia in 1857 allowed the railway to connect with

local lines and gain access to Columbus, Cincinnati, and St. Louis. Coal from Ohio and West Virginia now became an important cargo, the hauling of which was responsible for a third of the company's revenue by 1860. The Baltimore and Ohio served the Union well during the Civil War (1861–65), and although it sustained damage, it recovered rapidly and continued to expand after the war. The 521 miles of track that existed in 1865 grew to 1,700 in 1885. The B & O was hurt in the panic of 1893 and went bankrupt in 1896. But, the Pennsylvania Railroad bought the majority of its stock and it was able to reorganize successfully. It regained its independence in 1906, when the Pennsylvania Railroad, fearing anti-trust action on the part of the government, sold its controlling interest. Daniel Willard, who was president of the company from 1910 to 1941, improved equipment and service, and by 1935 the B & O possessed about 6,350 miles of track, its high-water mark.

From the 1930s to the 1970s, however, the Baltimore and Ohio, like many railroads, had a difficult time. The Depression, the popularity of the automobile, and the rise of the trucking industry, all contributed to its demise. Except for a brief period of prosperity during World War II (1939–45), track mileage and profits declined, while inflation and the demands of strong unions increased labor costs. Between 1932 and 1952 no dividends were paid on its common stock. In the mid-1950s the Baltimore and Ohio petitioned the public service commissions of New York and Maryland to suspend its service between Baltimore and New York because of the "enormous deficits" that this route was generating.

As the Baltimore and Ohio continued to lose money, it began to seek a financially sound company with which to merge. After previously having received permission from the Interstate Commerce Commission, another railroad with roots deep in American history, the Chesapeake and Ohio formally took control of the company on February 4, 1963. The combined railroads became the Chessie System in 1972.

In spite of the setbacks that afflicted the industry in the first half of this century, American railroads were far from dead. Since a single railway line can be as productive as a ten-lane expressway, trains remain an efficient way to carry large quantities of bulk products, like ore, coal or grain. The use of large containers to hold finished products and flatcars that can transport piggyback truck trailers helped the railroads compete with other means of transport. The financial atmosphere improved, and the Chessie System attained revenues of \$1.5 billion by 1978. In order to gain access to the booming southeastern United States, it merged in

Bank of the United States (First National Bank)

1982 with Seaboard Coastline Industries, Inc., which was then the eighth largest railroad in the United States, and a component of which, the Petersburg Railroad, was chartered in 1830. The Chessie System and Seaboard formed the CSX Corporation, a holding company that controlled one of the largest rail systems in the country. Coincidentally, like the B & O in 1860, the CSX Corporation earned a third of its revenue in 1990 by hauling coal.

See also: Coal Industry, Erie Canal, Interstate Commerce, Maryland, National Road, Railroad Industry

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BANK OF THE UNITED STATES (FIRST NATIONAL BANK)

The nation's founding fathers differed on whether a national bank should be created when they drafted the U.S. Constitution (1788) and established the federal government. This split led to the formation of the two major political parties. The first Secretary of the Treasury Alexander Hamilton (1755–1804) led the Federalist Party. The Federalists believed that the government could use all powers except those expressly denied by the Constitution. Hamilton promoted the establishment of a national bank, arguing it would strengthen the government and promote economic growth. Secretary of State Thomas Jefferson (1743–1826) headed the Democratic-Republicans. They argued that powers not specifically mentioned in the Constitution could not be exercised. Jefferson regarded the national bank as a potential monopoly that could infringe upon civil liberties in the United States.

In 1791 the Federalists won the argument and the First Bank of the United States was established. Eighty

percent of its stock was privately held. The other 20 percent was owned by the U.S. government. Its capital was \$10 million (two million dollars of which was supplied by the U.S. government). The bank had eight branches in U.S. cities. The bank could issue notes, hold deposits, and make loans. It also paid the salaries of public officials and monitored the states' issuance of bank notes (promissory notes issued by a bank which had to be paid—converted to coin—by the bank on demand of the holder). The government's involvement in the bank was short-lived: In 1802 it sold its interest to private investors at a profit. When the charter for the bank came up for renewal it was allowed to expire and the bank ceased to exist in 1811.

See also: Bank of the United States (Second National Bank), Thomas Jefferson

BANK OF THE UNITED STATES (SECOND NATIONAL BANK)

After the First National Bank ceased to exist in 1811 U.S. currency and state bank notes became unstable. They could not be converted to gold or silver coins. Bank notes had become a common means of payment by that time. Inflation increased when the holders of these notes could not exchange them at face value. The economic situation was worsened by the War of 1812 (1812–14), which the United States fought against Britain because of its interference in U.S. shipping. In 1816 the federal government created the Second Bank of the United States, which had an initial capitalization of 35 million. Since the U.S. government owned 20 percent of the institution (just as it did with the First Bank), it deposited \$7 million in start-up capital. With branches across the country the bank's powers were similar to those of the First Bank: it could issue notes, hold deposits, make loans, pay the salaries of public officials, and monitor the states' issuance of bank notes (to ensure they could be converted to coin). U.S. banker Langdon Cheves (1776–1857) became president of the Second Bank of the United States in 1819. He rescued it from the brink of disaster by building up its resources, reorganizing it, and reducing the number of speculative loans it made. Cheves was followed as the bank's president in 1823 by U.S. financier Nicholas Biddle (1786–1844). Under Biddle the bank further restricted credit, sold branch drafts enabling business people to send money from state to state, managed foreign payments, and prevented state banks from issuing notes they could not pay. Biddle's advocates in Congress moved for renewal of the bank's charter in 1832. Since President Andrew Jackson (1767–1845)

viewed the bank with suspicion, he vetoed the bill. The U.S. government removed its deposits from the bank and its federal charter was allowed to expire in 1836. The state of Pennsylvania granted the institution a charter that year, but the bank failed in 1841.

See also: *Bank of the United States (First National Bank), Bank War, Nicholas Biddle, Andrew Jackson*

BANK WAR

President Andrew Jackson's (1829–37) struggle against the Second Bank of the United States, known as the "Bank War," was the major national financial issue during his tenure in office. The Second Bank's policies were blamed for starting the economic crisis known as the Panic of 1819, while its dissolution by Jackson was blamed for the Panic of 1837. At odds with the Bank's president, Nicholas Biddle (1786–1844), Jackson decided to remove federal funds from the Second Bank of the United States and put them on deposit with selected state banks. This action led to accusations that Jackson was using his powers arbitrarily and acting contrary to the Constitution. On March 28, 1834, the U.S. Senate formally voted to censure Jackson for his actions.

The Second Bank of the United States was chartered by the U.S. government in 1816, partly to help manage the federal debt left by the War of 1812 (1812–14), and partly to curb inflation brought on by unregulated state banks. In the early nineteenth century there was no standardized national currency. Instead, because most banks were privately owned and operated for commercial purposes, they issued their own paper money. (In reality, this paper money was imprinted with a promise to pay in gold or silver on demand—an action known in financial markets as specie.) These banks were necessary in order to supply the credit needed to buy land, finance businesses, and create economic growth. However, they tended to lend more paper "money" than they had the specie to cover. Thus, if several large creditors demanded payment in cash at the same time, the result was called a "run" and usually led to the bank's failure. If several banks failed at the same time the result was a financial panic, such as the panics of 1819 and 1837. Both of these events led to high rates of inflation and national depressions.

Because of the large cash resources available through federal deposits, the Second Bank of the

United States could discipline state banks and force them to limit the credit they supplied to borrowers to the amount of specie they kept in their vaults. The Second Bank also competed with state banks by agreeing to pay in specie any of its drafts, no matter where the draft was originally issued. For that reason it was unpopular with shareholders in the state banks, who felt the national bank limited their ability to profit from their investments. The Bank's competition with state-chartered institutions also led to a celebrated Supreme Court case: *McCullough v. Maryland* (1819), in which Chief Justice John Marshall (1755–1835) established that Congress had the right to charter a national bank and that states had no power to tax federal institutions.

The Second Bank of the United States faced many of the problems that plagued state institutions. Between 1816 and 1818, for instance, dishonest managers of the Baltimore, Maryland, branch of the Second Bank swindled investors out of more than \$1 million before they were caught. The following year this scandal forced the resignation of Bank President William Jones. The reputation of the Second Bank was restored by Jones' successor, a South Carolina lawyer named Langdon Cheves. Cheves brought discipline to the Bank's dealings, sharply reducing the number of loans issued and aggressively pursuing individuals and banks that defaulted on loans. Cheves' policies helped place the Bank on a sound financial footing, however, they also caused a number of bank failures that led directly to the Panic of 1819.

(THE SECOND BANK OF THE UNITED STATES IS) . . . UNAUTHORIZED BY THE CONSTITUTION, SUBVERSIVE OF THE RIGHTS OF THE STATES, AND DANGEROUS TO THE LIBERTIES OF THE PEOPLE.

President Andrew Jackson, Veto message to Congress 1832

When Jackson was elected president in 1828 the Second Bank, under Nicholas Biddle, was exercising considerable influence over the nation's financial affairs. By 1828 the Bank had built up a surplus of \$1.5 million and it was paying its stockholders an annual dividend of seven percent. It also helped stabilize a national currency and provided credit and cash in areas of the West and South where financial resources were scarce. By doing so it made development on the American frontier easier and faster. However, to President Jackson the Bank was a tool of Eastern economic privilege, which enabled speculators, monopolists, and moneyed interests to take advantage of farmers and mechanics. Jackson also believed, despite Chief Justice Marshall's ruling in *McCullough v. Maryland*, that

Barbary States

Congress had no right under the Constitution to charter a bank.

In 1832—a presidential election year—Henry Clay and Daniel Webster, two of Jackson’s most vocal opponents in Congress, decided to challenge the president. Even though the Bank’s charter was not due to expire for four years, they promoted a bill that renewed the charter of the Second Bank of the United States. Clay and Webster believed that, whether Jackson signed the bill into law, the president would alienate a significant number of voters and risk his chance of a second term. Jackson vetoed the bill on July 10, 1832, in one of the most strongly worded messages ever sent to Congress. Although Clay tried to make the veto an issue in his campaign for the presidency later that year, Jackson easily won reelection, defeating Clay by a margin of 219 electoral votes to 49.

Jackson believed his reelection represented a mandate from the American people to destroy the Second Bank of the United States. In 1833 he instructed his Secretary of the Treasury, Louis McLane, to prepare for the expiration of the Bank’s charter by removing the government’s deposits to certain state institutions, known as “pet banks.” McLane refused and was moved to the position of Secretary of State. His successor, William Duane, also refused and resigned. Jackson did not find a pliable Secretary of the Treasury until former Attorney General Roger B. Taney (1777–1864) took the position.

The removal of the government’s deposits brought Jackson into conflict with Nicholas Biddle, who was as strong-willed as the president. Biddle felt that Jackson’s actions exceeded his constitutional authority and tried to force the president to renew the Second Bank’s charter by sharply reducing the number of loans and also by vigorously collecting outstanding debts. Biddle’s actions, however, failed to deter the president. Biddle succeeded only in causing a financial crisis for American business in the summer and autumn of 1834. Worse, he alienated some of his strongest supporters.

Despite Biddle and censure by the Senate, Jackson continued his policy of placing funds in state-chartered banks. When Biddle discovered his policies were ineffective, he reversed himself and launched an even more extensive program of lending. For his part, Jackson made a determined effort to eliminate the extension of credit by forbidding banks with federal deposits from issuing banknotes of less than \$5 denominations. In 1836 he issued the presidential order known as the Specie Circular, which required purchasers of public lands to pay in cash. By the time Jackson left office the

Second Bank of the United States credit system had been severely crippled.

The Specie Circular was the final salvo in the Bank War, which ended in victory for Jacksonian principles. When the Bank’s charter expired in 1836, it sought and received a charter from Pennsylvania, the state in which the main branch of the Bank had always been housed. It then operated under the name of the United States Bank of Pennsylvania. In 1839 the Bank found itself with too little specie to cover its loans. It went into receivership and was dissolved in 1841.

Jackson’s victory left a questionable legacy. A boom in public works, such as canal construction, manufacturing, cotton production, and land sales, followed Jackson’s decision to remove funds from the Second Bank of the United States. However, soon after his hand-picked successor Martin Van Buren took over in 1837, the country experienced a severe depression, marked by high rates of inflation and large public debt that lasted for nearly a decade. Many historians argue that by eliminating the Second Bank of the United States, Jackson removed an institution that might have eased the Panic of 1837.

See also: Nicholas Biddle, Panic of 1819, Panic of 1837, Bank of the United States (Second National Bank), Specie, War of 1812

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BARBARY STATES

From the mid-1500s to the mid-1800s the North African countries of Morocco, Algiers (present-day Algeria), Tunis (now Tunisia), and Tripoli (in northwestern Libya) were called the Barbary States. The name was derived from the Turkish leader and pirate Barbarossa, whose name means “red beard” in Italian.

Barbarossa's original name was Khayr ad-Din (c. 1483–1546).

Barbarossa seized Spanish-occupied Algiers in 1518. He placed Algiers and three other states he later captured in the hands of the Ottoman Turks. Under Turkish leadership the region became a center for pirates who raided Spanish and Portuguese ships on the Mediterranean Sea and along Africa's Atlantic coast. The pirates (also called corsairs) demanded payment in the form of loot or slaves.

At the same time the Barbary States extorted money from European nations and the United States. They required the governments of these countries to pay tribute for protecting their merchant marine from seizure by the corsairs. By 1800 the United States had paid Tripoli alone an estimated \$2 million. After Thomas Jefferson (1743–1826) became president of the United States in 1801 Tripoli increased the amount of the tribute. Jefferson had complained bitterly about these payments since his days as U.S. minister to France (1785–89). He preferred to fight the rogue states rather than concede to their demands.

The next 15 years saw intermittent conflict between the United States and Tripoli. The U.S. Navy won important battles along the North African coast. In 1815 the leaders of Algiers, Tunis, and Tripoli signed treaties that obligated them to cease collecting tribute or ransom from the United States. European military initiatives placed further pressure on the Barbary States to end their acts of piracy by 1835.

See also: **Thomas Jefferson**

BARBED WIRE

Barbed wire (or barbwire) was commercially developed in 1874 by American inventor Joseph Glidden (1813–1906). The invention consisted of steel wires that were twisted together to make sharp points resembling thorns. Barbed wire was predominantly used in the West to construct fences. Because trees were scarce on the Great Plains, farmers had lacked the materials to erect wooden fences. Instead they resorted to planting prickly shrubs as a way of defining their lands and confining livestock. This method, however, was not always effective. With the advent of barbed wire farmers were able to fence in their acreage. But small farmers who put up barbed wire angered cattle owners who had previously allowed livestock to roam the open plain. Fearing depletion of grazing lands, ranchers also began using barbed wire to fence tracts, whether or not they could claim legal title to them. Disputes arose

between ranchers and between ranchers and farmers. In 1885 President Grover Cleveland (1885–1889) brought an end to illegal fencing by ordering officials to remove barbed wire from public lands and Indian reservations. Thus, Cleveland helped determine what constituted legal use of barbed wire for defining land claim boundaries. That move also brought the demise of the open range and helped speed the agricultural development of the prairie.

See also: **Cattle Drives, Cowboys, Open Range**

BARNUM, PHINEAS TAYLOR

P. T. Barnum (1810–1891) portrayed himself as the “Prince of Humbugs” to characterize many outrageous stunts and exhibits that were part of his exploits as a showman. His tours, lectures, museum, and autobiography made him famous and a millionaire long before he entered the circus business and formed the innovative Barnum and Bailey Circus in the 1880s. Although he probably never said, “There’s a sucker born every minute,” as is widely believed, he did act as if his audiences hoped to be fooled or, as he said, “humbled.”

Barnum was only 15 years old when his father died. He was forced to find the means to support his mother and five brothers and sisters. After trying his hand at various jobs he bought a weekly newspaper in his hometown of Bethel, Connecticut, called the *Herald of Freedom*. Over the course of several years he was arrested three times for libel and once spent 60 days in jail. In 1834 Barnum moved to New York City and became a shopkeeper.

Shortly afterward, Barnum was transformed from shopkeeper to showman when he discovered an elderly black woman, Joice Heth, who claimed to be George Washington’s (1789–1797) nurse. A showman in Philadelphia had promoted Heth as the first president’s 161-year-old nurse without much financial success. Under Barnum’s management and sensational advertising, Heth toured the country telling her fabricated memories of the president’s childhood. After her death, an autopsy showed her to be only 80 years old. A canny Barnum played to the public and claimed that he himself was also the victim of a hoax.

The Heth experience convinced Barnum that there was a market for satisfying the public’s taste for the outrageous and improbable on a much larger scale. He bought John Scudder’s American Museum in New York City which, at the time, housed conventional exhibits of stuffed animals and wax figures. Barnum



Phineas Taylor Barnum.

transformed the museum into a place of lively entertainment and bizarre attractions, open to the public for 25 cents admission. The five-story museum, which he operated for more than twenty-five years, housed some 50,000 curiosities including strange objects, unusual animals, and assorted people. Some of his most popular attractions were “freaks,” such as the Siamese twins Chang and Eng; Anna Swan, the tallest girl in the world; Annie Jones, the bearded lady; and 26-inch-tall Charles S. Stratton, who became internationally famous as “General Tom Thumb.” Equally important to the success of the museum were advertising and the imaginative stunts Barnum created to publicize his exhibits.

Although his policy of exhibiting humans as freaks may dismay current sensibilities, Barnum’s exhibits were not intended solely for the masses. With Tom Thumb acting as his calling card, the showman was received by many heads of state, including President Abraham Lincoln (1809–65) and England’s Queen Victoria (1819–1901). His European tours were tremendously successful, as were his lectures on such topics as “The Science of Money Making and the Philosophy of Humbug.” In the 1850s he staked his

entire fortune on his most legitimate endeavor: importing Swedish soprano Jenny Lind, “the Swedish Nightingale,” for a tour of the United States. After a publicity campaign that topped all the great showman’s previous efforts, he made immense profits for himself and the singer.

BARNUM’S OBSESSION WITH PUBLICITY WAS SO STRONG THAT WHEN HE BECAME SERIOUSLY ILL AT THE AGE OF 80, HE ASKED A NEW YORK NEWSPAPER TO RUN HIS OBITUARY IN ADVANCE SO THAT HE COULD READ IT HIMSELF.

Barnum was well past 60 when he entered the circus business. With a partner, James A. Bailey (1847–1906), he transformed a small, poorly-run, often fraudulent, wagon-based circus show into a railroad-traveling, three-ring, electrically-lit giant extravaganza that was fun for the entire family. Typically, he made the show a success with his relentless promotion of the Barnum and Bailey Circus as “the greatest show on earth.”

Barnum also publicized his own life and career in an autobiography. It was designed to entertain as much as inform. *The Life of P. T. Barnum, Written by Himself* was published in 1855 and was repeatedly revised and supplemented by the showman. Barnum claimed sales of a million copies for the work and, presumably with the hope of even greater exposure, he eventually placed the book in the public domain. Barnum’s obsession with publicity was so strong that when he became seriously ill at the age of 80 he asked a New York newspaper to run his obituary in advance so that he could read it himself. Two weeks later he died at his home in Connecticut.

See also: Entertainment Industry

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BARTER

Barter is the exchange of goods and services without the use of money. The technique has been used in commercial transactions since ancient times. More recently, U.S.-based multinational companies have used a form of bartering called countertrade when selling large-value items, such as jet aircraft, overseas. Bartering allows a company to dispose of excess inventory, use surplus production capacity, and obtain necessary raw materials when a cash shortage exists. In addition, the technique also enables firms to gain access to new production channels and customers, resulting in increased sales volume.

BARUCH, BERNARD MANNES

Bernard M. Baruch (1870–1965) used his extraordinary talent as a stock market speculator to amass a sizable fortune at an early age. A generous contributor to the Democratic Party, he achieved influence and renown as an informal, and formal, consultant and adviser to the White House.

Born in Camden, South Carolina, in 1879, Baruch was the son of a doctor in the Confederate Army, and a descendant of one of the few Jewish families in South Carolina. The family moved to New York City when Baruch was eleven. He attended public schools and, in 1889, graduated from the College of the City of New York.

Baruch's interests in business and finance were evident early. He began his Wall Street career in the 1890s, as a runner for the firm A.A. Houseman & Co., which later merged into what became Merrill Lynch. He ventured out entirely on his own in his late twenties, and by the age of 30 he was on his way the becoming a very wealthy man. Baruch made his money as a speculator, often by selling short. Shrewdly and boldly playing the markets in copper, railroads, and sugar, sometimes with the help of insider tips, Baruch accumulated a \$15 million fortune by the outbreak of World War I (1914–1918).

As his fortune increased, Baruch became more cautious and, in some instances, tended to sell early.

During the stock market crash of 1929, his financial assets fell from more than \$22 million to about \$16 million, but his maxim, "run quickly" enabled him to escape Wall Street's free fall relatively unscathed. He continued to invest in the stock market throughout his life. Though he continued to build on his substantial wealth, he never became, as many believed from Baruch's very effective self-promotion, one of the richest men in America.

Baruch's wealth did not blind him to the world outside the stock market. He played an active role in the great events of his time. For most of his long life, he dedicated much of his time and efforts to public service. Still in his early thirties in 1912, Baruch became an informal adviser to President Woodrow Wilson (1913–1921). In 1916 Wilson appointed him to the Advisory Commission of the Council of National Defense, and then made him chairman of the War Industries Board in 1917. In 1919, following the end of World War I, Baruch was appointed to the Supreme Economic Council at the Versailles Peace Conference, a meeting of world leaders to set the terms of the German surrender, and he advised Wilson on terms of the peace.

In the 1930s, with the Democrats back in the White House, Baruch maintained a long, but not close, relationship with President Franklin Roosevelt (1933–1945). When World War II (1939–1945) broke out, Roosevelt called on the expertise Baruch developed through his running of the War Industries Board during World War I to advise the government on wartime economic mobilization. Among his other contributions to the war effort, Baruch was instrumental in a successful effort to overcome bottlenecks between the United States and several South American countries, obtaining rubber imports vital to the war effort.

In 1946, after World War II ended, Baruch was asked by President Harry Truman to head the American delegation to the United Nations Atomic Energy Commission, a group representing the major world powers, established to find international control mechanisms for the use and proliferation of nuclear energy. His proposal to control atomic energy, known as the Baruch Plan, required that any agreement on atomic weapons must contain veto-proof sanctions on offenders and include provisions for inspection of all atomic facilities. The then-Soviet Union could not accept these conditions, and Baruch's plan was rejected by a United Nations vote on New Year's Eve 1946.

Baruch's 40-year career as a close adviser to U.S. presidents gave him a reputation as "the parkbench sage," and he was one the most respected men of his

Baseball

time. When he died at age 94 in 1965, he had come to represent to many Americans the personification of the term “elder statesman.”

See also: Council of National Defense, Speculation, Wall Street, War Industries Board, World War I, World War II

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BASEBALL

Baseball, a stick-and-ball sport played with four bases arranged in a diamond, was first organized in the mid-1800s in the United States. In June 1846 two amateur teams of nine players played each other in a ball game on the Elysian Fields in Hoboken, New Jersey, just across the Hudson River from New York City. The game was umpired by U.S. sportsman, Alexander J. Cartwright (1820–1892), who established the rules of play. The game is similar in some ways to the English games of Cricket and Rounders. A legend grew up that baseball’s beginnings on U.S. soil dated to 1839 when U.S. Army officer Abner Doubleday (1819–1893) invented the game in Cooperstown, New York. Though Doubleday helped popularize games resembling modern baseball, there is little evidence that he developed the game that people in the United States know today, which became a favorite pastime during the late 1800s.

The first baseball club, the Knickerbocker Base Ball Club, was organized by Alexander Cartwright (1820–1892) in 1842 in New York City. By 1845 the



The great Jackie Robinson slides into home plate as Yogi Berra reaches to tag him out. Jackie Robinson broke the “color line” in 1942 by signing on as second baseman for the Brooklyn Dodgers.

team developed a set of twenty rules which included specifications for where the bases are to be positioned, how runners can be tagged as out, and defined a field of play, outside of which balls are declared “foul.” The so-called “New York Game” spread in popularity after the 1846 Hoboken match. By 1860 there were at least fifty ball clubs. Pick-up games were played in fields across the country. Union soldiers helped spread the game during the American Civil War (1861–1865). Its popularity increased during the last three decades of the nineteenth century.

The first professional baseball team was the Cincinnati Red Stockings formed in 1869. In 1876 the National League of Professional Baseball Clubs was founded; it included teams in Boston, Chicago, Cincinnati, Hartford, Louisville, New York, Philadelphia, and St. Louis. By the 1880s the sport became big business: an 1887 championship series between St. Louis and Detroit drew 51,000 paying spectators. The American League was formed in 1901 and two years later the American and National leagues staged a championship between their teams. In 1903 the Boston Red Socks beat the Pittsburgh Pirates in the first World Series.

During the early decades of its existence as an organized sport, baseball reflected the racism of U.S. society by excluding African American players. When one all-black team applied for admittance in 1876 the National League adopted an unwritten “gentlemen’s agreement” denying entry to any baseball club with black players. For the most part this exclusionary clause was effective in segregating baseball, but African American players occasionally found positions in the minor leagues.

The unfairness of excluding excellent players solely because of their skin color occasionally led to challenges of the color line. Catcher Moses Fleetwood (“Fleet”) Walker was actually the first black player to break into the major leagues. In 1883 Fleet and his Toledo teammates (Toledo then had a team that belonged to the American League) won the pennant. Still most black baseball players were relegated to the Negro leagues. Because of their limited audience, the Negro leagues had difficulty in establishing themselves. However in 1920 Rube Foster, a talented black pitcher and manager for the Chicago American Giants, formed the Negro National League. A number of African American teams and leagues were formed in the 1920s and the Negro leagues flourished for about 25 years, mostly in Mid-western cities. The Negro leagues fielded some excellent players, including Satchel Paige, Ray Dandridge, and John Henry “Pop” Lloyd. Paige was so devastating as a pitcher that he would often call his outfielders in and have them sit down in the infield while he retired the side. The color line was definitively broken when in 1947 Brooklyn Dodger Manager Branch Rickey (1881–1965) signed second baseman Jackie Robinson (1919–1972). Although he had to put up with ostracism from many of his teammates and cat-calls from the crowds Robinson eventually won acceptance and respect. Once Robinson became a hero to the general audience, African American players were signed by other major league teams, and the Negro leagues died.

The rise of organized professional sports is tied to the greater affluence that an industrialized society provided. People now had more money to spend, and an overall increase in leisure time as the workweek declined allowed baseball to become the national sport. Played on an open field, the game recalled the nation’s agrarian roots. But with standardized rules, reliance on statistics, and the larger audience provided by radio and television, baseball looked forward to a modern, industrialized future.

See also: Amusement Parks, Bicycles

BEAN, LEON LEONWOOD

Tired of returning from hunting trips with cold, wet feet, Leon Leonwood (“L.L.”) Bean (1872–1967) designed a new type of boot that combined lightweight leather tops with waterproof bottoms. In 1912, the success of his practical footwear launched a company with annual sales that reached more than \$1 billion by the end of the twentieth century.

Bean was born and brought up in rural Maine. Since his parents died when he was twelve, he and his brothers and sister lived with relatives in various remote “Down East” (Maine) villages. Early in life Bean developed a passion for hunting, fishing, and roaming the outdoors. He worked at odd jobs to support himself, his wife, and three children.

In 1911, at age 39, Bean invented what he claimed were the first modern lightweight, warm, and dry boots. He called his boots the “Maine Hunting Shoe,” and in 1912, while helping his brother run a small dry goods store in Freeport, Maine, he decided to sell the handmade footwear by mail order. His first step was to obtain a copy of the publicly available list of persons holding Maine hunting licenses—the natural market for his boots. Bean sent each of the licensed hunters his first mail order catalog, a three-page brochure, extolling the virtues of his new boots and guaranteeing 100 percent satisfaction.

SELL GOOD MERCHANDISE AT A REASONABLE PROFIT, TREAT YOUR CUSTOMERS LIKE HUMAN BEINGS, AND THEY’LL ALWAYS COME BACK FOR MORE.

L.L. Bean

He had to make good on that guarantee almost immediately. Ninety of the first 100 boots sprung leaks when the stitching holding the leather tops pulled out of the soft rubber bottoms. Without hesitation Bean refunded the purchase price of the boots to his disgruntled, but impressed, customers. He borrowed additional capital, improved the boot’s design, and began to manufacture the improved footwear on a much greater scale. The Maine Hunting Shoe soon became a necessity for anyone seeking to hunt or fish in the Northeast wilderness.

By 1917 Bean’s business had outgrown his brother’s dry goods shop and Bean moved to a showroom across the street where customers could drop by to purchase his products in person. By 1925, with hand knit stockings and other associated items (such as shoelaces) added to his product line, Bean employed 25 people in his operation, and yearly sales had reached \$135,000. Customers were attracted by the practical nature of L.L. Bean products and by the quirky, folksy tone of the catalogs Bean wrote himself. Most attractive, however, was Bean’s reputation for honesty. Customers liked the old fashioned style and character of L.L. Bean, where the boss’s motto for success was: “Sell good merchandise at a reasonable profit, treat your customers like human beings, and they’ll always

Bear and Bull Markets

come back for more.” Bean’s guarantee was unconditional. No matter how long a customer owned a product, it could always be exchanged for a replacement or a refund.

Throughout the 1920s and 1930s, L.L. Bean continued to expand its mail-order business and product line; the company was incorporated on July 1, 1934. During World War II (1939–1945), Bean served as a consultant on boot design for the U.S. Army and Navy, and his company received several contracts for military versions of hunting boots and other outdoor products. By the late 1940s, L.L. Bean had become a household word, attracting regular visits from political leaders, sports and other celebrities and had added casual apparel, gear for many outdoor sports, and additional footwear to its line.

Throughout the last years of his life, in semi-retirement in Florida, Bean held his company relentlessly to his old-fashioned business practices, limiting growth, and only slowly accommodating modern technology. By 1967, when its founder died at age 94, L.L. Bean was in danger of retreating into a comfortable, but constricted, niche market.

Under Bean’s grandson, Leon A. Gorman (1934–), who became president in 1967, L.L. Bean was drastically modernized. The company grew into one of the world’s leading international mail order concerns, with sales of over \$1 billion per year. L.L. Bean sells more than 16,000 products through catalogs, the Internet, a retail operation in Freeport, Maine, eight retail stores in Japan, and 90 factory outlet stores. The Freeport store, opened in 1951, is open 24 hours a day, 365 days a year, and remains one of Maine’s most popular tourist destinations. More than 3.5 million people visit the store each year. Over 4.5 million customers place orders from all over the world; as many as 180,000 orders a day are received by phone. Despite the company’s phenomenal growth in the past three decades of the century, however, it has retained its founder’s strong commitment to product quality, customer satisfaction, and love of the outdoors.

See also: Leon Gorman, Mail-Order Houses

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BEAR AND BULL MARKETS

The terms *bear* and *bull* refer to two opposing attitudes about the future of the economy. The meanings of the terms are symbolized in their names. Bears tend to be overbearing and push prices down. They believe that stock prices, currencies, commodities, or other financial investments will fall. Viewing the future pessimistically, bears are cautious investors and may quickly sell their holdings to avoid the losses they are certain will come. Bulls, however, run fast with their heads (and horns) high; they want to grab stocks and push prices upward. Bulls believe stock and other investment prices will rise. This optimism leads them to confidently invest in the stock market, believing their investments will increase in value.

Bear markets tend to coincide with recessions or downturns in the business cycle, while bull markets coincide with “boom” periods of high growth. The greatest bear market in U.S. history occurred after the stock market crash of 1929 when, over a period of two months, the Dow Jones index of industrial stocks lost 50 percent of its value. Because investors had little faith that the economy would rebound they avoided buying stocks and sold their investments before all their value was lost. This bear market existed until the end of World War II (1939–1945). In fact, it was not until the early 1950s that the Dow Jones Industrial Average regained its high of September 1929.

The terms *bear* and *bull* were already being used in the United States in the mid-1800s, when they were often used to refer to investors who sold and bought purely speculative stocks (called “fancy stocks”) of companies that had little chance of ever earning a profit. Before the Great Depression, the decade of the “Roaring Twenties” was the greatest bull market the United States had ever seen. Between 1921 and 1929 the stocks on the New York Stock Exchange grew more than 800 percent in value. The next great bull market occurred between 1954 and 1969, but this time investors’ optimism was based not on speculation (risk

taking with the stocks of companies the investor knows little about) but on real growth in the profits of U.S. corporations. In the 1970s, runaway inflation, higher oil prices, and political turmoil led to the first extended bear market since the 1930s. Beginning in 1982, however, the U.S. economy began to enjoy the longest and most dramatic bull market in its history. The Dow Jones Industrial Average stood at 831 in 1982, but in early 1999 it crossed the 10,000 level for the first time ever.

See also: Business Cycle, Dow Jones Industrial Average, New York Stock Exchange, Recession, Speculation, Stock, Stock Market Crash of 1929

BECHTEL, STEPHEN DAVISON

Stephen D. Bechtel (1900–89), a man who directed some of the twentieth century's greatest construction feats, possessed extraordinary imagination and organizational abilities. Beginning with his work on the Hoover Dam in the 1930s, he thrived on surmounting nearly impossible challenges. In naming him one of its 100 most influential persons of the twentieth century, *Time* magazine said, "Only a man who thought on the grandest scale could build the world's biggest engineering projects. . . . Thinking big was Steve Bechtel's forte."

Young Bechtel spent school vacations working with his father and brothers on rugged railroad construction projects throughout the West. During World War I Bechtel served in France with the Twentieth Engineers, American Expeditionary Force. After the war he attended the University of California at Berkeley but left before graduation to join his father in the construction business.

Bechtel's father founded the W. A. Bechtel Company in California in 1925 and appointed his son its vice president. The company built many of the roads, tunnels, bridges, pipelines, and dams that fueled West Coast economic growth in the twentieth century. In 1931 the elder Bechtel organized six companies in a successful bid to build one of the largest construction projects in history, the Hoover Dam. When his father died suddenly in 1933, Bechtel became president of the family company and chief executive of the dam project.

The Hoover Dam, which eventually transformed the economy of much of the West, was completed in a remarkably short five years, at a cost of \$54 million.

The scale of the project was immense. The dam, which rises 70 feet in the air, required 4.4 million cubic yards of concrete to build. 5,000 workers at a time toiled on the project, excavating 3.7 million cubic yards of rock.

Bechtel followed the success of the Hoover Dam project with the 8.2-mile San Francisco–Oakland Bay Bridge. In 1936 he joined with steel executive John A. McCone (1909–1991), who later became director of the CIA, to form Bechtel-McCone Corporation, a firm concentrating on designing and building petroleum refineries and chemical plants. During World War II, Bechtel's companies and joint ventures turned their efforts to supporting U.S. defense efforts. The shipyards his companies organized built 560 vessels between 1941 and 1945. Bechtel's companies also guided the work of aircraft modification plants and constructed naval bases and other key defense facilities.

In 1946, following the war, Bechtel consolidated his various companies into the Bechtel Corporation and began to build many of the world's oil pipelines, including the 1,600-mile Alaska pipeline and, beginning in 1947, the Trans-Arabian (1,068 miles) pipeline that opened up Mideast oil reserves to the world.

Bechtel was widely recognized as a man of unusual vision. In his last years he was actively engaged in building a new city, Jubail, on the site of a former fishing village in Saudi Arabia. He pioneered the concept of "turnkey" projects—projects that remained entirely under his company's supervision and responsibility until they were completed. Coordinating the work of several contractors with Bechtel as project manager was another of his initiatives that took root and helped his company to flourish.

Bechtel resigned as president and CEO of Bechtel Corporation in 1960. He remained active in the company's affairs until his death in 1989 (at age 88), first as chairman of the board and later as senior director. He had built the company from revenues of less than \$20 million when he took it over in 1936 to \$463 million when he retired in 1960. By 1997 the company was posting annual revenues of \$11.3 billion. Since 1898 four generations of the Bechtel family have guided the family-owned business through 19,000 projects which included transit systems in San Francisco, Washington, D.C., and Athens, Greece, the Boston expressway project, and the Hong Kong airport.

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BELL, ALEXANDER GRAHAM

In 1876 Alexander Graham Bell (1847–1922), at age twenty-nine, invented the telephone. A year later he founded the Bell Telephone Company, which later became the American Telephone and Telegraph Company (AT&T). Throughout the remainder of his long and productive life, Bell continued his work as an inventor, eventually securing eighteen patents in his name. In addition he maintained a lifelong commitment to the education of the deaf.

Bell was born in 1847 Edinburgh, Scotland, to a family of eminent speech educators and musicians. His father, Alexander Melville Bell, taught speech to the deaf and the mute and wrote textbooks on correct speech. Bell's mother was a portrait painter and an accomplished musician. Bell received his early education at home and graduated at age fourteen from the Royal High School, Edinburgh. He then enrolled as a student teacher at Weston House, a nearby boys' school, where he taught music and speech and in turn received instruction in other subjects. Bell also studied briefly at Edinburgh University. In his late teens, Bell worked as an assistant to his father, promoting "visible" speech, a system developed by his father that shows the articulation of sound on the lips, tongue, and throat. Bell became deeply interested in the study of sound, especially as it affects hearing and speech, and he followed this interest throughout his life.

When young Bell's two brothers died of tuberculosis, their father took the family to the healthier climate of Ontario, Canada, in 1870. Bell soon moved to Boston, Massachusetts, and in 1872 opened his own school for training teachers of the deaf. In 1873 he became a professor of vocal physiology at Boston University.

Bell's interest in speech and communication led him to investigate the transmission of sound over wires. Backed financially in his investigations by



Alexander Graham Bell testing his new telephone invention.

Gardiner Hubbard and Thomas Sanders, grateful fathers of two of his deaf pupils, he experimented with developing the harmonic telegraph, a device that could send multiple messages at the same time over a single wire. Using vibrating membranes and an actual human ear in his tests, Bell also investigated the possibility of transmitting the human voice by wire.

MR. WATSON, COME HERE, I WANT YOU!

Alexander Graham Bell, first words spoken on the telephone, March 10, 1876

Early in 1874 Bell met Thomas A. Watson (1854–1934), a young machinist and technician with expertise in electrical engineering. Watson became Bell's indispensable assistant and the two spent endless hours together experimenting with transmitting sound. In the summer of 1874 Bell developed the basic concept of the telephone using a varying but unbroken electric current to transmit the sound waves of human speech. However, at the urging of his financial backers, who were more interested in the potential of the harmonic telegraph, Bell did not pursue the idea for several months. He resumed work on the telephone in 1875 and by September began to write the required patent specifications.

Bell's patent, U.S. Patent No. 174,465, was granted on March 7, 1876, and on March 10, the first

message transmitted by telephone passed from Bell to Watson in their workshop: "Mr. Watson, come here, I want you!" After a year of refining the new device Watson and Bell, along with their two backers Hubbard and Sanders, formed the Bell Telephone Company in 1877. Soon afterwards Bell married Mabel Hubbard, his former speech student and daughter of his new partner, and sailed to England for a yearlong honeymoon.

Bell's claim to have invented the telephone was challenged in more than 600 lawsuits. The courts eventually upheld Bell's patent, and the Bell Company's principal competitor, Western Union Telegraph, agreed to stay out of the telephone business. The Bell Company, in turn, stayed away from the telegraph. In 1878, with the sale of the Bell Company to a group of investors, Bell's financial future was secure and he could devote the rest of his life to his work as an inventor. Bell won France's Volta Prize for his telephone invention and received 50,000 francs in prize money. With this reward he established the Volta Laboratory in Washington, D.C., primarily for research on deafness. Among the new devices he and his fellow scientists at the laboratory invented were the graphophone, a device for recording sound on wax cylinders or disks (an advance that made Thomas Edison's (1847–1931) phonograph commercially viable); the photophone, used for transmitting speech on a beam of light; a telephone probe, used in surgery until the discovery of the X-ray; an audiometer; and an induction balance for detecting metal within the human body.

Working with collaborators at the Volta Laboratory and at another scientific facility he established near Baddeck, Nova Scotia, Bell invented a prototype air conditioning system, an improved strain of sheep, an early iron lung, solar distillation of water, and the sonar detection of icebergs. The possibility of flight fascinated Bell. He built tetrahedral kites capable of carrying a human being and supported pioneering experiments in aviation. He also designed a hydrofoil boat that set the world water speed record in 1918.

Bell retained his dual interests in education of the deaf and invention throughout his later life. He became a naturalized U.S. citizen in 1882 and established several organizations to support teaching of the deaf, including the American Association to Promote the Teaching of Speech to the Deaf in 1890, later known as the Alexander Graham Bell Association for the Deaf. He was also influential in the founding of *Science* magazine and the National Geographic Society. Bell died in 1922.

See also: American Telephone and Telegraph

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BENNETT, JAMES GORDON

James Gordon Bennett (1795–1872), in many ways the father of modern journalism, shaped the American newspaper as it is today. At the time of the American Civil War (1861–1865), Bennett's newspaper, the *New York Herald*, had the largest circulation of any newspaper in the world and it wielded great national influence. Reportedly the only paper that President Abraham Lincoln (1861–65) read daily, the *Herald* made Bennett one of the wealthiest men in America.

Bennett was the first newspaper publisher to exploit rail and steamboat transportation and use the telegraph to speed the delivery of news. He joined Horace Greeley (1811–1872) and Charles Dana (1819–1897) to become one of the three giants of journalism and publishing in America in the nineteenth century.

Born and raised in Scotland, Bennett grew up in a devout Catholic family in a overwhelmingly Presbyterian community. He received a classical education in a local school and later at a Catholic seminary in Aberdeen. In 1817, at age 24, he sailed to America, landing in Nova Scotia with just five pounds sterling in his pocket. By the time he reached Boston, he was penniless and actually went two days without food until he found a job as a clerk with a book selling and publishing firm. After working for the firm as a proofreader and learning many of the details of the publishing business, Bennett moved on to New York where he sought work as a freelancer.

Bennett's next important job was with the very influential Charleston, South Carolina, *Courier*. Its

Beringia

editor, Aaron Smith Wellington, was ahead of his time in believing that speed and timeliness were crucial to a newspaper's success. For example, Wellington scooped the rest of the country with the first news of the Treaty of Ghent, which ended the War of 1812 (1812–1814). Bennett's job at the *Courier* was to translate articles from French and Spanish newspapers that were brought by ships into Charleston's busy seaport. Although he learned the tenets of deadline journalism in Charleston, Bennett's poor social skills hampered his ability to participate in the city's active social life. At the end of ten months he returned to New York.

For the next few years, until 1827, Bennett supported himself precariously as a lecturer and freelance writer. In 1827 he was hired by the *New York Enquirer* and became the first Washington correspondent in history. Over the next few years he worked for a series of newspapers as a reporter. Twice he tried to start his own paper and both times he failed.

Finally, in 1835, with \$500 in capital, he founded the *New York Herald*. The newspaper's offices were in a cellar furnished with planks and barrels and Bennett was its publisher, reporter, and advertising and circulation manager. At the time New Yorkers already had a choice of more than a dozen daily newspapers, and the *Herald's* chances for success were poor.

But in the next 37 years Bennett built the *Herald* into the newspaper with the largest circulation in the world. He accomplished this by introducing several enduring innovations. Among them were listing the closing prices of stocks traded each day on the New York Stock Exchange, hiring as many as 63 correspondents to cover the battles of the Civil War, printing the first illustration accompanying a news story, establishing correspondents in Europe, and introducing a society column. Bennett was the first newspaper publisher to use the telegraph to obtain a full report of a major political speech and was also the first to narrate a sensational murder in great detail.

Whatever resources were demanded, Bennett was determined to cover stories ahead his rivals. Speed in newsgathering became his watchword. Even the most successful of his competitors were sometimes forced to copy stories from the *Herald*. He early realized and exploited the communications potential opened up by the telegraph, the ever-faster steamships crossing the Atlantic from Europe, and the new railroads which began to connect American cities. During the Mexican War and the Civil War, the *Herald* usually received stories from the battlefield days ahead of the dispatches that were sent to the War Department in Washington.

The *Herald* in the mid-nineteenth century was among the most profitable newspapers in the world. Bennett's salary of about \$400,000 a year made him one of the wealthiest Americans of his time. Politically independent, reported on deadline, and aimed at the widest possible audience, the *New York Herald* was the first mass circulation newspaper that was essential reading for the country's opinion makers and political leaders.

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BERINGIA

Beringia is the land bridge thought to have existed over the Bering Strait, the waterway that separates Asia (Russia) from North America (Alaska). Scholars believe that a natural bridge was formed across the strait either by ice or by dropping sea levels that exposed land masses during the late ice age (known as the Pleistocene glacial epoch, which ended around 10,000 B.C.)

Asian peoples are believed to have migrated over Beringia as they pursued large game. They arrived in North America as early as 50,000 B.C. These people were the Paleo-Indians, the first inhabitants of the Western Hemisphere. Many American Indian groups that were encountered by the Europeans in the early 1500s were descendants of the migratory Paleo-Indians.

The Bering Strait, which connects the Arctic Ocean and the Bering Sea, is 53 miles (85 kilometers) across

at its most narrow point. The first European to traverse the Bering Strait (in 1728) was Danish navigator Vitus Bering (1681–1741), from whom it takes its name. He had been employed by Russian Czar Peter the Great to determine whether Asia and North America were connected.

See also: Paleo-Indians

BESSEMER PROCESS

The Bessemer process was the first method for making steel cheaply and in large quantities, developed during the early 1850s. It was named after British engineer Henry Bessemer (1813–1898), who invented the process. The process was also developed independently in the United States by William Kelly (1811–1888), who received a patent for it in 1857.

Bessemer and Kelly experimented with injecting air into molten pig iron (crude iron); the oxygen in the air helped rid the iron of its impurities (such as manganese, silicon, and carbon), converting the iron to molten steel, which was then poured into molds. The process was introduced to the U.S. steel manufacturing industry in 1864. Alloys were also added to the refining process to help purify the metal. Within two decades the method was used to produce more than 90 percent of the nation's steel; it was eventually implemented throughout the industrialized world.

In the mid-1800s rich iron ore deposits were discovered in the Upper Peninsula of Michigan along Lake Superior. The discovery of the minerals and the innovation of the Bessemer process combined to create a thriving steel industry in the United States. There was a growing market for the material; railroads needed iron to make rail gauges and the new auto manufacturing industry used steel to make cars. As a result annual U.S. steel production increased by a factor of 20 between 1880 and 1910.

One of the early industry leaders was Andrew Carnegie (1835–1919). In 1873 Carnegie founded the nation's first large-scale steel plant at Braddock, Pennsylvania. In 1901 he sold the plant and other steel mills to the United States Steel Corporation (later to become the USX Corporation, the largest steel producer in the United States). The Bessemer process continued to be used until after World War II (1939–1945). The open-hearth method of refining gradually replaced it.

See also: Andrew Carnegie, Steel Industry

BETHUNE, MARY MCLEOD

Mary McLeod Bethune (1875–1955) was an educator and activist who founded a college in Florida for African-American women. She promoted education for African Americans at the national level and served on many presidential committees. Involved in the women's movement, Bethune founded and led organizations that represented African-American women in the United States.

Mary McLeod Bethune was born on July 10, 1875, near Mayesville, South Carolina. She was the fifteenth of seventeen children born to former slaves. As a child, she worked in a cotton field, where she developed a strong work ethic and an appreciation for manual labor. Because of her strong desire to learn how to read and write, Bethune was allowed to attend the one-room schoolhouse in Mayesville. Her teacher recognized her talent for learning and recommended her for a scholarship to attend Scotia Seminary in Concord, North Carolina. Bethune graduated from the seminary in 1894 and then won a scholarship to the Moody Bible Institute in Chicago.

Bethune started her career as a teacher's assistant in 1896, at the same Mayesville school she had attended. Next she received an appointment from the Presbyterian Board of Education to teach at the Haines Normal and Industrial Institute in Augusta, Georgia. Under the direction of Lucy Craft Laney, Bethune learned a great deal about how to administer a girls' school with primary, grammar, normal, and industrial courses. In 1898 Bethune was transferred to the Kendell Institute in Sumpter, South Carolina, where she met her husband-to-be, Albertus Bethune. The couple married in May 1898, and Bethune gave birth to their son, Albertus McLeod Bethune, Jr., in February 1899.

While living with her new family in Savannah, Georgia, Bethune met Reverend C.J. Uggans, a Presbyterian minister from Palatka, Florida, who encouraged her to found a school in Palatka. Bethune took the opportunity and spent the next five years there. Not only did she start a community school, but she also worked in the jails, sawmills, and clubs teaching and doing missionary work. A few years later, she was encouraged by Reverend S.P. Pratt to move to Daytona and start a new school. In 1904 Bethune opened the Daytona Normal and Industrial Institute for Negro Girls. Bethune worked tirelessly at the school to develop its academic program and earn regional accreditation. In addition, because she had no assets with which to fund the school, Bethune spent a considerable amount of time soliciting contributions from both the African American and white communities. In 1923 Bethune's



Mary McLeod Bethune.

school merged with the Cookman Institute for Men, then in Jacksonville, and in 1929 the institution became known as the Bethune-Cookman College in Daytona Beach. Bethune served as president of the college until 1947. The college awarded its first four-year degrees in teacher education in 1943.

Bethune was not only an educator, but also a leader and an activist. In 1924 she became the eighth president of the National Association of Colored Women's (NACW) clubs, and in that position she helped establish a national headquarters for the organization in Washington, D.C. In addition, Bethune also served on many presidential committees. In 1928 she attended President Calvin Coolidge's (1923–1929) Child Welfare Conference. During President Herbert Hoover's (1929–1933) administration she attended the National Commission for Child Welfare and served on the Hoover Commission on Home Building and Home Ownership. She was appointed to the Planning Committee of the Federal Office of Education of Negroes in 1933.

WE MUST GAIN FULL EQUALITY IN EDUCATION . . . IN THE FRANCHISE . . . IN ECONOMIC OPPORTUNITY, AND FULL EQUALITY IN THE ABUNDANCE OF LIFE.

Mary McLeod Bethune, *Chicago Defender*, May 1954

Aside from her work with the NACW, Bethune was active in other aspects of the women's movement during the 1920s and 1930s. In 1935 she founded the National Council of Negro Women in New York City, and remained president of that organization until 1949. Through the activities with the women's movement Bethune came to the attention of Eleanor Roosevelt (1884–1962), who invited her to attend a luncheon for leaders of the National Council of Women in the United States. Bethune was appointed administrator of the National Youth Administration (NYA) by President Franklin D. Roosevelt (1933–1945), a position she held from 1935 to 1944. During her tenure with the NYA, Bethune was instrumental in encouraging African Americans to join the Democratic Party, and she traveled around the country promoting Roosevelt's New Deal policies. In addition, Bethune founded the Federal Council on Negro Affairs, a group of prominent African American administrators in Washington during the Roosevelt administration who became known as the "black cabinet."

The NYA was abolished in 1943, and Bethune returned to Daytona Beach. She was, however, still involved in national affairs. Bethune lobbied the United States War Department in 1942 to commission

black women officers in the Women's Army Auxiliary Corps (WAAC). Two years later she became the national commander of the Women's Army for National Defense, an African American women's organization founded by Lovonia H. Brown. After World War II (1939–1945), Bethune became involved in international activities, traveling to Haiti, Liberia, and Switzerland.

Mary McLeod Bethune died of a heart attack on May 18, 1955. Her legacy lives on not only through the Bethune-Cookman College, but also through the Mary McLeod Bethune foundation. In addition, her home, "The Retreat," was made a National Historic Landmark by the National Park Services in 1975.

See also: Women's Movement

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BEVERIDGE, ALBERT JEREMIAH

Albert Jeremiah Beveridge (1862–1927) was one of the leading political progressives in the United States, and a highly respected historian. He was a champion of U.S. economic growth, but he also sought to protect U.S. workers and consumers.

Albert Beveridge was born on October 6, 1862 in Highland County, Ohio, to Thomas and Frances Beveridge. He had a difficult childhood because of family financial problems. In 1865 his father lost his property and moved the family to a farm in Illinois. Beveridge went to work as a child to help support the family. He worked as a plowboy at age twelve, as a

B.F. Goodrich

railroad hand at age fourteen, and as a logger at age fifteen. When he was sixteen Beveridge was able to attend high school. After graduating in 1881, he borrowed \$50 from a friend to attend Asbury College (now De Pauw University) in Greencastle, Indiana. Beveridge managed to finance the rest of his college education with prize money from oratorical competitions.

Beveridge graduated from college in 1885 and was admitted to the bar in 1887. He then opened his own law practice in Indianapolis, where he built a successful business over the next twelve years. Beveridge continued to use his skills as an orator, this time for the Republican Party. During the late 1880s and early 1890s he became known as one of the party's most capable and enthusiastic campaigners. He quickly became a skilled lawyer and cultivated many friendships among the city's leading political figures.

In 1889 there was a deadlock among the leading Republican candidates for senator and the legislative caucus turned to Beveridge as a compromise candidate. At the age of thirty-six, Beveridge was elected as the youngest member of the United States Senate. In his first term Beveridge spoke out as a firm believer in U.S. imperialism and passionately championed the expansion of United States domination in Canada, Mexico, and the Philippines. He supported an aggressive foreign policy, advocating strong protectionist tariffs for the United States, the annexation of Cuba, and increased economic domination for what he considered to be "backward" societies. He declared that he was for: "American first! Not only America first, but American only!"

In 1905 Beveridge was reelected to the Senate. As the country's overseas interests diminished, Beveridge turned his attention to domestic matters and allied himself with Republican President Theodore Roosevelt (1901–1909). Beveridge became involved in the party insurgency of the time that led to the formation of the Progressive Party. In particular, Beveridge supported equal industrial opportunities, antitrust legislation, government regulation of public service, a strong navy, and the conservation of natural resources.

Beveridge is best known for two pieces of important legislation that he advocated during his second term in the Senate. In 1906 he was strongly influenced by Upton Sinclair's (1878–1968) book *The Jungle*, which exposed the public to the horrors of unsanitary food preparation in the U.S. meat packing industry. Beveridge fervently fought for the passage of the Pure Food and Meat Inspection Acts aimed at curbing the abuses of this industry. The second important piece of

legislation with which Beveridge was actively involved was the Keating-Owen bill, a child labor protection act passed in 1916. Beveridge worked tirelessly for a national child labor law to stop the victimization of children in U.S. factories, and the law was eventually passed five years after Beveridge's term as senator ended.

Because of his outspoken position on some rather controversial issues Beveridge lost his bid for the Senate in 1911. He then joined Roosevelt and the Progressive Party in 1912 and was the keynote speaker at the party's first national convention. In 1914 he ran for Senate as a Progressive but again lost the bid. Beveridge and Roosevelt both rejoined the Republican Party in 1916.

Beveridge was never again elected to political office. While he remained active in politics, he also pursued a career as a historian. He wrote several books throughout his lifetime, but his most influential works came during his later years. Between 1916 and 1919 Beveridge authored a four-volume series on *The Life of John Marshall*, a biography of the Chief Justice of the Supreme Court. The work was awarded a Pulitzer Prize. Beveridge then began another four-volume work, this time on the life of Abraham Lincoln. However, he finished only two volumes before his death on April 27, 1927.

See also: Upton Sinclair

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B.F. GOODRICH

Benjamin Franklin Goodrich (1841–1888) was a businessman and a physician by profession. He served as an assistant surgeon in the Union Army during the American Civil War (1861–1865). When the war ended his interest turned to primarily business dealings and he formed a real estate partnership with John P.

Morris of New York City. In 1869 they invested in the Hudson River Rubber Company. Soon they acquired complete ownership of the company and Goodrich became president.

The Hudson River Rubber Company was struggling financially in New York at the time. Goodrich felt that by moving the company westward he could take advantage of the promise of a growing population and new opportunity for advancement and prosperity. In 1870 a new two-story factory was built on the banks of the Ohio Canal. Its products included billiard cushions, bottle stoppers, rubber rings for canning jars, and fire hoses. It was the first rubber company west of the Allegheny Mountains.

The company reorganized internally several times and finally secured a loan in 1880 from George W. Crouse, an original investor. The Hudson River Rubber Company now became the B.F. Goodrich Company and was incorporated in the state of Ohio. In 1896 the first automobile tires in the United States were produced by Goodrich. The B.F. Goodrich Tire Company devoted its entire energies to rubber technology. Inventions and products included the first rubber sponge in 1902 and aircraft tires in 1909. All aircraft used in World War I (1914–1918) had B.F. Goodrich tires. The *Spirit of St. Louis* piloted by Charles Lindbergh (1902–1974) sported tires manufactured by B.F. Goodrich.

During World War II (1939–1945) Japan controlled the supply of natural rubber. Goodrich invented synthetic rubber to supply the war needs of the United States. Tubeless tires came into being in 1947. Because of this invention the tires on all new cars were much safer. The first American in space, Alan Shepard, wore a space suit designed by Goodrich. The popular 1960s children's sneakers P-F Flyers also came from this innovative company.

In 1979 the new B.F. Goodrich chairman John Ong began diverting the company's focus from tires to chemical and aerospace concerns. By 1986, the merger of B.F. Goodrich and Uniroyal created the Uniroyal Goodrich Tire Company. In 1990 Michelin purchased this new company and B.F. Goodrich was out of the tire business.

Ong diverted research money back into the chemical and aerospace businesses. He acquired British companies, because although they had low productivity, they generally had sound research and good products and were relatively easy to reorganize into profitable ventures. This investment strategy generally worked well because of its long-term growth potential. B.F. Goodrich chemicals were eventually used in everything from textiles to Turtle Wax.

Ong retired in 1997 and was succeeded by David L. Burner. B.F. Goodrich continued to focus on making profitable acquisitions around the world. These acquisitions were chosen because they meshed well with current holdings and improved their returns.

See also: **Tire and Rubber Industry**

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BICYCLES

A series of inventions during the 1800s resulted in the introduction of the safety bicycle in 1876. It was the direct ancestor of the modern bike and the first commercially successful bicycle. It had wheels that were equal in size, making it easier and safer to ride than its “high-wheeler” predecessor. The industry proliferated and by 1900 more than 10 million people in the United States owned bicycles. In the years preceding the U.S. manufacture of automobiles (which began around 1900) the bicycle became an important means of transportation and recreation.

As with other inventions, the bicycle was a result of the work of several innovators. In 1817 German Baron Karl von Drais de Sauerbrun developed a device that resembled a scooter, the *drasienne*. The device was later improved by Scotsman Kirkpatrick Macmillan (1813–1878), who in 1839 added pedals to the vehicle, creating the world's first real bicycle. In 1870 English inventor James Starley (1830–1881) designed a bicycle with a large front wheel and a small rear wheel. He named it the Ariel. The invention was also called a “penny-farthing” (after two different-sized British coins), the “high-wheeler,” and the “ordinary.” Though the bicycle was easier to pedal and faster (one revolution of the pedals turned the front wheel once), its high center of gravity made it unstable and even dangerous. The innovation of the tricycle, or

velocipede, improved the design of the Ariel by giving it the added stability of the third wheel.

But it was not until the safety bike was developed in 1876 that the bicycle's popularity began to rise. Invented by Englishman H.J. Lawson, the bicycle had wheels of equal size and a bike chain (to drive the rear wheel). This practical design was improved again in 1895 when air-filled tires were added. Mass production of the safety bicycle began in 1885.

After the advent of the automobile the bicycle continued to figure prominently in American life. Bicycle riding became a leisure pursuit that rivaled baseball in popularity. Cycling clubs emerged. The tandem, a bicycle built for two, allowed American youths an opportunity for courtship. The bicycle industry yielded some of the great innovators in transportation, including bicycle designer Charles Edward Duryea (1861–1938). Duryea demonstrated the first successful gas-powered car in the United States with his brother Frank (1869–1967). Brothers Wilbur and Orville Wright (1867–1912; 1871–1948), who owned a bicycle shop in Dayton, Ohio, used their skill they learned at their trade to build the first airplane.

See also: Automobile

BIDDLE, NICHOLAS

Nicholas Biddle (1786–1844) established the Bank of the United States as a prototype of the modern central banking system. Using the power of the bank to expand and contract the money supply, Biddle played a prominent role in creating a stable currency and in bringing order to the chaotic American marketplace. A true American aristocrat, he read classics in their original language and collected art. Following his retirement from banking, he helped establish Girard College in Philadelphia and held literary salons at Andalusia, his country estate.

Biddle was born in Philadelphia, the son of Charles Biddle and Hannah Shepard. Biddle's mother was the daughter of a North Carolina merchant; his father was a successful merchant. Biddle was a precocious student and was admitted to the University of Pennsylvania when he was ten years old. His parents took a keen interest in his education. At age thirteen they had him transferred to Princeton University as a sophomore. He graduated in September 1801. At the age of fifteen, Biddle was the highest ranking student in his class.

In 1804 Biddle went to France as a member of the American legation, where he worked on claims resulting from the Louisiana Purchase. After one year, he

took a tour of Europe and Greece, then settled in London where he worked for two years as secretary for future President James Monroe (1817–1875). During the time he spent overseas, Biddle acquired valuable insights into the problems and techniques of international finance.

In 1810 Biddle met and later married Jane Craig, whose father's estate was one of the largest in Philadelphia. That same year he was elected to the Pennsylvania legislature. The highlight of his term was an eloquent defense of the First Bank of the United States.

USING THE POWER OF THE BANK TO EXPAND AND CONTRACT THE MONEY SUPPLY, BIDDLE PLAYED A PROMINENT ROLE IN CREATING A STABLE CURRENCY AND IN BRINGING ORDER TO THE CHAOTIC AMERICAN MARKETPLACE.

In 1822 Biddle assumed the presidency of the Second Bank of the United States—the first effective central bank in U.S. history. The bank carried out regular commercial functions, and also acted as a collecting and disbursing agent for the federal government. Under Biddle's guidance, the bank expanded to twenty-nine branches and controlled one-fifth of the country's loans and bank notes in circulation.

Biddle was a brilliant administrator who maintained complete control over the Bank of the United States. His political instincts, however, were less astute: He believed that any reasonable person must agree with him on the value of the bank to the nation's economy. His hard-headed convictions proved disastrous for the bank.

By 1828 the central bank was under attack from President Andrew Jackson (1829–1837) whose personal experience had given him a deep mistrust of financial institutions. Uncertain of the bank's future, Biddle decided to press for re-chartering the bank in 1832, four years before the bank's original charter required the action. Jackson vetoed the move, publicly denouncing the bank as a monopoly that was under foreign influence. Though the reputation of the bank had improved under Biddle's leadership, public opinion favored Jackson's position.

Bolstered by his supporters, Jackson resolved to destroy the bank. He directed the removal of almost \$10 million in government deposits, which were placed in state or "pet banks." Biddle responded by curtailing loans. Though the move may have been necessary to protect the bank, the restriction of credit dealt a serious blow to the US economy. Bankruptcies multiplied

while wages and prices declined. These hardships turned people against the bank.

The bank's federal charter was terminated in 1836, but it was granted a state charter to operate as the Bank of the United States of Pennsylvania. The frenzied speculation that followed the loss of stability that the central bank had provided the Panic of 1837. Biddle, however, was still the most prominent banker in the country. As President of the Bank of the United States of Pennsylvania, Biddle played an important role in trying to shore up the nation's banking system. He also intervened heavily in the cotton market to prevent its collapse.

With order seemingly restored, Biddle resigned his position in March 1839. The bank continued to operate, but due to falling cotton prices and mismanagement by the bank's directors, its plight grew steadily worse. The bank collapsed in February 1841, taking Biddle's personal fortune with it. During his final years, Biddle faced many lawsuits. Although arrested on charges of criminal conspiracy in 1842, he was exonerated. Legal problems continued to pursue him until his death in 1844.

See also: *Bank of the United States (First National Bank), Bank of the United States (Second National Bank), Bank War, Central Bank, Andrew Jackson, Panic of 1837*

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BIG STICK DIPLOMACY

"Speak softly and carry a big stick—you will go far." With these words President Theodore Roosevelt (1901–1909) described his approach to foreign policy.

The press characterized Roosevelt as a menacing ogre brandishing a club as his aggressive policies bullied smaller nations into conforming to U.S. desires. Indeed, the "big stick" was a sizable naval force (the "white fleet") sent on a world tour by Roosevelt to display the controlled might of the United States. One important consideration of U.S. policy makers was the sugar market. At the time Europe was the global leader in sugar production. The United States saw an opportunity to promote American economic interests in this market through Cuba's sugar production.

A second issue involved Venezuela and Santo Domingo (now known as the Dominican Republic). These two countries had incurred debts to several European countries—debts that they could not pay. In December 1902, British and German ships blockaded Venezuelan ports in an effort to force payment. Known as the Venezuela Affair, this action violated the cornerstone document of U.S. foreign policy—the Monroe Doctrine. Promulgated in 1823, the Monroe Doctrine warned European powers to stay clear of further involvement in the affairs of smaller nations in the Western Hemisphere. Though Roosevelt stepped in and settled the dispute without bloodshed, he realized that something more needed to be done to prevent such actions by Europe in the future. This led to the Roosevelt Corollary to the Monroe Doctrine.

The Roosevelt Corollary was published on December 6, 1904 as an amendment to the Monroe Doctrine. It stated that the United States may be forced "in flagrant cases of . . . wrongdoing or impotence, to the exercise of an international police power" in the Caribbean, Central America, or South America. Roosevelt clearly had the power at his command. In 1902 he had obtained congressional approval to strengthen the U.S. Navy with 10 new battleships and four cruisers. He reasoned that the expanded fleet would gain the United States greater clout in international affairs.

To maximize this clout, the fleet needed to be readily available in both the Atlantic and Pacific Oceans. Roosevelt opened negotiations with the Republic of Columbia to secure the right to build a canal across Panama. This canal could be used not only as a military passage, but also for commercial shipping, an important point to U.S. farmers, manufacturers, and shippers looking to expand their markets. However, the Colombian Senate rejected a treaty giving the U.S. a 99-year lease on a canal corridor across the Isthmus of Panama. Roosevelt defied the U.S. Congress and bent the rules of international law by backing a revolution in Panama. Panama seceded from Colombia, becoming the Republic of Panama. Within two weeks the United States had recognized the new "nation of Panama" and Panama

Birds of Passage

had signed a treaty with the U.S. and a lease that allowed the construction of the Panama Canal.

Contemporary critics of Roosevelt's somewhat muscular policies denounced them as imperialist. Roosevelt did not flinch from the term. He rather reveled in the idea of an American empire. But, like the "dollar diplomacy" of his successor, William Howard Taft, Teddy Roosevelt was not anxious to administer a traditional European-style empire. Administering the Philippines—a task left over from the Spanish-American War—was more than enough trouble. For Roosevelt, it was a matter that the small nations of the Western Hemisphere engaged in international trade should pay their bills so that the U.S. might avoid going to war with a European creditor nation over violation of the Monroe Doctrine. Roosevelt's own words seem to confirm this: "No independent nation in [Latin] America need have fear of aggression from the United States. It behooves each one to maintain order within its own borders. When this is done, they can rest assured that, they have nothing to dread from outside interference." And in his own, less formal style Roosevelt had this to say about U.S. interest in the Dominican Republic: "I have about as much desire to annex it as a gorged boa constrictor might have to swallow a porcupine wrong-end-to."

Big Stick Diplomacy continued to be a dominant aspect of U.S. foreign policy through the 1980s. From President Woodrow Wilson's (1913–1921) intervention in the Mexican Revolution to the U.S. funding of the anti-Communist Contra guerrillas in Nicaragua, the United States continues to employ impressive military strength and covert action in its Caribbean sphere of influence.

See also: Dollar Diplomacy, Imperialism, Monroe Doctrine, Panama Canal Treaty

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BIRDS OF PASSAGE

Between 1881 and 1920 a wave of immigration brought more than 23 million new arrivals to the United States. They were largely from eastern and southern Europe. But not all of them planned to stay. "Birds of passage," also known as round-trippers, were usually young male immigrants who intended to make money in the United States and then return to their native countries. After leaving their families behind they traveled to the United States in search of employment, most often during the summer. They were usually hired to work on farms, in mines, and in construction. If work was scarce (as it was following the Panic of 1907) the temporary immigrants often lacked money to pay for the return trip. If work was plentiful the young migrant workers chose to settle in the United States. They became naturalized citizens and brought their families over from their home country. Between 1908 and 1914 U.S. immigration recorded nearly seven million new arrivals and just over two million departures. Many of the two million who departed were considered birds of passage.

See also: Immigration

BLACK & DECKER CORPORATION

Under its original name—the Black & Decker Manufacturing Company—the Black & Decker Corporation was founded in September 1910 when S. Duncan Black and Alonzo G. Decker joined forces to set up a machine shop in a rented warehouse in Baltimore, Maryland. After several years of contract manufacturing such products as a milk bottle cap machine and a cotton picker, Black and Decker began to design and manufacture their own electric powered tools in 1916. Black and Decker designed a universal motor—the first for electric tool use—which used either alternating or direct current, and also a trigger switch modeled after the mechanism in the Colt revolver. The first tool incorporating these innovative

elements was a 1/2-inch portable drill with the innovative "pistol grip and trigger switch" that have remained standard for electric drills ever since.

In 1917 the company was awarded patents for its pistol grip and trigger switch and it constructed a factory on the outskirts of Towson, Maryland. By 1918 sales surpassed \$1 million. Immediately after World War I (1914–1918), additional portable electric tools were introduced, including a 3/8-inch drill, a grinder, and a screwdriver.

Black & Decker used aggressive salesmanship and product services to build its client base. The company's first service centers were opened in Boston and New York in 1918. Black & Decker also organized clinics to teach distributors how to use and sell the tools. The firm began its first mass media campaign in the *Saturday Evening Post* in 1921.

Despite significant layoffs, Black & Decker nearly went bankrupt during the Great Depression. Only loyal employees, some of whom worked without pay, and a large influx of capital from outside investors kept the company afloat. During World War II (1939–1945) Black & Decker switched to the production of fuses, shells, and other products that contributed to the war effort.

After World War II Black & Decker became very successful. The company founders, who led Black & Decker into the 1950s, anticipated the postwar economic boom and targeted the consumer market, then a largely unexplored niche. In 1946 Black & Decker introduced the world's first power tools for the consumer market: the inexpensive Home Utility line of 1/4-inch and 1/2-inch drills and accessories. In the first five years one million 1/4-inch drills were produced. This success led to the addition of other products to the Home Utility line. A set of circular saws was introduced in 1949, and a finishing sander and jigsaw in 1953. It was through these and other new products that Black & Decker established itself as the firm most responsible for the creation of the post-World War II consumer market for power tools.

During the 1960s and 1970s Black & Decker diversified its product line. Through the 1960 acquisition of DeWalt, the company added radial arm saws and other woodworking equipment. Black & Decker entered the lawn and garden care field in the late 1950s, with the debut of electric lawn edgers and hedge trimmers in 1957. The first electric lawn mowers were unveiled in 1966, while a cordless model went into production three years later. In 1973 the Workmate portable worktable and accessories were first marketed

in England, and they soon proved very successful around the world.

By the early 1980s the firm's future looked dim in the face of growing competition from Japanese and German toolmakers offering lower-priced, high quality tools. Black & Decker responded in part by diversifying still further into the area of small household appliances. The company had already achieved an immediate success in this area through the 1978 introduction of the Dustbuster cordless vacuum cleaner. It was the 1984 acquisition of the small appliance operations of General Electric, however, that placed Black & Decker squarely in this new market niche. Through this purchase Black & Decker gained the largest U.S. producer of irons, toaster ovens, portable mixers, coffeemakers, and hairdryers. This line of small appliances was subsequently expanded to include the Spacemaker series of under-the-cabinet kitchen appliances and additional cordless appliances, including a mixer and an electric knife. To help emphasize its transformation, the company in 1985 revamped its hexagonal trademark and changed its name to the Black & Decker Corporation. The change was meant to help the marketing and sales side of the company.

In 1989 Black & Decker expanded still further through the \$2.7 billion acquisition of Emhart Corporation, a conglomerate that included True Temper lawn and garden tools, Kwikset locks, GardenAmerica sprinkler systems, Price Pfister faucets, and various fastening systems. In 1992 Black & Decker relaunched the DeWalt brand as a line of professional power tools. The company was now able to offer the low-end Black & Decker line of power tools aimed at do-it-yourselfers and the high-end DeWalt line aimed at professional contractors. This strategy was immensely successful and the company's share of the domestic professional power tool market increased from eight percent in 1991 to more than 40 percent in 1995.

With the DeWalt line proving so successful, Black & Decker again decided to emphasize power tools, and in 1998 it sold the bulk of its household appliance operations. At the turn of the twenty-first century, Black & Decker continues to be one of the world's leading producers of power tools, electric lawn and garden tools, and building products.

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BLACK CODES

Black codes were state laws passed in the South during Reconstruction (1865–1877), the period of rebuilding that followed the American Civil War (1861–1865). The laws were intended to restrict the civil rights of African Americans. Though they varied by state the codes were usually written to prevent land ownership by African Americans and limit their freedom of movement. Some prevented them from owning weapons. The enactment of the codes prompted the U.S. Congress to pass the Civil Rights Acts of 1866 and 1875 to protect African American citizens in the South. President Andrew Johnson (1865–1869) opposed the 1866 measure enacted during his administration. However, the radical Republican-led Congress was able to overturn presidential vetoes to determine Reconstruction policy. Under the watchful eye of Congress and federal military administrators who were sent to the South to reorganize the states for readmission to the Union, two African American men, Hiram Rhodes Revels (1822–1901) and Blanche Kelso Bruce (1841–1898), became U.S. senators. Fifteen other African Americans were elected to the U.S. House of Representatives.

But after the withdrawal of federal troops from the South (1877) racial discrimination intensified despite ratification of the Fourteenth Amendment (1868). The amendment protected the rights of all citizens regardless of race. Black codes were strengthened by Supreme Court decisions in the 1880s and 1890s. One of these was *Plessy vs. Ferguson* (1896), which upheld the constitutionality of a Louisiana law requiring separate-but-equal facilities for whites and blacks in railroad cars. Such policies of strict segregation were called "Jim Crow laws": Jim Crow was the stereotype of a black man described in a nineteenth century song-and-dance act. As the social, political, and economic climate in the South worsened for African Americans

many of them migrated north to urban centers. Some of them went west to settle towns and establish farms on the open plains. African American farmers joined the Populist (People's party) movement during the late 1800s, which worked to improve conditions for growers and laborers. The system of segregation born out of the Black Codes prevailed until the mid-1900s. Most segregation laws were overturned by decisions of the Supreme Court during the Civil Rights Movement of the 1950s and 1960s.

See also: Civil Rights Acts of 1866 and 1875, Jim Crow Laws, Nineteenth Amendment, Plessy v. Ferguson, Reconstruction, Thirteenth Amendment

BLACK GOLD

Black gold is an informal term for oil or petroleum—black because of its appearance when it comes out of the ground, and gold because it made everyone involved in the oil industry rich. The oil industry in the United States began in 1859 when retired railroad conductor Edwin L. Drake (1819–1880) drilled a well near Titusville, Pennsylvania. His drill was powered by an old steam engine. Oil from animal tallow and whales were used as lubricants since colonial times. A process for deriving kerosene from coal oil was not patented until 1854. (Kerosene is a clean-burning and easy-lighting fuel.)

After Drake's Titusville well produced shale oil the substance was analyzed for its properties and it was determined to be an excellent source of kerosene. Soon others began prospecting for "rock oil" and western Pennsylvania became an important oil-producing region. Wagons and river barges transported barrels to market, though later the railroad reached into the region and, by 1875, a pipeline was built to carry the oil directly to Pittsburgh. Petroleum soon replaced whale oil as a fluid for illumination. During the 1880s the states of Ohio, Kentucky, Illinois, and Indiana also produced oil. In 1901 the famous Spindletop field in eastern Texas provided the nation's first "gusher" (a site where oil literally shoots out of the earth.) During the next decade California and Oklahoma joined Texas as leaders of the nation's oil industry. U.S. oil production boomed: while only 2000 barrels of oil were produced in 1859, more than 64 million barrels were produced annually by the turn of the century.

The second half of the 1800s saw an increase in the use of oil. The fuel was being used for lighting, heating, and lubrication (principally of machinery and tools). The advent of the automobile with its central role in the

life of the twentieth-century United States made the oil industry even richer. Demand soon exceeded the nation's supply of petroleum, prompting the United States to increasingly rely on imported oil for fuel.

See also: Andrew Mellon, Kerosene, Petroleum Industry

BLACK HAWK WAR (1832)

The Black Hawk War—named after the Indian leader Black Hawk (1767–1838)—was the last of the Indian wars that took place in the Old Northwest Territory, north of the Ohio and east of the Mississippi rivers. The conflict completed the grab for Indian territory that started before the American Revolution (1775–1783), continued through the Indian wars of the 1790s, and reached a peak just after the War of 1812 (1812–14). Black Hawk's struggle to keep the last traces of Sac and Fox lands in what is now western Illinois led directly to the forced expulsion of his group of Native Americans from their traditional territory.

Black Hawk had a history of grievances with white Americans dating back over a quarter of a century. In 1804 he had signed a treaty that—he thought—conveyed only some hunting rights in Sac and Fox lands to white Americans. When he found that he had in fact ceded some 50 million acres to the U.S. government, Black Hawk joined the Shawnee leader Tecumseh and the British in opposing American expansion during the War of 1812.

After the war Black Hawk returned to his homeland, but he was confronted with increasing numbers of white settlers. In 1829 one family entered his home when he was away on a hunting trip and dispossessed him. Protests to U.S. Indian agents only resulted in suggestions that he and his supporters (known as the “British Band” of Sac and Fox) find new lands west of the Mississippi River. He was also informed by the General Land Office that his homelands were to be opened to white settlement. Black Hawk responded by dividing his time between summer camps in his homeland and winter camps, in what is now Iowa, west of the Mississippi.

The outbreak of the Black Hawk War had less to do with direct disagreements between the Native American leader and white Americans than it did with internal politics among the Sac and Fox themselves. Black Hawk's opposition to the U.S. government was countered by another Sac and Fox chief called Keokuk. Keokuk favored negotiations with the government. During 1831–32 he ceded the Rock River country in

what is now northwestern Illinois—the heart of Sac and Fox territory—to the Americans in exchange for an annuity and promises of lands west of the Mississippi. When Black Hawk and the British Band of Sac and Fox rejected the agreement and crossed the Mississippi in April of 1832—accompanied by a scattering of Winnebagos and Potawatomis. It was Keokuk who warned the whites of Blackhawk's approach.

General Henry Atkinson appealed to Illinois governor John Reynolds to raise 3,000 militiamen to augment his small force of 220 regular soldiers. Reynolds, however, was only able to pull together about 1,700 raw, untrained troops, including a young Abraham Lincoln. On April 28, 1832, Atkinson and his men set off in pursuit of Black Hawk and the British Band. Major Isaac Stillman's militia unit caught up with them on May 14 at the mouth of the Kyte River. Black Hawk had discovered that neither the Potawatomis nor the Winnebagos were willing to support him against the soldiers and had decided to surrender. The militia, which had been drinking heavily, panicked at the sight of Black Hawk's emissaries and fired on them, killing two. With only 40 warriors to call upon, Black Hawk set up an ambush and, in a battle known as Stillman's Run, routed Major Stillman's force of 275 men.

The comparatively easy defeat of the militia emboldened Blackhawk and his followers. On May 20 a group made up mostly of Black Hawk's Potawatomi supporters attacked a farmstead at Indian Creek, killed 15 men, women, and children, and kidnapped two girls (who were later ransomed). The Indian Creek Massacre roused the frontier. By mid-June Atkinson had the 3,000 militia he had originally wanted, plus 400 regular soldiers. President Andrew Jackson (1828–36) ordered Major General Winfield Scott to gather 800 soldiers at Chicago and move west in support of Atkinson. Lieutenant James W. Kingsbury, commanding the steamboat *Warrior*, was also ordered to proceed up the Mississippi to cut off Black Hawk from possible escape to the West.

I TOUCHED THE GOOSE QUILL TO THE TREATY . . . NOT KNOWING, HOWEVER, THAT BY THAT ACT I CONSENTED TO GIVE AWAY MY VILLAGE.

Black Hawk, Sac Indian leader, 1831

By August 1, 1832, Black Hawk had abandoned any hope of regaining his homelands. His followers were trying to cross the Mississippi River in handmade canoes or rafts when the *Warrior* found them and, after negotiations failed, fired on them. Two days later the militia units under Colonel Henry Dodge and Atkinson

Black Market

arrived and captured or killed many of the remaining Sacs and Foxes. Those who escaped across the Mississippi—about 200—were captured by Sioux who were allied with the U.S. government. Black Hawk himself was turned over to the Americans by the Winnebagos, among whom he had sought refuge.

On September 19, 1832, General Scott brought the Black Hawk War to an end by concluding a treaty with the remaining Sacs and Foxes. The treaty ceded to the U.S. government a strip of Sac and Fox land running along the western bank of the Mississippi River—almost the entire length of Iowa's Mississippi riverbank—and reaching 50 miles inland. The territory, comprising a total of about six million acres, was to be vacated entirely by the Sacs and Foxes by June 1, 1833. The U.S. government paid \$660,000 for this concession.

See also: Andrew Jackson, Tecumseh, War of 1812

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BLACK MARKET

The “black market” refers to the persistence of economic activity outside the bounds of the legitimate economy. Since colonial days there has always been a stratum of society that resisted being drawn into the formal market economy. The earliest black market involved virtually the entire existence of runaways—the enslaved American Indians, abused indentured servants, and newly arrived African slaves—who sometimes escaped into the backwoods and reverted to a life of hunting and gathering or subsistence farming. During the “market revolution” of the early 1800s when ordinary settlers began using currency within the broad

social division of labor, there were whole families that picked up and moved with the frontier—they trapped, shot, fished or otherwise raised their own food and made their own clothes.

The reasons that they avoided being drawn into mainstream American economy were various. Some faded into the woods to avoid serving out the terms of their indenture or to escape enslavement; some feared being conscripted into the army; others objected to paying taxes or having anything at all to do with the economic elite of the country or its institutions. Some, no doubt, just reveled in the bounty of the land and in the life of independence.

But remaining outside the market was sometimes ruled illegal. One example was the “Proclamation of 1763,” in which the British government ruled that colonial whites could not move west of the Appalachian watershed. The motive for this was to prevent hostile encounters with the Native Americans and to integrate the European population into a colonial workforce. But the proclamation was a futile gesture: with no one to stop them the settlers kept coming over the mountains at the Cumberland Gap or at other crossings and they spread out into the Ohio basin.

Even after the War of Independence, the government of the United States tried to corral this population. In 1794 the “Whiskey Rebellion” in western Pennsylvania broke out over the government’s attempt to tax corn whiskey. For a few months the rebels terrorized the “revenueurs,” or tax collectors. The rebellion was put down in the summer of 1794 with an extraordinary display of force, when President Washington and Alexander Hamilton (who, as secretary of the treasury, had recommended the tax in 1791) raised an army of 12,900 militia men, marched across Pennsylvania and dispersed the rebels.

This episode illustrates the relationship between the black market and the mainstream American economy. By refusing to pay the tax on liquor, the farmers were defending the black market, or the “informal economy,” of barter and pseudo currency. The black market services social needs that the legal market cannot meet. Every time that the government passes laws making ordinary activity illegal, the boundaries of the “black market” expand to include this illegal activity. This happened in the 1920s when the 18th amendment to the Constitution ruled alcohol illegal. In more recent decades the same story has been repeated in the case of marijuana cultivation or the smuggling of cigarettes.

See also: Illegal Drugs, Prohibition, Whiskey Rebellion

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BLACKWELL, HENRY BROWN

Henry Brown Blackwell (1825–1909) was an English immigrant who became an activist for many reform issues in the United States including the anti-slavery movement. He is best known as an advocate for women's suffrage and was married to feminist Lucy Stone (1818–1893). Together the couple founded a women's suffrage organization and a women's journal.

Henry Brown Blackwell was born May 4, 1825 in Bristol, England. He was the second of five children born to Samuel and Hannah Blackwell. His father was a successful businessman in the sugar refinery industry and a community activist. Samuel Blackwell taught his children to treat people equally, regardless of race, sex, or social class. Through his examples he also taught his children to act on their beliefs.

The Blackwells emigrated to the United States in 1832 after an accidental fire destroyed the family business in England. Henry Blackwell was seven years old when the family moved to the United States, and he spent his childhood years in New York. The family became actively involved in the anti-slavery movement, and their Long Island home often served as a refuge for persecuted abolitionists. Financially the Blackwells were not as successful in the United States as they had been in England. Their sugar business struggled until the financial panic of 1837 destroyed it completely. In the same year the family moved to Cincinnati, Ohio for a fresh start. Soon after the move Samuel Blackwell died, plunging the family into a financial crisis.

In response to the poor financial situation, the Blackwell women opened a day school for girls, and Henry Blackwell and his brother found office jobs. A few years later, the boys opened their own hardware business. During this time Henry Blackwell continued

to be involved in the anti-slavery movement in Ohio and became interested in other humanitarian movements. While watching his older sister Elizabeth struggle to become the first female doctor in the United States, Blackwell took an interest in the women's suffrage movement. In 1853 he made his first public speech in support of women's suffrage at a convention in Cleveland, Ohio. Later that same year he attended a legislative meeting in Massachusetts, where Lucy Stone, an ardent feminist, spoke in support of a women's suffrage petition.

After that first meeting, Blackwell began to court Stone. He promised her he would devote himself to the suffrage movement and after a two-year courtship, the two activists married. On their wedding day the couple signed a pact of equality, agreeing, among other things, that Stone would keep her maiden name. The couple also made a public statement against the inequalities of marriage law at that time, especially with respect to property rights for married women.

Soon after their marriage Blackwell and Stone moved to New Jersey, where Blackwell started a book-selling business. He also had some business interests in real estate and sugar refinery and was able to make money with each venture. The couple then moved to Boston, Massachusetts, where they helped organize the American Women's Suffrage Association in 1869. The organization was devoted to promoting women's rights at the state, rather than the federal, level. Because of his earlier business successes, Blackwell was financially secure and able to devote much of his time to this cause. In 1896 he spoke before the United States House of Representatives on behalf of the American Women's Suffrage Association stating that: "It is as much for the interest of men as women, as much the duty of men as women to advocate [the women's suffrage] cause."

A year later Blackwell and Stone started their next venture together. In 1870 the couple founded the *Woman's Journal* in Boston, a magazine devoted primarily to professional women. Blackwell financed most of the project and jointly edited the weekly magazine with his wife. When Stone died in 1893 Blackwell continued to edit the journal with their daughter, Alice Stone Blackwell.

While the women's movement occupied much of Blackwell's life, he was actively involved in other causes as well. For example Blackwell publicly opposed the deportation of political refugees, the Armenian massacres of 1895, and the Russian pogroms. Blackwell died in Boston on September 7, 1909, eleven

Bland-Allison Act

years before women were granted suffrage in the United States.

See also: **Women's Movement**

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BLAND-ALLISON ACT

The Bland-Allison Act was a piece of legislation passed by the U.S. Congress in 1878, which required the U.S. Treasury to buy silver bullion and to mint \$2 to \$4 million worth of silver coin per month. The bill was introduced by Representative Richard Bland (1835–1899) of Missouri and was amended by Representative William Allison (1829–1908) of Iowa. Their constituents included many farmers who preferred the government to mint the coins. The U.S. economy went through a depression during the 1870s. While some clamored for the government to alleviate the situation by printing more greenbacks (paper currency issued to finance the Civil War), others advocated the coinage of silver. President Rutherford B. Hayes (1877–1881) vetoed the Bland-Allison Act. He feared that the re-monetarization of silver would cause inflation because U.S. currency had been based on the gold standard since 1874. But Congress was able to muster enough votes to overturn the veto and pass the bill into law. Under the act silver coins were minted on a standard of 16 ounces of silver per one ounce of gold.

In January 1879 the U.S. Treasury began paying gold for greenbacks; as a result the coinage of silver (which never exceeded \$2 million per month) only had

a mild inflationary effect. The Free Silver forces in the West advocated an unlimited coinage of silver versus the \$2 to \$4 million provided for in the legislation. On the other hand the gold standard forces called for an abandonment of silver coinage altogether. Both of them tried to replace the Bland-Allison Act. The Free Silver alliance won the day: In 1890 Congress repealed the Bland-Allison Act. It passed the Sherman Silver Purchase Act, doubling government purchase of silver to increase the money in circulation. The resumption of silver as a monetary standard had increased the activities of silver prospectors in the West. Mines began overproducing silver, causing prices to collapse. People in the United States responded by trading their silver dollars for gold dollars, draining federal reserves. In 1893 the Sherman Silver Purchase Act was repealed and the United States returned to the gold standard, which it retained until April 1933.

See also: **Cross of Gold Speech, Free Silver, Gold Standard, Sherman Silver Purchase Act**

BLEEDING KANSAS

"Bleeding Kansas" describes a conflict over slavery in the state of Kansas during the 1850s, immediately preceding the American Civil War (1861–65). The Kansas-Nebraska Act of 1854 created two new territories (Kansas and Nebraska). The U.S. Congress ruled that the question of slavery in each should be decided by popular sovereignty. Nebraska's population primarily consisted of people opposed to slavery, but settlers from both the North and the South settled Kansas. The territory became the scene of a showdown between the Free State advocates (who formed the Free State party to oppose slavery) and the pro-slavery contingent.

In 1855 territorial elections were held, and the vote was swung to the pro-slavery side. This was partly due to Missourians who crossed the border and cast votes in the neighboring territory. Slavery supporters soon dominated the Kansas legislature and passed laws favorable to their own interests. Tensions were heightened and violence broke out between the two sides. Most of the conflicts clustered around the border with Missouri, a state where slavery was legal. In one incident on May 24, 1856 ardent abolitionist John Brown (1800–1859) led an attack in which five pro-slavery men were brutally murdered in their sleep. The act was carried out in retribution for earlier killings of freemen at Lawrence, Kansas. Brown claimed his was a mission from God. Newspapers dubbed the series of violent conflicts "Bleeding Kansas," after they claimed more than 50 lives. The situation proved that the

doctrine of popular sovereignty would not solve the nation's deep ideological differences.

In Kansas the Free State party eventually regained control of the territorial government and wrote a constitution abolishing slavery. Kansas was admitted to the Union as a free state on January 29, 1861. By that time the states of South Carolina, Mississippi, Florida, Alabama, Georgia, and Louisiana had already seceded from the Union.

See also: **Kansas, Slavery**

BLOCKADE

Blockades were a specific kind of warfare in which one country attempted to reduce its opponent's economic ability to wage war by cutting its ports off from seagoing trade with other nations. Historically, nations at war have used either close blockades or long-range blockades to stifle their enemy's trade. In close blockades, ships were stationed within miles of the enemy's port, forming an impregnable ring through which no trading ship could pass unseen. If that kind of blockade was impractical, however, the blockading ships could be positioned far off of the coast, or along the entire coastline—safe from enemy interference but still close enough to stop blockade-running vessels.

Over time international laws and treaties were developed to govern the use of blockades. For example under the Declaration of London of 1909, any neutral country that traded with the enemy of a blockading country had to be officially notified in advance that its ships would be stopped if they tried to run the blockade. Similarly, blockades had to be applied equally to the vessels of all countries, and blockades could only be established at ports occupied by the blockading country's enemy—a neutral country's port could not be blockaded.

Because seagoing trade with other countries had always played a major role in the U.S. economy, blockades had been a common feature of its history. During the War of 1812 (1812–1814) the United States was the victim of a very effective British blockade that almost totally stifled U.S. trade with neutral countries. During the American Civil War (1861–1865), the North implemented an effective if costly blockade of 3,500 miles along the Confederate coast. By the war's end the blockade had closed off every Southern port except for the one at Galveston, Texas.

The invention of submarines, airplanes, and missiles made it virtually impossible for any nation to maintain a traditional close blockade of an enemy's

port. In the twentieth century, blockades took a more informal form, such as Germany's loose submarine blockade of Great Britain in World War I (1914–1918). The blockade became particularly important to the United States when a German submarine sank the passenger ship *Lusitania* in 1915. One hundred and twenty-eight U.S. citizens were killed, and the United States moved a significant step closer to entering the war against Germany. Later on, President John Kennedy (1961–63) initiated a successful blockade of Cuba. During the height of the Cold War in 1962, he ordered the U.S. Navy to prevent Soviet ships from delivering to Cuba nuclear missiles that were to be pointed at U.S. cities.

BOEING COMPANY

The Boeing Company is a manufacturer of commercial jetliners and military aircraft, and one of the largest aerospace companies in the world. Its primary competitors are: Airbus; Bombardier; Daimler-Benz; Lockheed Martin; Raytheon; Rockwell International, and Thiokol.

Boeing has been the leading aircraft manufacturer in the world for 30 consecutive years. The company's primary businesses are commercial aircraft construction, defense and space, and computer services. The company successfully juggled the continuing need for commercial passenger airliners with its defense contracts, which account for an estimated 30 percent of its business as a result of the company's merger with McDonnell Douglas in 1997. Boeing works with companies such as Lockheed Martin, Sikorsky, and Bell Helicopter Textron, and is the leading contractor for NASA.

The idea for The Boeing Company was born on a lake in Seattle on July 4, 1914, when William E. Boeing, a lumber company executive from Michigan, took a ride on a Curtiss seaplane with a barnstormer named Terah Maroney. His friend, Navy Commander Conrad Westervelt, also came along. Neither man knew anything about aircraft design, but both were fascinated with airplanes. Boeing asked Westervelt to design a plane, which Boeing would build. The result was Model 1, the B&W, a utility airplane, which they named after themselves. It was 27 feet 6 inches long. The fuselage was built in a hanger on Seattle's Lake Union. The wings and floats were produced at the Heath Shipyard on Puget Sound's Elliot Bay, which was owned by Boeing to service his yacht. Finally, on July 15, 1916, Boeing tested his aircraft and incorporated his company as the Pacific Aero Products Company.



The popular commercial airliner, the Boeing 747 jumbo jet.

The New Zealand government, the company's first customer, bought the plane for mail delivery and pilot training.

Renamed The Boeing Airplane Company in April, 1917, it built Curtiss HS-2L flying boats for the Navy in World War I (1914–1918). After the war ended, the Navy canceled half of its order and Boeing returned to making furniture and cabinets to keep the company afloat. Contracts with the Navy to rebuild the De Havilland DH-4 aircraft and with the army to build a new army designed plane kept the company in business. By 1922 Boeing had successfully negotiated a number of contracts with the military, and the company was financially solvent.

Between world wars, the company embarked on air mail service. When Congress forced the Post Office to pay private companies to fly mail between distant cities, commercial aviation was born. Boeing with his new partner, Edward Hubbard, created Boeing Air Transport Company and got the contract to carry mail between Chicago and San Francisco. Boeing Air Transport Company also established the first international airmail route between Seattle and neighboring British Columbia. Boeing developed a new plane, Model 40, specifically for this market. It could carry four passengers and 1000 pounds of mail. The Kelly Airmail Act of 1925 resulted in the formation of a number of companies, which developed airmail routes. Boeing soon bought up a number of these small companies

which together formed the basis of the original United Airlines. Bill Boeing and Frederick Rentschler combined their businesses in 1929 into a firm called United Aircraft and Transport. The advent of regulations for airmail services led to the formation of United Airlines, and Boeing Airplane continued as an aircraft manufacturer.

Boeing and Rentschler formed a holding company called the Boeing Aircraft and Transportation Company and Bill Boeing engaged in some serious capital manipulation which made him at least \$12 million through stock flotation. Though this was legal, Boeing was incensed at being investigated by the U.S. government and sold all of his aviation stocks. In 1934 the Boeing Aircraft and Transportation Company was forced to break up by government regulation. Everything east of the Mississippi became United Aircraft and was run by Fred Rentschler. The Boeing Airplane Company remained in Seattle run by Phil Johnson and exclusively manufactured airplanes. United Airlines was based in Chicago at Old Orchard Airport (later O'Hare) and was run by Pat Patterson. Bill Boeing was never active in the aviation business again.

In the 1930's, Boeing developed single-wing airplanes constructed completely of metal, which made them stronger and faster. They also created more efficient aerodynamic designs as well as retractable landing gears and better wings, multiple power plant

technology, and directional radios, which allowed for better navigation and night flying.

Boeing was well situated to become a major player in airplane production during World War II (1939–1945). Some of the most famous planes used during the war came from Boeing, including the B-17 “Flying Fortress.” Sixteen B-17’s were turned out every 24 hours by June, 1944. The B-29 “Super Fortress” was also on line by 1944 and one nicknamed the *Enola Gay* dropped the atomic bombs on Hiroshima and Nagasaki in August, 1944. After the war Boeing produced a number of bombers, including the B-47, B-50, and the famous B-52.

Boeing, which changed its name to the Boeing Company in 1961, has also seen American consumers through the birth and adolescence of commercial passenger airline travel. The company built many of the most popular commercial airliners between 1935 and 1965 including the PanAm 314 Clipper, the 707, 727, 737, and the 747 Jumbo Jet. The 747 was so expensive to develop that it almost drove the company into bankruptcy. Boeing also brought the first pressurized cabin to market, the Model 307 Stratoliner. The jumbo jets reduced the cost of air travel and made it affordable for everyone. Jeans and sneakers replaced suits and furs and a new era had arrived.

Every American president from Franklin Delano Roosevelt (1933–1945) to Bill Clinton (1993—) flew in Boeing or Douglas airplanes. Roosevelt was the first when the Navy purchased a *Douglas Dolphin* flying yacht. A DC-54 Skymaster, a military version of the DC-4, replaced the Dolphin with the advent of World War II. Roosevelt, however, preferred to fly a Boeing 314 Clipper to Africa for a 1943 meeting with Allied leaders. Boeing 707’s, also known as *Air Force One* when the President was on board, carried presidents from Dwight D. Eisenhower (1953–1961) to George Bush (1989–1993), until two Boeing 747-200’s replaced them.

The downsizing and consolidation within the modern aircraft industry affected Boeing, which integrated competitor companies into its operations. Boeing and Rockwell completed a merger of their defense and aerospace units in 1996, and Boeing completed its merger with McDonnell Douglas Corporation on August 1, 1997.

Boeing experienced some difficulties getting approval from Europe on its merger with McDonnell Douglas. The European Union was concerned about Airbus Industrie, a French consortium and Boeing’s only major competitor, and its continued viability if the merger went through. Boeing did finally get approval

from the European Union Commission. However, the company had to sign nonexclusive contracts with any airlines for the next decade in order to do so.

The aircraft industry has been cyclical in nature from the beginning when Boeing had to return to the furniture business after World War I to keep afloat. In 1969, Boeing reduced its workforce from 105,000 to 38,000. Labor problems led to a strike that lasted 69 days in 1995, resulting in \$2 billion in financial losses to the company as well as substantial trickle-down losses to the numerous subcontractors and communities in which Boeing operates. By the middle of 1999, however, Boeing was back on track and earnings were high again.

Boeing operated through four divisions in the 1990’s. Boeing Commercial Airplane Company manufactured and sold civilian aircraft. Boeing Vertol Company produced helicopters for the military, including CH-46 and CH-47 (Chinook) helicopters. Boeing Aerospace developed space products as well as strategic and tactical missiles, including cruise missiles. Boeing Military Airplane Company manufactured bombers, tankers, and high-technology surveillance aircraft, including the 3-E Airborne Warning and Control System aircraft (AWACs).

From almost the very beginnings of the American space program, Boeing was there. Boeing’s involvement began in earnest in 1960 when its Delta II rocket was launched, carrying the Echo 1A satellite into orbit. Then in 1966 and 1967, the Boeing-built Lunar Orbiters circled the moon, photographing the surface in order to help NASA choose a safe landing site for the Apollo 11 astronauts. The astronauts reached the moon with the help of the 363-foot-tall Saturn V rocket. Its development was integrated by Boeing, which also made the first stage booster. It was 138 feet high and had 7.5 million pounds of thrust; the equivalent of 130 of today’s most powerful jet engines. The Saturn V was used 13 times and did not fail once.

Boeing not only helped the astronauts get to the moon, it also helped them get around once they got there. The Lunar Roving Vehicles, built by Boeing in only 17 months, were used on the last three Apollo missions. The rovers looked like modified dune buggies and enabled the astronauts to travel more than 20 miles from the landing site. The vehicles operated without a problem in temperatures that ranged from minus 200 to plus 200 Fahrenheit degrees. To this day the rovers are still parked on the lunar surface.

Boeing’s involvement in the lunar missions might have been its most spectacular moment, yet it remains heavily involved in the space program to this day. It

Boll Weevil Infestation

continues to launch Delta rockets, and it has a large role to play in the Space Shuttle operations. Boeing processes all space suits and equipment, and McDonnell Douglas, with which it merged in 1997, developed the aft propulsion pods and structural parts of the boosters used to get the shuttles into orbit. In the late 1990's, Boeing began working in cooperation with sixteen countries as the main contractor on the International Space Station which is expected to be completed by 2004.

See also: **Airline Industry**

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BOLL WEEVIL INFESTATION

Boll weevils, small grey-brown beetles (about one-quarter inch, or six millimeters, long) feed off of the fibers in cotton seed pods (bolls). Female boll weevils lay their eggs inside cotton plant buds; once their larvae hatch, worm-like grubs are produced. The offspring consume the boll fibers, causing the bolls to fall off of the plants.

The beetles spread from Central America and Mexico to Texas in the 1890s, first arriving there in 1894. During the following decade they moved eastward into other cotton-growing areas of the United States, reaching the Atlantic coast by 1916. The infestation devastated cotton crops throughout the South.

By 1904, the boll weevil was costing Texas cotton farmers \$50 million a year; after 1908, cotton farmers in Mississippi lost 75 percent of their crops. The destruction prompted some farmers to again diversify their crops, and encouraged the "Great Migration" (1915–29) of African Americans out of the South to the more industrialized cities of the North.

After the American Civil War (1861–65), cotton was the easiest crop to convert to cash; demand was so great that growers could readily sell their harvest at a fair to good price. With Southern farmers hungry for cash, too many growers began to rely solely on the cotton crop. Supply soon exceeded demand, prices dropped, and farmers lost money.

Responses to boll weevil infestation were varied. Some farmers began cultivating different plants, while others simply planted less cotton. Farmers spaced rows farther apart so that each plant got more direct sunlight; the additional heat killed developing weevils. Various forms of insecticides (including arsenic) were found to be effective in managing boll weevil infestation. During the 1920s, the cotton industry recovered but the recovery did not last long, as all farmers were severely affected by the Great Depression, the worldwide economic crisis of the 1930s.

See also: **Great Depression, Great Migration (1910–1920), King Cotton, Sharecropping**

BONANZA FARMS

Bonanza farms were large, extremely successful farms, principally on the Great Plains and in the West, that emerged during the second half of the 1800s. The term "bonanza," which is derived from Spanish and literally means "good weather," was coined in the mid-1800s; thus, "bonanza" came to mean a source of great and sudden wealth.

Large-scale bonanza farming was aided by the development of machinery that greatly increased production, especially of wheat and other grains. The innovations included reapers, invented by Cyrus Hall McCormick (1809–84) and Obed Hussey (1792–1860), and steel plows developed by John Deere (1804–86).

In particular, promotion of westward settlement in the nineteenth century furthered farming interests west of the Mississippi River. Congress passed the Homestead Act (1862), which allowed for ready and cheap acquisition of vast tracts of land. Settlers could buy land for as little as \$1.25 per acre or they could live on a tract and farm it for a period of five years, at the end of which they were granted 160 acres (65 hectares). In

1872 the Northern Pacific Railroad was extended to Fargo, North Dakota, allowing farmers to ship their products greater distances. Another important agricultural innovation also contributed to development of large-scale farming. Dry farming techniques (in which fields lie fallow every other year in order to support future crops by regaining their nutrients and moisture) proved a successful method for growing in the Great Plains, which were previously thought to be too dry for cultivating crops.

Deliberate government promotion of westward expansion and advances in farming turned some western farms into “bonanzas”—sources of great wealth for their owners. Encouraged by stories of success, settlers poured into the West. But not all farmers fared well, and many were severely hit by the Panic of 1873. In the 1880s a drought in the Plains states caused farm prices to drop, further hurting western farmers.

See also: John Deere, Dry Farming, Homestead Act, McCormick Reaper, Panics of the Late Nineteenth Century

BONDS

When a business or the government needs to raise a large amount of money for, say, corporate expansion or to build a new sports facility, it sells bonds to the public. A bond, then, is a financial instrument that represents a binding promise to pay the buyer of the bond the face or “par” value of the bond plus a definite rate of interest (known as the “coupon” rate) within a specific period of time (normally ten to thirty years). When a business or government issues a bond it is asking the public to lend it money, and in return for that loan it promises to pay bond holders interest, usually twice a year until the bond is paid back (known as reaching “maturity”). While a stock represents a piece of actual ownership in the company that can grow or shrink as much as the company underlying it does, a bond is an obligation to pay back a finite loan that the bondholder made to the company when he or she bought the bond. Bonds are a cheaper way to raise money because they are tax deductible.

Bonds have always played a critical role in the U.S. economy. Because it issued war bonds, for example, the U.S. government was able to retire its debt established during the American Revolution (1775–1783) by 1835. Local governments began issuing municipal bonds in the nineteenth century as U.S. communities built canals and public highways. By the end of the American Civil War (1861–1865), 75 percent of the

U.S. government’s war debt was in the form of war bonds and similar instruments. A bull market in bonds lasted from the end of the Civil War until World War I (1914–1918), during which the government sold more than \$21 billion in “Liberty loans” to U.S. citizens. This was the first time many Americans had ever owned paper securities (bonds or stocks), and it paved the way for a new group of middle-class investors who participated in the bull market of the 1920s. After the Japanese attacked Pearl Harbor in 1941, the U.S. Treasury quickly sold \$2.5 billion in war bonds to U.S. citizens, and by 1944 alone it was selling \$53 billion annually in war bonds. Both the government and corporate bond markets continued to grow and diversify after World War II (1939–1945), and today investors can own dozens of different bonds through bond mutual funds.

See also: Bear and Bull Markets, Interest, Liberty Bonds, Stock

BOONE, DANIEL

Few people reach legendary status in a society in their own lifetime. Daniel Boone (1734–1820) was one of them. In fact the legend of Daniel Boone has become difficult to separate from the real Daniel Boone. Many unauthorized biographies and books appeared trumpeting his accomplishments and promoting various causes and points of view. However, the truth about Boone is just as fascinating as the stories.

Daniel Boone was born on November 2, 1734, near what is known today as Reading, Pennsylvania. Boone was the sixth of eleven children. From their log cabin home his Quaker family ran a small farm, a blacksmith shop, and a weaving establishment. Daniel tended cows as a child and began hunting at the age of twelve. He had little formal schooling, but he did learn to read and write.

Boone excelled at skills required to survive in the woods. He developed a keen eye and an accurate shot with his long rifle, and with those skills he kept the family in meat. He traded animal skins for lead, gunpowder, salt, and other needed items. In 1750 the Boone family moved to North Carolina along the Yadkin River. In 1755 Boone volunteered to drive a supply wagon in a British military expedition to seize Fort Duquesne from the French. Another driver in the expedition was trader John Findley, who thrilled Boone with tales of a rich hunter’s paradise beyond the Appalachian Mountains.



Daniel Boone.

The military expedition was cut short by a surprise attack of French and Indians and the British troops fled. Boone returned home to marry neighbor Rebecca Bryan. Rebecca had ten children with Daniel and followed him through all his moves and exploring, a true pioneer woman.

BOONE LIVED THE LIFE OF EXPLORER AND HUNTER—A LIFE EXTOLLED IN PRINT MANY TIMES WHILE BOONE WAS STILL ALIVE. OVER 175 YEARS AFTER HIS DEATH THE LEGEND HAS CONTINUED TO GROW.

Findley told Boone of the Cumberland Gap, a pass through the mountains, and of the Warriors' Path, a trail that led to Kentucky. Boone took his first trip through the Cumberland Gap in 1767 with his brother Squire and his friend William Hill. They reached what is now Floyd County in Kentucky before winter weather discouraged them. In the spring they returned home. A year later John Findley came to Boone and described a route to Kentucky along the Ohio River and the two made the journey in 1769. Boone's party was attacked by Indians and he was briefly captured. He spent two

years exploring Kentucky and hunting. Years later he was to say of Kentucky, "I have never found but one Kentucky—a spot of earth where nature seems to have concentrated all her bounties."

After his return to his family in North Carolina, Boone led a group of friends and family to Kentucky in 1773 with the intention of staying. Indians attacked settler groups. Boone's oldest son, James, was captured, tortured, and killed. Against Boone's desires, the entire party returned to North Carolina. In 1775 Boone helped Judge Richard Henderson buy a huge tract of land from the Cherokee Indians. Boone led a group of thirty woodsmen into the heart of Kentucky to connect Indian trails and buffalo paths and prepare the region for settlement. The paths were to be known as the Wilderness Road. Boone built a fort, called Boonesborough, at a site by the Kentucky River, just south of present-day Lexington. Boone's wife and daughter, whom Boone brought when the building was finished, were the first white women to see the heart of Kentucky.

Life in the wilderness was hard. Boone's daughter and two female friends were captured by Indians in 1776 and held for several days until Boone rescued them. In 1778 Boone himself was captured by the Shawnee and held captive. Chief Blackfish adopted Boone and made him a Shawnee brave. When he learned of a planned attack on Boonesborough, Boone escaped and led the successful defense of his fort. Troubles with the Indians continued and Boone lost another son, Israel, to Indian attacks in 1782.

Boone became one of the wealthiest men in Kentucky in terms of land, but he was naive in the ways of business and never held clear title to the land. Eventually, he lost all his claims of land ownership in Kentucky. In 1789 Boone moved to Point Pleasant on the Ohio River, where he supplied meat and grain to the U.S. military. In 1799 Boone led a group of settlers into Missouri at the invitation of the Spanish governor, who granted Boone 850 acres of land near St. Louis. Boone lost this land when the Louisiana Purchase in 1803 brought the area under U.S. control. However, the U.S. Congress restored his 850 acres in 1814 as a reward for his services in opening the West.

Boone served as a lieutenant colonel in the Virginia militia during the American Revolution (1775–1783). He was elected to the state legislature in 1781, 1787, and 1791. He ran several businesses, but he was always most at home hunting and exploring in the deep woods. Boone's business ventures usually failed and he was often in debt. His land ownership was normally

based on unfiled claims. At one point in his late 1760s, Boone was even arrested for bad debts.

Boone died at his son Nathan's home on September 26, 1820, at the age of 85. The remains of Daniel and Rebecca Boone were moved to Frankfort, Kentucky, in 1845. Boone lived the life of explorer and hunter—a life extolled in print many times while Boone was still alive. Over 175 years after his death the legend has continued to grow.

See also: Cumberland Gap, Louisiana Purchase, Wilderness Road

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BORDEN, INC.

The company was founded by Gail Borden Jr., an amateur inventor, who was born in 1801 in Norwich, New York. On a trip back from London in 1851 he saw several children on board ship die after drinking contaminated milk. Because no one yet knew how to keep milk fresh, spoiled and even poisonous milk was not uncommon. Borden knew that the Shakers (members of a religious sect) used vacuum pans to preserve fruit, and he began experimenting with a similar apparatus in search of a way to preserve milk.

After much tinkering, he discovered he could prevent milk from souring by evaporating it over a slow heat in a vacuum. Believing that it resisted spoilage because its water content had been removed, he called his revolutionary product "condensed milk." As French chemist and microbiologist Louis Pasteur

(1822–1895) later demonstrated, however, it was the heat Borden used in his evaporation process that kept the milk from spoiling because it killed the bacteria in fresh milk.

After receiving a patent from the U.S. Patent Office on August 19, 1856, Borden started a small processing operation near a dairy farm in Wolcottville, Connecticut, and opened a sales office in New York City. Consumers, however, took little notice of canned milk. Undaunted by sluggish sales, he resumed production in 1857 in Burrville, Connecticut, under the name Gail Borden, Jr., and Company.

The second enterprise also struggled financially until Borden met Jeremiah Milbank, a wholesale grocer, banker, and railroad financier. With Milbank's funding they formed a partnership in 1858 known as the New York Condensed Milk Company. Another stroke of fortune came when Borden decided to advertise in an issue of *Leslie's Illustrated Weekly*, which coincidentally contained an article condemning the unsanitary conditions at city dairies and the practice by many unscrupulous dairymen of adding chalk and eggs to enhance their "swill milk," as it was called. Soon after the magazine appeared, the New York Condensed Milk Company was delivering condensed milk throughout lower Manhattan and in Jersey City, New Jersey.

In 1861 the U.S. government ordered 500 pounds of condensed milk for troops fighting in the American Civil War (1861–1865). As the conflict grew, government orders increased, until Borden had to license other manufacturers to keep up with demand. After the war, the New York Condensed Milk Company had a ready-made customer base among both Union and Confederate veterans. To distinguish this product from its new competitors, Borden adopted the American bald eagle as his trademark.

Gail Borden Jr. died in 1874, leaving the management of the thriving company to his sons, John Gail and Henry Lee, who presided from 1874 to 1884 and 1884 to 1902, respectively. In 1875 the company diversified by offering delivery of fluid milk in New York and New Jersey. Ten years later, it pioneered the use of easily decontaminated glass bottles for milk distribution. In 1892 Borden's fluid-milk business was expanded to Chicago and the Chicago branch also manufactured evaporated milk.

Seven years later, Henry Lee Borden opened the first foreign branch, in Ontario, Canada, bringing to 18 the number of branch facilities. In 1899, as fresh and condensed milk sales generated profits of \$2 million, the company was incorporated as the Borden Condensed Milk Company.

Boston Massacre

Management of the company passed outside the Borden family for the first time in 1919 when the company changed its name to the Borden Company. During a late 1920s, Borden bought more than 200 companies around the country and became the nation's largest distributor of fluid milk. In the process, it also entered five new fields: ice cream, cheese, powdered milk, mincemeat, and adhesives.

The move into adhesives was particularly important as it formed the basis for the Borden chemical business which developed rapidly from the 1930s through the 1950s. The company expanded into formaldehyde, printing inks, fertilizers, and polyvinyl chloride. By the 1960s a key Borden product was the brand name adhesive, Elmer's Glue-All. Meantime, Borden expanded through the acquisition of several brand-name food manufacturers in the late 1950s and 1960s, including Wyler's bouillon and Wise potato chips.

After a period of slow growth in the 1970s and a major restructuring in the early 1980s, Borden once again stepped up its acquisitions activities in the later 1980s. From 1986 through 1991 the company spent \$1.9 billion to purchase 91 companies, with an emphasis on pasta and snack foods. The 1987 purchase of the Prince Company made Borden the undisputed leader in U.S. pasta sales. Its nine pasta companies accounted for nearly one-third of the U.S. pasta market.

But Borden was a troubled company by the early 1990s, and huge losses posted in 1992 and 1993 led to a takeover by Kohlberg Kravis Roberts & Co. (KKR) in 1995. Under KKR, Borden was dramatically restructured, with the most notable development being the 1997 divestment of the Borden dairy business, severing the link to the company's condensed milk roots. Borden, Inc. of the late 1990s was a diversified producer of pasta, pasta sauces, snacks, bouillon and dry soup, consumer adhesives (including the Elmer's and Krazy Glue brands), and industrial resins, coatings, and adhesives.

See also: Civil War

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BOSTON MASSACRE

On the snowy evening of Monday, March 5, 1770, a mob of more than one hundred Bostonians confronted a band of nine British soldiers near a sentry box outside the Boston Custom House. Despite the best efforts of Captain Thomas Preston, commander of the squad, tensions between the civilians and the soldiers quickly escalated. Within the space of a few minutes the soldiers began firing, killing or fatally wounding five civilians. Among those who died in the Massacre are Crispus Attucks, a former slave turned sailor; James Caldwell, another sailor; Patrick Carr, an immigrant Irishman who made leather trousers; Samuel Gray, a rope maker; and Samuel Maverick, the brother-in-law of mob leader Ebenezer Mackintosh. Six other colonists were wounded, some of them innocent bystanders who had not been part of the mob.

Lieutenant Governor Thomas Hutchinson and his supporters worked through the night to avoid further bloodshed. Tensions were partially relieved by the arrest of Preston and his eight men early the following morning. The event, which became known as the Boston Massacre, helped convince both radical patriots and conservative loyalists that Parliament's efforts to tax the colonists against their will could only end in violence.

The roots of the Boston Massacre lay in the resistance to the Townshend Acts, passed by Parliament in 1767. Parliament's Secretary for American Affairs, Wills Hill, Lord Hillsborough, ordered four British regiments be stationed in Boston after a crowd mobbed customs officers who, on suspicion of smuggling, had seized a merchant ship owned by (radical patriot) John Hancock. On August 1, 1768, the Massachusetts General Court responded. Led by representative Samuel Adams it adopted a Nonimportation Agreement that placed a boycott on imported British goods. The radical patriots hoped that this measure would put economic pressure on Parliament to repeal the

Townshend Acts. Although the boycott, later adopted by several other colonies, eventually persuaded Parliament to repeal the acts, it also prolonged the hard times many of Boston's poorest citizens were experiencing. The aftermath of the French and Indian War (1754–63) brought a prolonged economic depression to the colonies. Jobs were especially scarce for unskilled laborers. Many of the colonists who formed part of the Boston mob competed directly with the soldiers for these jobs. Others, such as the sailors Crispus Attucks and James Caldwell, held jobs that were affected by the boycott. They may have been prepared to take their frustrations out on the soldiers who represented the British government.

From the time the soliders arrived in Boston, there were bad feelings between the military and the town's citizens. Soldiers broke into private shops and stole goods. Citizens took soldiers' equipment. Others encouraged soldiers to desert their units and seek refuge from their officers in the surrounding countryside. Sometimes the differences between the groups came out in violent confrontations that were made worse by the colonial courts' bias in favor of the citizenry. On July 13, 1769, for instance, a private soldier named John Riley exchanged blows with a grocer named Jonathan Winship. Winship complained to Justice of the Peace Edmund Quincy, obtained a warrant for Riley's arrest, and had the soldier arrested and fined. When Riley did not pay the fine Quincy ordered him to jail. Riley was rescued from the courthouse by several members of his regiment, who fought off the court's constable. In another incident, on October 24, British Ensign John Ness was charged with assaulting a colonial official named Robert Pierpoint and stealing his cargo of wood. On his way to answer the charges before a Justice of the Peace, Ness and his men were mobbed, and several of the soldiers were injured. On February 22, 1770, loyalist sympathizer Ebenezer Richardson was attacked in his home by a mob of stone-throwing radical patriots. One of the stones hit Richardson's wife and, in a rage, he seized a gun and fired into the crowd, killing an eleven-year-old boy named Christopher Seider. All these events increased tensions between the radical patriots and the supporters of the Crown.

Events that led directly to the March 5 confrontation began on Friday, March 2, 1770. Around noon that day, hoping to find work during his off-duty hours, Private Patrick Walker approached rope maker John Gray's ropeworks around noon on that day. He was insulted by worker William Green, who invited Walker to "clean out my shithouse." More citizens and soldiers joined the exchange, and it broke out into a fight.

The fighting spread on Saturday, resulting in a fractured skull and arm for one of the soliders. Rumors of armed and angry townspeople looking for an excuse to fight spread throughout the town on Sunday and Monday. On the evening of March 5, Private Hugh White was threatened by a crowd made up largely of the working poor of Boston—day laborers, apprentices, and merchant seamen. White called for assistance and was supported by a squad of eight soldiers, including Captain Preston and two soldiers who had been involved in the fight at the ropeworks the previous day. The mob began pelting the soldiers with mud, ice, and snow. Although Preston tried to maintain order, his soldiers panicked and began firing into the crowd.

AFTER ALL THE FIRING CAPTAIN PRESTON PUT UP THE GUN OF A SOLDIER WHO WAS GOING TO FIRE AND SAID, "FIRE NO MORE, YOU HAVE DONE MISCHIEF ENOUGH."

Edward Hill, Witness for the defense of Captain Thomas Preston, 1770

Preston and his soldiers were arrested and taken into custody. They had to wait until the following October, however, before Lieutenant Governor Hutchinson concluded that they could receive a fair trial. His decision was based in part on a popular (and inaccurate) print of the massacre by silversmith Paul Revere. Most Bostonians believed Preston and his soldiers deliberately fired into the crowd. The nine were threatened with lynching while they awaited their trials. After a three-day trial, defense lawyer John Adams won Preston's acquittal. Of the eight other soldiers, six were found not guilty. Two, however, were convicted of manslaughter and were branded on their thumbs before being returned to their regiments.

Captain Preston's acquittal and the relatively light sentences given to the two soldiers were due in part to the desire of the radical patriot faction to make martyrs out of the victims of the Boston Massacre. However, there was also an economic motive to these events. By the autumn of 1770, the Townshend Acts had largely been repealed and merchants in New York, Boston, and elsewhere were no longer observing the Nonimportation Agreement. As a result, jobs were more plentiful, work for unskilled laborers was easier to find, and the crowds of unemployed urban poor that made up the mobs of citizens melted away. Nonetheless, these very same working poor would return at the outbreak of the American Revolution (1775–83).

See also: American Revolution, French and Indian War, Paul Revere

Boston Tea Party (1773)

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BOSTON TEA PARTY (1773)

At nine o'clock on the night of December 16, 1773, a band of Bostonians disguised as Native Americans boarded the British merchant ship *Dartmouth* and two companion vessels anchored at Griffin's Wharf in Boston harbor. The Americans, who numbered around 70, shared a common aim: to destroy the ships' cargo of British East India Company tea. Many years later George Hewes, a 31-year-old shoemaker and participant, recalled "We then were ordered by our commander to open the hatches and take out all the chests of tea and throw them overboard. And we immediately proceeded to execute his orders, first cutting and splitting the chests with our tomahawks, so as thoroughly to expose them to the effects of the water." Urged on by a crowd of cheering townspeople, the disguised Bostonians destroyed 342 chests of tea estimated to be worth between £10,000 and £18,000. Their actions, which became known as the Boston Tea Party, set in motion events that led directly to the American Revolution (1775–83).

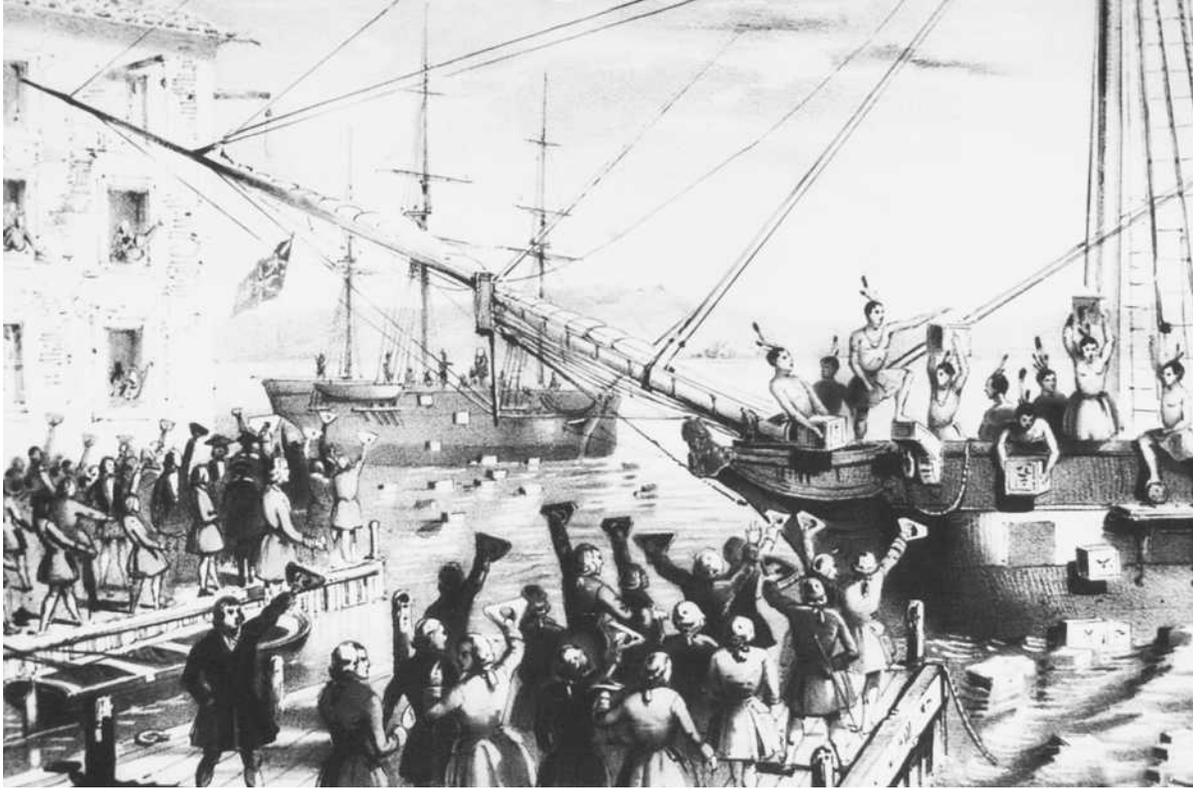
The Boston Tea Party was one of a long series of conflicts between the American colonies and the English government after the British victory in the French and Indian War (1754–63). The French and Indian War was the last and most expensive of almost a century of colonial wars between France and England. Since a lot of this money was spent to protect the American colonists from French Canadians and their Native American allies, the British government felt the Americans should help pay for the war. They also wanted the colonists to pay some of the future costs of stationing

soldiers at forts scattered over the new Western frontier. The Americans, for their part, saw little sense in sending money to England to pay for troops that were needed much closer to home.

During the 1760s Parliament passed a series of acts designed to reduce the British national debt and to finance the costs of keeping regular soldiers on the American frontier. The most notorious of these was the Stamp Act (1765), which placed a tax on almost every public piece of paper in the colonies, including newspapers, pamphlets, diplomas, licenses, packs of cards, almanacs, and dice. The colonists fiercely resisted these taxes, organizing public protests and intimidating tax collectors. The Stamp Act resistance was the most widespread and best organized inter-colonial protest before the tea crisis of the 1770s. In the face of such widespread opposition the British Parliament backed down. It repealed the Stamp Act and its companion taxes in 1766.

The following year Parliament tried another means of raising money, through the Townshend Duties or Revenue Acts (1767), so named after Chancellor of the Exchequer Charles "Champagne Charlie" Townshend. Instead of placing a direct tax on materials that colonists bought and sold, these acts made certain important items such as lead, glass, paint, paper, and tea more expensive. The colonists responded by refusing to buy those products. Nonimportation agreements were signed throughout the American colonies. Citizens at all levels of society either refused to drink tea or bought black-market varieties that came from Dutch colonies. Faced with widespread American opposition, the British government backed down. The Townshend Duties were repealed on March 5, 1770, with the exception of a three penny duty on tea, kept to prove that Parliament had the right to tax the colonies. However, although this piece of legislation is credited with causing the Boston Tea Party, it had nothing to do with the American colonies.

The duty on tea mandated by the Townshend Duties act was meant to save the old British East India Company from bankruptcy. Until the Townshend Duties were first passed the Company had made much of its money transporting tea from India to England, where it was sold first to English wholesalers and then to American wholesalers before being sold to the colonial public. The American boycott of British tea, combined with intensive smuggling of Dutch tea, cut into Company profits. In an attempt to revive the East India Company, Prime Minister Lord Charles



The colonists protested Great Britain's tax on tea by throwing 15,000 pounds of it into the Boston Harbor, on December 16, 1773.

North (1770–1782) persuaded Parliament to pass the Tea Act (1773). This legislation effectively cut the wholesalers out and allowed the East India Company to sell tea directly to agents in America. It gave the Company a monopoly on the sale of tea in the colonies.

The monopoly hurt colonists at all levels of society. Because the Tea Act allowed the East India Company to name its own sales agents to distribute the tea in American ports, business for local merchants and middlemen decreased. The Act offended politicians and patriots, who saw it as an attempt by Parliament to tax them without their consent. Even smugglers—who included wealthy merchants such as John Hancock (1737–1793)—were hurt because it made East India tea competitive with or cheaper than Dutch tea. Other Americans sought to profit from the Act. Governor Thomas Hutchinson of Massachusetts (1771–74), for example, used his influence to get his sons Thomas and Elisha named East India Company sales agents.

In September of 1773 the East India Company readied 600,000 pounds of tea in 2,000 chests for shipment to the colonies. The cargoes arrived at major colonial ports a month and a half later and met with hostile receptions. In New York and Philadelphia angry crowds forced local officials to send the tea ships

IN ABOUT THREE HOURS FROM THE TIME WE WENT ON BOARD, WE HAD . . . BROKEN AND THROWN OVERBOARD EVERY TEA CHEST TO BE FOUND IN THE SHIP, WHILE THOSE IN THE OTHER SHIPS WERE DISPOSING OF THE TEA IN THE SAME WAY, AT THE SAME TIME.

George Hewes, Shoemaker and Participant

back to England without unloading their cargoes. In Annapolis, Maryland, demonstrators burned a tea ship, and in New Jersey arsonists set fire to a warehouse where unloaded tea was stored. In Massachusetts, however, Governor Hutchinson decided to face down the demonstrators. When Boston citizens, led by patriot Samuel Adams (1722–1803), refused to allow the tea ships to unload, Hutchinson called on the Royal Navy to blockade Boston harbor so that the ships could not leave port. He knew that British law required a ship to unload its cargo after 20 days in port and he planned to use this law to sidestep Adams and his patriot followers.

The 20 day waiting period ended for the *Dartmouth* on December 16. On that day Sam Adams and his party tried to contact Governor Hutchinson to convince him to let the ships leave harbor. Hutchinson

Boycott

refused and, at five o'clock in the afternoon, the meeting of Boston citizens broke up. Some of them followed George Hewes' example, by dressing up as Native Americans. Carrying tomahawks and clubs, they marched to Griffin's Wharf. Hewes and his companions took great pains that nothing but the tea was destroyed and that no one profited from the destruction. "One Captain O'Connor, whom I well knew, came on board [to steal some tea], and when he supposed he was not noticed, filled his pockets, and also the lining of his coat," Hewes recalled. "But I had detected him and gave information to the captain of what he was doing. We were ordered to take him into custody, and just as he was stepping from the vessel, I seized him by the skirt of his coat, and in attempting to pull him back, I tore it off; but, springing forward by a rapid effort he made his escape."

The Boston Tea Party led almost directly to the American Revolution. To punish the city of Boston for its role in the destruction of so much East India Company property, the British Parliament passed a series of laws known collectively as the Coercive Acts (1774). These laws closed the port of Boston until the citizens paid for the destroyed tea, dismantled Massachusetts's colonial charter, expanded the powers of the king's governor, and made it harder to convict royal officials of crimes. In the Quebec Act (1774), Parliament also took away lands that had been claimed by the American colonies since their founding. In reply the Americans formed the First Continental Congress to organize and coordinate their response. Sixteen months after the tea finally sank in Boston harbor, the first shots of the American Revolution were fired.

See also: American Revolution, French and Indian War, John Hancock, Stamp Act, Townshend Act

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BOYCOTT

A boycott is an organized, deliberate effort by consumers, workers, or businesses to avoid trade that benefits another group, business, or an entire country whose policies they disagree with. For example, in the 1950s and 1960s civil rights groups boycotted businesses in the American South that discriminated against African Americans. The goal of such boycotts was not only to protest nonviolently but also to coerce the targeted businesses to change their policies by directly affecting their revenues. The term *boycott* is derived from a nineteenth century British estate manager named Charles Boycott (1832–1897). During the potato famine of 1880, Irish tenant farmers on Boycott's land told Boycott he had to reduce their rents so they could survive the famine. Boycott refused, and the farmers joined together to refrain from any interaction that might benefit Boycott and his sympathizers. Boycott never backed down, but he eventually moved out of Ireland.

A strike by workers against a business for higher wages or an embargo of one country by another are both boycotts intended to force change. Consumers who band together to avoid a store known for its high prices are practicing a boycott, as are companies that begin doing business with a new vendor to get their former partner to lower its prices. So-called primary boycotts are direct boycotts against the targeted business or group. For example, the civil-rights protestors of the 1950s and 1960s directly boycotted the very storeowners who refused to serve them. Secondary boycotts are directed against a third party who does business with the targeted business or group. For example, citizens protesting South Africa's formerly racist social policies boycotted U.S. companies that did business in South Africa. In the nineteenth century United States it was quite common for farmers to boycott railroads to get them to lower their freight haulage rates. U.S. labor unions also frequently told their members to avoid purchasing products from non-unionized businesses, and non-unionized businesses used the reverse tactic on unionized firms. During the Great Depression (1929–1939), for example, the National Metal Trades Association encouraged its member firms to boycott metal firms whose workforce had unionized or was considering doing so. In a landmark 1921 ruling, *Duplex Printing Press v. Deering*, the Supreme Court decided that unions could be sued for the damages caused by their secondary boycotts. In 1947 the Taft-Hartley Act outlawed secondary boycotts and strikes completely.

See also: Taft-Hartley Act

BRAND NAMES

Many grocery stores today carry common products like pizza, toothpaste, or cola that are easily spotted on the shelves because of their unflashy packaging and very low prices compared to the more recognizable products displayed next to them. These lower-priced products are called “generics” for a reason. Even though they may be made with exactly the same ingredients and in exactly the same way (and sometimes even in the same factory) as their more expensive cousins they lack one important quality: brand name. Brand name is more than the memorable, sometimes very famous name given to a product, more than the color and design of its label, and more than the tune or slogan that pops into your mind when you think of its latest commercial. Brand name is what makes consumers spend a little more to know they are getting a certain product that is like no other, that will taste or perform exactly the same every time they use it, and that they associate with positive qualities like good taste, excitement, reliability, or high quality. Corporations spend many millions of dollars to build and preserve their products’ brand names, and they use complicated financial formulas and highly trained experts to tell them exactly how much a brand name they own or want to own is really worth. Companies register their brand names with government agencies as trademarks, which give the name a legally protected status. The cost and time required to build a genuinely international brand is so great that many companies are willing to pay several times the value of a target company’s physical assets just to acquire an already established brand name.

The word *brand* comes from a root word meaning “burn” and is directly related to the hot branding irons ranchers use to mark their ranch’s symbol on cattle. Although manufacturers have used identifying marks on everything from pottery, metal ware, and guns for centuries, it wasn’t until the growth of the railroad and development of mass production in the nineteenth century that brand names became as powerful as they are today. When products could be identically produced and transported rapidly all over the world, brand names became more than just identifying marks. They became the foundation on which corporations presented themselves to the consuming public. Many of the world’s first major brand names were American, and several of those, including Campbell’s, Heinz, Wrigley’s, and Goodyear, are still dominant today. In the early 1990s it was estimated that of the world’s ten strongest brand names, the top seven (Coca-Cola,

Kellogg’s, McDonald’s, Kodak, Marlboro, IBM, and American Express) were U.S. firms. In the last half of the twentieth century the development of sophisticated advertising and promotional techniques, led by television ads, has created truly international brands that are recognized in every corner of the world. Although brand names were first associated with physical products, since the early 1960s powerful brand names have also been developed in service industries (such as Allstate, United Parcel Service, and Sprint).

See also: Trademark

BRANDEIS, LOUIS DEMBITZ

The appointment of Louis Brandeis (1856–1941) to the U.S. Supreme Court made him the first Jewish Supreme Court Associate Justice in the nation’s history. Before his appointment, Brandeis led a varied and successful professional life as a public advocate, a progressive lawyer, and a Zionist. Brandeis served the nation’s highest court from 1916 until his retirement in 1939.

Louis Dembitz Brandeis was born November 13, 1856, in Louisville, Kentucky. His parents, Adolph and Frederika Dembitz Brandeis, were Czechoslovakian refugees who fled the failed liberal Revolution of 1848. Brandeis was raised in a family atmosphere that was intellectual, open-minded, progressive, and dedicated to freedom. This had positive impact on his character throughout his life.

Adolph Brandeis was a prosperous grain merchant. Although Louis attended public schools in Louisville, his father’s wealth enabled him to spend three years in Germany where he studied at the Annen Realschule in Dresden. At the age of 18, Brandeis entered Harvard Law School, where he completed a three-year program in two years. He graduated with the highest grades received to that date in the law school’s history.

After a brief period in St. Louis, Missouri, Brandeis returned to Boston in 1879 and soon established a profitable law practice. He argued and won his first U.S. Supreme Court case in 1889 on behalf of the Wisconsin Central Railroad. He also became known as “the people’s lawyer” because of his *pro bono* (without pay) advocacy in cases involving the public interest.

In 1890 Brandeis and his former partner Samuel Warren jointly published a path-breaking article in the *Harvard Law Review*, “The Right to Privacy.” From



Louis Dembitz Brandeis.

IT IS ONE OF THE HAPPY INCIDENTS OF THE FEDERAL SYSTEM THAT A SINGLE COURAGEOUS STATE MAY, IF ITS CITIZENS CHOOSE, SERVE AS A LABORATORY; AND TRY NOVEL SOCIAL AND ECONOMIC EXPERIMENTS WITHOUT RISK TO THE REST OF THE COUNTRY.

Louis Brandeis, *New State Ice Company of Oklahoma City vs. Liebman*, 1932

the bench, Brandeis would later support this new legal concept which his article helped promote.

By the mid-1890s Brandeis's law practice was earning more than \$70,000 a year, an enormous amount by the standards of the day. In 1891 Brandeis married his second cousin, Alice Goldmark, and the two dedicated themselves to public service. Through their frugal living and careful investments, they became millionaires before 1900. As their wealth grew, so did their generosity. Between 1905 and 1939, they gave away approximately \$1.5 million.

In 1908, arguing before the Supreme Court in *Muller vs. Oregon*, Brandeis defended the constitutionality of an Oregon statute limiting the labor of women in factories to ten hours a day. In a precedent-setting brief, he included a mass of legislative and

statistical data relating to the condition of women in industry along with his legal arguments. As a result, the court was forced to consider its decision in light of both the law and contemporary economic reality. Brandeis's brief became a legal model for those lawyers, judges, and social welfare proponents who were determined to humanize industrial working conditions. Associate Supreme Court Justice Felix Frankfurter wrote several years later, "The *Muller* case is epoch-making, not because of its decision [the Court upheld the Oregon statute], but because of the authoritative recognition by the Supreme Court that the way in which Mr. Brandeis presented the case . . . laid down a new technique for counsel charged with the responsibility of arguing such constitutional questions, and an obligation upon courts to insist upon such method of argument before deciding the issue."

Before *Muller*, Brandeis had tried for years to minimize what writer and sociologist Thorstein Veblen called "the discrepancy between law and fact." The law, Brandeis argued, often did not correspond to the economic and social circumstances in America. The danger, he said, was that "a lawyer who has not studied economics and sociology is very apt to become a public enemy."

Brandeis spent ten years acting as counsel for persons advocating and defending progressive laws throughout the country. His work caught the attention of the current presidential administration. On January 28, 1916, President Woodrow Wilson (1856–1924) nominated Brandeis, then 59, to the U.S. Supreme Court. His activism, however, made confirmation difficult. Two years before his nomination, Brandeis had published two influential books: *Other People's Money and How the Bankers Use It* (1914) and *Business, a Profession* (1914). Both books were critical of business practices of the time, particularly those of investment bankers. For over four months the Senate Judiciary Committee heard heated testimony for and against Brandeis's nomination to the nation's highest court for more than four months. Some considered Brandeis's nomination to be a radical threat to the American legal system, but his appointment was finally confirmed by a 47 to 22 vote. The appointment broke an unwritten ban that had kept Jews from serving on the Supreme Court or in high positions of government.

Brandeis served on the high court through the Great Depression and post–World War I period. In his major judicial opinions Brandeis often concurred with the dissenting opinions of the great jurist Oliver Wendell Holmes. Many of their dissents were in defense of the First Amendment guarantees relating to freedom of

speech. Following World War I (1914–1918), in several decisions upholding the Espionage Act of 1918, the Court, with only Justices Holmes and Brandeis dissenting, denied the right of free speech based on the argument that certain statements or opinions might provoke violent acts. For example, in *Abrams v. United States*, the Court upheld a 20-year jail sentence imposed on five Russian immigrants who had published two booklets protesting U.S. actions in their native land. The booklets contained a few quoted phrases from the Communist Manifesto. The Court, again with Brandeis in dissent, also held that pacifism on religious grounds was a legitimate cause for barring U.S. citizenship to an individual.

In a famous dissent from the *New State Ice Company of Oklahoma City vs. Liebman*, Brandeis summed up his philosophy: “It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country. This Court has the power to prevent an experiment. We may strike down the state law, which embodies it on the ground that, in our opinion, the measure is arbitrary, capricious or unreasonable. But in the exercise of this high power, we must be ever on our guard, lest we erect our prejudices into legal principles. If we would guide by the light of reason, we must let our minds be bold.”

Justice Brandeis resigned from the Supreme Court in February 1939. He died in 1941.

See also: Liberalism

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BRETTON WOODS AGREEMENT

In July of 1944, representatives from 44 nations met at Bretton Woods, New Hampshire, for an international monetary conference. There, they developed the groundwork to establish of two international organizations, the International Money Fund (IMF), and the International Bank for Reconstruction and Development, in assist in the creation of a stable economic foundation in the post–World War II (1939–1945) world. The measures detailed at Bretton Woods were adopted by the United States and other participating nations in 1945, officially creating the IMF and the International Bank.

The function of the IMF is to maintain orderly currency practices in international trade. The function of the International Bank is to facilitate the extension of long-term investments for specified purposes, such as development and structural improvements in a nation. Amendments were made to the initial agreement in 1969 and in 1978, enhancing the role of the IMF and establishing “Special Drawing Rights” (SDRs) that are used by the IMF as legal guidelines for all of its currency transfers. The IMF monitors compliance and assists nations in defending their officially established exchange rates. If a country’s foreign exchange problems prove to be more than temporary, the IMF advises the country to devalue its currency and to undertake domestic actions designed to stem further declines in the value of its currency.

BREWING INDUSTRY

Historians have traced the origin of the brewing of beer to the early history of ancient Mesopotamia and Egypt. Grain, most likely barley, was soaked in water until fermentation occurred. Although this method was quite crude, it remained the essential foundation for brewing throughout history.

The pilgrims brought the art of brewing to America in the early 1600s. Dutch settlers brewed ale in New York (then known as New Amsterdam) soon after their arrival in 1624. Early brewing was a small scale subsistence enterprise—just enough beer was produced for the neighborhood barter market.

As the colonies expanded, and the number of breweries increased. Partly because of the problem of finding potable (pure) water, early American per capita consumption of alcohol (including hard cider, which



The art of brewing came to the U.S. with the pilgrims in 1620 and was a cottage industry in 1630, when the first American commercial brewery opened in New Amsterdam. The brewing of alcoholic beverages continued to rise as an American industry, except for the years of prohibition (1920–1933).

actually surpassed beer in popularity in the eighteenth century) was about double what it was in the late twentieth century. As in Europe, differing flavors developed in different regions—mostly because of varied ingredients. Ales and stouts were (and still are) made with a yeast that rises during the fermentation process; this gives the brew a dark, cloudy look. American brews were decidedly different in taste from English ale because of their short fermentation time and the need to import barley, which could not be grown locally in the colonies. Large amounts of English ale were imported for most of the eighteenth century. This practice, however, came to an end in 1770, when George Washington (1732–1799) proclaimed a boycott on imported English ale in order to boost sales for ailing American breweries. The American Revolution (1775–1783) and the subsequent break with Great Britain finalized what Washington had begun five years earlier. In 1789 the U.S. House of Representatives strengthened commercial brewing by limiting the tax on beer. The success of this measure led to the expansion of the industry; by 1810 there were

approximately 132 breweries operating in the United States.

Throughout the mid-1800s, a new type of beer revolutionized the U.S. brewing industry. Brought to the United States in 1840 by Bavarian brewer Johann Wagner, lager utilized a different type of yeast during fermentation that sank—leaving the beer clear and light instead of cloudy. This process required a cool environment. Recognizing the importance of this yeast, brewer George Manger purchased a quantity and set up America's first commercial lager brewery in Philadelphia.

In the mid-nineteenth century, an influx of German immigrants introduced a new type of lager to the United States: the pilsner. Some of these immigrants set up breweries on the shore of Lake Michigan. Many famous breweries arose from this period, including Schlitz, Pabst, and Miller. By 1860 the number of breweries in the United States had swollen to 1,269—mostly lager brewers. As in the case of other commodities, the development of a national economy required distribution in larger markets. Milwaukee breweries attained good reputations in part because of Milwaukee's large German population (in which beer had long been part of the national culture) and in part through the accident of the Great Chicago Fire (1871). Damage to Chicago's water supply and breweries gave Milwaukee brewers temporary access to a huge, new market.

By 1873 there were 4,131 breweries in the United States; nine million barrels of beer were produced per year. This year also saw the birth of what would become two of the country's most prominent breweries: Coors and Anheuser-Busch. To improve the taste of his beer, Adolphus Busch (1839–1913) studied the work of scientist Louis Pasteur (1822–1895). The pasteurization of the brew to kill bacteria, coupled with the invention of the crown bottle cap in 1892, extended the shelf life of beer, which made shipping of beer to remote areas possible. By using these new techniques to make beer, Busch began to produce and market Budweiser, creating the empire of Anheuser-Busch. The ability to manufacture ice, the growth of the railway lines, and European immigration gave birth to the first nationally recognized brands of beer: Pabst, Schlitz, and Anheuser-Busch. Facing competition on this scale, smaller breweries began to consolidate or go out of business.

By 1910 only 1,568 breweries remained in the United States, and these were about to be dealt a serious economic blow. Fueled by anti-German sentiment during World War I (1914–1918), Protestant morality, and the agitation of the Anti-Saloon League,

the production and consumption of alcoholic beverages was outlawed by the Eighteenth Amendment to the Constitution, which became law in 1920. Larger breweries survived by making malt for the food industry, ice cream, soft drinks, industrial alcohol, and non-alcoholic beer. Organized crime produced the now-illegal beer and hard liquor.

In 1933, Congress passed the Twenty-first Amendment repealing Prohibition. In the grip of the Great Depression (1929–1939), the sale of bottled beer helped the brewing industry stay afloat. With the advent of cans, dominated by the American Can Company in 1935, beer found a new container—one that would not break and would protect the beverage from the damaging effects of light. Take-home packaging was also developed. Now beers could be purchased six to a pack.

During World War II (1939–1945), fifteen percent of brewery output went to the military. The anti-German sentiment that had afflicted the German-dominated brewing industry during the World War I did not occur this time. In fact, there was a substantial increase in brewing. Due to a shortage of malt during this period, lighter styles of beer became popular. Lighter beers would characterize the American brewing industry until the late 1980s.

After the war the major brewers in Milwaukee and St. Louis began to expand. Both Pabst and Schlitz owned breweries in New York by 1949. In 1951, Anheuser-Busch constructed a new brewery in Newark, New Jersey. Anheuser-Busch and Schlitz continued expansion, both building breweries in Los Angeles, California (1954), and Tampa, Florida (1959). By 1957 Anheuser-Busch had taken the lead in sales and remained the number one selling brewery in the United States through the 1990s. Though Anheuser-Busch's Tampa brewery would eventually be shut down, the location became the site of the popular Busch Gardens theme park.

During the 1970s a series of mergers occurred. Philip Morris, known primarily for its tobacco products, purchased Miller Brewing Company. Philip Morris reasoned that beer was not unlike cigarettes in that it was an agriculturally based item dependent on advertising for consumer awareness. Mergers were happening on a smaller scale as well. Regional breweries joined forces to form national concerns with bigger markets.

Advertising had become as important as the beer itself to the breweries' success. Competition was fierce.

In 1975 America's breweries produced 147 million barrels of beer and spent \$140 million dollars in advertising. By 1994, total beer production had increased by almost 37 percent while the amount spent on advertising skyrocketed to \$700 million, an increase of five hundred percent.

Part of this growth was caused by expected competition. The late 1980s brought the rebirth of the regional brewery (now known as the micro-brewery) and the homebrewer. A large number of beer drinkers had grown weary of pilsner. Micro-breweries offered American-made stouts, porters, ales, bocks, and other brews, all with a taste specific to the region in which they were brewed. Homebrew supply shops popped up across the country and beer enthusiasts began making beer with ingredients of their own choosing. In the late 1990s it was legal for individuals to brew up to one hundred gallons of beer for personal consumption per year.

Does this spell the end of the national brewery? Hardly. Sensing the change in the market, Anheuser-Busch began producing a wide variety of flavors, including a honey-blond ale, a stout, and many others. This gambit paid off. In 1998 Anheuser-Busch reaped the profit from the sale of over ninety million barrels of brew and their flagship product—Budweiser—was the number one selling beer in the world.

See also: Adolphus Busch, Eighteenth Amendment, Prohibition, Twenty-First Amendment

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BROOK FARM

Brook Farm was an experimental commune and agricultural cooperative in West Roxbury, Massachusetts (now part of Boston). It was established in 1841 by Unitarian minister and author George Ripley (1802–80), a leader of the Transcendental movement. Transcendentalists rejected the conventional doctrines of the Calvinist Church and the rationalism of the Unitarian Church. They were influenced by German philosopher Immanuel Kant (1724–1804) as well as English poets Samuel Taylor Coleridge (1772–1834) and William Wordsworth (1770–1850). Transcendentalist philosophy held that an individual's intuition, as opposed to the five senses, is the highest source of knowledge. The senses are therefore to be transcended. They also emphasized self-reliance and intellectual stimulation. These beliefs spawned an American literary movement, which flourished between 1836 and 1860, and was epitomized by the works of American writer and former Unitarian minister Ralph Waldo Emerson (1803–82) and his protégé author Henry David Thoreau (1817–62). The movement's philosophy was also captured in the transcendentalist journal *The Dial*.

At Brook Farm the transcendentalists strove to establish social harmony. They followed French philosopher Charles Fourier's (1772–1837) ideas that small communities (preferably of 1,620 people) should form an economic unit, share a communal dwelling, and divide work among themselves. Since labor was shared each community member was theoretically allowed ample time for artistic and literary pursuits. But the utopian experiment was short-lived: Brook Farm's central building caught fire and was destroyed in 1846; by the following year the commune had disbanded.

Other notable figures who were associated with Brook Farm included American writer Nathaniel Hawthorne (1804–64), whose novel *Blithedale Romance* (1852) was inspired by his years at the commune; and American feminist and writer Margaret Fuller (1810–50), editor of *The Dial*. The utopian community was also visited by American newspaper editor Horace Greeley (1811–72), founder of the highly influential *New York Tribune*.

See also: Utopia, Utopian Communities

BROOKLYN BRIDGE

The Brooklyn Bridge, which spans New York's East River to connect Manhattan and Brooklyn, was

completed in 1883. Extending 1595 feet (486 meters), it was the longest suspension bridge in the world when it was finished. The bridge hangs from steel cables that are almost 16 inches (41 centimeters) thick. The cables are suspended from stone and masonry towers that are 275 feet (84 meters) tall. Upon opening, the span was celebrated as a feat of modern engineering and, with its twin gothic towers, as an architectural landmark of considerable grace and beauty.

The Brooklyn Bridge was conceived of and designed by German American engineer John Augustus Roebling (1806–1869) who first proposed the project in 1857. Roebling's earlier accomplishments included a span over Pittsburgh, Pennsylvania's Monongahela River (1846) and one over the Niagara River at Niagara Falls (1855), between New York and Ontario. The engineer's plans for the Brooklyn Bridge (officially called the East River Bridge) were approved in 1869; Roebling died one month later. He was succeeded by his son, Washington Augustus Roebling (1837–1926), who took on the role of chief engineer. Specially designed watertight chambers allowed for the construction of the two towers whose bases were built on the floor of the East River. The project proved to be an enormous and dangerous undertaking. Underwater workers, including Roebling, suffered from the bends—a serious and potentially fatal blood condition caused by the decrease in pressure that results from rising from the water's depth too quickly. But man prevailed against the elements, and after fourteen laborious years, on May 24, 1883, the Brooklyn Bridge was inaugurated. Five years later Brooklyn became a borough of New York City. In 1964 the bridge was designated a national historic landmark.

See also: John Augustus Roebling

BROTHERHOOD OF SLEEPING CAR PORTERS

Founded in 1925, the Brotherhood of Sleeping Car Porters (BSCP), now part of the Brotherhood of Railway and Airline Clerks, was a critical institution linking together the African American community in the south and in the north. The union, composed entirely of the African American porters and maids who worked on the railway trains that traversed the nation, was a strategic institution in the African American community. It served as the "eyes and ears" of the black community. During the period of migration of African American people to the north following World War II, the Brotherhood of Sleeping Car Porters carried news



Passengers placed their shoes outside their train berths, to be collected and shined by the attending car porter.

about the conditions in the north: the availability of jobs and housing and generally what the migrants could expect from the authorities in the north. It was also a network of news about the civil rights movement in the south.

The members of the union, such as Mr. E.D. Nixon, a Pullman Porter who lived in Montgomery, Alabama and served as the president of the Alabama National Association for the Advancement of Colored People (NAACP) in the 1950s, often became leaders of the Civil Rights Movement. This had to do with the fact that the Porters literally had “broader horizons” due to the mobility associated with their jobs. E.D. Nixon helped provide leadership in the Montgomery Bus Boycott of 1955–1956.

The BSCP was organized in Harlem, New York City, in 1925 by Asa Philip Randolph (1889–1979). Randolph was the publisher of *The Messenger*, a New York monthly devoted to black politics and culture. He was a member of the Socialist Party and he believed that unions provided the best opportunity for black workers to secure a fair wage and to defend their rights.

Randolph led the union from 1925 until he retired in 1968. His union was not large—at its height it represented only about 12,000 workers, but it was strategically placed. Randolph also served as vice president of the American Federation of Labor and the Congress of Industrial Organizations (AFL-CIO) in 1957.) As a labor leader, Randolph made many advances, both on the part of the union and on behalf of black Americans.

Initially, the Brotherhood of Sleeping Car Porters (BSCP) had to deal with the Pullman Company because the company not only built the railway coaches (in its factory located in a suburb of Chicago), it also furnished to the railroads the personnel who served as porters and maids on the trains. As leader of the Brotherhood of Sleeping Car Porters, Randolph organized these workers and bargained for union recognition and the right to negotiate labor contracts on their behalf with the Pullman Company. Randolph also secured inclusion of railway porters and maids in the language of the Railway Labor Act (1926). The act was designed to settle disputes through negotiation, mediation, arbitration, and to establish a protocol for the investigation and recommendations of an emergency fact-finding board.

Randolph worked for increases in wages for members of the brotherhood. The National Labor Relations Board certified the Brotherhood of Sleeping Car Porters as the legitimate representative of the porters and maids in 1935. In 1941, Randolph pressured the federal government to provide blacks with equal access to jobs in the defense industries. Randolph threatened President Franklin Roosevelt with a large protest march unless Roosevelt established a policy of non-discrimination for African American workers and founded a national watchdog apparatus known as the Fair Employment Practices Committee (FEP). Franklin Roosevelt (1882–1945) agreed to this demand because the stated war goals of the United States included the fight against fascism and racism. In 1963, Randolph also figured prominently in directing the March on Washington for Jobs and Freedom, the largest civil rights demonstration in American history.

See also: Civil Rights Movement, Asa Philip Randolph

BRUNSWICK CORPORATION

Born 1819 in Switzerland, John Moses Brunswick emigrated to the United States at age fourteen. Having

Brunswick Corporation

opened a woodworking shop in Cincinnati, Ohio, in 1845 to make carriages, Brunswick soon expanded into the manufacture of billiard tables. In the late 1860s three firms dominated the U.S. billiards market: J. M. Brunswick and Brothers, Julius Balke's Cincinnati-based Great Western Billiard Manufactory, and New York-based Phelan and Collender. In 1873 Brunswick merged with Balke to form J. M. Brunswick and Balke Company. Then in 1884 Phelan and Collender merged with Brunswick and Balke to form the Brunswick-Balke-Collender Company.

Following John Brunswick's death in 1866, the company's new leadership aggressively expanded the firm's product line. Since many billiard tables were being sold to taverns, the company also developed a line of carved wooden back bars. Back bars covered the wall behind a bar and served a functional and decorative purpose. They were intricate and elaborate status symbols and also greatly enhanced Brunswick's image as craftsmen. Before long Brunswick bars were installed across the United States and Canada.

In the 1880s Brunswick added another product line—bowling pins and bowling balls. Taverns had begun to install lanes, interest in bowling seemed to be growing, and the Brunswick-Balke-Collender was determined to be ready for this new market. The company actively promoted bowling as a participatory sport and helped to standardize the game. The company's president was also instrumental in organizing the American Bowling Congress, the sport's governing body. Although Brunswick continued to expand its markets and product lines, bowling was to become the financial backbone of the firm.

In the 1910s the temperance movement (which advocated prohibition of the sale and consumption of alcohol) threatened not only the fixtures and bar business but also billiards and bowling. In 1912 Brunswick suspended its bar-fixtures operations, which accounted for one-fourth of annual sales, and sought to replace it with automobile tires and the world's first hard-rubber toilet seats. Rubber products best utilized the firm's existing facilities. By 1921 the company was producing two thousand tires a day. When the price of rubber tripled in 1922, Brunswick sold its tire line to B.F. Goodrich, who began to manufacture tires under the Brunswick name as the Brunswick Tire Company.

Brunswick then began to manufacture wood piano cases, phonograph cabinets, and phonographs. In 1922 the company also began producing records under its own label. Jazz greats such as Duke Ellington, Cab Calloway, and Benny Goodman and classical artists such as Irene Pavlovskaya and Leopold Godowsky all

recorded on the Brunswick label. In 1924 Brunswick became a publicly traded company.

Even with the repeal of Prohibition in 1933 and the popularity of pool halls, the Great Depression (1929–1939) was hard on Brunswick. Nonetheless the company marketed a line of tabletop refrigerators called the Blue Flash and a successful line of soda fountains to replace its once thriving bar and fixture business.

During World War II (1939–1945) Brunswick found new markets and new products and once again prospered. United Service Organizations (USO) centers and military bases eagerly purchased billiard and bowling equipment. Brunswick also made wartime products, including mortar shells, flares, assault boats, fuel cells, floating mines, aircraft instrument panels, and aluminum stretchers.

In the postwar period, Brunswick expanded widely. In the mid-1950s the company successfully developed an automatic pinsetter for bowling alleys, which, along with a competing machine made by the rival American Machine and Foundry Company (better known as AMF), helped revolutionize the sport. Brunswick's policy of selling pinsetters on credit, along with an aggressive advertising campaign, combined with suburban expansion to make bowling centers enormously popular in the late 1950s. After the introduction of the pinsetter the company prospered as never before. Sales, which had been \$33 million in 1954, jumped to \$422 million in 1961.

Fueled by this revenue rise, Brunswick made several acquisitions in the late 1950s and early 1960s. Through these purchases the company became a major provider of equipment for golf, roller-skating, fishing, and boating. Brunswick's most important purchase proved to be the 1961 acquisition of the Kiekhaefer Corporation, which built Mercury outboard motors and formed the basis for the company's marine business, which became increasingly important over succeeding decades. In 1960 the company changed its name to Brunswick Corporation.

Brunswick also expanded well beyond the recreation area in the 1960s and 1970s, adding medical supply operations and various industrial manufacturing units. The 1980s and 1990s, however, saw Brunswick exit from these businesses in order to focus exclusively on recreation. A series of acquisitions in 1986 and 1988 made Brunswick the world's largest manufacturer of pleasure boats and marine engines. In the 1990s the company expanded its recreational offerings to include bicycles, wagons, sleds, camping equipment, ice chests, and exercise equipment.

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BRYAN, WILLIAM JENNINGS

William Jennings Bryan (1860–1925) was a great populist orator who unsuccessfully ran for the U.S. presidency three times. He was born and brought up in Illinois. Following graduation from law school he practiced law in Jacksonville, Illinois, from 1883 to 1887, but his heart was never in his work. In 1887 he moved his family to Lincoln, Nebraska, where he ran for Congress in 1890. Bryan won his Congressional seat as a Democrat by 7,713 votes, a substantial margin in a strongly Republican district.

During his first term in the House of Representatives, Bryan attracted wide attention when he gave a masterful three-hour speech in defense of the "free silver cause." In the late 19th century the United States was in the throes of depression. Unemployment and farm failures were common. The country was divided over the hard money vs. the so-called question of bimetallism. Advocates of free silver were mainly southern and western farmers. They argued that the gold standard resulted in an unfavorable economic bias against the common man. Free silver partisans believed they were being exploited. They favored the circulation of silver currency and other inflationary policies that would cheapen the value of money in order to ease personal and business debts. Bryan's simplistic solution for the depressed economy that followed the Panic of 1893 was the unlimited coinage of silver at a ratio to gold of 16 to 1. He claimed lawmakers had to decide between a policy supported by financiers and wealthy industrialists and the justified demands of the downtrodden masses.

Bryan's two Congressional terms and his growing reputation as a dynamic public speaker helped make his name as "the boy orator from the Platte." His

national renown did not help him back home in Nebraska, however, and he failed in his bid to become a U.S. senator in 1894. Bryan spent the next two years as an editor of the *Omaha World-Herald* and conducted a vigorous public campaign in favor of the free silver cause.

At the 1896 Democratic presidential convention in Chicago 36 year-old Bryan dazzled the assembled delegates, newspaper reporters, and the public with a famous address known today as the "Cross of Gold" speech. Delivering a carefully planned and rehearsed text as if it were a spontaneous outpouring, he said, "We have petitioned, and our petitions have been scorned; we have entreated, and our entreaties have been disregarded; we have begged, and they have mocked us when our calamity came. We beg no longer, we entreat no more; we petition no more. We defy them." Bryan went on to declare the farms could survive without the cities, but cities could not survive without the farms. He summed up his defiance of gold standard supporters: "Having behind us the producing masses of this nation and the world, supported by the laboring interests and the toilers everywhere, we will answer their demand for a gold standard by saying to them: You shall not press down upon the brow of labor this crown of thorns; you shall not crucify mankind on a cross of gold."

WE HAVE PETITIONED, AND OUR PETITIONS HAVE BEEN SCORNED; WE HAVE ENTREATED, AND OUR ENTREATIES HAVE BEEN DISREGARDED; WE HAVE BEGGED, AND THEY HAVE MOCKED US WHEN OUR CALAMITY CAME. WE BEG NO LONGER, WE ENTREAT NO MORE; WE PETITION NO MORE. WE DEFY THEM.

William Jennings Bryan, Cross of Gold speech, 1896

The next day Bryan was nominated as the Democratic Party's presidential candidate. He also received the nomination of the Populist Party and the National Silver Party and was supported by those Republicans who favored free silver. The Republican candidate was the affable and well-financed William McKinley (1897–1901). Bryan embarked on a campaign that covered more than 18,000 miles in 27 states. For some of the spectators his oratory bordered on demagoguery, but to many of his listeners Bryan was a hero. He inspired listeners with his wonderful voice and dramatic delivery. However, Bryan ultimately failed to convert eastern workers to the free silver cause. Industrialists convinced their employees that Bryan was a radical, even a revolutionary. McKinley narrowly won the popular vote (51 percent to 46 percent) but dominated

Budget Deficit

in the electoral college (271 to 176 votes), which is the deciding vehicle in an election.

The 1896 campaign was the high point of Bryan's political career. Though he ran for president in 1900 and in 1908, he was unsuccessful. He did succeed in seeing many of his central ideas enacted into law. This included the popular election of senators, the income tax, the creation of the Department of Labor, prohibition, and women's right to vote. In 1912 President Woodrow Wilson (1913–1921) appointed Bryan to be his Secretary of State. Bryan had earlier helped Wilson win the Democratic nomination and the presidency. Bryan was a pacifist at heart, and he was effective in spearheading several treaties designed to forestall the coming war in Europe. He resigned when Wilson used stronger language than Bryan thought acceptable after Germany sank the British liner *Lusitania* and 128 U.S. citizens were killed. He nevertheless loyally supported the United States when war was finally declared and the country entered World War I (1914–1918).

Following the war Bryan championed Prohibition and served as the president of the National Dry Federation in 1918. He was known for serving grape juice rather than wine at diplomatic functions while he was Secretary of State. Bryan continued to advocate Prohibition until it was ratified in 1919 when the 18th Amendment to the U.S. Constitution was passed.

Bryan's last great crusade was against the Darwinian theory of evolution. He was a prosecutor of John T. Scopes in what has become known as the "Monkey Trial." The case brought Bryan head-to-head with renowned Chicago lawyer Clarence Darrow. The trial was great theater and attracted worldwide notoriety as a duel between fundamentalism and the theory of the evolutionary origin of man. Scopes was eventually found guilty, but the trial took a great toll on Bryan. He died in 1925, five days after its conclusion.

See also: Free Silver, Cross of Gold Speech, Gold Standard, Gold Standard Act, Prohibition,

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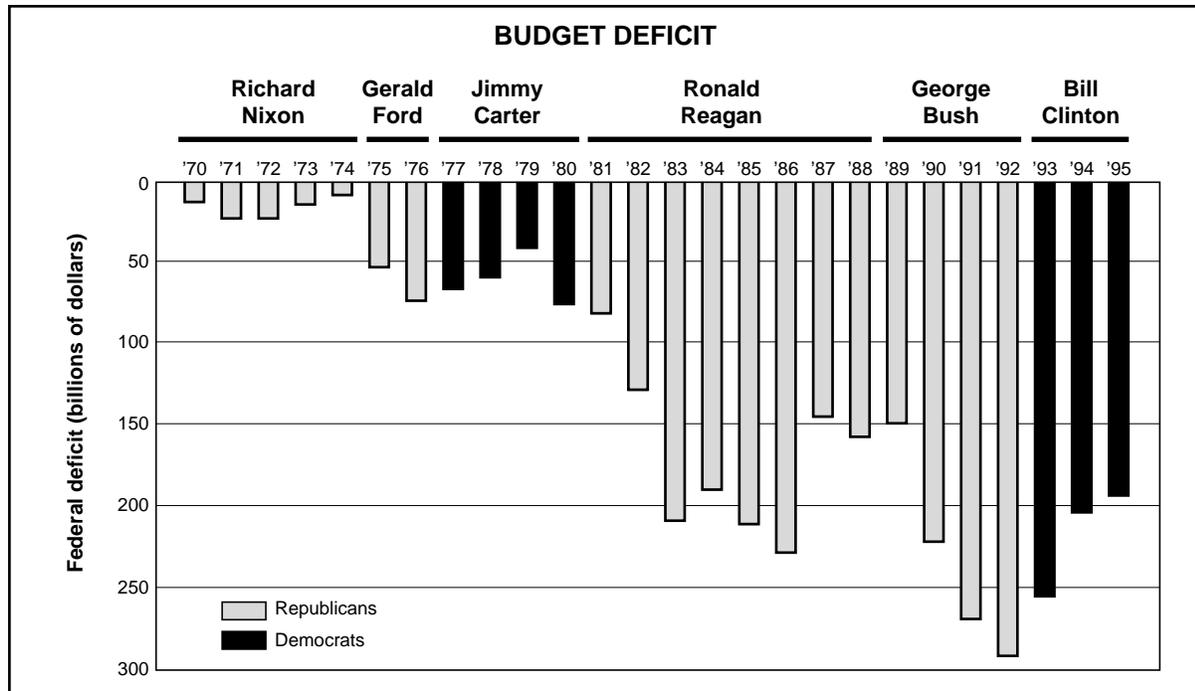
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BUDGET DEFICIT

A budget is an estimate of expected income and expenses for a specific period of time. Governments, private businesses, and individuals use the budget-making process to establish financial goals. The completed budget is then used as a blueprint to monitor the progress toward those goals. If income or expenses are equal, a budget is in balance. But, depending on financial objectives, a budget might have a surplus or deficit. A surplus is created when an individual or organization has more income than expenses for a given time period and decides to set some of this money aside. For instance, an individual might make monthly payments into a college-savings plan that will be used in the future. A deficit is just the opposite and occurs when expenses are greater than income. As a consequence, money is borrowed from an outside source. For example, an individual who wants to buy a car may lack the necessary cash and so takes out a loan to cover the cost. If a deficit continues over a long period of time, it is called a chronic deficit.

During much of the 1970s, '80s, and '90s, the U.S. federal government had annual budget deficits that often exceeded \$100 billion. In 1992, the federal government had an annual budget deficit of \$290 billion. The result of these years of deficit spending was that by 1999, the United States had a national debt of approximately \$5.5 trillion and paid \$240 billion annually in interest to finance the debt. The purpose of the federal budget is to collect and spend the funds needed to carry out social, military, and economic policies. According to the Employment Act of 1946, the federal government has the responsibility to promote maximum employment, fight inflation, and encourage economic stability and growth. To achieve these aims, the federal government might spend more money than it receives in order to stimulate the economy. This type of fiscal policy creates a budget deficit. The federal government reversed this budget deficit spending in the late 1990s and began passing surplus budgets. By 2008, the federal government's annual budget is expected to reach a surplus of \$251 billion. However, unless these annual surpluses are used to pay



The annual federal budget deficit for each year from 1970–1995 is shown on this bar graph. The budget deficit was greatest while George Bush was in office and began to decline after the election of Bill Clinton.

off the accumulated debt, the country will have an estimated federal debt of \$6.3 trillion in 2003.

See also: Inflation

BUFFALO, EXTERMINATION OF

In the early nineteenth century great herds of buffalo, more appropriately called American bison, roamed the Great Plains. Then over 50 million buffalo existed (perhaps as many of 75 million). A number of early accounts described awesome sights of the enormous herds. Lewis and Clark commented in 1806 that in what later became South Dakota “The moving multitude . . . darkened the whole plains.” Others wrote that, when viewing a herd from a distance, it appeared the entire prairie was in motion. Army major Richard Dodge commented as late as 1871 that it took five days to pass one herd.

The buffalo was central to the Plains Indian economy and remained central to their spiritual world even as late as the twentieth century. Bison provided a variety of foodstuffs, hides for clothing and shelter, bladders for pouches, gall and blood for paints, bones for utensils, droppings for fuel and heat, and skulls for

sacred ceremonies. The ox-like grazing mammal had woolly hair and pronounced shoulder hump and was well adapted to the short-grass prairies of the Plains. Though weighing almost 2000 pounds each, the buffalo were surprisingly agile and fast and actually make lighter use of the fragile prairie landscapes than domestic livestock. Buffalo also could withstand more extreme weather conditions than cattle. They tended not to congregate near water sources. In earlier times their native range covered much of North America, but by the mid-nineteenth century the primary range extended from West Texas northward through Alberta, Canada and west from the Mississippi River to the Rockies.

At the end of the American Civil War (1861–1865), the U.S. military’s attention turned again to American Indian relations. Since U.S. settlements expanded further west, troops entered the Great Plains region to protect American settlers and the pending railroad development which would extend well into the central Plains.

The military was keenly aware that a substantial decline in buffalo would pose a serious setback to the Indians’ ability to resist U.S. expansion. It would also spell an end to their seemingly nomadic lifestyle and force their move to reservations. Some believe the military made concerted efforts to exterminate the buffalo, both by direct actions and with logistical

Buffalo, Extermination of



In 1878, the Rath and Wright's buffalo hide yard in Dodge City, Kansas, stored 40,000 buffalo hides.

assistance provided to private hunting expeditions. Given the nature of the animals sometimes to not stampede when fired on, a marksman could shoot a hundred buffalo in an hour standing in one spot. Often only the buffalo tongues and other choice cuts were taken and most of the animal was left to rot. Sometimes they were killed purely for sport. Fencing by new settlers also took its toll by restricting buffalo from traditional watering holes and rich grazing areas.

By 1871 the slaughter of buffalo escalated further. A Pennsylvania tannery developed an industrial method to convert buffalo hides into inexpensive commercial leather for harnesses and machine belts. With hides worth between \$1 and \$3 each, hunters invaded the Plains. The Kansas Pacific and the Santa Fe railroads carried the hides to eastern markets. As the Kansas herds vanished rapidly, the decimation extended southward to the Texas panhandle. Because the buffalo herds sometimes blocked trains, railroad companies hired hunters to clear the tracks and guard watering holes. An estimated 15 million buffalo in 1865 decreased by 1872 to seven million.

Congress grew alarmed and passed legislation in 1874 regulating the killing of buffalo. Non-Indians could not kill female buffalo and were prohibited from killing no more than needed for food. However, President Ulysses S. Grant (1869–1877) vetoed the measure. The Texas state legislature also unsuccessfully introduced a buffalo protection bill in 1875.

In 1880 the Northern Pacific Railroad reached the Dakota-Montana border in the central area of the traditional buffalo range. Thousands of buffalo hides were shipped from the Montana Territory and Yellowstone River area. The following year the railroad reached Miles City, Montana. Two years later, in 1883, a herd of 10,000 in Montana were exterminated in a few days time.

By the 1890s less than a thousand buffalo remained in scattered areas, mostly on private ranches. Perhaps a scant twenty to fifty buffalo had sought refuge in Yellowstone National Park. In 1908 Congress created a national bison range west of Flathead Lake in Montana.

Hide hunters as well as thrill seekers in combination with the growing railroad network doomed the once massive herds. The herds on the central plains were exterminated by the early 1870s; they were eliminated from the southern plains later in the 1870s; and they vanished from the northern plains in the early 1880s. To the Plains Indians the wasteful mass killing of the buffalo herds was perhaps the most disheartening act of all by the white intruders. Their economy was shattered and the native groups were forced to live on government handouts. The demise of the great buffalo herds also marked the transition of the extensive grasslands into agricultural production. The prairie itself eventually disappeared under the plow.

See also: Lewis and Clark Expedition, Plains Indians, Westward Expansion

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BUFFETT, WARREN

Regarded by many as America's most brilliant investor and recognized as one of the richest men in the United States during the late twentieth century, Warren Buffett (1930–) has become a legend during his lifetime. Buffett's folksy pronouncements along with his long-time home address in Omaha, Nebraska, mask a shrewd and aggressive approach to business. When he was a boy Buffett had the life goal of being "very, very rich" as he once put it. He certainly achieved that goal by becoming a multi-billionaire.

Buffett was born in Omaha on August 30, 1930. While he was still a boy Buffet often accompanied his father to work. His father's stockbrokerage firm, became a familiar haunt for the boy. Before he reached his teenage years Buffett was already doing routine duties around the office. He chalked stock prices on the office blackboard and charted performance records of various equities. In 1942 the family moved to Fredericksburg, Virginia. They lived there while his father served Nebraska as a U.S. Congressman. According to Robert Lenzner writing in *Forbes* magazine (18 October 1993), Buffett credits his father as an important role model: "I have never known a better human being than my Dad."

When he was only sixteen, Buffett enrolled at the University of Pennsylvania where he studied mathematics and statistics. At age twenty he received a Bachelor's from the University of Nebraska. He then entered Columbia University's Graduate School of Business where he obtained an MBA.

After working briefly for his father in Omaha, Buffett joined the New York investment firm of his mentor Benjamin Graham. Buffett later claimed that the great turning point in his life and career came when he met Graham. Graham identified undervalued companies by avoiding the use of annual reports. He concentrated instead on exacting analyses of balance sheets and profit and loss statements. Buffett's facility in math and statistics enabled him to become adept at this analysis. However, he later realized that although statistical bargains often turned out to be winners, it made sense to also look for companies that were undervalued for other reasons.

When Graham closed his Wall Street firm in 1956, Buffett left New York and returned to Omaha. There he started an investment partnership that he managed until 1969. To drum up business he gave seminars for doctors and other professionals seeking advice on how to invest their money. Many of them decided to put their savings under Buffett's management after they heard him speak. Other investors in his partnership were either former business school classmates or Wall Street financiers. Several of Buffett's early backers now hold stock portfolios worth tens of millions.

In a joint interview with Microsoft Corporation chairman Bill Gates in *Fortune* (20 July 1998) Buffett explained why he eventually terminated the investment partnership: "[I] closed it up because I couldn't find anything. I hadn't lost the ability to value companies; there just weren't any left that were cheap enough, and I wasn't in the business of shorting stocks." Within a decade, however, the situation had changed. As Buffett said: ". . . in the mid-1970s, every security you looked at was really dramatically undervalued."

Buffett preached that the key to making money in the stock market was to pick good stocks at good prices and to stay with a company as long as it continued to be well-managed. He left frenetic trading to others and hung on to stocks even if they became overvalued. Buffett bought stock in companies that made products he understood and felt comfortable with. His major holdings, for example, included Coca Cola Company and Gillette Company. He also had three major media holdings: The Washington Post, Capital Cities/ABC, and the Buffalo News. He never invested heavily in

technology stocks or in foreign companies because these were not market categories with which he was familiar. According to Lenzner in *Forbes* Buffett's basic rule was "Don't put too many eggs in your basket and pick them carefully."

In the mid-1960s Buffett bought controlling interest in Berkshire Hathaway, a failing textile business in New Bedford, Mass. He briefly attempted to maintain Berkshire Hathaway as a textile company and simultaneously continue his investment activities. In the end he liquidated the textile business but retained its name for his investment company. He used his base in the company to buy stocks in the wildly under priced market of the 1970s and 1980s. Between 1977 and 1991, according to Michael Lewis in *The New Republic* (17 February 1992), Berkshire Hathaway grew from a pool of \$180 million in risk capital to one of more than \$11 billion.

During the 1980s Buffett also developed a very lucrative "white knight" strategy. Using this strategy he saved certain businesses from being bought out by competition. He often stepped in to save a business by infusing it with the cash it needed to fend off takeovers. In exchange, he expected a return on his investment in the form of preferred stock that guaranteed a healthy dividend whether or not the company performed well.

Buffett summed up his views on investment in *Fortune* magazine: "What you want to do was attract shareholders who were very much like you, with the same time horizons and expectations. We don't talk about quarterly hearings, we don't have an investor relations department, and we don't have conference calls with Wall Street analysts, because we don't want people who were focusing on what's going to happen next quarter or even next year. We want people to join us because they want to be with us until they die."

See also: Wall Street

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BURNHAM, DANIEL HUDSON

Daniel H. Burnham (1846–1912), one of America's most important architects, helped to rebuild Chicago after the Chicago Fire of 1871. Burnham made important contributions to the development of the skyscraper. Long after his death, his visionary ideas about urban and regional planning remained influential as a way to accommodate work, home, and recreation in close proximity to each other. His 1909 plan to transform Chicago into a beautiful, functional city was the first comprehensive urban plan in the United States.

Daniel Burnham was born near New York City on September 4, 1846. His family moved to Chicago when he was nine. He graduated from a public high school in Chicago but failed to obtain admission to college. In his early adulthood, Burnham worked as retail clerk, mined for gold in Nevada, and ran unsuccessfully for a seat in the Illinois State Senate. Still in his early twenties, Burnham was accepted as an apprentice by a leading Chicago architect, William Le Baron Jenney.

In 1872 Burnham, age twenty-six, moved to the firm of Carter, Drake, and Wight, where he worked as a draftsman. A year later he went into partnership with a fellow draftsman at the firm, John Wellborn Root. The partnership turned out to be a profitable one. Root was creative and versatile; Burnham, practical and businesslike, was a superb administrator. They prospered after the Great Chicago Fire, which decimated downtown Chicago. Between 1873 and 1891 the firm designed 165 private residences and 75 buildings of various types.

Most of these buildings were European in influence: their exterior decorations echoed ancient Greek and Roman monuments. In 1891 Burnham and Root adapted modern techniques to meet the demand for more centralized office space in Chicago. Three of their buildings have been designated landmarks. The Rookery (1886) and the Reliance Building (1890) both used a skeleton frame construction. The sixteen-story

**Daniel H. Burnham.**

Monadnock building (1891) was the last and tallest American masonry skyscraper.

In 1893, two years after the death of his partner, Burnham became chief of construction and chief consulting architect for the World's Columbian Exposition in Chicago. Burnham teamed with architectural firms from all over the eastern United States to create an eclectic "White City"—a community of buildings and landscapes that combined boulevards, gardens and classical facades. The Columbian Exposition was a triumph and it made Burnham famous. That year he received honorary architectural degrees from Harvard and Yale Universities, and he was elected president of the American Institute of Architects.

The "White City" became the nucleus of Burnham's 1909 plan to transform Chicago into a beautiful city. Critics have said that Burnham ignored the social side of urban planning in his zeal for a visually attractive and smoothly functioning city. He was also accused of failing to realize that boulevards lined with offices would be deserted at night. Despite these criticisms, much of his great plan was put into effect. Some \$300 million worth of architectural projects were built before the Great Depression called it to a halt in the 1930s.

Burnham was also faulted for trying to make Chicago into another Paris, France. The neoclassical architecture, broad avenues, and public gardens he

avored echoed those of the French capital. Famed Chicago architect Louis Sullivan (1856–1924) was said to have complained that Burnham's designs set American architecture back by 50 years. Notwithstanding these attacks, many of Burnham's ideas have stood the test of time and influenced city planners across the country.

One great legacy was Burnham's vision of making the Lake Michigan lakefront a recreational resource. His plan proposed the creation of a string of landfill islands and peninsulas, which would provide protection against natural erosion and storms and would also be an attractive site for pleasure boating, picnics, and other outdoor activities. Although only one island was built, the Lincoln Park shoreline was extended with five miles of landfill. Legacies of Burnham's plan also included Lakeshore Drive and Grant Park. A ring of forest preserves surrounding the city provided the greenbelt that Burnham anticipated in 1907, long before the waves of population growth in the twentieth century transformed the city.

In 1923 Burnham's recommendation for a complex of railroad stations west of the Loop (the historic center of the city) resulted in the construction of Union Station. In addition, Chicago's expressway system followed Burnham's plan for regional highways, though he could not have anticipated the effect of the automobile on American cities.

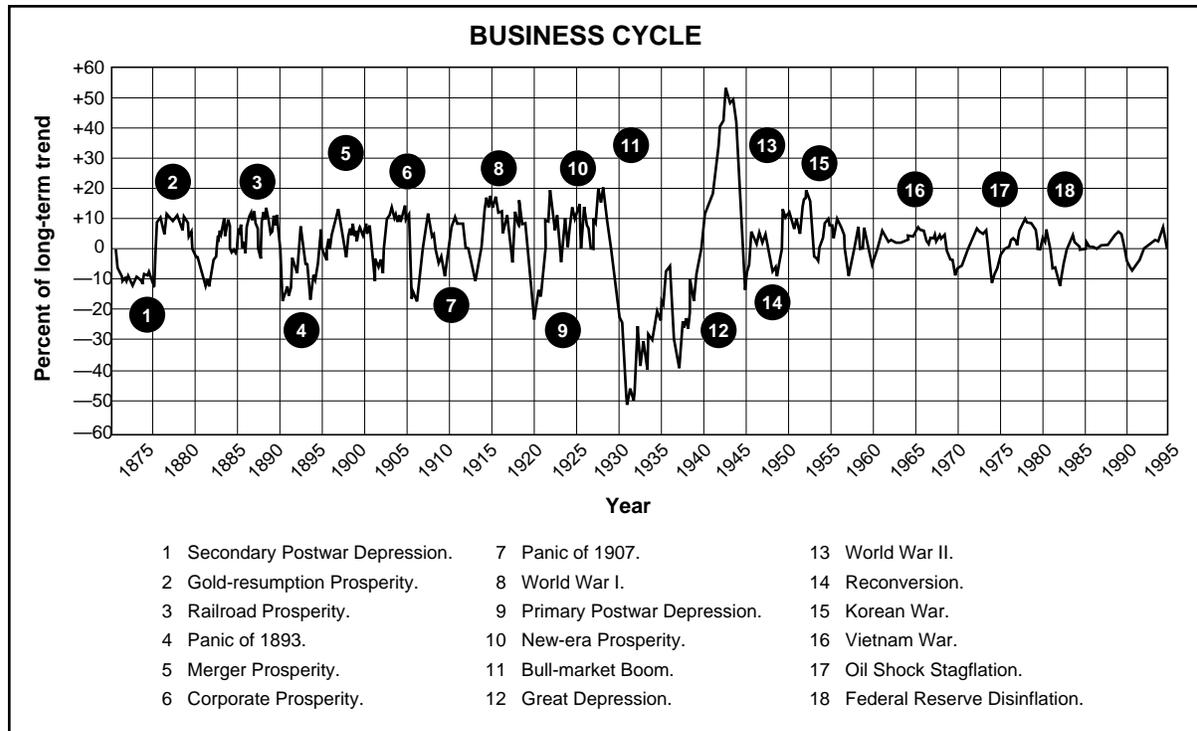
Burnham was asked to serve as a planning consultant by many other major American cities, including San Francisco, Detroit, and Cleveland. In 1905 he was consulted by then-Secretary of War William Howard Taft (1857–1930) for advice on a plan to rebuild and modernize Manila in the Philippines. In addition to his work as an urban planner, by the time of his death in 1912 Burnham was responsible for the design of several important buildings, including the Flatiron Building, New York (1901); Union Station, Washington, D.C. (1909); and Filene's Store, Boston (1912). Each of these buildings had a lasting influence on the twentieth century cityscape, and through them, Daniel Burnham's vision endures.

See also: **Chicago Fire of 1871, Reinforced Concrete**

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When an economy declines over a sustained period, it is in recession, then when it grows, it is in expansion. From 1875 to 1995, there were 18 contributing factors to the country's growth and shrinkage.

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BUSCH, ADOLPHUS

Adolphus Busch (1839–1913) was a German immigrant to the United States who used his inheritance funds to launch his career with a small brewing supply company. He went on to found one of the largest and most successful breweries in the United States.

Busch was born in Kastel, near Mainz, Germany, one of 22 children. His father was a prosperous merchant, innkeeper and landowner. At age eighteen Busch emigrated to St. Louis, Missouri after completing his education. There he worked first as a clerk in riverfront businesses and then in the wholesale supply house of William Hainrichshofen. In 1859 he received his inheritance and in partnership with Ernst Wattenberg

formed a brewer's supply company which would become Adolphus Busch & Co.

In 1861 Busch married Lilly Anheuser. Her father Eberhard Anheuser was a successful St. Louis businessman who bought a struggling local brewery in 1860. In 1864 he convinced his son-in-law to join the company as a salesman. Busch eventually became a full partner and president of the company. He was credited with transforming the fledgling enterprise into an industry giant and is generally considered the founder of Anheuser-Busch, the largest beer maker in the United States and the world's largest brewer.

Busch was known as an innovator and an accomplished marketer. When he joined the brewery the firm's storage capacity was limited by how much beer it could hold in its caves. Busch pioneered the new technology of artificial refrigeration that enabled the company to store a much larger quantity of its product. Within five years of joining his father-in-law's brewery Busch doubled its storage capacity.

Among the innovations he introduced to the U.S. brewing industry was the process of pasteurization. This process enabled beer to withstand temperature fluctuations and substantially expanded its shelf life. As a result his beer could now be shipped far beyond St. Louis. To distribute the beer nationally, Busch

decided to use refrigerated freight cars. His fleet ultimately totaled 850 of these specialized railroad cars. He also built a network of ice houses that were located adjacent to railroad transportation; beer could be kept cool there until it was needed in a local market.

Together with St. Louis restaurateur Carl Conrad, Busch developed a light beer called Budweiser. He believed that consumers would prefer it to the darker brews then available. Budweiser was an immediate success and became the company's flagship brand.

In 1879 the company was renamed the Anheuser-Busch Brewing Association. When Eberhard died in 1880 Busch became company president. By 1901 the company was the nation's largest brewery with an annual production rate of 1,000,000 barrels of beer. The company during Busch's 33-year presidency marketed 19 different brands of beer. These included Michelob, introduced in 1896 as a specialty beer for Connoisseurs.

To maintain Budweiser's market dominance Busch came up with countless promotional campaigns. Among the most famous was a lithograph of Custer's Last Stand. It was prominently displayed in bars everywhere with its Budweiser logo.

Busch believed in developing product loyalty through quality control. His strict insistence on quality resulted in Budweiser's winning numerous gold medals at world fairs and exhibitions throughout the nation and the world. He was also keenly aware of market preferences. As early as 1889 when the forces of Prohibition were only beginning to gather strength he marketed beer as "the true temperance beverage." He initiated product development of nonalcoholic beverages. He was also ahead of his time in focusing on international markets. When Prohibition went into effect in the United States in 1920 Anheuser-Busch had established 125 markets in 44 countries on six continents. This was seven years after Busch's death in 1913.

In 1899 Busch wrote to a friend: "Only by fair, sociable and liberal treatment can you create a lasting attachment between brewery and its trade. What is a great brewery anyway? It is an immense complex of buildings filled with machinery, casks and general equipment costing millions of dollars, and what is such investment worth if there is not an adequate trade for its capacity? A large plant with only trade to consume one half to three quarters of its capacity in output is bound to run into bankruptcy; therefore the most valuable assets we possess in our brewery are our trade and the loyalty of all those with whom we are in business connection."

That operating philosophy served Busch well. At the time of his death in 1913 his personal fortune was estimated at \$60 million. Management of the business he founded remained in the family for several generations after his death. In addition to Budweiser, Michelob, and Busch beers Anheuser-Busch today makes and distributes several specialty beers. As of the late 1990s the company had joint ventures in China, Japan, Mexico, several South American countries, and throughout Europe and operated theme and water parks.

See also: **Brewing Industry, Prohibition**

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BUSINESS CYCLE

Business cycle is the name given to the tendency of all economies to go through periods of economic weakness followed by periods of economic growth. When employment, income, trade, and the production of goods and services declines the economy is said to be in a "recession" or a "contraction." If this downturn is particularly harsh, this part of the business cycle is known as a "depression." Conversely, when employment, income, trade, and the production of goods and services grows over a sustained period of time, the economy is said to be enjoying an "expansion." Thus, the term *business cycle* describes the full process of economic growth and shrinkage—of "boom" followed by "bust"—that every economy experiences. The causes for changes in the business cycle are as complex as the economy itself, but important factors are over investment, under consumption of goods and services, and the amount of money circulating in the

Business Cycle

economy. Business cycles can differ greatly in their length, in the number of industries they affect, and in their harshness. Today economists use dozens of statistical measures to try to identify when a business cycle has ended or begun. These include, among others, new factory orders, number of business bankruptcies, stock market performance, new home building, and length of average work week.

Between 1790 and 1990 the United States experienced 44 complete business cycles, each of which lasted about four and a half years (i.e., including both a recessionary period and an expansionary period). In the nineteenth century the recessionary period of the business cycle was usually accompanied by a financial panic in which stock prices fell and banks and businesses went bankrupt. The longest recession in U.S. history during the nineteenth century was between

1873 and 1879. The most severe recession was the Great Depression, which lasted from 1929 to 1939. To understand how disastrous the Great Depression was one should consider that during the recession of 1973–1975 the gross national product fell six percent, while during the Great Depression it fell a staggering 50 percent. Since World War II (1939–1945), however, the business cycle has become much more mild because economists and government leaders know much more about the role the money supply and government fiscal policy can play in affecting the business cycle. When the economy begins to contract, for example, the Federal Reserve can quickly lower interest rates to encourage lending, which stimulates economic growth.

See also: **Federal Reserve System, Financial Panic, Recession**



CALIFORNIA

California is so large and so diverse that it is difficult to characterize. Native American, Spanish, and Mexican influences marked its earlier centuries. White settlers who came to exploit its various resources (from sea otter to beavers and gold) led it into statehood. Now an agricultural and manufacturing giant, the state has experienced many economic booms but has also weathered its share of harsh times.

European economic interest in California began in the sixteenth century, when Spanish explorers in their search for a western passage to the East discovered Baja California (now a part of Mexico). Believing there was a transcontinental canal, Juan Rodriguez de Cabrillo first landed in Upper (or Alta) California in 1542, at the bay now known as San Diego. Until the late eighteenth century, however, Europeans were little interested in the region. Spurred on by its economic rivals in 1769, Spain sent Father Junipero Serra (1713–1784) and military leader Gaspar de Portol to establish the first permanent European settlement in California. Franciscan friars established some 21 missions along the coast to convert the Native American population and also built four military outposts called *presidios*. San Jose de Guadalupe was the first civilian settlement in California.

Having done little to strengthen its California outposts, Spain lost control of the territory after the Mexican Revolution of 1821. The Mexicans gradually began redistributing the vast lands and herds owned by the missions to Mexican private citizens, who established huge *ranchos* (ranches) that produced grain and large herds of cattle. The *rancheros* (ranch owners) traded hides and tallow for manufactured products from foreign traders along the coast. They assigned most of the manual labor on the ranchos to Indian workers.

U.S. citizens first came to California in pursuit of the sea otter, whose pelts were shipped to China at profitable rates. Others came to exploit the hide and

tallow trade, and inland explorers profited from the hunting of beavers. U.S. interest in California began to grow and during the administration of President James K. Polk (1845–1849) war was waged on Mexico. By the terms of the Treaty of Guadalupe-Hidalgo in 1848, California was ceded to the United States.

By far the largest effect on the economy of the new territory was the Gold Rush of 1849, which began with the discovery of gold along the American River. Thousands of prospectors poured into California, and by 1852, \$80 million in gold was being mined in the state. The state's population quadrupled during the 1850s and grew at two times the national rate in the 1860s and 1870s. California became the thirty-first state in 1851.

WE THIS DAY WORKED OUR MACHINE. OH CHRISTMAS, WHERE ARE THE JOYS AND FESTIVITIES? NOT IN CALIFORNIA SURELY.

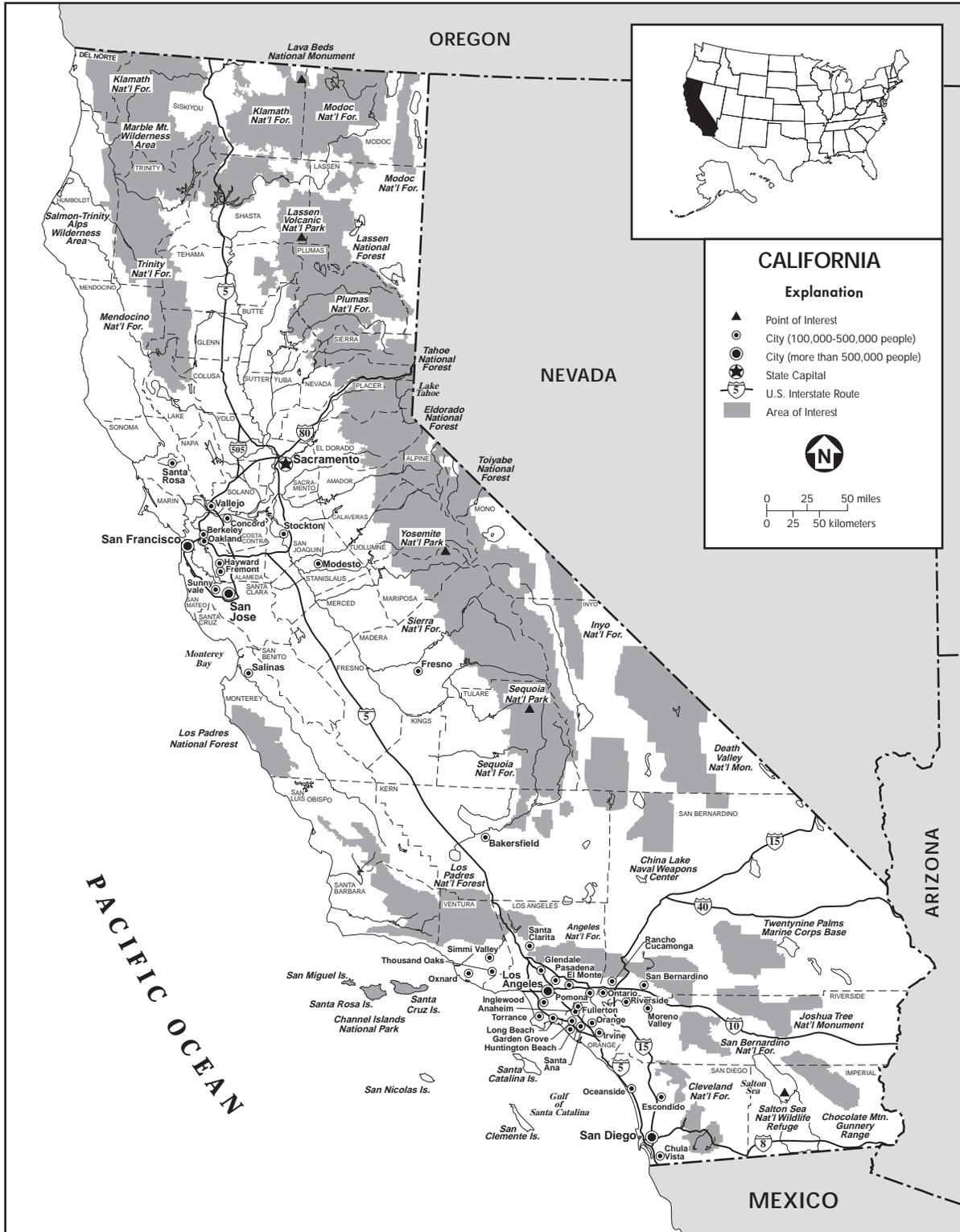
Joseph Wood, Miner, Christmas Day, 1849

Racial discrimination and racial divisions marked the first years of statehood, as white citizens attempted to put down the state's growing ethnic populations. New tax laws were passed to discourage Latin American and Chinese miners, and efforts were made to displace the original Mexican owners of large *ranchos*.

The completion of the transcontinental railroad in 1869 brought California into extensive contact with the rest of the country. The directors of the Central Pacific railroad—Leland Stanford (1824–1893), Collis P. Huntington (1821–1900), Charles Crocker (1822–1888), and Mark Hopkins (1814–1878)—wielded tremendous political and economic influence in the state, creating a transportation and land monopoly. Considerable opposition to this monopoly was expressed by novelist Frank Norris in his 1901 novel *The Octopus*.

In the late nineteenth century irrigation projects made it possible for agriculture to replace gold and silver mining as the mainstay of the economy. Orange and lemon groves began to supply most of the nation

California



State of California.

with citrus fruit. In the 1870s the state became the top cattle-raising state and the second-highest producer of wheat. California's population burgeoned in the 1880s because of the success of the citrus industry, the increasing popularity of the state as a destination for invalids, and a railroad rate war which made transportation cheap. The urban population grew rapidly during the early twentieth century. The San Francisco earthquake of 1906 brought a halt to that city's amazing success story, but only for a few years.

Los Angeles and San Francisco, the two major urban areas, were each at about one million people in 1920. The two cities increasingly vied with one another for water rights, vital to a growing population. Over the objections of conservationists, San Francisco created a reservoir by damming the Tuolumne River at the Hetch Hetchy Valley. Los Angeles angered farmers along the Owens Valley by diverting nearly all the water in the Owens River through an aqueduct. Manufacturing in the urban areas soon began to outstrip mining and agriculture as the major employer in the state.

California continued to boom throughout the 1920s as people were drawn to the state's favorable climate, natural beauty, and economic opportunities. Oil was discovered in the Los Angeles Basin, placing the state for a time in first place in crude oil production. By 1930 the size of Los Angeles had more than doubled, growing to over 2.2 million. The city also became known for its expanding network of highways and its large number of motor cars, a distinction that would plague Los Angeles in the traffic-clogged years to come.

Like other states California suffered during the Great Depression (1929–1939), but also gained in some areas. People from all over the United States, especially from the dust bowl of the southern Great Plains, fled to California in search of a better life. The California film industry grew as well, giving people in the United States movies that helped them escape from their worries during the 1930s. By 1940 the United States boasted more movie theaters than banks.

IF IT WERE AN INDEPENDENT NATION WITH THE SAME GROSS PRODUCT, CALIFORNIA WOULD RANK WITH THE GREATEST POWERS OF THE EARTH IN WEALTH.

Ralph J. Roske, *Everyman's Eden: A History of California*, 1968

1930s politics in the state were marked by several socialist-oriented ideas, such as the Townsend Plan and the "Ham 'n' Eggs" Plan, which promised cash payments for the elderly. A candidate for governor in

1934, author Upton Sinclair (1878–1968, also a well-known socialist) promised to "end poverty in California," but he lost to the Republican incumbent. Only World War II (1939–1945) brought the state to real economic health by expanding the number of military installations, aircraft factories, and shipyards in the state. Along with this expansion came the increasing importance of ethnic minorities in California, particularly Mexican and Japanese Americans.

Throughout the 1950s and early 1960s California continued to grow rapidly, reaching the top population ranking among all states in 1963. The 1970s saw a slowdown in growth after a number of industries, particularly aerospace, experienced a downturn. The military buildup during Californian Ronald Reagan's presidency (1981–1989), however, helped the economy bounce back in the 1980s. It declined again in the late 1980s and early 1990s as defense spending decreased, real estate became expensive, and environmental regulations discouraged business. By 1992 the state's unemployment rate had reached 10.1 percent, with jobs in aerospace and manufacturing dropping by 24 percent. Another San Francisco earthquake in 1989 caused extreme economic stress in that city, with \$5 to \$7 billion in property damage. Still another earthquake northwest of Los Angeles in 1994 caused \$13 to \$20 million in property damage.

California felt the economic stress of illegal immigration more than most states and also struggled more with its treatment of ethnic minorities. Proposition 187, passed in 1994, banned illegal immigrants from welfare, education, and non-emergency health care. In 1995 Governor Pete Wilson issued an executive order banning the use of affirmative action in state hiring and contracting and in university admissions.

By the 1990s California had the largest work force in the nation and the greatest number of employed workers. In 1995, 49 percent of the total of employees in the guided missile and space vehicle industry were located in California. In 1995 nearly 18 percent of all workers were members of labor unions. The organizing of migrant farm workers has been the most difficult task. During the 1960s labor activist Cesar Chavez (1927–1993) mobilized migrants to secure bargaining rights in the grape, lettuce, and berry fields of the San Joaquin Valley. An organized nationwide boycott of these products helped this effort. After surviving a challenge from the Teamsters Union, the United Farm Workers gained the right to free elections among farm workers.

California led the nation in economic output and total income in the late 1990s, with per capita income at

Campbell Soup Company

over \$25,000 in 1996. It had quite a diversified economy, including manufacturing, technology, retail trade, banking, finance, and personal services. Not to be forgotten is the growth of the California wine industry, which became both a prestigious consumer commodity and a source of tourist dollars in the Napa and Sonoma valleys and in other grape-growing areas of the state. Tourism was a major contributor to the state's economy in many other areas of California, including San Francisco, Los Angeles, and the many national and state parks, as well as on the spectacular coastline.

See also: **Gold Rush of 1849, Mexican Cession, James Polk**

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CAMPBELL SOUP COMPANY

The roots of the Campbell Soup Company can be traced back to 1860, when Abraham Anderson opened a small canning factory in Camden, New Jersey. In 1869 Philadelphia produce merchant Joseph Campbell became Anderson's partner, forming Anderson and Campbell. The company canned vegetables, mince-meat, jams and jellies, and a variety of soups. In 1876 Anderson and Campbell dissolved their partnership and Campbell bought Anderson's share of the business, changing the business name to the Joseph A. Campbell Preserve Company. In 1882 a partnership was formed between Campbell's son-in-law, Walter S. Spackman; Campbell's nephew, Joseph S. Campbell; and Arthur Dorrance, Spackman's personal friend, who brought more cash to the partnership. At this time,

the company was renamed the Joseph Campbell Preserving Company.

In 1896 the company built a large factory in Camden and expanded its product line to include prepared meats, sauces, canned fruits, ketchup, and plum pudding. In 1897 Arthur Dorrance hired his nephew, John Thompson Dorrance, a chemical engineer and organic chemist who invented a method of successfully canning condensed soup. This innovation helped Campbell surpass its competitors. While others were still shipping heavy, uncondensed soup, Campbell was able to ship and sell its product at one-third the cost. As the company began increasing the variety of soups it offered, it canned fewer produce products. John Dorrance became director of the company in 1900 and soon after, the company was renamed the Joseph Campbell Company.

With the help of advertising that featured the Campbell Kids, Campbell's soup began finding its way into more and more American kitchens at a time when the prepared-food industry was growing rapidly. By 1904 the company sold 16 million cans of soup a year; and with 21 varieties of soup produced by 1905, Campbell began to eye a bigger market. In 1911 Campbell expanded its business into California, and became one of the first companies to serve the entire nation. Campbell's soup also had an impact on the way Americans prepared meals; as early as 1916, recipes using condensed soup as an ingredient appeared in cookbooks.

The company was incorporated as the Campbell Soup Company in 1922. Although Campbell diversified into other food categories during the remainder of the twentieth century, soup remained the company's core product. By the late 1990s, Campbell accounted for 75 percent of all soup sold in the United States.

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CANNING

Canning was a process for preserving food (vegetables, fruits, meats, and fish) by heating and sealing it in airtight containers. The method was developed by French candy-maker Nicolas-Francois Appert (c. 1750–1841) in 1809, though he did not understand why the process worked. Some fifty years later, the pioneering French chemist and microbiologist Louis Pasteur (1822–1895) explained that heating was necessary to the canning process since it killed bacteria (microorganisms) that would otherwise spoil the food.

Canning was introduced to the U.S. consumer market in stages. In 1821 the William Underwood Company began a canning operation in Boston, Massachusetts. Oyster canning began in Baltimore, Maryland in the 1840s. In 1853 U.S. inventor Gail Borden (1801–1874) developed a way to condense and preserve milk in a can and he founded the Borden Company four years later. In 1858 U.S. inventor John Landis Mason (1832–1902) developed a glass jar and lid suited to home-canning.

Early commercial canning methods in the United States did not ensure a safe product; as such, many female consumers avoided canned convenience foods. Nevertheless, the canning industry grew rapidly, due in part to the male market—cowboys in particular. Between 1860 and 1870 the U.S. canning industry increased output from five million to thirty million cans.

Convenience and long shelf life of canned foods helped them to catch on even though the canning process changed food flavor, color, and texture. Improvements in the manufacturing process during the 1870s helped eliminate the chance that cans would burst. By the end of the 1800s a wide variety of canned foods were available at increasingly lower prices and were common in the urban diet. Companies such as Franco-American advertised in women's magazines, promoting their "delicacies in tins." An outbreak of botulism in the 1920s prompted the U.S. canning industry to make further improvements to its preservation processes, but consumer demand for canned products persisted.

See also: Borden

CAPITAL

Capital is an underlying component of an economy. As a collective body, capital includes resources such as cash, equipment, investments, and property that are used to operate a business. Capital can be categorized in several ways. For instance, it can be either fixed or circulating. Fixed capital is durable in nature and is expected to have a long life. Plants (buildings/factories) and equipment are examples of fixed capital. Circulating capital refers to nonrenewable resources, such as raw material or oil. Capital can also be liquid, or readily able to be converted to cash. For instance finished goods that are in inventory are liquid capital. Frozen capital consists of resources that cannot be easily converted to cash, as is the case with buildings or machinery.

Capital assets, or fixed assets, can be sold. Capital gains or losses represent the profit or loss from the sale of capital assets. The gain or loss is the difference between the selling price and the original cost of the asset. Capitalization is the conversion of something into financial capital. As an example, capitalization occurs when a company sells stocks to gain cash. Over the years the term capital has changed in its meaning. To economists in the nineteenth century capital referred to the business income that resulted from industry. Income that was generated from natural resources such as oil deposits was called rent. Economists no longer recognize this distinction and use capital to refer to all resources that can produce goods or services, and hence create future income for a business.

CAPITAL GAIN

If you buy a piece of land or a company's stock in January and then sell it the next January for a higher amount, you have realized a capital gain on that asset. (If the value of that land or stock has gone down between the time you bought and sold it you have experienced a capital loss.) Capital gains are controversial because they usually accrue to people in higher-income tax brackets. The reason for this is simply that higher-income people generally have more money to set aside for stock market investments or real estate speculation. However, between 1921, when the federal government first began taxing capital gains, and 1987, capital gains were always taxed at a *lower* rate than regular income. In other words, while the U.S. government taxes 100 percent of a person's ordinary work income every tax year, it has traditionally taxed only 20 to 40 percent of long-term capital gains (depending in

part on your income level and how long you have held the asset). Critics call this unfair. Why should the ordinary income that every working person makes be fully taxed while the capital gains that mostly upper-income people make is only partly taxed?

Defenders of lower tax rates for capital gains usually cite two main reasons. First, capital gains tax rate only applies to that portion of income that is plowed back into the economy in the form of job-creating capital investment. Second, suppose you hold a stock for ten years and in the eleventh year sell it for a capital gain of \$50,000. If your capital gain were taxed as ordinary income, your income during that eleventh year would shoot up by \$50,000. This would probably put you in a higher income tax bracket and force you to pay much higher taxes on your \$50,000 than if you had paid taxes on your stock every year as it was growing. In other words, if you had to pay ordinary taxes on your \$50,000 in capital gains you might think twice about selling your stock—and you might even hold onto a stock that had begun to fall in price just to avoid a big tax penalty. During the 1990s, more ordinary Americans than ever before bought stocks (often by investing in mutual funds) and enjoyed capital gains. This made it more politically palatable for Congress to pass the Taxpayer Relief Act of 1997 which lowered the capital gains tax rate to 20 percent for assets held for more than eighteen months.

See also: **Asset, Stock**

CAPITAL GOODS

Capital goods include goods such as tools and machinery that businesses use to produce consumer products and services. Capital goods are distinguished from consumer goods, which are not used in the production process and are intended for personal consumption. Capital goods use resources in such a way that they increase the capability of the production process. As a result they help to make more goods available to society than would ordinarily exist. For this reason some economists believe that capital goods represent an efficient use of the earth's limited resources. Capital goods can be considered fixed goods, that is, assets that are necessary to carry on a business. Fixed goods cannot be readily converted to cash and include equipment, buildings, and land. Capital goods are often called productive capital because they represent the potential capacity to produce future consumer goods.

See also: **Consumer Goods**

CAPITALISM

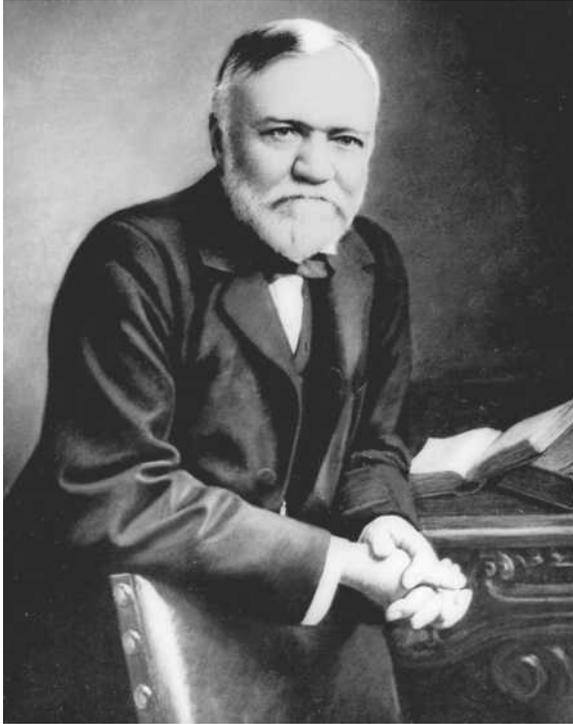
Capitalism is an economic system in which capital, or wealth, is put to use in order to create more capital. The system is characterized by private ownership of land and the means of production and distribution, which are used to make a profit with little or no government control. Capitalism provides the freedom to engage in economic activities based on the supply of resources and the market demand for goods; it promotes ingenuity and entrepreneurship. A capitalistic economy is also distinguished by a high degree of technological innovation due to several factors: competition, wages, and prices are based on market conditions; profit is the key consideration when making economic decisions; banking, insurance and credit systems are well-developed. Because of the element of competition, capitalism also results in the creation of wealth by the most cost-effective method, which lowers costs and prices, increases demand and production, and creates further economic opportunities.

Capitalism had its start in Western Europe in the seventeenth century with the discovery of new lands and colonization. Early capitalists were primarily merchants who dramatically increased their wealth through overseas trade. By the eighteenth century capitalism was the dominant economic system in England and the United States. Vast amounts of capital were being invested in machinery for factories, which eventually resulted in the Industrial Revolution. Industrialists replaced merchants as the primary figures in capitalistic societies. One of the greatest advocates of capitalism at the time was British economist Adam Smith (1723–90). In his work, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Smith reasoned that economies operated best under a “natural law,” which was primarily competition, and that they would be disrupted by government intervention. In the last decades of the nineteenth century and through the twentieth century, capitalism has taken another turn with a shift from ownership and management of industry by individuals to corporations.

See also: **Capital, Entrepreneurship, Laissez Faire, Adam Smith**

CARNEGIE, ANDREW

Andrew Carnegie (1835–1919) was a Scottish-born steel magnate in the United States known for his extraordinary philanthropy as well as his great wealth. He was born in Dunfermline, Scotland, the son of a handloom weaver. When a power loom was introduced

**Andrew Carnegie.**

in Dunfermline, the family became impoverished and decided to emigrate to the United States. Arriving in 1848, they settled in Allegheny, Pennsylvania. At age 13, Carnegie went to work as a bobbin boy in a cotton mill. He educated himself by reading voraciously and attending night school where he learned double-entry bookkeeping.

The young Carnegie worked in the cotton mill for barely a year before he landed a job as a telegraph messenger in 1849. He advanced quickly. By 1851 he was a telegraph operator. Only two years later he became secretary and personal telegrapher to Tom Scott, the superintendent of the Pennsylvania Railroad's Pittsburgh division.

Carnegie spent twelve years working for the railroad. When Scott was promoted to vice-president of the company in 1859, he chose his young secretary to succeed him as superintendent. During the American Civil War (1861–1865) Carnegie assisted in the management of railroad and telegraph services for the Union.

As railroad superintendent Carnegie invested in the Woodruff Sleeping Car Company and introduced the first successful sleeping car on American railroads. While still working for Scott, he began to invest in stocks. Carnegie made shrewd investments in industrial concerns. These included the Keystone Bridge Company, the Superior Rail Mill and Blast Furnaces, the

Union Iron Mills, and the Pittsburgh Locomotive Works. In 1865 Carnegie left the Pennsylvania Railroad to manage the Keystone Bridge Company (where he had become the dominant shareholder), and a principal Keystone supplier, the Union Iron Mills.

In the early 1870s Carnegie decided to concentrate his efforts on steel. He founded the J. Edgar Thomson Steel Works, named after the president of the Pennsylvania Railroad, which eventually became the Carnegie Steel Company. The company built the first steel plants in the United States that used the Bessemer steel-making process, a revolutionary industrial development in which steel was made from pig iron by using a blast of air forced through molten metal to burn out carbon and other impurities.

Carnegie also pioneered other major technological innovations that enabled his company to quickly become a model of productive efficiency. He kept costs down with detailed cost-and-production accounting procedures. By the 1890s, Carnegie's mills had introduced the basic open-hearth furnace process to American steel-making.

THE MAN WHO DIES THUS RICH DIES DISGRACED.

Andrew Carnegie

At the same time Carnegie and his unusually capable group of managers purchased vast acres of coal fields and iron-ore deposits that furnished the raw materials needed for steel-making. They also purchased ships and railroads needed to transport these supplies to the mills. By the end of the nineteenth century, the Carnegie Steel Company controlled all the elements it used in the steel production process and dominated the American steel industry.

Carnegie was less adept at labor-management relations than he was at building an industry. The Homestead Strike of 1892 resulted from his company's efforts to lower the minimum wage and eliminate the union as the exclusive bargaining agent in Carnegie's Homestead Works. The confrontation between labor and management turned violent when local management at the Homestead plant called in Pinkerton guards in an attempt to break the union.

By the turn of the century company profits reached \$40 million; Carnegie's own share was \$25 million. In 1901, at the age of 65, Carnegie sold his empire to the newly formed United States Steel Corporation, headed by financier J.P. Morgan. Carnegie's personal share of the proceeds from the sale came to about \$230 million. After he sold the company Carnegie devoted his life to

Carpetbaggers

philanthropic activities and writing. He authored 8 books and 70 magazine articles.

Although he was an enthusiastic proponent of the capitalist ethic, Carnegie was concerned about some of the social ills that came about as byproducts of a market economy. A two part article entitled “Wealth” appeared in the 1889 *North American Review*. (It was later published in book form in 1900 as *The Gospel of Wealth*.) In this piece Carnegie addressed the problem of the “proper administration of wealth” and outlined his vision of a socially responsible capitalist. He argued that it was the duty of the rich to administer their surplus wealth for the common benefit. “The man who dies thus rich dies disgraced,” he wrote.

Carnegie backed up his words with deeds. He eventually funded 2,509 public libraries throughout the English-speaking world, built the famous Carnegie Hall in New York, and founded the Carnegie Institute of Technology, which later became Carnegie-Mellon University. In 1905 he established the Carnegie Foundation for the Advancement of Teaching and in 1910 the Carnegie Endowment for International Peace. In 1911 he founded the Carnegie Corporation of New York, which continued his philanthropic legacy after his death. Throughout his lifetime Carnegie distributed some \$350 million towards the public good.

See also: Bessemer Process, Homestead Strike, J.P. Morgan, Pinkerton National Detective Agency, Robber Barons, United States Steel Company

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CARPETBAGGERS

Carpetbaggers was a derisive term that referred to northern merchants who arrived in the South in the early days of Reconstruction (1865–1877), the twelve-year period of rebuilding that followed the American

Civil War (1861–1865). Carpetbaggers were so named because many of them carried carpetbags as luggage. Some Southerners even quipped that these northerners could carry all of their belongings in a carpetbag—implying that carpetbaggers were nothing more than transients.

Many northern businessmen who migrated to the South settled there, but Southerners viewed the newcomers as outsiders and, worse, as opportunists who only intended to make a quick profit before returning North. Nevertheless, carpetbaggers played an important role during Reconstruction. Some, aided by the African American vote, were elected to public office and impacted state and local policy. But others proved to be corrupt. Because of the latter, the term “carpet-bagger” became synonymous with a meddling, opportunistic outsider.

See also: Reconstruction, Scalawags

CARRIER, WILLIS HAVILAND

Willis H. Carrier (1876–1950) invented the equipment that made air conditioning possible and founded the company that brought cooler homes, factories, and movie theaters to much of the United States. Air conditioning, invented by Carrier in 1902, has been credited with making possible the booming economic development of the Sun Belt in the last half of the twentieth century.

Carrier was born near rural Angola, New York, and grew up as an only child in a poor farm family. He worked his way through high school and taught for three years before he could enroll at Cornell University where he was awarded a full scholarship. After graduating from Cornell in 1901 with a Master’s in engineering, Carrier took a job for \$10 a week with the Buffalo Forge Company, a firm that manufactured heating and exhaust systems.

One of the young engineer’s first assignments was to solve a dilemma that was vexing a Brooklyn, New York, printing plant. Fluctuations in heat and humidity in the plant caused the printer’s paper supply to expand and contract. As a result, colored inks were not accurately applied to the paper. In 1902, just a year after graduating from college, Carrier designed a heat and humidity control system that stabilized the atmosphere in the factory. His patent for “Apparatus for Treating Air” (Patent No. 808,897) was awarded in 1906. It was the first of more than 80 patents he was to receive over a lifetime of inventions. At the time, Carrier predicted

his invention would be used in homes as well as factories.

In 1911 Carrier announced his “Rational Psychrometric Formulae” to the American Society of Mechanical Engineers. Fundamental calculations in air conditioning technology are still made according to these formulas. Carrier discovered these formulae as he struggled with the problems they entailed one foggy night on a railroad platform. By the time the train arrived, he understood the relationship between temperature, humidity, and dew point.

In 1915, together with six other engineers from Buffalo Forge, Carrier founded the Carrier Engineering Corp. with starting capital of \$35,000. In 1921 he patented the first safe, low-pressure centrifugal refrigeration machine that used nontoxic, noninflammable refrigerant. Many historians mark this invention as the beginning of the air-conditioning era. In 1924, shoppers came in droves to a Detroit department store after three of Carrier’s chillers were installed. Soon movie theaters were advertising that they were “cooled by refrigeration,” and the summer film business boomed.

In 1928 Carrier developed the first air conditioner for home use. Private sales of air conditioners were slow during the Great Depression, but the business rapidly expanded when home units again became available after World War II (1939–1945). Some cultural historians have claimed that the prevalence of air conditioning in many parts of the country drastically changed U.S. society in the last half of the twentieth century. They contend that, along with television, air conditioning has kept Americans within their own homes and lessened the hours of social interaction that formerly took place on country porches and city front stoops. Cities in the South and Southwest, once considered nearly impossible to live in during the warm summer months, suddenly became very attractive locations in which to live and work. The Sun Belt was born.

Willis Carrier died in 1950, but his invention has left almost no area of contemporary American life untouched. Climate control enabled the growth of the computer industry, made deep mining for gold, silver, and other metals possible, saved many valuable manuscripts for posterity, and kept meat, fish, fruit and vegetables fresh and cool in supermarkets throughout the country. Hospitals, schools, airports, and office buildings were maintained at optimum temperature and humidity by air conditioning. Within a century, a device invented to solve a printing problem transformed an entire society.

See also: Sun Belt

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CARTEL

A cartel is a group of independently owned businesses that attempts to regulate pricing, production, and distribution within an industry. To accomplish this, cartel members agree to act together rather than compete against each other. As a result the cartel does not allow market forces to determine prices; instead the cartel decides how much to charge, how much to produce, and how to divide the market. The term cartel is usually applied to agreements that regulate business in the international marketplace. (Collaborative arrangements on a national level are called trusts.)

Cartels originated in Germany and date back to the 1870s. In the early years of the twentieth century the German government encouraged companies to join cartels as a way to increase Germany’s export trade. During that same period the aluminum industry was entirely controlled by a cartel made up of four companies from the United States, France, Germany, and Great Britain.

After World War I (1914–1918) cartels flourished, and by the start of World War II (1939–1945) there were an estimated 200 international cartels. These cartels controlled 30 percent of worldwide trade in industries such as rubber, steel, chemicals, and tin. More recently, oil-exporting nations formed cartels in the 1970s to establish market prices for crude oil. These oil cartels, operating under the auspices of the

Carver, George Washington

Organization of Petroleum Exporting Countries (OPEC), initially enjoyed success in controlling the world's oil supply and prices. However as oil prices went up demand for oil decreased; by the 1980s OPEC's influence eroded. While antitrust laws make collusive agreements illegal in the United States, national cartels are common in Japan, where businesses operate under a system of managed competition.

See also: OPEC Oil Embargo

CARVER, GEORGE WASHINGTON

Agricultural chemist George Washington Carver (1861–1943) devoted his life to developing industrial applications for farm products. His research developed hundreds of products from peanuts, sweet potatoes and pecans. Although many of these products could be mass-produced more successfully from other materials and none were a commercial success, Carver's work helped liberate the economy of the South from an excessive dependence on cotton.

Carver was born during the American Civil War (1861–1865) near Diamond Grove, Missouri, the son of a slave woman. He was only an infant when he and his mother were sent to Arkansas where slaveholding was still legal. After the war, the young boy, now an orphan and a frail, sickly child, was returned to his former master's plantation where he was nursed back to health. He spent much of his boyhood wandering through the nearby woods and studying the plants he found there.

Carver's ability to have himself educated was remarkable when one considers the bias that African Americans faced in the early years after the Civil War. Although he was a gifted child, he had to spend his early youth working at a succession of menial jobs, and he did not complete high school until he was in his twenties. Although he was accepted by a Presbyterian college in Kansas, he was refused admission upon arrival because of his race. In 1890, Carver became the first black student admitted to Simpson College in Indianola, Iowa. Impressed by the young man's talent with plants, an art teacher at Simpson advised Carver to transfer to the Iowa State College of Agriculture, where he received a degree in agricultural science in 1894. Two years later he earned a Master's degree in science. He then became a member of the faculty in



George Washington Carver.

charge of the school's bacterial laboratory work in the systematic botany department.

In 1896 Carver received an invitation from Booker T. Washington (1856–1915), the most respected black educator in the country, to establish an agricultural school and experiment station at Tuskegee Institute. Carver's acceptance began for him a special relationship with Tuskegee. In 1940 he used his life savings to endow there the Carver Research Foundation, which would carry on his work in agricultural research. Carver remained on the faculty at Tuskegee until his death in 1943.

[CARVER'S] RESEARCH DEVELOPED HUNDREDS OF PRODUCTS FROM PEANUTS, SWEET POTATOES, AND PECANS. . . [AND] HIS WORK HELPED LIBERATE THE ECONOMY OF THE SOUTH FROM AN EXCESSIVE DEPENDENCE ON COTTON.

Carver found his true calling in working on projects designed to help Southern agriculture. When he arrived in Alabama much of the state's soil had been exhausted and eroded by extensive single-crop cotton

cultivation. To replace cotton, the longtime staple of Southern agriculture, Carver experimented with sweet potatoes and black-eyed peas. He also introduced crops new to Alabama like soybeans and alfalfa. None of these crops became as popular with farmers or caught the public's fancy as much as the peanut. Recognizing its value in restoring nitrogen to depleted soil, Carver encouraged farmers to grow the lowly "goober." Carver research on the peanut was at the forefront of a revolution underway in Southern agriculture. Peanut production increased from 3.5 million bushels in 1889 to more than 40 million bushels in 1917. By 1940 peanuts became the South's second cash crop (after cotton). Ultimately, his research resulted in 325 products derived from peanuts, 75 products from pecans, and 108 applications for sweet potatoes.

Carver's work also reflected his commitment to poor, African-American farmers. Initially Carver advised them to work hard and use natural resources wisely rather than invest in expensive machinery or fertilizers they could not afford. Yet, his research into the commercial uses for the South's agricultural products and natural resources enabled them to better their lives.

His success also brought him an national and international recognition. In 1923 he received the Spingarn Medal, awarded each year by the National Association for the Advancement of Colored People (NAACP) to the person who made the greatest contribution to the advancement of his or her race. In 1928, he received an honorary doctorate from Simpson College and was made a member of England's Royal Society of Arts. U.S. presidents visited him. Mohandas K. Gandhi (1869–1948) and Henry Ford (1863–1947) were friends of Carver. Foreign leaders sought his advice. In 1943 President Franklin Delano Roosevelt (1933–1945) dedicated the first national monument honoring an African American to Carver's memory.

Both during and after his lifetime Carver captured a special place in folk history. According to Linda McMurray in her biography, *George Washington Carver, Scientist and Symbol*, "The romance of his life story and the eccentricities of his personality led to his metamorphosis into a kind of folk saint. . . [and] he was readily appropriated by many diverse groups as a symbol of myriad causes." Segregationists approved of his apparent acceptance of their "separate but equal" society and used his accomplishments as an example of how a talented black individual could excel under those conditions. Many African Americans and others saw Carver as a needed example of black success and intellectual achievement. Americans of all

races struggling through the Great Depression saw in his career the realization that hard work and talent could prevail no matter how daunting the odds.

See also: **Agriculture Industry**

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CASE, STEPHEN M.

Under Stephen M. Case (1958–), America Online, Inc. (AOL)—the consumer-oriented on-line service company he co-founded in 1985—became the undisputed leader in its market throughout the twentieth century. AOL's user membership regularly doubled throughout the 1990s, to more than 14 million subscribers by late 1998. Case's tireless efforts to broaden the service's appeal and build a majority market share pushed the company's earnings past the billion-dollar mark in 1996, making AOL the first new-media company to reach this milestone.

AOL's success vaulted Case to the top ranks of executive pay. In 1998 alone, according to the *New York Times*, his direct compensation was \$16.4 million and the value of his stock options in the company grew by \$324.5 million.

Case was born in 1958, and was raised in Honolulu, Hawaii. An entrepreneur at an early age, he and his brother, Dan, had a neighborhood juice stand and delivered newspapers. In their teens, however, the Case brothers went beyond the usual boyhood enterprises and began to operate a direct-mail and a door-to-door sales business.

Case, Stephen M.

Stephen Case studied political science at Williams College. After graduation, he worked first with Proctor and Gamble and then for Pizza Hut. In 1983 he took a position as a marketing assistant with Control Video Corporation which was introducing an on-line gaming service. The firm soon ran into financial problems and fired its management. Jim Kimsey, a successful entrepreneur and restaurateur, was appointed chief executive officer. Kimsey retained Case to help redefine Control Video's business objectives and to seek out new venture capital.

In 1985 Kimsey and Case renamed the company Quantum Computer Services, Inc., and began offering on-line services to owners of then popular Commodore computers. In addition, they expanded their market by producing software for Apple and Tandy computers, and for DOS and Windows systems. The company's separate divisions merged in 1991, and the corporation was renamed America On-line, Inc. (AOL).

In 1992, when Kimsey became chairman of the new company, he named Case as chief executive officer. At the time, AOL's market share trailed far behind the leading on-line services, CompuServe and Prodigy. Case instituted an ambitious marketing campaign designed to close the gap. The company mailed thousands of floppy diskettes to potential customers, offering free trials of the service and lowered subscription fees. The strategy worked almost too well. By the end of the year, AOL was finding it difficult to handle the influx of new business.

[T]HOSE OF US IN THE INTERNET COMMUNITY HAVE FOUND OURSELVES ON A MISSION. IT'S A MISSION TO MAKE THIS NEW MEDIUM AS CENTRAL TO PEOPLE'S LIVES AS THE TELEVISION AND THE TELEPHONE, AND EVEN MORE VALUABLE.

Stephen Case, Jupiter Communications Annual Conference, 1998

Over the next few years, Case worked hard to provide a mix of products and services that would appeal to a wide variety of subscribers. The company offered its customers access to the Internet, opportunities to communicate in chat rooms and on bulletin boards, and a reliable electronic mail service. Case made deals and formed partnerships with companies such as NBC, the *New York Times*, and Hachette magazines to provide the content necessary to attract new business. An Internet browser was added to AOL's services in 1994 with the acquisition of a company called BookLink. Case also began to investigate high-speed cable connections with business partners such as Intel and Viacom.

Although competing services were owned by corporate giants, Case was determined to keep AOL independent. He was, however, not averse to alliances and acquisitions. In February 1995 he announced that AOL had formed a \$100 million joint venture with the German media conglomerate Bertelsmann AG, in order to expand overseas. The following year Case struck a deal with AT&T for its new Internet access business. In late 1998, in a \$4.21 billion purchase, AOL took over Netscape Communications Corporation, a pioneer in the Internet browser market, and acquired Moviephone for \$388 million in 1999.

AOL's road to dominance in its market was not always smooth. In August 1996, problems encountered during a routine maintenance of the AOL network resulted in a 19-hour service blackout. More serious customer complaints resulted from the company's decision in December 1996 to move from a tiered payment system to an unlimited flat-fee-pricing plan. AOL's customers, who then numbered over seven million, began to stay on-line for longer periods, creating logjams in the system. Subscribers became increasingly frustrated at the unreliable service and turned to attorneys general in more than 30 states for help. As part of a settlement reached in early 1997, Case agreed to cease advertising until his company was able to handle customer demand.

In a 1998 speech to the Jupiter Communications annual conference titled "Ten Commandments for Building the Medium: Setting Priorities," Case said, "[T]hose of us in the Internet community have found ourselves on a mission. It's a mission to make this new medium as central to people's lives as the television and the telephone, and even more valuable. And perhaps the most important thing for all of us to remember about this mission, in order for us to succeed, is how far we still are from realizing it." At the end of the twentieth century, Stephen Case continued to lead his business towards realizing this goal.

See also: Internet, Netscape

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CASH CROP

A cash crop is any crop that a farmer sells for money, rather than holding it for use by his own family, or to feed livestock, or for bartering with others. For example if a farmer grows corn, wheat and soybeans, but sells only wheat on the open market for cash while feeding his corn to his livestock and bartering his soybeans for other goods, the wheat is his cash crop. Economists may also use the term to refer to any crop that is easily sold on the open market, such as wheat, cotton or tobacco, or to one that historically has produced a high rate of return on the grower's investment.

CATERPILLAR INC.

Caterpillar Tractor Company (the original name for Caterpillar Inc.) was formed in 1925 through the merger of companies founded by Daniel Best and Benjamin Holt. After arriving in California in 1859, Best observed that many farmers transported their grain to special cleaning stations to make it suitable for market. Best thought there was a way to clean grain by machine at the same time as it was being harvested to avoid the costly step of transporting it to another site. By 1871 Best had patented his first grain cleaner, which he manufactured and sold with great success. By the 1880s Best owned manufacturing centers in Oregon and Oakland, California.

Holt arrived in California in 1863 and with his brothers operated the Stockton Wheel Company, which manufactured wooden wheels. It marked the firm's first experience with the vehicular products that would be the company's strength in the years to come. In the 1880s inventors were tinkering with the combined harvester and thresher, known as the combine, which revolutionized grain farming through its ability to cut and thresh, and later to clean and sack grain in vast quantities. It accomplished these processes in far less

time than was previously needed. The Holt brothers' Link Belt Combined Harvester, developed in 1886, advanced agricultural technology further by using flexible chain belts rather than gears to transmit power from the ground wheels to the working parts of the machine. This innovation cut down on machine breakage.

Near the end of the nineteenth century the major bottleneck in the progress of agricultural technology was the need for animal power. The combine had made large farms profitable, but the cost of housing and feeding large horse teams and the men who drove them cut into earnings. Both the Holts and Daniel Best were interested in solving this problem by using steam-driven engines to supply tractor power.

The Holts built a steam-driven tractor that could haul 50 tons of freight at three miles per hour. The Stockton Wheel Company was then incorporated as Holt Manufacturing Company in 1892. In the same period Daniel Best refined his steam-engine tractor into one of the finest available during this period. Throughout the 1890s steam-powered tractors were used for hauling freight and plowing fields, as well as for harvesting grain.

In the early 1900s the Holt brothers turned their ingenuity to another farming problem. The land around Stockton, California, where the Holt Company was headquartered, was boggy and became impassable when wet. To overcome this limitation the Holts produced the first "caterpillar"-style tractor, or crawler. It was built on tracks instead of wheels, and the "Cat" could negotiate any terrain short of a swamp. It soon allowed farmers to reclaim thousands of acres of land previously thought useless. In 1906 a steam-powered crawler was perfected, and caught on quickly because of its ability to work on ground that all but swallowed other machines.

In 1908 the engineers who were building the 230-mile Los Angeles Aqueduct used a gas-powered crawler to transport materials across the Mojave Desert. The machine worked so well that 25 more tractors were purchased for further work on the aqueduct, thus giving the Holt tractor credibility with the public and a substantial boost to sales. Also in 1908 Daniel Best sold out to the Holts, after decades of individual success. Best's son, C. W. Best, was taken on as company superintendent, but after two years, formed his own company and advanced the state of tractor technology even further on his own.

In 1909 Charles Holt, who had been looking for a new manufacturing plant in the eastern half of the



The Caterpillar Company specializes in heavy machinery built to perform specific tasks such as laying pipelines as shown here.

United States, bought the abandoned but relatively new plant of a tractor company that had failed. After this plant in Peoria, Illinois, opened, Holt continued to improve his tractor and expand its range of applications. He experimented with several different materials for the body to achieve a heavy-duty tractor that was not excessively heavy. Holt knew that his tractors could be used for even more rugged chores than agriculture or hauling freight, and fitted adjustable blades onto his tractors. He then hired them out to grade roads or move soil and rocks at construction sites.

Soon after World War I (1914–1918) broke out, thousands of troops were caught in trench warfare, marked by the lethal combination of sharp-edged concertina wire plus machine-gun emplacements. Observing the futility of mounting attacks in such terrain, a British lieutenant colonel, Ernest Swinton, recognized the usefulness of an armored machine that could resist automatic machine-guns and also negotiate the war-scarred battlefield. His requirements resulted in the invention in 1916 of an experimental tank, based on the track-laying tractors designed by Holt and others. A year later the tank was used with such telling effect that it is credited with winning the Battle of Cambrai, in

France, for the Allies. Some historians point to this battle as the turning point of the war. Germany had investigated the military applications of the track-laying vehicle well before anyone else and mistakenly concluded that tractors were without military significance.

Holt tractors themselves served the war effort by hauling artillery and supplies. In all, more than 10,000 Holt vehicles served the Allied forces, and the international exposure that the Holt tractor received during the war did much to popularize the tracked vehicle.

In 1925 Holt and C. W. Best's companies merged, this time to form the Caterpillar Tractor Company. The company relocated its headquarters from California to Peoria three years later. By 1931, the diesel tractor engine, which had been used before but not widely, was perfected for common use by Caterpillar. Previously, diesels had been too heavy and undependable for commercial use. The Diesel-60 tractor, however, made the diesel the staple engine for heavy-duty vehicles, as it is to this day.

Caterpillar's contributions to World War II (1939–1945) were many and varied. One was the conversion

of a gasoline airplane engine into a dependable diesel engine. In 1942 Caterpillar unveiled the new RD-1820 radial diesel engine, which was used to power the M-4 tank. The company manufactured other engines, as well, and even artillery shells for the war effort. Caterpillar tractors worked in battle zones repairing damaged roads, building new ones, and bulldozing tank traps. Because the Cat was usually seen doing such roadwork with a bulldozer blade attached, the term "bulldozer" came to be used for Caterpillar products.

In the postwar period, Caterpillar experienced enormous growth, because of the massive rebuilding campaigns begun both in Europe and Japan. From the 1950s through the end of the century, the company (which was renamed Caterpillar Inc. in 1986) grew to become the world's largest manufacturer of earth-moving machinery. In addition to its tractors, trucks, graders, excavators, scrapers, and other heavy machinery used in the construction, mining, and agriculture industries, the Caterpillar of the late 1990s also made diesel and gas engines used in medium- and heavy-duty trucks, electric power generation equipment, locomotives, and other industrial equipment. During a long and bitter strike by the United Automobile Workers union during much of the 1990s, Caterpillar successfully resisted the union's demands and "rolled over" its opposition as if the company's labor relations strategy were mounted on tractor treads.

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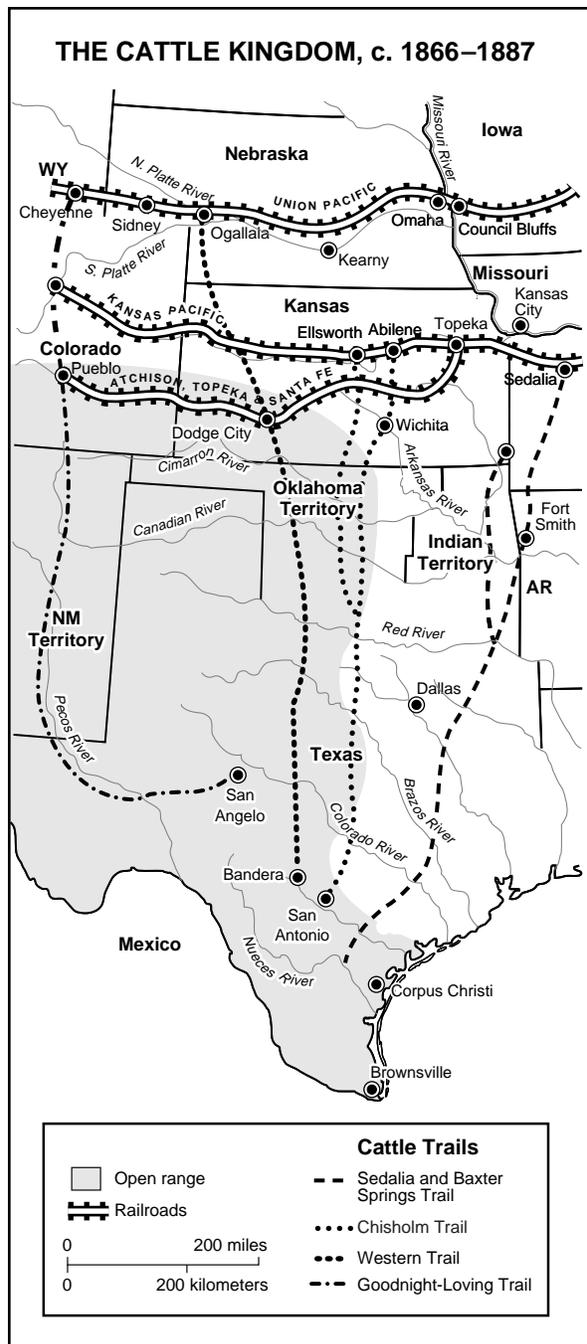
CATTLE DRIVES

Cattle drives moved large herds of livestock to market, to shipping points, or to find fresh pasturage. The practice was introduced to North America early during European colonization. As early as 1540, Spaniards established a cattle industry and began driving herds northward from central Mexico, as they looked for good pasturage. The cattle culture of the early American Southwest borrowed heavily from the South American and Central American cowboys, who were called "gauchos." These gauchos developed the chaps, spurs, saddles, and the techniques of horsemanship and cattle handling associated with the cowboy. By 1690 cattle were brought as far north as Texas. Having little commercial value, cattle were left to roam freely in the open range, and by the early 1800s hundreds of thousands of wild longhorns populated the region.

Cattle drives were also known in the newly established United States. Cattle were driven several hundred miles from Tennessee to Virginia in the 1790s. It was not until the 1830s, however, that cattle driving became a steady occupation. Drives took place from Texas to the port at New Orleans. Further west, some herds were even driven from California to Oregon in the 1830s. In the 1840s, most drives continued to originate in Texas, bringing beef northward to various Missouri market points. They even extended to California to feed the gold miners following the Gold Rush of 1849. With the outbreak of the American Civil War (1861–1865), the focus of Texas cattle drives shifted dramatically to feed Confederate troops in the South.

After the Civil War the market for Texas cattle vanished and ranchers were left holding several million head. Drives toward the north began again in 1866, but with little financial gain. Fortunately for the cattlemen, the close of the Civil War also marked a major transition in U.S. meat-consumption patterns. A national preference for pork abruptly gave way to beef. Cattle worth four dollars a head in Texas might be sold at 40 dollars a head in Missouri or Kansas. In addition, a ready workforce was already in place: the de-commissioned horsemen of the Confederate cavalry plus freed ex-slaves and Mexican gauchos combined to provide a ready supply of skilled horsemen. Responding to the demand for beef, James G. McCoy established a cattle market in Abilene, Kansas in 1867, and

Cattle Drives



Due to a shortage of beef in the northern states after the Civil War, it became more profitable to drive the herds north along these cattle trails. This practice continued from 1866 to 1886.

the era of massive cattle drives began. Soon others saw the wild Texas herds as a ready means to tap into the lucrative northern market with little start-up capital.

The famous Chisholm Trail became a major route. The trail was established in 1865 by Jesse Chisholm and ran 600 miles from San Antonio, Texas, to Abilene, Kansas. More a corridor than a trail, the route was as

much as 50 miles wide in some stretches. Typically rivers and Indian lands had to be crossed, but good grazing, relatively level terrain, and higher prices waiting at the destination made the hazards worthwhile. Drives were cost-effective too—a drive of two thousand or more cattle usually required only a trail boss and a dozen cowhands.

In 1867 the Goodnight–Loving Trail opened markets for Texas cattle in Colorado and New Mexico. The booming demand for beef drew many more settlers to Texas and the Southwest. Cattle ranching had become big business and attracted Eastern investors. In 1869 more than 350,000 head of cattle were driven along the Chisholm Trail. By 1871 more than 700,000 head were driven along the route. The practice of branding made it easy to identify the owners. The extermination of buffalo on the Great Plains during the 1870s opened more grasslands for livestock grazing and the Texas longhorn was the first to fill the void. Local economies of towns along the frequently used routes benefited substantially. Fort Worth, Texas, served as a provisioning stop on the Chisholm Trail. Merchants would send out individuals with gifts to entice cowhands into town to spend their money.

In the mid-1870s farming crept westward and barbed wire fencing threatened the cattle drives. The Chisholm Trail detoured 100 miles westward to Dodge City, Kansas. Cattlemen petitioned Congress to designate a National Cattle Trail. Envisioned as a several mile wide strip from the Red River to Canada, the proposal never came to fruition.

The longhorn was the preferred trail-herd breed for cattle drives until the late 1880s. A descendent of Andalusian cattle that the Spaniards had let run wild in the Southwest, the lean, hardy, lanky animals were the product of three centuries of interbreeding. They thrived on buffalo grass and needed less water than other species. Though often dangerous in a herd and not good beef producers—their meat was stringy and tough—the longhorn was readily available and provided a means to establish a cattle industry in the more arid Southwest. Eventually as cattle drives became less frequent, longhorns were interbred with Durhams and Herefords to create more plump and docile varieties.

By the mid-1880s the great days of the cattle drives were about over. The farmers and their barbed wire were blocking the right-of-way of the drives. Even with branding, the presence of cattle rustlers lowered the profit margin and made the drives more dangerous. The herds sometimes suffered from “Texas Fever,” a disease transmitted by ticks. Also, the extension of railroad tracks in the south and west

largely did away with the need for drives. In addition, abnormally harsh winters during 1885–1886 and 1886–1887 devastated the cattle industry. The drives continued into the 1890s with herds being driven from the Texas panhandle to Montana, but by 1895, the era of cattle drives finally ended as new homestead laws further spurred settlement. With the decline of the open range cattle industry, Southwest ranches became large, fenced livestock farms safe from the westward expansion of civilization.

Some communities, such as Fort Worth, became points where herds were assembled for shipping by rail. Packing plants were built and stockyards grew at the turn of the century. The cattle drive lives on in western legend, however, and remains integrally associated with the economic history of Texas.

See also: Barbed Wire, Chisholm Trail, Cowboy, Cow Towns, Longhorn Cattle

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CATTLE INDUSTRY

Cattle have been domesticated for thousands of years. Since approximately 4000 B.C. cattle have been utilized for their meat, blood, milk, and skin, and have also been used as draft animals. The two most prevalent species of cattle are *Bos taurus*, found mainly in the Western world, and *Bos indicus*, which includes the Brahman cattle found in India and other Middle and

Far Eastern countries. Cattle are ruminants, eating grasses and grains.

The modern cattle industry had its earliest beginnings in eighteenth century Europe. Farmers began to selectively breed cattle to try to increase the quantity or quality of their cattle products, or to produce cattle that were hardier and better suited to their geographic area. An Englishman, Robert Bakewell (1725–1795), is credited as being the first to promote selective animal breeding, a successful practice which continued throughout the twentieth century. Eventually, cattle societies and registries were formed to keep track of new breeds of purebred cattle. Crossing two or more breeds together was also done to improve specific attributes. In the late 1990s, the numerous popular cattle breeds for producing beef included the Charolais, Hereford, Angus, Shorthorn, and Brahman. Dairy cattle breeds included the Holstein, Jersey, and Guernsey.

Christopher Columbus (1451–1506) introduced cattle to the New World in 1494, on his second voyage. Early colonists brought cows to Jamestown, Virginia, in 1611 and to the Plymouth Colony in 1624. Most of these cattle were English Shorthorn, a breed used to produce several types of cattle products. Pioneers traveling west often used oxen to pull wagons and plow, and herded cattle along as well. By the mid-nineteenth century, cattle production was an important industry in the Mid-West, and by the 1880s it had expanded westward to the Pacific.

It was during this time that the cowboy came into being in the American West. Cowboys were responsible for gathering cattle and moving them from place to place to graze on public lands. They also put together long cattle drives, where cattle from the Southern states were driven to markets for shipment by rail north for slaughter. Prices for beef were very competitive in the Northern States because the end of the American Civil War (1861–1865) had caused a shortage. Most of the large cattle drives occurred from 1866 to 1886. Driving cattle was a dangerous and difficult job. Cowboys faced the prospects of stampedes, lightning storms, and other hazards such as encounters with outlaws, Native Americans, and farmers who did not want cattle to pass near their herds, fearful of the deadly cattle disease known as “Texas fever.” According to Cecil K. Hutson in a study of the Texas fever in Kansas, “collectively, with blizzards, drought, barbed wire, railroad expansion, settlement, foreign embargoes, and a more sophisticated urban palate, this cattle plague brought an end to the era of the long cattle drives.”

Beginning in 1886, two years of severe drought interspersed with freezing winters put most of the

remaining cattle ranchers out of business. After 1888, barbed wire fences prevented the open grazing that had been allowed previously. Cattle were more and more often contained to individual ranches, where windmills drew water for the herds. This was the beginning of the modern cattle industry in the United States.

In 1995, the U.S. Department of Agriculture (USDA) listed the United States as fourth in the world in the number of cattle and buffalo. The production of beef had become a systematized process in the United States. Cattle had to be raised and fattened, then shipped to slaughterhouses for processing; distributors would then sell and transport the meat to supermarkets and restaurants for retail sale to consumers. According to the USDA, in 1994 cattle products were “the leading commodity in 18 states.” The January 1, 1997 Cattle Inventory Report, NDSS/USDA, stated that Texas was the 1995 leader in income from cattle, with Kansas second, and Nebraska a close third. The amount of beef produced in the United States rose steadily from 1993 to 1996.

Cattle production in the 1990s was the single largest contributor to American agriculture, with sales accounting for over \$30 billion in 1995 alone. America was also a leading exporter of beef and cattle products, second in the world only to Argentina. In 1995, about sixty-four percent of all exported beef went to Japan, making the American cattle industry a key player in reducing the international trade deficit.

See also: *Agriculture Industry, Barbed Wire, Cattle Drives, Cow Town, Cowboy, Westward Expansion*

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CENTRAL BANK (ISSUE)

The idea of the central bank in the newly formed United States arose as the dusk of eighteenth-century mercantilism turned into the dawn of nineteenth-century laissez-faire economics. Its existence raised numerous issues of states rights, federal power, and the national currency. After Andrew Jackson’s determination to put an end to the Second Bank of the United States during his “Bank War” of 1832 and the Panic of 1837 a few years later, the question of a central bank wasn’t seriously raised again until the financial insecurities and social displacements of industrialization at the beginning of the twentieth century forced the government to establish the Federal Reserve Bank in 1913.

But for well over a century, the dispute raged between advocates of a decentralized banking system and proponents of a strong central bank. The former argued that a national bank was dangerous because it concentrated the power of granting loans and expanding currency into the hands of a relatively small group of men who would follow private rather than national interests. They argued that a large number of small state or commercial banks would better serve the nation, its people, and the economy by responding to local conditions while preventing the concentration of such powers. But proponents of a central bank disagreed. They argued that a central bank was necessary to enlarge the national manufacturing base, maintain a stable currency, and keep up with the demands of a country whose boundaries and peoples increasingly pushed westward. For them, a central bank could keep the amount of currency in circulation flexible and provide the capital and credit needed to meet the demands of population increases, territorial expansion, and heavy industrialization.

Largely through the efforts of Alexander Hamilton, the First Bank of the United States, modeled after the Bank of England, was established in 1791 and was chartered for a period of twenty years. It was a private corporation with \$10 million in capital, governed by twenty-five directors, and like other commercial banks, could print notes and exchange them for borrowers’ interest-bearing promises to pay. It could also extend loans to individuals and companies. But unlike other private banks, the federal government was a central partner in the enterprise. The government owned 20 percent of the Bank’s holdings while the Bank served as a fiscal agent for the government. The Bank held tax receipts, paid government bills, and performed various other financial tasks. It lent money to the government

and provided convenient depositories in the leading seaports like New York, Boston, Baltimore, and Charleston, where most of the federal revenues were collected. It also served the Treasury by transferring funds safely and cheaply from place to place, and facilitated the payment of taxes by increasing the supply of currency. As a partner, the government granted it special privileges unique among other state banks. It kept its cash as deposits with the Bank, giving it a huge financial base. The government borrowed from the Bank, paid it interest for the use of its notes, and also shared its profits.

According to its charter, the Bank was allowed to operate in all states, which gave it a considerable edge over state banks that could only operate in the states that chartered them. Because of this large banking network in various parts of the country and in its role as creditor, the Bank was able to hold as assets more notes issued by state banks than those banks held of their own.

THE TENDENCY OF A NATIONAL BANK IS TO INCREASE PUBLIC AND PRIVATE CREDIT. INDUSTRY IS INCREASED, COMMODITIES ARE MULTIPLIED, AGRICULTURE AND MANUFACTURING FLOURISH, AND HEREIN CONSISTS THE TRUE WEALTH AND PROSPERITY OF A STATE.

Alexander Hamilton, *Second Report on Public Credit*, January 1790

Overall, the First Bank was profitable averaging 8 percent per year rate of return for those that invested in it. It succeeded in maintaining the stability of currency, in meeting government expenses, and in preventing the drain of specie from the country.

But even so, in 1812 opposition from various quarters was strong enough to prevent it from being re-chartered. Thomas Jefferson and John Randolph from Virginia questioned its constitutionality, and Henry Clay from Kentucky feared the concentration of financial power. Others feared that it posed serious hurdles to the growth and spread of state banks, while an increasingly large faction criticized the growing influence that foreign investment placed on the Bank. In the end, the Bank's charter was revoked in the Senate by a tie-breaking 18-17 vote.

But within five years, federal debt associated with the War of 1812 and inflation caused in part by the rise of unregulated state banks forced Congress to reconsider its earlier decision. The Second Bank of the United States was chartered in 1816 along the same lines that the first had been. Eighty percent of its \$35 million capital was private, paid in specie, 20 percent

was federal, paid in government bonds, and the Bank was made the depository of government funds and also the fiscal agency of the United States. Note issues could not exceed total capital, were receivable in all payments to the United States, and were redeemable in specie on demand. It was intended that state banks would have to resume specie payments or their notes would be driven out of circulation. After the Bank's charter was granted, additional legislation was enacted to help promote specie resumption in general: all payments to the government after February 20, 1817 had to be made in coin, Treasury notes, United States Bank notes, or other convertible bank notes.

Politicians in many of the states blamed the Second Bank for the Panic of 1819. Maryland, Tennessee, Georgia, North Carolina, Kentucky and Ohio enacted laws to tax branches of the Bank out of existence. But in two Supreme Court decisions, *McCulloch v. Maryland* (1819) and *Osborne v. United States Bank* (1824), Chief Justice John Marshall declared the state acts unconstitutional.

Under the presidency of Langdon Cheves (1819-1823) and Nicholas Biddle (1823-1836), the Second Bank recaptured the standing that the First once had within the banking community. Under Biddle, the Bank and its twenty-nine branches became an effective regulator of the expanding economy. The Bank marketed government bonds, served as a reliable depository for government funds, and its bank notes provided the country with a sound paper currency. But because the Bank forced state banks to back their notes with adequate specie reserves, many, especially President Andrew Jackson, believed that this was too much power. They were afraid that the Bank's control over short-term credit was not subjected to sufficient government regulation, and that state banks risked termination under such a system. By the time of Andrew Jackson's presidency, the Bank had antagonized both those who favored "soft money" (more state-bank notes) and those who favored "hard money" (only gold and silver coins). "Soft money" proponents including land-speculators, small entrepreneurs, and anyone who was in debt felt their needs were best served with an abundant paper currency while Eastern workingmen resented receiving their wages in paper of uncertain value. On the other hand, many "hard money" advocates were hostile to banks of any kind, state or national, that issued bank notes and they tended to look upon banking in general as a parasitic enterprise.

During the Bank War, Biddle was unable to prevail over President Jackson and renew the Bank's charter with the federal government. He was, however,

Central Pacific Railroad

able to obtain a charter from the state of Pennsylvania. But during the Panic of 1837 the reorganized bank suspended specie payment and failed completely in 1841. In its absence, the number state banks rose dramatically across the country. The victorious Andrew Jackson termed these banks his “pet banks.”

The charter of the Second Bank did not assign to it the public responsibilities of a central bank, as did the legislation that created the Federal Reserve System a century later. Instead, the Second Bank was responsible to its own investors, and its chief function was to earn dividends for them. Many state banks resented it not only because it forced them to maintain adequate specie reserves but also because its federal charter gave it a considerable competitive edge.

By the time that the Federal Reserve System was established under the Woodrow Wilson administration in 1913, the financial anarchy of an unregulated banking system had settled the question of the legitimacy of the central bank. In constructing the modern banking system, the Federal Reserve, established after the Panic of 1907, had two basic functions. Along with other federal agencies, it helped to investigate and insure the financial soundness of private banks. As lender of last resort, it protected banks against insufficient funds (liquid assets) when those banks were forced to cover the withdrawal demands of their depositors. This lessened the self-fulfilling fear of “bank runs,” when depositors lost faith in the ability of the banking system to cover their deposits. The Federal Reserve also monitored and controlled the national money supply. It could order changes in the percentages of bank assets held as reserve. This, in turn, controlled the ability of the nation’s banking system to create money by making loans. It could also affect the money supply directly by buying and selling government bonds in the market. This gave the federal government an extremely important ability to encourage growth in a sluggish economy (by creating credit) or to slow down an inflationary economy (by restricting credit). Thomas Jefferson and Andrew Jackson might not have approved, but Alexander Hamilton and Nicolas Biddle got the last laugh.

See also: Bank War, Nicolas Biddle, Federal Reserve System, Alexander Hamilton, Andrew Jackson, Thomas Jefferson

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CENTRAL PACIFIC RAILROAD

The Central Pacific Railroad was conceived by engineer Theodore Dehone Judah, whose idea won the financial backing of four California merchants: Collis P. Huntington, Leland Stanford, Mark Hopkins, and Charles Crocker. These men envisioned an immensely profitable railway that would connect the western frontier to eastern trade; they founded the Central Pacific Railroad Company in 1861. They were engaged in a contest to lay the most track in national railway history, and a rivalry arose between Central Pacific and the Union Pacific Railroad Company. Their systems would link populations and commodities of Missouri with those of Sacramento, California.

The conflict between the Central Pacific and Union Pacific companies was not the only one surrounding the transcontinental railways’ beginnings. Before the American Civil War (1861–1865), U.S. Congressmen fought over whether the tracks should be laid on Northern or Southern soil. The project’s approval was subsequently delayed in Congress until President Abraham Lincoln (1861–1865) signed the Pacific Railway Act in 1862.

The Railway Act sought to establish support for the project and resolve the conflicts in Congress and between the rival companies. This legislation was an important boost to the railways, and it dramatically shaped the future of the frontier. The Act authorized specific routes for the rival Central Pacific and Union Pacific companies and resolved that the tracks of the two railways would eventually meet and connect. The right of way through large tracts of public land—200 feet on each side of the entire railroad—was granted to the companies for passage, any buildings necessary to the railroad’s operation, and materials such as timber and stone. Additionally, in alternate sections of public land along the railroad, the land allotment extended



Chinese laborers celebrated the successful laying of 1,800 miles of track. In order to reach their goal they had to blast nine tunnels through the Sierra Nevada Mountains and endure severe weather conditions.

from 200 feet to 10 miles. To further expand the amount of public land available to the railway companies, the legislation also sanctioned the United States to renege on government treaties it had signed with Native Americans. The legislation proclaimed: “The United States shall extinguish as rapidly as may be the Indian titles to all lands falling under the operation of this act.”

With nearly limitless support of the government, track was laid eastward from Sacramento in 1863. Chinese laborers faced mountain winters and desert heat, and the obstacle of the Sierra Nevada Mountains, where nine tunnels had to be blasted through. On May 10, 1869, 1,800 miles (2,900 km) of new tracks had been laid, and the rail lines met at Promontory Summit, Utah. A luxurious celebration was planned during which two locomotives coming from either end of the railroad would touch noses and wealthy friends of the railroads’ founders would be the first passengers. The plan faced some near disasters, including a mid-track labor uprising for the Union Pacific car, which delayed its arrival to the celebration by two days.

Political and economic opportunism of the government and founding business partners triumphed in opening up U.S. trade by rail. The new railroad could

move cargo more quickly than wagons or boats. The railroad also opened territory for settlers seeking to become large-scale landowners.

The railroad expanded by acquiring additional lines and through mergers and leasing relationships with other companies. Soon after the completion of the main railroad, the company began building new lines, and also procured existing lines in California. Some of these additional lines were established under the umbrella of the Southern Pacific Company of California. Later, the railroad acquired existing tracks along southern routes to Texas and New Orleans. The Central Pacific Railroad Company was leased to a new holding company, the Southern Pacific (incorporated in 1884). The two companies merged in 1959.

The founders of the Central Pacific Railroad Company became fabulously wealthy. They obtained enormous financial and political support from the U.S. government even as the Union was warring with itself. They would be remembered for their contributions to the nation’s first transcontinental railway and for having further secured the nation’s movement and settlement westward. But this was not progress for everyone affected by the railroad. Government and owner policies toward immigrant workers cost many lives as the

Chain Store

railroad was constructed. The seizure of lands by breaking U.S. governmental treaties with the Native Americans, and the slaughter of buffalo herds to open up land and expand industry, further circumscribed American existence and permanently scarred the relationship between indigenous peoples living under U.S. government authority.

See also: Union Pacific Railroad

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CHAIN STORE

A chain store consists of two or more retail outlets, operated by the same company, which sell the same kind of merchandise. The innovation of the chain store was conceived by American businessmen George Gilman (1830?–1901) and George Huntington Hartford (1833–1917) who, in 1859, set up the Great Atlantic & Pacific Tea Company in New York City. Better known as A&P, the stores proliferated rapidly, and other chain stores opened their doors for business, such as W.P. Woolworth (established 1879) and J. C. Penney (1902). The early twentieth century saw tremendous growth of the chain stores: Between 1910 and 1931, the number of A&P stores grew from 200 to more than 15,000. Department stores, also a byproduct of the late-1800s, catered to middle and upper class customers. Chain stores, including Woolworth's "Five-and-Dimes" (which sold many items at low prices), served lower-income consumers.

Chain stores offer consumers many advantages and operate within all major retailing categories (including grocery stores, department stores, drugstores, as well as apparel and food outlets). Their system of centralized, mass buying allows them to acquire merchandise from manufacturers and wholesalers at reduced costs. Savings are passed along to the consumer, who pays less for the item. Further, chain stores can

economize on advertising: A single ad placement promotes all the stores within the chain. During the 1920s independent retailers rallied against the chain stores, claiming they had unfair advantages. This argument has resurfaced off and on throughout the twentieth century as chain stores entered into more and more retailing sectors including hardware, jewelry, furniture, music, and books. But the only federal legislation that constructively attempted to regulate the chain stores came in 1936: the Robinson-Patman Act, which tried to control competition. Today chain stores account for roughly one-third of all American retail sales.

See also: Department Store, Mail-Order House

CHANDLER, ALFRED DUPONT

Alfred DuPont Chandler (1918–) is a U.S. historian, specializing in the history of business. A Harvard graduate and professor *emeritus*, Chandler wrote and edited numerous books and articles about business history and famous businesspeople. Over the course of five decades he helped establish this field of study and earned a reputation as a business expert.

Alfred Chandler was born September 15, 1918, in Guyencourt, Delaware, to Alfred Dupont and Carol Remsay Chandler. He studied at Harvard University, where he earned his Bachelor of Arts in 1940. After graduation Chandler joined the Navy, where he served until 1945. He then returned to Harvard to study history and earned his Master of Arts in 1947, and his Ph.D. in 1952.

In 1950 Chandler began working as a research associate at the Massachusetts Institute of Technology (M.I.T.). He also began his first editing project that year, working as an assistant editor for Elting M. Morison and John M. Blum on *The Letters of Theodore Roosevelt*. Once he earned his doctorate, he became a faculty member at M.I.T. and remained there until 1963. Chandler wrote his first book in 1956, *Henry Varnum Poor: Business Editor, Analyst, and Reformer*, which highlighted his interest in the field of business history.

Chandler's second book, *Strategy and Structure: Chapters in the History of the Industrial Enterprise*, was a study in organizational behavior. The work was highly regarded, and Chandler won a Newcomen Award for it in 1962. Chandler began to establish a reputation as a respected business historian. In 1963 he left M.I.T. to join the faculty at Johns Hopkins University, where he became director of the Center for Study of Recent American History and department chairman in 1966.

During this time, Chandler also wrote his next book, *Giant Enterprises: Ford, General Motors, and the Automotive Industry*, and edited a book called *The Railroads*. Chandler's expertise as a historian landed him a position as the chairman of the Historical Advisory Committee of the United States Atomic Energy Commission in 1969, a post he held until 1977.

NO OTHER AUTHOR IN OUR FIELD OF STUDIES HAS OFFERED US SO MUCH BOTH IN TERMS OF RESEARCH RESULTS AS WELL AS TOOLS FOR THE ANALYSIS AND DEFINITION OF THE GLOBAL CHARACTERISTICS OF THE MODERN LARGE ENTERPRISE.

Franco Amatori, *Business History Review*, Summer 1997

The 1970s were a prolific period for Chandler. He started off the decade with his five-volume series on *The Papers of Dwight David Eisenhower*. In 1970 Chandler was the Thomas Henry Carroll Ford Foundation Visiting Fellow at Harvard University, and he was also a member of the National Advertising Council's Committee on Educational and Professional Development. Although he was also a visiting scholar at All Souls, Oxford University, and the European Institute in Washington, D.C., Chandler stayed at Harvard as the Isidor Strauss Professor of Business History in the Graduate School of Business. In 1971 he co-authored two books with Stephen Salsbury, *Pierre S. du Pont* and *The Making of the Modern Corporation*.

Chandler's most popular book, *The Visible Hand: The Managerial Revolution in American Business* appeared in 1977. The book's focus on managers and institutions was well received by the public. The *New Republic* called *The Visible Hand* "a triumph of creative synthesis." Robert L. Heilbroner of the *New York Review of Books* said the book was "a major contribution to economics, as well as to business history, because it provides powerful insights into the ways in which the imperatives of capitalism shaped at least one aspect of the business world—its tendency to grow into giant companies in some industries but not in others." The book was such a success it won Chandler both the Pulitzer and the Bancroft prizes in 1978.

Chandler continued to write about business and economic markets in the 1980s. In 1988 he published *The Essential Alfred Chandler: Essays Toward a Historical Theory of Big Business*, which contains a biographical introduction by editor Thomas McCraw. The next year Chandler retired from the Harvard Business School, but he continued his research and writing. In 1990 he published *Scale and Scope: The Dynamics of*

Industrial Capitalism, with the assistance of Takashi Hikino. In that book Chandler examined the history of 600 top firms in the United States, the United Kingdom, and Germany for three-quarters of the twentieth century. He evaluated the significance of what was considered an indispensable historical reference. In 1991 *Financial World* dubbed Chandler the "dean of American business history."

Since the publication of *Scale and Scope*, Chandler wrote many articles on the history of the firm, the logic of industrial success, and corporate structure. He also edited and co-edited several more books, including *Big Business and the Wealth of Nations* and *The Dynamic Firm: The Role of Technology, Strategy, Organizations, and Regions*. Even after a decade of retirement, Chandler continued to maintain a leading role in the field of business history through the end of the twentieth century.

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CHASE, SALMON PORTLAND

Salmon Portland Chase (1808–1873) was a lawyer who was deeply devoted to the antislavery movement. This cause led him to political life, where he became the first Republican governor of Ohio. Though he tried unsuccessfully to run for president several times, he did serve as Secretary of the Treasury and Chief Justice of the Supreme Court.

Salmon Chase was born in Cornish, New Hampshire, on January 13, 1808. He attended public school at Keene, New Hampshire, and then attended private school in Vermont. When he was nine years old, Chase's father passed away and his uncle, Philander Chase, an early leader of the American Episcopal Church, raised him. Chase pursued classical and religious studies at his uncle's church school near Columbus, Ohio. His uncle then became president of Cincinnati College, and Chase studied there as well for a brief time. Later, Chase entered Dartmouth College, where he graduated in 1826.

After graduation, Chase worked briefly as the headmaster of a boys' school in Washington, DC, and privately studied law. In 1829 he was admitted to the bar and soon returned to Cincinnati to practice law. The city, located on the northern bank of the Ohio River, was a busy trade port whose opposite bank bordered slave territory. Chase held deeply rooted moral opinions stemming from his upbringing and was strongly opposed to slavery. He quickly entrenched himself in the antislavery cause and soon earned a reputation as the "attorney for runaway Negroes."

Chase had a rather sad private life. His first wife died a year after their marriage, his second wife died after five years, and his third wife after six years. Of his six children, only two daughters grew to adulthood. These tragic experiences deepened his religious fervor.

In public life, however, Chase was quite successful. His strong sentiments for the antislavery movement shaped his political associations. In 1840 he helped organize the Liberty Party and then became active in the Free Soil Party in 1848. It was on the Free Soil ticket that Chase was elected to a six-year term in the United States Senate in 1849. He continued his fight against slavery as a Senator and opposed the Missouri Compromise of 1850 and the Kansas-Nebraska Act of 1854.

In 1854 Chase helped establish the Republican Party in Ohio. Three years later he was elected the first Republican governor of the state. Chase was re-elected in 1857 and was widely considered a potential presidential candidate. Because of his fluid party affiliations, however, Chase could not garner enough support from one party to run for president. When Abraham Lincoln (1861–1865) won the presidency, Chase was appointed to Lincoln's Cabinet as Secretary of the Treasury.

In this position Chase faced the difficult task of organizing the country's finances during the American Civil War (1861–1865). Large sums of money had to

be borrowed, bonds marketed, and the national currency kept as stable as possible. Chase was even forced to issue paper currency, or "greenbacks," to help finance the war, although he personally favored hard currency. Despite these challenges Chase also managed to develop a national banking system, which opened a market for bonds and stabilized currency.

While Chase was successful in his position as Secretary of the Treasury, he was often in disagreement with the president and with other members of the Cabinet. Chase was disappointed with the Emancipation Proclamation, believing its stand against slavery was too weak. In 1864 he resigned as Secretary of the Treasury and sought the Republican nomination for president. His bid was unsuccessful, however, because of Lincoln's intense popularity with the public. Instead, Chase made several speeches on Lincoln's behalf during the campaign. When Lincoln again won the presidency, he appointed Chase Chief Justice of the Supreme Court.

Chase presided over the Supreme Court during the troubled Reconstruction period (1865–1877). His important tasks were to restore the Southern judicial system and uphold the law against congressional invasion. Chase also supported the Radical Republicans, who believed that African Americans should be guaranteed their civil rights before the southern states could be readmitted to the Union. Chase's most memorable role as Chief Justice was presiding over the impeachment proceedings of President Andrew Johnson (1865–1869), for which he commended for his fairness and devotion to justice during the proceedings.

Even while serving as Chief Justice, Chase still sought the post of U.S. President, hoping to become Lincoln's successor. He tried to secure the Democratic nomination in 1868 and the Liberal Republican nomination in 1872, but was unsuccessful both times. Chase died of a stroke in 1873.

See also: **Emancipation Proclamation, Kansas-Nebraska Act, Missouri Compromise, Slavery**

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CHAVEZ, CESAR ESTRADA

Cesar Chavez (1927–1993) was raised in Arizona as the son of a farming family. He devoted his life to union organizing and nonviolent social activism on behalf of laborers in the fields and vineyards of the Southwest. The founder of the United Farm Workers (UFW), Chavez planted the seeds of a broadly-based civil rights movement among Hispanic Americans. As a deeply religious man he drew from the teachings of his Roman Catholic heritage. He was also deeply influenced by the nonviolent activism of Martin Luther King, Jr. (1929–1968), Mohandas Gandhi (1869–1948), and the tactics of radical community activist, Saul Alinsky.

Cesar Chavez was barely ten years old when a bank repossessed his family's farm. With his parents and four siblings, he became one of thousands of migrant workers roving from one crop harvest to another. They all worked to earn a marginal existence during the Great Depression.

Chavez was twelve when the Congress of Industrial Organizations (CIO) began organizing dried-fruit industry workers. His father and uncle actively supported unions. In this way the boy learned firsthand about strikes, picket lines and organizing operations. Most efforts, however, failed to organize farm workers in those days. After long and brutally exhausting days in the field, there was little time to attend meetings. The labor force was constantly shifting from place to place, and many of the Mexican immigrants feared personal retribution by farm owners if they joined together to protest working conditions.

Chavez's family moved from one migrant labor camp to another; Chavez later said that though he attended 65 schools, he never graduated from high school. He served in the U.S. Navy for two years during World War II (1939–1945). When the war was over he returned to working in the fields. Three years later he married Helen Fabela, a fellow migrant worker. They shared strong religious beliefs and a commitment to investing farm workers with hope and dignity.

In 1952 Chavez began actively organizing workers in the fields. He was recruited and trained for his



Cesar E. Chavez.

work by the California-based Community Service Organization (CSO). During the next ten years Chavez built new chapters of CSO, led voter registration drives, and helped Mexican-Americans confront issues of police and immigration abuse. In 1958 he became general director of CSO. He resigned four years later to found the National Farm Workers Association (NFWA) with \$1,200 of his own savings.

Organizing farm workers was agonizingly slow work, but by 1965 Chavez had organized a union with a membership of 1700 workers. The staff was composed mostly of Roman Catholic clerics and lay people. In September of that year Chavez led California grape pickers on a five-year strike. Grape growers fought back, but gradually the nation's consumers swung to the workers' side and stopped buying grapes. By 1968 there was a nationwide boycott of California grapes, and the growers were forced to negotiate.

Chavez went on to wage a successful boycott of iceberg lettuce. Like Gandhi, he dramatized his fights against grape growers and lettuce producers by fasting and inviting arrest. He picketed alongside his workers and did jail time with them. By the late 1960s the movement had been baptized *La Causa* (The Cause).

In 1966 Chavez's union merged with the AFL-CIO Agricultural Workers Organizing Committee. It became the United Farm Workers Organizing Committee (UFWOC). By May 1970 farmer after farmer signed contracts with UFWOC, but problems arose three years later when it was time for these contracts to be renewed. The UFWOC—now renamed the United

Chicago Fire of 1871

Farm Workers of America (UFW)—found itself challenged by the National Teamsters Union. Backed by growers who saw an opportunity to weaken or break the UFW, the Teamsters were moderately successful in luring workers away from the UFW. After years of conflict between the two unions an agreement was signed giving UFW the sole right to organize farm workers.

In the final years of Chavez's life the UFW and *La Causa* were troubled with internal dissension. Union membership fell from a peak 100,000 members to 20,000 agricultural workers. This represented a small percentage of the actual number of men and women working in the fields. Many of Chavez's key lieutenants resigned in protest against his increasingly eccentric behavior and autocratic management of the UFW's affairs. But among his followers and supporters Chavez remained respected and admired. *La Causa* continued to attract nuns, priests, ministers, rabbis and other veterans of the nonviolent civil rights and antiwar movements.

Chavez's self-sacrifice and personal devotion to the cause of liberating farm workers from exploitation was an inspiration to millions. He brought the nation's attention to the plight of desperately poor migrant workers. His legacy does not consist only of the increases in pay, eligibility for medical insurance, employer-paid pensions, and unemployment benefits that UFW members received. He was responsible for *La Causa*, the birth of the Hispanic American civil rights movement. When Chavez died in his sleep on April 23, 1993, at age 66, he was on the road in Arizona working for his union.

See also: Agriculture Industry, American Federation of Labor, Congress of Industrial Organizations, United Farm Workers

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CHICAGO FIRE OF 1871

At about 9 o'clock on the night of October 8, 1871, a fire started in a cowshed behind a Chicago home. It had been an unusually dry summer and the flames jumped quickly from house to house, then from street to street. The blaze raced along from the southwest to the northeast, enveloping the business district and leaping over the Chicago River, dying out only when it reached Lake Michigan almost thirty hours later. Never before had the prosperous American city seen such devastation and upheaval. At the time, many feared the metropolis would not be able to regain its standing as an industrial and economic center. But Chicago recovered swiftly, reaffirming its citizen's faith in their city's perseverance and resilience.

There are several theories about how the Chicago Fire of 1871 began. Rumors spread almost as rapidly as the flames, most of them based on stories about Patrick and Catherine O'Leary and their dairy cow, which was said to have kicked over a lantern that sparked the conflagration. Other explanations range from the accidental—a spark blown from a chimney, or a matchstick dropped—to the intentional—arson, or even the wrath of an angry God. To this day, however, colorful myths surround the tragic event, and the unsolved mystery remains a subject of speculation and debate.

Less ambiguous to historians is what made the fire grow to a size and ferocity that were uncontainable. At the onset of the blaze, local firefighters struggled to pin down its location; by the time they reached the O'Leary's residence, the barn was engulfed in flames. A smaller fire had swept through four of Chicago's city blocks the day before and the fire department's hoses and pumps were worn out from that effort. Once the barnyard blaze raged out of control, the surrounding buildings and the entire city were at risk.

Then the lumber capital of the world, Chicago was a city built primarily of wood. Its houses, storefronts, and factories—even its sidewalks and streets—were made of this versatile yet flammable material. Drought, which had plagued the region for months, left all of this



This Chicago bank was devastated by the 1871 fire.

wood dry, brittle, and particularly vulnerable to flame. The fire enveloped the city's most ornate mansions and its humblest shacks. Gusts of wind carried "fire devils," chunks of flaming wood, which rapidly spread the destruction.

NEVER SHALL I FORGET THE SIGHT AS I LOOKED BACK ON THE BURNING CITY. ON THE BRIDGE, A MAN HURRYING ALONG SAID, "THIS IS THE END OF CHICAGO," BUT WITH ASSURANCE THE THIRTEEN-YEAR-OLD REPLIED, "NO, NO, SHE WILL RISE AGAIN."

Bessie Bradwell, Memoir sent to the Chicago Historical Society, 1926

Pandemonium erupted in the streets as families abandoned their homes. Many people seized valuables from the blazing buildings and looting broke out as vandals took advantage of the confusion. In his article "The Great Chicago Fire," John Pauly described how businessmen trundled their families off to safe havens, then risked their lives to reach downtown offices, hoping to salvage money, records, and equipment. Some felt safe enough to stand back and watch the bright, awesome conflagration. "It was a grand sight, and yet and awful one," wrote William Gallagher, a theological student, in a letter to his sister preserved by the Chicago Historical Society. "[T]he business part of

Chicago was unexcelled by any of our cities in beauty of architecture, handsome and costly warehouses, and convenience of arrangement."

Chicago's business district was indeed impressive. With the development of the railroad and the economic boom that followed the American Civil War (1861–1865), the city thrived. But the fire raged through four square miles of the metropolis; it demolished factories, stores, railroad depots, hotels, theaters, and banks. Flames burned ships in the Chicago River and consumed nearly all the city's publishing and printing. In the end property damage totaled \$192 million. Nearly 300 people died in the blaze and 100,000 were made homeless. Millionaires became paupers overnight, their businesses destroyed.

At first, the damage seemed irreparable. The fire not only halted but also erased much of the progress the city had made in recent years. Chaos reigned in the days following the catastrophe, as civil unrest and looting continued. Mayor Roswell B. Mason declared martial law to preserve peace in the ravaged city. But help was on the way, and with dispatches sent via telegraph, Chicagoans were able to maintain contact with nearby cities that would assist in the rescue, rebuilding, and recovery efforts. Many businesses in other cities had economic interests to protect in Chicago—New York vendors, for example, conducted trade with interior states through Chicago merchants. The support of businesses in other cities helped the city to emerge from the ashes of the great fire.

The rebuilding of Chicago was a tremendous endeavor. Insurance companies in America and Europe rose to the occasion, producing the sums they were obliged to pay for the damages. Cities in America and abroad sent \$5 million in relief funds and thousands of donated books replenished Chicago's libraries. Fortunately much of the city's infrastructure—its grain elevators, railroad lines, water supply, and sewage systems—remained intact. The city was able to resurrect itself quickly on this underlying framework. Before long Chicago began to attract entrepreneurs, businessmen, and well-known architects, who found ways to profit from the reconstruction efforts.

Chicagoans' greatest fear was never realized: Their city did not perish. Rather, the rebuilt metropolis re-emerged, years later stronger than before, with buildings and homes constructed under new fire regulations. The world's first steel frame skyscraper, the Home Insurance Building, was erected in 1885, and by 1890 Chicago was the second largest city in America. The 1871 fire marked an interruption—but fortunately, not

Child Labor (Issue)

a termination—in the period of economic growth that Chicago, along with other American cities, experienced during the post-Civil War years.

See also: Illinois

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CHILD LABOR (ISSUE)

Using children to perform manual labor is probably as old as the human race. European settlers brought this practice to North America, where it was expected that children would help their parents with the family enterprise, which was usually the farm. The modern summer vacation from school harkens back to such an era. The expectation that children can provide an economic benefit to their families was transferred from farm work to factory labor when the nation began to industrialize. Many parents desperately needed the extra income their offspring could earn, and some would omit their children’s names from school lists when education became compulsory. Samuel Slater, a pioneer in the New England textile industry, thought it natural to hire children to work in his cotton mill in 1793, because their small hands could manipulate the machines more easily. This practice aroused no outrage. Slater was remembered as a philanthropist, and President Andrew Jackson (1828-1836) respectfully referred to him as the “father of American manufactures.”

Breaker boys, some as young as nine or ten, worked in the mines, crouched for ten-hour shifts picking slate from coal chutes, breathing clouds of coal dust. All too often boys were pulled into machinery and mangled to death. Others worked underground in mud on fourteen-hour shifts as mule drivers.

As the nation continued to industrialize, many children were forced to work under conditions that were increasingly harsh. Boys would be expected to stand near hot furnaces, molding glass for hours on end, or they would sort coal by hand in the mines, where they might catch black lung disease or other illnesses associated with a dirty, damp, and cold environment. Children in factories were often mangled or killed, as they worked with or near heavy industrial machines. Even in the best of conditions, working children were denied their right to an education.

As the nineteenth century progressed, there was a reaction against this form of child abuse. Workmen’s associations often protested child labor because it kept wages low and compromised job security, but there was also a growing appreciation that children should be defended and protected for their own sake. At first the response was rather mild. In 1842 the Massachusetts legislature passed a law that limited children under 12 to working no more than ten hours a day. Many other states passed legislation that restricted child labor, but the laws were often toothless. Certainly they were not uniform and offered industry no definite guidelines on how to curb the practice. The number of children in the workplace continued to expand.

In 1904 a group of reformers established the National Child Labor Committee, whose purpose was to investigate the problem and lobby state-by-state for legislation to end the abuse. It was not effective because each state feared restrictive legislation could give other states a competitive advantage in recruiting industry. In 1907 a federal law against child labor, sponsored by Senator Alan Beveridge of Ohio (1899-1911) went down to defeat. In 1910 there were still an estimated two million children employed in industry.

In 1912 a Children’s Bureau was established as an agency of the Department of Commerce and Labor. Its mandate was to examine “all matters pertaining to the welfare of children,” which included child labor, and it was led by Julia C. Lathrop, the first woman to head a



Children were often used to perform menial tasks, such as running this loom, during the early industrialization America. In 1842 the Massachusetts legislature was the first to pass many laws to protect children from this form of abuse.

Chinese Exclusion Act

federal agency. Progress, however, was still slow. In 1916 senators Robert L. Owen and Edward Keating sponsored a bill that restricted child labor, which passed both houses of Congress with the strong support of President Woodrow Wilson. The law was based on a recommendation of the National Child Welfare Committee, but it only prevented the interstate shipment of goods produced in factories by children under 14 and materials processed in mines by children under 16. It also limited their workday to eight hours. In 1918 the Supreme Court declared this law unconstitutional, because it was directed toward the regulation of working conditions, not the control interstate commerce. In 1919 Congress passed the Child Labor Act, which placed a tax on companies that used child labor, but the court too overturned it. In 1924 there was an attempt to amend the Constitution to prohibit child labor, but it never received approval from the required number of states.

In spite of these failures, the national mood was clearly against child labor. As educational requirements became more stringent and truancy laws more strictly enforced, it became harder for companies to depend on child labor. Also demands within industry for a better skilled, more highly trained labor force inhibited the hiring of children. By 1920 child labor was in decline nationally.

President Franklin Delano Roosevelt's domestic reforms in the 1930s, which are known collectively as the New Deal, also attacked child labor and settled the legality of the issue. The National Labor Relations Act of 1935 prohibited the use of boys under 16 and girls under 18 on projects where the U.S. government contributed \$10 thousand or more. Another bill, the Fair Labor Standards Act, which was passed in 1938, remains the major piece of federal legislation directed against child labor. It prevented children, including the offspring of migrant workers, from taking jobs that would interfere with their education, health or general well being. It forbade the full-time employment of those 16 and under, and this prohibition could be raised to include those 18 and under for work in dangerous or unhealthy industries. The law also provided for certain exemptions. Children 14 and over could be employed after school hours. Young people were able to work in a family-owned business or at home, or deliver newspapers or act. The Fair Labor Standards Act also established a minimum wage, which further discouraged the employment of children, because low wages was an important inducement for hiring them. A Supreme Court to which Roosevelt had appointed five members upheld the constitutionality of the law in 1941.

Federal legislation is now also supplemented by modern more comprehensive state laws, which also aim to safeguard children by restricting the type of job they may hold and the number of hours they may work. Although there are isolated incidents, child labor in the United States is no longer a major problem, and the remaining domestic issue concerns the morality of importing goods that were produced by child labor abroad.

The international situation regarding child labor is discouraging. In 1973 the United Nations called upon the countries of the world to ratify a convention that established 15 as the minimum age for work. Children as young as 13 would be permitted to do light work, but only those who reached 18 could hold a hazardous job. The reform has not been effective in the developing countries, where poverty forces many children into the workforce to help their families. In 1997, the International Labor Office estimated that 250 million children are working in jobs that may cause physical or emotional damage.

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CHINESE EXCLUSION ACT

When gold was discovered in California in 1848, few laborers were available for the new mining industry and many looked to China as a ready source of workers. Inexpensive transportation across the Pacific Ocean, acceptance of low wages, willingness to tackle dangerous jobs, and a strong work ethic made the Chinese attractive to mine operators. Brokers paid

At least a thousand (Chinese) perished in building the (Central Pacific) roadbed. . . . But they worked so hard and so well that hundreds more were hired. In 1869 a group of Chinese and Irish workers laid a record ten miles of track in just under 12 hours, though the Chinese and their sacrifice were barely mentioned in the flossy speeches that year when the historic meeting of the rails was celebrated.

Donald D. Jackson, *Smithsonian*, February 1991

passage expenses for the Chinese laborers' transportation and the laborers repaid them from their earnings. In 1852 alone more than 20,000 Chinese arrived in California almost exclusively from the Guangdong province of southern China (including the city of Canton.) Within a few years of the gold discovery, the Chinese population was an important part of California's labor force. On their own initiative, the Chinese reworked the spoils left by earlier mining operations, recovering previously overlooked gold .

Other work became available in the ensuing years, including construction of the transcontinental railroad and increased employment in agriculture and manufacturing. By the 1880s approximately 100,000 Chinese were in the United States, more than 90 percent of them males. The vast majority sent their wages home regularly, maintaining a goal of eventually returning to their homeland and families.

As the white population grew in the West, particularly after completion of the railroad, competition for jobs increased and hostility from whites mounted. A downturn in the economy during the early 1870s led to declining wages; persecution of the Chinese escalated. New trade unions devised tags for goods to identify those made by white laborers and those made by Chinese. Violence directed towards Chinese also increased; nineteen Chinese were killed in a mob incident in Los Angeles in 1871 and more were killed in 1877 during a San Francisco riot. Later in 1877, San Francisco businessman Denis Kearney (who was himself an immigrant from Ireland) formed the Workingman's Party of California which spearheaded the anti-Chinese movement.

Although Chinese comprised far less than one percent of the U.S. population, politicians reacted to voter demands by joining those who blamed the immigrants for economic ills. Seeking to restrict further

competition from Chinese workers, Congress passed the Fifteen Passenger Act limiting Chinese immigration in 1879. However, President Rutherford B. Hayes (1877–1881) vetoed the bill claiming it violated the 1868 Burlingame Treaty with China. The following year the United States negotiated a new treaty with China, permitting immigration restrictions for laborers but exempting foreign travelers, students, teachers, and merchants.

With the new treaty in place, Congress passed the Chinese Exclusion Act of 1882 suspending Chinese labor immigration for ten years and making Chinese immigrants ineligible for U.S. citizenship. The act was the first major law restricting immigration of a specific nationality into the United States. Chinese in the United States unsuccessfully challenged the new law as discriminatory. Persecution continued and 28 Chinese mine workers, refusing to join a strike, were killed in Rock Springs, Wyoming, in September of 1885. Congress extended the Exclusion Act in 1892 for another ten years, and in 1902 made the exclusion indefinite following a new, more restrictive treaty with China in 1894. In 1904 China refused to renew the 1894 treaty. Continuing immigration restrictions by the United States led to a boycott of U.S. goods in China in 1905.

The series of exclusion acts proved very effective in limiting immigration. The Chinese population substantially declined. The immigration acts were supplemented with other laws restricting the work activity of Chinese living in the country. In 1913 California passed a law prohibiting Chinese from owning land. Chinese people still entered the country but in smaller numbers, often using fraudulent papers to pose as merchants. Another "loophole" allowed Chinese-born children of U.S. citizens to gain entrance and citizenship. From 1910 to 1940, San Francisco's Angel Island was a point of entry where U.S. immigration officials examined "papers" of tens of thousands of Chinese trying to enter the country, much as Ellis Island in New York City served to process European immigrants.

The Chinese population quietly persevered through generations of persecution and consistently avoided conflict. Socioeconomic effects of the persecution included formation of self-contained communities, insulated from the dominant white Western society. "Chinatowns" grew within several large cities of the West and the Chinese established their own schools, printed their own newspapers, and formed their own banks. But the overall effectiveness of the Exclusion Acts led to later efforts to restrict immigration of other groups as well, including East Indians, Japanese, and Middle Easterners.

Chisholm Trail

World War II (1939–1945) was a key catalyst in changing sixty years of discriminatory U.S. policies against the Chinese. China was an ally of the United States throughout the war. China's leader, General Chiang Kai-shek (1887–1975), was highly respected and the United States supported Chiang in his fight against internal (Mao Zedong and the Communists) and external (Japan) threats. This closer relationship helped change U.S. policy at home regarding Chinese-Americans.

Higher paying industrial employment opened up to the Chinese-Americans, whose population numbered 60,000 in the 1930s. With anti-Chinese sentiment dissipating, Congress repealed the Exclusion Act in 1943. It was immediately replaced with strict quotas limiting Chinese immigration in favor of Europeans, but these quotas were repealed in 1965 as the status of Chinese-Americans continued to improve. By 1970 most working Chinese-Americans held white-collar jobs and were well integrated into the U.S. economy.

See also: Ellis Island, Immigration, Transcontinental Railroad

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CHISHOLM TRAIL

The Chisholm Trail originated in southern Texas and ran about 1,000 miles (1,600 kilometers) to its end

at Abilene, Kansas. In 1866 the route was first traveled by American frontiersman Jesse Chisholm (1806?–1868?) as he drove a wagon from the Mexican border, through Texas, and across Indian Territory (present-day Oklahoma) to a trading post in Kansas. The following year, the Union Pacific Railroad reached Abilene. Cattle ranchers in Texas hired cowboys to round up their livestock on the open range and drive their herds to the depot. Cowboys followed Chisholm's path to Abilene. There the herds were loaded onto trains and transported to markets in the eastern United States, where the demand for beef increased growth in the cattle industry after the American Civil War (1861–1865). Between 1867 and 1870 cowboys drove about 1.5 million cattle along the Chisholm Trail. As the railways pushed westward, so did the route of the trail drive. At the ends of the trails, cities including Abilene and Dodge City, Kansas, became cow towns. As the railroad continued to expand into previously remote areas, the use of the trails declined.

See also: Cattle Drives, Cow Towns, Cowboys, Open Range

CHOCTAW

The Choctaw were Eastern Woodlands Indians who lived in central and southern Mississippi. They spoke Muskogean, a language in the same family as Iroquoian. Choctaw were known as successful farmers: they enjoyed a long growing season and ample rainfall. The Choctaw were also known as one of the Five Civilized Tribes of the Southeast, who were so named for their adoption of European customs.

When the Spaniards arrived in the early 1500s, the Choctaw were one of fifteen remaining tribes descended from the Mississippian (Mound Builders). When the French settled the region (by 1699) only the Choctaw, Chickasaw, and Natchez tribes remained. In 1830 the Removal Act forced the Choctaw to give up their lands and in 1832 they were moved west into Indian Territory (Oklahoma).

See also: Eastern Woodlands Indians, Five Civilized Tribes, Mound Builders, Native American Policy

CHRYSLER CORPORATION

Chrysler Corporation is the number three auto maker in the United States behind General Motors

(GM) and Ford Motor Company, producing nearly 3 million vehicles a year. After its \$38 billion merger with German luxury carmaker Daimler-Benz in 1998, Chrysler is now known as DaimlerChrysler Corp., a North American Subsidiary of DaimlerChrysler AG. With joint headquarters in Auburn Hills, Michigan, and Stuttgart, Germany, the newly formed business is Europe's number one industrial company, and the fifth largest car manufacturer in the world. It employs over 200,000 persons worldwide, and sells vehicles in over 140 countries.

Chrysler Corporation was originally founded by Walter Percy Chrysler (1875–1940) in 1925. Chrysler, a former vice president at GM, designed Maxwell Motor Corporation's original Chrysler automobile in 1924. The car was enormously popular in its first year, selling approximately 32,000 units at a profit of \$4 million. The next year Walter Chrysler took over Maxwell and renamed the corporation after himself.

In 1926 Chrysler introduced a series of models that could travel between 50 and 80 mph. It called the cars the "Model 50," "Model 60," etc. Until then, most of the fast motor vehicles in North America were expensive luxury cars, but since Chrysler's fast cars were mid-priced, they were more accessible to consumers. In 1928 Chrysler increased the size of its company fivefold by acquiring the Dodge Corporation. That year also marked Chrysler's introduction of the low-priced Plymouth and the more extravagant DeSoto. Chrysler's emphasis on innovation and research helped increase the company's market share during the Great Depression (1929–1939) and surpass Ford in sales in 1933. Since Chrysler bought more components from parts manufacturers than its competitors, it had greater flexibility than its rivals, but it was a flexibility born of necessity. It did not have the financial resources to make everything within the company and had to pay more for them. In 1937 Chrysler followed the lead of General Motors in signing a labor contract with its workers, represented by the United Automobile Workers (UAW).

During World War II (1939–1945), Chrysler's focus turned to military production, manufacturing tanks, trucks, bomber engines, submarine nets, anti-aircraft guns, and small-arms ammunition for the Allied forces. Chrysler's efforts during the war earned the company a special Army-Navy award for reliability and prompt delivery.

But, Chrysler began encountering problems almost immediately after the war. Its relationship with its workers was not always smooth because of Chrysler's

sometimes sloppy maintenance and unsafe plants. These problems stemmed from Chrysler's lack of resources; its pockets were not as deep as Ford's or GM's. Even when it managed to placate the leadership of the union, the company was often the target of "wildcat strikes" by disaffected rank and file workers. The company also seemed to have lost some of its earlier ambition and design innovation. Other manufacturers started introducing new cars with more features, while Chrysler's line remained largely static. Chrysler was soon out of step with consumer tastes. During the 1950s the company was selling larger, boxier automobiles when most Americans were buying sleeker cars from Ford and GM. In the 1960s Chrysler introduced a line of smaller cars just as Americans wanted power and luxury. When the OPEC oil embargo of the early 1970s tightened America's wallet, Chrysler maintained its line of inefficient large cars. By 1979 Chrysler's share of the U.S. car market was just nine percent, a decline of 12 points from 1952.

Teetering on the brink of bankruptcy, Chrysler turned to Lee Iacocca (1924—) and the federal government for help. Iacocca, a former executive with Ford, had been named president and chief executive officer of Chrysler in 1978. In 1980 Iacocca convinced Congress to guarantee \$1.5 billion in loans to Chrysler, stressing his company's historical role in car manufacturing and its importance to the economy.

The billion-dollar bailout was unpopular with many Americans. But that did not prevent the charismatic Iacocca from trying to revitalize Chrysler. He took his case to the American people, starring in 61 television commercials, exhorting consumers to "buy American," staking his reputation on every Chrysler that left the plant, and otherwise personalizing the company. After suffering losses of \$1.1 billion in 1979, \$1.7 billion in 1980, and \$475 million in 1981, Chrysler started turning a profit in 1982. In 1983 Chrysler repaid all of its federal loans, seven years before they were due.

Chrysler's recovery was stimulated by a successful new line of cars. The K-car debuted in 1981, and in 1982 Chrysler downsized the New Yorker, which introduced a six-cylinder Fifth Avenue model. In 1984 Chrysler pioneered one of the first mini-vans, a prototype of the Dodge Caravan. Over the next fifteen years the Caravan was the best-selling vehicle of its type. In 1986 Chrysler entered a joint venture to sell Mitsubishi cars in the United States, and the next year it purchased American Motors Company, maker of Eagle cars and four-wheel drive Jeeps.

But Chrysler's recovery was not one of uninterrupted success. In 1987 Chrysler laid off workers at

two plants while reducing inventory. In 1991 the company lost \$795 million because of a recession and weak consumer demand. Three years later the company suffered through a series of embarrassing recalls, including 115,000 Jeep Cherokees with flawed steering columns. In 1997 nearly 2000 engine-plant workers went on strike for a month, Chrysler's longest work-stoppage in 30 years.

Regardless of its success or failure in any particular year, Chrysler developed a reputation of investing heavily in the people and communities that surround its corporate plants. When Chrysler returned to South Africa in 1996, it donated \$1 million to President Nelson Mandela's Children's Fund. From 1995 to 1997 Chrysler donated \$13 million to Detroit area arts and cultural organizations. In 1998 it gave another \$1 million to a pre-college engineering program for minority students in Michigan.

At the same time, Chrysler's merger with Daimler-Benz caused some thorny public-relations problems. A substantial number of Jewish shareholders opposed the deal because of the German company's links with Nazis during World War II (1939–1945). After DaimlerChrysler incorporated in Stuttgart, Standard & Poor's 500 announced that it would not allow the company into its elite group of businesses traded on the New York Stock Exchange, since it was no longer technically an American business. By March, 1999, German shareholders owned 60 percent of the company, with the ratio of American-owned shares dropping from 44 to 25 percent in five months.

See also: *Automobile Industry, Walter P. Chrysler, Lee Iacocca*

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CHRYSLER, WALTER PERCY

Walter Percy Chrysler (1875–1940) was an industrialist who began his career in the railroad industry. He later became involved in the automotive industry and was largely responsible for the Buick division of General Motors. He went on to found his own company, Chrysler Motors, which quickly rivaled its competitors General Motors and Ford Motor Company.

Walter Chrysler was born in Ellis, Kansas, in 1875. His father was an engineer for the Union Pacific Railroad. As a boy, Chrysler worked at various odd jobs, as a farm hand, a grocery boy, and a silverware salesman. At the age of seventeen he joined his father and became an apprentice at the Union Pacific shops. Chrysler earned five cents per hour and was eager to learn every aspect of his craft. He earned his journeyman's certificate and then worked as a machinist in several railroad shops throughout the Midwest.

Chrysler gradually moved up into positions of greater responsibility. At the age of thirty-three he became superintendent of the Chicago and Great Western Railroad system. During this time, Chrysler and his family lived in Oelwein, Iowa. He began to notice the new automobiles on the streets of town. He became more interested in them when he attended the 1905 Chicago automobile show and saw the Locomobile. The car cost \$5,000; Chrysler borrowed more than \$4,000 to purchase it. He took it home to Oelwein, but did not drive it around town. Instead, he took the car apart and put it together again several times.

His position at Great Western was an impressive job for a young man, but Chrysler aspired to move up the corporate ladder. He realized that he would have few opportunities to do so in the mechanical branch of railroading, so he switched industries. In 1910 Chrysler became the works manager of the American Locomotive Company in Pittsburgh at a starting salary of \$8,000 per year. During the same year, Charles W. Nash, who was just made president of General Motors Corporation, became aware of Chrysler's efficient management of American Locomotive. In 1912 Nash persuaded Chrysler to take a salary cut and accept the position of works manager of Buick in Flint, Michigan.



Walter P. Chrysler stands proudly with his 1925 Chrysler.

IT DEVOLVES UPON THE UNITED STATES TO HELP MOTORIZE THE WORLD.

Walter P. Chrysler, September 1928

Since cars at Buick were being made by slow, handwork methods, Chrysler quickly reorganized the shops into efficient units, introducing Henry Ford's assembly line method of production. Output levels soared. From 1911 to 1919, when Chrysler was in charge of Buick, car production rose from 40 to 550 cars per day; the company's profits increased just as dramatically.

In 1916 William C. Durant (1861–1947) returned as president of General Motors and appointed Chrysler president of Buick at an annual salary of \$500,000 dollars. Chrysler, however, was unhappy under Durant's leadership. He disapproved of Durant's management decisions and felt he was interfering unnecessarily in Buick's business affairs. In 1920 Chrysler decided to resign from General Motors and planned to retire.

Chrysler's retirement plans were short-lived as he was quickly persuaded by Chase National Bank to rescue the automotive company of Willys-Overland from bankruptcy. Chrysler's salary for this project was a yearly \$1 million. Chrysler soon took on a similar

task of reorganizing the Maxwell Motor Company. With the help of three talented engineers from Willys-Overland, Fred Zeder, Owen Skelton, and Carl Breer, Chrysler designed and produced his first car, the Chrysler, in June of 1925, at the Maxwell plant. In 1924 the Maxwell Company was rechartered as the Chrysler Corporation.

Popular demand for the Chrysler fueled the company's growth. First-year sales were 19,960; by 1926 sales had jumped to 129,572. The business grew when Chrysler introduced the Plymouth and the DeSoto in July of 1928. In the same month he purchased the Dodge Brothers manufacturing company and became the second largest automobile producer in the world, with business interests valued at approximately \$432 million. In 1928 Chrysler Corporation became Chrysler Motors. The relatively new company was a major player in the automotive industry. The strength of the Chrysler Corporation challenged the traditional competition between Ford Motor Company and General Motors—the "Big Three" became a reality.

During the Great Depression, Chrysler adopted a survival strategy which focused on reducing debt and improving the existing line of cars—the Chrysler, DeSoto, and Plymouth. When the demand for cars began to rise again in 1937, the company was in a

Circular Flow of Economic Activity

secure position and soon resumed its growth. Much of Chrysler's success was due to his ability to grow with his job. He became as skillful with finance and marketing as he was with production. Walter Chrysler retired in 1935 and died five years later.

See also: **Automobile Industry, Assembly Line, Chrysler Corporation, Ford Motor Company, General Motors**

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CIRCULAR FLOW OF ECONOMIC ACTIVITY

The basic tenet of the circular flow of economic activity is, "What goes around comes around." The circular flow begins with the spending habits of consumers. How much and how fast consumers spend then drives the amount of investments that businesses make in resources to produce goods. These investments in turn affect the number of jobs that are available and the general economic health of a region. As more jobs become available, consumers have more money to spend. Conversely, as employment levels drop, consumers have less money to spend on goods and services. Consumer spending also determines the kinds and quantities of products that businesses produce.

The circular flow theory was first advanced by the physiocrats, a school of economics in the 1700s. The major proponent of the physiocratic view, Francois

Quesnay (1694–1774), wrote in 1758 that the circular flow was a natural order in economics and self-sustaining. Quesnay proposed that the flow had an inherent self-correcting mechanism and therefore did not need to be directed by government. The circular flow created a balance by automatically decreasing and increasing consumer spending levels and business investments when needed.

See also: **Business Cycle**

CITY PLANNING

City planning is a process by which the growth and organization of a city is determined by some rational method. Roads, bridges, factories, and homes are built to take best advantage of the environment and provide a high quality of life. Even ancient cities were designed according to some sort of plan, some of which are quite beautiful and take good advantage of their natural resources.

During the eighteenth and nineteenth centuries in Europe and the United States, planners were concerned with creating monumental plazas, parks, boulevards, and other great public spaces. Paris, France, and Washington, D.C., with their notable plazas and great avenues radiating out from a central point, typified this kind of city planning. In the United States this impetus toward building attractive public areas became known as the City Beautiful Movement.

In the twentieth century, the concept of zoning developed out of a concern for the quality of life of ordinary citizens. Certain districts or zones were set aside for different types of development, with homes in one area, shops in another, and high-rise office buildings in a third. The impetus behind the development of zoning was a desire to shield urban residents from the harmful effects of pollution from factories, which were placed in special industrial districts. Thus, city planning developed into a complex process that involved economic, sociological, and political concerns, among others. Elements as diverse as race relations, traffic flow, noise pollution, and the economic well-being of citizens all play a part in modern city planning.

CIVIL RIGHTS ACTS OF 1866, 1875

The civil rights acts of 1866 and 1875 were passed by the U.S. Congress in an effort to make full citizens

of and guarantee the rights of the freed slaves. The Thirteenth Amendment (1865) had abolished slavery throughout the nation, and Congress was faced with how to enfranchise this population. Both pieces of legislation proved to be controversial.

Early in 1866 Congress approved an act which stated that states could not infringe on the rights of their citizens. But President Andrew Johnson (1808–75) vetoed it. When the South seceded from the Union in 1861, Johnson, then a senator from Tennessee, remained in Washington, D.C.; he believed the act of secession was unconstitutional. When President Abraham Lincoln (1861–65) ran for a second term in 1864, he chose the southern Democrat as his running mate in an effort to heal the nation's wounds. Having won the election, Lincoln had just begun his second term when he was assassinated (April 1865); Johnson succeeded him in office. When the Civil Rights Act arrived on his desk, Johnson refused to sign it; he had always been a firm believer in the rights of states to regulate their own affairs. For the first time in history, Congress mustered enough votes to overturn a presidential veto and enacted the law anyway. It was the first of numerous veto overturns that came during the years of Reconstruction (1865–77), as Congress and the president squared off over how to restore the Union.

In June 1866 Congress proposed the Fourteenth amendment, which gave citizenship to all African Americans and guaranteed that all laws (both federal and state) applied equally to African Americans and whites. Congress further required that no southern state could be readmitted to the Union (at the time, none had been readmitted) without first ratifying the Fourteenth Amendment. The amendment was ratified in 1868—replacing the earlier, disputed legislation.

The Act of 1875, passed by Congress on March 1 of that year, aimed to protect all citizens from discrimination in places of public accommodation. In part it stated that, “All persons within the jurisdiction of the United States shall be entitled to the full and equal enjoyment of the accommodations, advantages, facilities, and privileges of inns, public conveyances [transportation] on land or water, theaters, and other places of public amusement . . . and applicable alike to citizens of every race and color.” Eight years later, the legislation was struck down as unconstitutional by the U.S. Supreme Court, which stated that Congress does not have the authority to regulate the prevalent social mores of any state. The ground covered by the Civil Rights Act of 1875 was later covered anew by Congress in the Civil Rights Act of 1964, which bans discrimination based on a person's color, race, national origin, religion, or sex.

See also: Thirteenth Amendment, Fifteenth Amendment

CIVIL RIGHTS MOVEMENT

The civil rights movement was a “freedom struggle” by African Americans in the 1950s and 1960s to gain equality. The goals of the movement were freedom from discrimination; equal opportunity in employment, education, and housing; the right to vote; and equal access to public facilities.

Motivation for the movement came from an earlier period. During Reconstruction (1865–1877) the North attempted to force economic and social change on the South and at times exploited the region mercilessly. A broad-based reaction in Southern states led to creation of a legal system of discrimination against African Americans known as Jim Crow laws. The laws largely nullified recognition of citizenship and voting rights and equal protection under the law according to the Fourteenth and Fifteenth Amendments. Jim Crow laws persisted through the first half of the twentieth century.

Organized efforts to combat Jim Crow laws led to establishment of the National Association for the Advancement of Colored People (NAACP) in 1909. The NAACP pursued a lobbying and litigation strategy that challenged segregation and discrimination. The NAACP, however, had few successes before World War II (1939–45). At the close of the war returning African American servicemen expressed impatience with the segregation laws and policies that they found at home.

The 1954 U.S. Supreme Court decision *Brown v. Board of Education* proved to be the landmark event that struck down segregation in public elementary schools. The Court's decision effectively closed the door on the “separate-but-equal” doctrine that supported Jim Crow policies. Legal groundwork was laid for a more concerted nationwide effort to eliminate racial barriers in the United States.

African-American activism forced the government to extend racial reform beyond *Brown* to other aspects of life. The Civil Rights Movement would become more than just a protest against segregation in the schools. In December of 1955 Rosa Parks, the secretary of the Alabama NAACP, was arrested in Montgomery, Alabama; she had refused to give up her seat on a city bus to a white man as required by city law. In reaction to this arrest a group of black women called for a boycott of city buses. A rally was held at the Holt Street Baptist Church in Montgomery. The decision to pursue the boycott followed an inspirational speech by

Eighteen days after the euphoria of the March on Washington, four hundred worshipers crowded into the Sixteenth Street Baptist Church in Birmingham for Sunday services. . . . A group of young girls had just finished a Sunday school lesson and were in the basement changing into their choir robes . . . at 10:19 A.M., fifteen sticks of explosives blew apart the church basement and the children in the changing room.

Henry Hampton and Steve Fayer, *Voices of Freedom*, 1990

a young, 27-year-old preacher, Martin Luther King, Jr. (1929–68), who preached the tactics of nonviolent, civil disobedience in contrast the NAACP’s legal approach. The boycott lasted almost a year during which King’s home was bombed. But the violence only served to garner additional support for the movement from people regardless of ethnicity. Late in 1956 the Supreme Court’s *Gayle v. Browder* decision ruled the Montgomery bus law unconstitutional.

King founded the Southern Christian Leadership Conference (SCLC) in 1957 to provide leadership to a movement that was gaining momentum. The Klan, along with other racists, responded by beginning a terrorist campaign of murders and bombings. Other highly publicized confrontations followed. In 1957 President Dwight D. Eisenhower (1953–61) dispatched federal troops to Little Rock, Arkansas’ Central High School to assist nine African-American students who tried to enroll. (Central High was a segregated school that did not accept African American.) In 1962 President John F. Kennedy (1961–63) sent federal troops to the University of Mississippi when James Meredith attempted to enroll.

The movement proceeded on a number of fronts. A campaign to register African American voters grew throughout the South, often at great personal risk to those involved. Other protesters targeted “whites-only” lunch counters, where they would take a seat and refuse to move until they were forcibly evicted, thereby introducing the non-violent tactic of “sit-ins.” They often withstood considerable abuse while maintaining their nonviolent conduct.

Another strategy was Freedom Rides targeting the segregation on interstate buses and in bus stations. In 1961 a group of civil rights activists boarded segregated interstate buses that traveled from Washington, DC into the South. These activists, who were beaten at

various Southern stops, were deliberately violating segregationist policies that the Supreme Court had earlier ruled unconstitutional in the 1960 *Boynton v. Virginia* decision. The fire bombing of one of these buses in Alabama forced President Kennedy to send U.S. Marshals to protect the riders. In September of 1961 the Interstate Commerce Commission implemented the *Boynton* decision by abolishing all remaining interstate transportation segregation policies.

The high point of the civil rights movement occurred on August 28, 1963, when 250,000 thousand persons participated in a March on Washington urging the federal government to support desegregation and protect voting rights. Martin Luther King Jr. gave his now-famous “I Have a Dream” speech espousing nonviolent direct action and voter registration. President Kennedy, who had earlier tried to discourage the march, decided to use it to promote the passage of what became the Civil Rights Act of 1964. Kennedy’s successor, Lyndon Johnson, used the outpouring of grief after Kennedy’s assassination in the fall of 1963 to get the 1964 Civil Rights Act passed by Congress. The sweeping act shattered the legal foundation of segregation by prohibiting discrimination in places of public accommodation, including lunch counters, motels, theaters, and service stations. It denied federal funding to programs with discrimination or segregation policies and it also established the Equal Employment Opportunity Commission. It outlawed discrimination in private businesses with 25 or more employees, as well as in labor unions. The act, however, did not address voting rights.

Violence continued. In 1963 Medgar Evers, the field secretary of the NAACP in Mississippi, was shot and killed in Jackson, Mississippi while organizing a boycott protesting voter discrimination. (Ironically, as a veteran of the World War II invasion at Omaha Beach Evers was buried in Arlington National Cemetery.) Yet the issue of civil rights did not come to the fore of public consciousness until in June 1964 two young white civil rights workers, Andrew Goodman and Michael Schwerner, were murdered along with an African-American companion, James Chaney, for promoting African American voter registration in Mississippi. In 1965 King led a march from Selma to Montgomery, Alabama, protesting voting restrictions. After first being attacked by mounted police using tear gas and clubs, the march was finally held with court permission. Protected by 3,000 federal troops, over 25,000 people joined the march; it was the largest and last major civil rights protest of the 1960s. Congress responded with the Voting Rights Act of 1965. The act expanded voting rights to blacks by prohibiting use of



Civil rights activists held lunch counter “sit-ins” to protest segregation. Although faced with threats of violence, harassment and verbal abuse, demonstrators remained steadfast.

literacy tests and other forms of discriminatory qualifications. In addition, the act established federal oversight of state voting laws.

Despite these successes, dissatisfaction with King’s message of nonviolence grew among blacks. New, more radical groups formed, including the Black Muslims. For some of them black separatism rather than integration was an objective. Urban riots across the country in 1965, including Watts in Los Angeles, drew greater attention to these groups.

King, who had received the Nobel Peace Prize in 1964 for his leadership role in the movement, was assassinated in 1968 while supporting a strike by city sanitation workers in Memphis, Tennessee. Riots erupted the following week in 125 cities. Six days after King’s assassination Congress passed the Fair Housing Act which banned discrimination in most housing. The leader of the civil rights movement, however, was gone and organizational unity was no longer evident; thus, the civil rights movement’s national thrust faded.

No other twentieth century social movement in the United States posed as profound a challenge to political and legal institutions as the civil rights movement. The movement altered fundamental relationships between state and federal governments and compelled federal courts to protect constitutional civil liberties more effectively. U.S. citizens of all ethnic groups benefited from the movement’s gains in social justice, especially women, the disabled and other victims of discrimination. Despite large legal gains, however, substantial racial discrimination persisted throughout the remainder of the twentieth century.

See also: Jim Crow Laws, Discrimination, Martin Luther King, Jr., Reconstruction

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CIVIL SERVICE ACT

Early advocates of a civil service believed that it was necessary to reform the spoils system, a process by which an individual who supported the election of a candidate was rewarded with a position in the government. Rather than personal favors, these reformers wanted some type of test of merit, or required qualifications for persons appointed to non-elected positions in government. Reform supporters won a victory in 1871 when legislation, adopted as a rider to an appropriation act, authorized the establishment of regulations for admission into the civil service with regard to knowledge, ability, and other job performance factors. President Ulysses S. Grant (1869–1877) appointed George William Curtis as chairman of an Advisory Board of the Civil Service, later called the Civil Service Commission. But after two years of significant pioneer work by the commission, Congress failed to grant additional funds for its support. Nonetheless President Rutherford B. Hayes (1877–1881), Grant's successor, continued to encourage the reformers, who regrouped in 1880 to organize the Civil Service Reform Association.

The problem was highlighted in 1881, when a deranged office seeker assassinated President James A. Garfield. Civil Service reformers exploited the president's death by convincing the public that the spoils system was responsible for his murder. The Civil Service Act of 1883—also known as the Pendleton Act after its sponsor, Senator George H. Pendleton—established a bipartisan commission to oversee a merit system of examinations for specific public service positions. About 13,000 positions, less than ten percent

of the civilian positions in the federal government at that time, were classified under the merit system, and applicants for these positions were subject to competitive examinations.

The Pendleton Act transformed the civil service and greatly affected the organization of political parties. By 1900, government workers were becoming more professional and better educated, and in the matter of their selection, political influence was being replaced by business skill and overall competency. Other legislation followed the Civil Service Act of 1883. In 1903, extensive rule changes were made; in 1920 the Civil Service Retirement Act was adopted; the Classification Act was passed in 1923, defining grades, qualifications, and salary ranges; and in 1940, the Hatch Act limited the political activity of federal officials.

A series of executive orders was also important in shifting the emphasis from a necessary political reform to a positive search for better procedures and personnel. Some of the more important of these directives reflected the changing nature of national life, its economy, and its values. After the Great Depression began in 1929, for example, the federal government expanded its activities and its personnel. To facilitate policy formulation, a 1931 executive order established a Council for Personnel Administration to link the new personnel services of the federal departments to the Civil Service Commission. By 1938 the number of federal employees had increased greatly, and an executive order in that year provided for better personnel management, on-the-job training, and extension of the merit system.

As the tensions that led to World War II (1939–1945) increased, the government tightened its personnel procedures to secure greater efficiency in the face of the developing threat of war. In 1939 President Franklin D. Roosevelt (1933–1945) issued an executive order establishing the Liaison Office for Personnel Management, directly under presidential control. When World War II expanded the civil service to 3.8 million people, the merit system was virtually abandoned, but it was revived at the end of the war.

The exposure of the corruption in the Watergate scandal under President Richard M. Nixon (1969–1974) prompted further reform. During the administration of President Jimmy Carter (1977–1981), Congress passed the Civil Service Reform Act of 1978, the most sweeping reform legislation since the Pendleton Act in 1883. It abolished the Civil Service Commission and split its functions among an Office of Personnel Management, a Federal Labor Relations Authority, and

an independent quasi-judicial Merit System Protection Board.

See also: Spoils System

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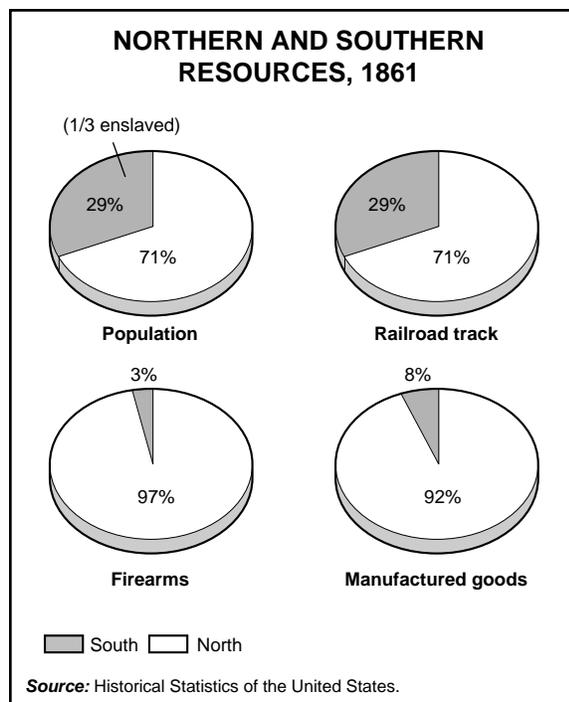
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CIVIL WAR AND INDUSTRIAL EXPANSION, 1860–1897 (OVERVIEW)

The period between the American Civil War (1861–65) and the end of the nineteenth century in the United States was marked by tremendous expansion of industry and agriculture as well as the spread of settlement across the continent. The population of the United States more than doubled during this period. In its report on the 1890 census the Bureau of the Census declared the frontier closed. Most of the economic growth was concentrated in the Northeast, Midwest, and plains states. The South remained largely agricultural, its total industrial production totaling about half that of New York State. The Northeast clearly emerged as the industrial core of the nation with 85 percent of the nation’s manufacturing, processing raw materials from the Midwest and West.

For several decades prior to the Civil War, the North was forced to delay or compromise several of its national economic policy objectives due to Southern opposition and the strong position the Southern states held in the Senate. As soon as the Southern states seceded Congress began enacting this delayed agenda. The Morrill Tariff of 1861 raised rates to 20 percent on average, ending more than 30 years of declining tariffs. Funding for three transcontinental railroads was enacted in the Transcontinental Railroad Act. The Morrill Land Grant Act (1862) established agricultural and mechanical colleges by allotting each state that remained in the Union 30,000 acres of land for each



The North had a great advantage over the South at the beginning of the Civil War. The roots of these advantages can be found in the diverse economy of the industrialized North, as opposed to the agricultural economy of the South.

member of Congress. The Homestead Act (1862) provided 160 acres (a quarter section) in western territories free to anyone who settled on it for five years and declared their intention to become a citizen. Each of these policies profoundly shaped the development of the U.S. economy for the rest of the century.

The American Civil War devastated the South. Most of the war was fought in the South and much of the region’s infrastructure was destroyed. Confederate bonds and currency became worthless, depriving the region of a great proportion of its wealth. Emancipation of the slaves also destroyed a large part of the South’s capital, creating the need for a new labor system. There was little capital available in the South to finance reconstruction. The sharecrop system that had replaced slavery had few incentives for innovation and the region remained capital poor and population growth was slow. The South failed to attract large numbers of immigrants because of limited opportunities. Its slowly growing population did not create a demand for expanded infrastructure, one of the factors driving the rapid expansion of the national economy outside the former Confederate states. For at least two generations after the American Civil War the South remained predominantly agricultural and largely outside the industrial expansion of the national economy.

One exception was the development of the iron and steel industry around Birmingham, Alabama.

Northern control of Congress after the War led to ever higher tariffs, reaching an average of 57 percent with the Dingle Tariff of 1897. These rates remained in effect until 1913. Behind the protective wall of these tariffs U.S. industry grew and agriculture expanded westward to feed the growing populations of industrial cities. The United States was the largest free trade market in the world. Northern and Midwestern populations grew much faster than those of the South and the expansion of the nation's railroad system tied those two regions closely together. A large part of the industrial expansion during the post Civil War years was based on connecting the industrial northeast with the farm and grazing areas of the Midwest and Plains states and completing the transcontinental railroads. Railroad mileage in the United States doubled between 1865 and 1873 and increased by an additional 50 percent between 1873 and 1881. Transported freight increased from 2.16 billion ton/mile in 1865 to 7.48 billion in 1873 and 16.06 billion in 1881. The iron and steel industry was one direct beneficiary of the expansion of the railroad system. Steel production increased from 19,643 long tons in 1867 to 198,796 long tons in 1873 and 1,588,314 in 1881. In 1874 the United States was second to Great Britain in pig iron production. By 1900 the U.S. produced four times as much as Britain. Carnegie Steel alone produced more than the British. The expansion of iron and steel production led to comparable increases in iron and coal mining.

An important part of the tremendous economic growth following the Civil War was innovation. The number of patents issued by the Patent Office increased steadily. In 1815 the agency issued 173 patents, while 1,045 were issued in 1844 and 7,653 in 1860. After the Civil War the rate of innovation increased tremendously. At least 15,000 patents were issued annually during this period and 45,661 patents were issued in 1897. While not every patent represented a useful product, many of them did, such as the typewriter, cash register, calculating and adding machines, and the Kodak camera. Other patents were for improvements in industrial machinery such as faster spindles and looms in textiles, new processes for making steel, and the application of electricity to industrial production. In 1876 Alexander Graham Bell (1847–1922) patented the telephone. By 1895 there were 310,000 phones in the United States. The American Telephone and Telegraph Company (AT&T) was formed in 1885 to consolidate all of Bell's patents. Thomas Alva Edison (1847–1931) invented the electric light. He also made invention and industrial innovation a process, creating new products

and improving existing ones on a regular basis. His Menlo Park, New Jersey facility was the first modern industrial research lab. Edison became a national hero. Nikola Tesla (1856–1943) developed systems for the transmission of high voltage electricity over long distances. He also developed the electric motor, which had a wide range of uses in the economy, especially in the street car and the electric railroad car. Tesla also developed the electric sewing machine for home and industrial use, and a wide array of industrial applications for electricity. Gustavus Swift developed the disassembly line, applying industrial production systems to meat processing in 1870. New products led to new industries, and new methods and techniques reshaped old industries.

The backbone of the rapid industrial growth of the U.S. economy during these years was the nation's natural resources. The United States had huge reserves of coal, iron ore, copper and other metals, petroleum, timber, and water power, as well as fertile land for agriculture. Iron reserves in northern Minnesota and along the Michigan–Wisconsin border were developed to augment those on the south shore of Lake Superior. Coal reserves in the Appalachian Mountains in West Virginia, Virginia, Kentucky, and Tennessee were developed. Silver and gold mines were developed in Nevada and Colorado. Copper found in Montana replaced that of Michigan as the main source of this increasingly important metal needed for the transport of electricity. An expanding range of uses for petroleum was discovered, its many components being used as lubricants and cleaning solvents. Its use as a fuel began only at the very end of the period. There was little in the way of raw material necessary for industrial expansion at this time that was not abundantly available in the United States.

The expanding economy needed an ever increasing work force, and large numbers of immigrants came to the United States during this period. During the first years of the Civil War immigration declined, but by 1863 it had rebounded to 176,282 new arrivals. Throughout the 1870s, 1880s, and 1890s hundreds of thousands entered the country each year, nearly 800,000 in 1882 alone. Toward the end of the period the immigration patterns changed with more immigrants coming from Scandinavia and southern and eastern Europe.

The growing scale of the economy brought several structural changes. The larger scale of industrial plants and companies and the more complex technology they used made their financing more complicated and more expensive. Investment bankers played an increasingly important role in the economy, supplying the capital that fueled growth. J. P. Morgan was among the more

visible of these new players in the nation's economy. The resources banks had were a reflection of a high savings and investment rate among U.S. citizens after the Civil War. By 1880 banks held approximately \$819 million in savings and by 1900 just under \$2.5 billion. Foreign investment also flowed into the economy, increasing from about \$1.4 billion in 1870 to \$3.6 billion by 1900, much of it in railroads and utilities as well as municipal bonds.

A second change in the economy was the emergence of monopolies in major industries and the trust as a way of managing them. In the petroleum industry John D. Rockefeller (1839–1937) established the Standard Oil Company in 1863 when the industry was in its infancy. He began by consolidating control of refining through acquisition of competitors. He then moved to “vertically integrate” by controlling transportation and distribution. By 1879 he controlled 90 percent of the nation's refining capacity and in 1882 he reorganized the Standard Oil Company as a trust to operate and manage the near monopoly. When he retired from active business in 1897 Rockefeller's personal fortune was estimated at \$900 million. Similar concentrations developed in nearly every industry. In each industry no more than a handful of firms dominated, often one or two. Seven companies controlled two-thirds of the railroad mileage in the country by 1900.

The economy was, on a larger scale, prone to periodic downturns due to what has been called the business cycle; periods of increased investment activity and expansion followed by periods of consolidation and slower growth. During the periods of consolidation, unemployment and business failures increased. There was a major panic (as such periods were called) from 1873 to 1879 that saw business failures double, and half the nation's capacity for producing steel remain idle. There was an even sharper drop in economic activity in 1893, but it was shorter in duration and by 1897 the economy was well into a recovery.

In the years between the American Civil War and the end of the nineteenth century the modern U.S. industrial economy developed and took a clear shape. The United States emerged as one of the major economies in the world. Its growth rate, vast reserves of natural resources, and stable political system positioned it well for continuing growth.

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CIVIL WAR, ECONOMIC CAUSES OF (ISSUE)

The economic roots of the Civil War reach almost to the beginning of English settlement in North America. The development of an economy based on the use of slave labor to produce staple crops through a plantation system in the South and a more diverse economy in the North based on free labor set the stage for the development of two economies within one country. Increasingly after 1800 the needs of these two economies were incompatible.

Southern plantations focused initially on tobacco in Virginia, and later in Maryland and North Carolina, and rice, indigo, and livestock in South Carolina. Africans were the major source of labor after 1619 in the Chesapeake and the system of inherited life slavery developed in Virginia and Maryland by 1660 and quickly spread to the rest of the South. In South Carolina Africans were important not only as a source of labor but for their knowledge of cattle herding in the subtropical climate as well as their knowledge of the cultivation of rice. Tobacco was a crop that was hard on the soil, and from the beginning expansion into new land was an important part of the tobacco economy.

Cotton appeared in the South as a decorative, novelty plant during the colonial era. But, it was well suited for the Southern climate, and the potential market for cotton began to expand dramatically as first Great Britain and then the United States began to industrialize in the eighteenth century. Large-scale cotton farming was not economically viable, however, because of the difficulties involved in separating the seeds from the fiber. The job was extremely labor intensive and the dark, oily seeds easily stained the fiber.

In 1793 Eli Whitney invented a machine that separated the seeds and the fiber quickly and efficiently. Whitney's cotton engine, or gin, made cotton an economically viable crop for the South and revitalized

just as the South was becoming increasingly committed to cotton cultivation. The industrial economy attracted large numbers of people who sought work in the mills. Industrialists needed a reliable source of cheap food for this new industrial work force. The Midwest became the breadbasket of the industrial northeast, especially after the Erie Canal and, later, the railroad made it possible to move bulk cargoes east efficiently. The expansion of the industrial northeast required more and more territory for food—primarily wheat, corn, and beef. None of which were well suited to slave labor. These divergent economies were the basis for increasing sectional conflict over the territories in the West which both sections saw as essential to their continued development.

The tariff caused sectional conflict prior to conflict over territorial expansion. When Alexander Hamilton proposed the first tariff in 1790 it was not clearly a sectional issue. As the North industrialized, however, and the South became increasingly committed to cotton and other staple cultivation, the tariff was seen clearly as more beneficial to the North than the South. In response to large scale dumping of British manufactured goods in the United States after the War of 1812 (1812–1814), Northern manufacturers pushed for higher and higher tariffs as protection. Southern opposition grew slowly at first, but accelerated rapidly after 1820 as tariff duties pushed higher.

The tariff remained a long-standing bone of contention between North and South. For the North, tariffs protected its industries and jobs from foreign competition. For the South the tariff was little more than a transfer of wealth from them to the north through the higher prices for manufactured goods, both foreign and domestic. Thus they called the 1824 Tariff the “Tariff of Abominations.”

Southern anger over tariff policies became issue that sparked a new and threatening weapon of southern states’ rights advocates: nullification. Led by John C. Calhoun, South Carolina nullified the Tariff of 1832.’’ Nullification was a states’ rights solution to a contentious issue within the Republic. According to its southern advocates, if the leadership of a state found that it could not abide the imposition of a particular piece of legislation, it had the right to call a state convention and to “nullify” the act. This would take the act out of operation until Congress could debate the matter and add an amendment to the Constitution specifically allowing the act to become law. If this happened, the protesting state then had the right to peacefully secede from the Union.

The nullification crisis came to a head when Congress passed a tariff increase in 1832. South Carolina nullified the law and tried to convince the other southern states to support its position. But President Andrew Jackson, who on other issues favored the states’ rights position, perceived nullification to be a threat to the sovereignty of the federal government, however, and moved quickly to quash the rebellion. This was a dicey issue because the leading theorist of nullification was John Calhoun from South Carolina, Jackson’s Vice President.

Even though the tariff issue produced the theory of nullification, opposition to the tariff was never as volatile as the issue of the expansion of the slave or the wage labor system into new territories and the formation of slave- or wage-labor states. This was because the creation of new states—slave or free states—was on the order of a foot-race between the competing labor systems. If the states adhering to one labor system became more numerous than the other, Congress could conceivably pass laws that would abolish the labor system of the less numerous block of states. This became the nightmare of the Republic.

It was during the debate over the Missouri Compromise of 1820 that the nation confronted the whole issue of this equilibrium between slave and free states for the first time. The Missouri Compromise allowed Missouri to enter the Union as a slave state (and balanced that admission with the recognition of Maine as a free state) but prohibited future slave states north of Missouri’s southern boundary. This was the first limitation on slavery in the territories since the emergence of cotton as a major crop and the revitalization of slavery that had followed from that. The Northwest Ordinance of 1785 had prohibited slavery north of the Ohio River, but it had been passed when the economic future of slavery was questionable and debate over the institution acceptable within the South. By 1820 the economic future of slavery appeared strong, provided new land for cotton could be brought into the system.

The territories were becoming increasingly important to the South after 1830 as the North’s population surged past the South’s and the North gained control of the House of Representatives (whose members were apportioned by population). The industrial economy of the North was attracting immigrants, while the South was not. The limitations on slavery that had been acceptable in 1820, when the populations of the two sections were more in balance and the economic potential of cotton still unclear, were no longer acceptable in

Civil War, Economic Impact of (Issue)

the 1840s and 1850s. Cotton had proven very profitable and the demand for slaves in cotton producing areas provided economic benefits to older southern states where slaves were bred for sale to these new areas to supplement income.

The opposition between the North and South was becoming consolidated over more issues. Economically the slave economy needed as much room to expand as possible. Some southern leaders toyed with the idea of turning the Gulf of Mexico into a reserve for future slave states. The same thinking informed their view of expansion into the West. Balance was seen as necessary in the face of increasing opposition to slavery in the North on moral as well as economic grounds. As long as the number of slave states equaled the number of wage-labor states in the Senate, the South could block any Northern action to eliminate slavery.

The North, however, was also increasingly unwilling to compromise on the expansion of slavery. A plentiful supply of cheap cotton was desirable, but the cotton textile industry was only one of a large number of expanding industries. A dependable source of cheap food was more important and the railroad would soon be allowing the development of territory ever further west. The Spanish had used slaves to mine silver back in the sixteenth century. Would the South employ slave labor in western mining? Southern opposition served as a brake on tariff increases and held up approval of subsidies for further expansion of the railroad system. But compromise with the South was increasingly unpopular in the North.

In 1854 opposition to compromise with the South led to the formation of the Republican Party. Republicans represented the economic interests of the North and Mid-West, supporting higher tariffs, subsidies for railroad expansion, and uncompromising opposition to the expansion of slavery in the territories. The differences between the two sections over the tariff, railroad policy, and the expansion of slavery into the territories became more sharply drawn with every election. Each section saw its future economic prosperity threatened by the other's political success. The election of Republican Abraham Lincoln (1861-1865) as president in 1860 on a platform that was entirely pledged to support northern economic needs convinced Southern states that secession was their only hope to preserve their economies. Lincoln and the North's refusal to accept secession led directly to the Civil War.

See also: Andrew Jackson, Missouri Compromise, Samuel Slater, Tariff of Abominations, Eli Whitney

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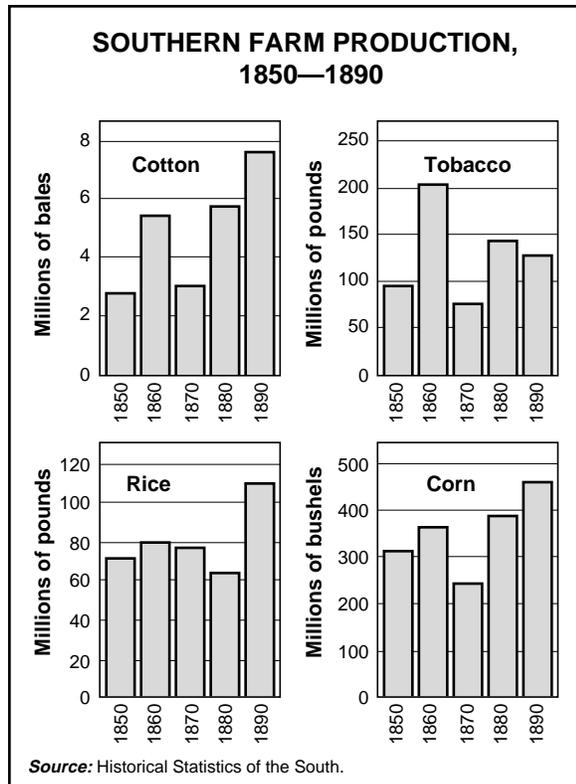
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CIVIL WAR, ECONOMIC IMPACT OF (ISSUE)

The economic consequences of the American Civil War (1861-1865) are largely due to Northern control of the federal government during and for several decades after the War. During the sectional debates over the tariff and the expansion of slavery that characterized the thirty years before the War, the North had been forced to forgo or compromise several of its national economic policy objectives because of Southern opposition and the strong position the Southern states held in the Senate. As soon as the Southern states seceded and the legislators resigned their seats in Congress, the legislators from the North and West began enacting this delayed agenda, while simultaneously prosecuting the War. Northern victory in the War insured their continuing control of the federal government and implementation of their economic policies.

There were four pieces of legislation that passed during the Civil War which were critical to Northern economic development during the decades after the War. The Morrill Tariff of 1861 raised rates to 20 percent on average, ending more than thirty years of declining rates. Funding for three transcontinental railroads was enacted in the Transcontinental Railroad Act. The Morrill Land Grant Act (1862) established agricultural and mechanical colleges by allotting each state that remained in the Union 30,000 Acres of land for each member of Congress. The National Bank Act of 1863 created a set of standards for the banking system. Finally, the Homestead Act (1862) provided 160 Acres (a quarter section) in western territories free to anyone who settled on it for five years and declared their intention to become a citizen. Each of these



These graphs highlight the significant decreases in southern farm crop production following the Civil War.

policies profoundly shaped the development of the American economy for the rest of the century.

Another Civil War development with powerful implications for the nation's economy was the wartime devastation visited on the South. The war had been mostly fought in the South and much of its wealth had been destroyed. In South Carolina before the war, for instance, there were 965,000 hogs. After the surrender of the Confederate Army in 1865 at Appomatox, the hog population in South Carolina had dropped to 150,000. Confederate bonds and currency were now worthless, depriving the region of a great proportion of its wealth. Emancipation of the slaves also destroyed a large part of the South's capital, as well as creating the need for a new labor system. (The slaves accounted for the lion's share of capital investment in the South, more expensive than the very land.) The war had destroyed virtually all the banks in the South. There was little capital available to finance reconstruction.

By 1877, when Reconstruction ended with the withdrawal of the Union Army, native white rule returned in every former Confederate state. The South, however, remained largely agricultural, producing staple crops for northern factories or for export. Economic recovery in the South was slow. Cotton did not reach its

1859 level of production until 1879. As cotton production increased, however, the price fell. Tobacco, the other major cash crop in the South, followed a similar pattern. The sharecropping system that replaced slavery had few incentives for soil conservation innovation or the cultivation of new crops. The region remained capital poor and grew slowly in population. In 1860 the population of the slave states was 11,133,361 compared to 12,288,020 in 1870, an increase of only about 10 percent, compared with a 29 percent increase for the rest of the country.

The South failed to attract many immigrants after the War because of limited economic opportunities. Its reliance on staple crop agriculture and slowly growing population did not create demand for expanded infrastructure, one of the factors driving the rapid expansion of the national economy outside the former Confederate states. For at least two generations after the Civil War the South remained predominantly agricultural and largely outside the industrial expansion of the national economy.

The Compromise of 1877 which ended Reconstruction solidified Northern control of Congress. This control led to ever higher tariffs, reaching an average of 57 percent with the Dingle Tariff of 1897, and a continuation of government subsidies for railroad expansion. Behind the protective wall of these tariffs U.S. industry grew and agriculture expanded ever westward to feed the growing populations of the industrial cities. Northern and Midwestern populations grew much faster than that of the South and the expansion of the nation's railroad system tied the two regions ever more closely together. A large part of the industrial expansion of the immediate post Civil War years was based on connecting the industrial northeast with the farm and grazing area of the Midwest and plains states and completing the transcontinental railroads. Railroad mileage in the U.S. doubled between 1865 and 1873 and increased by an additional 50 percent between 1873 and 1881. Freight carried increased from 2.16 billion ton/miles in 1865 to 7.48 in 1873 and 16.06 in 1881. The iron and steel industry was one direct beneficiary of the expansion of the railroad system. Steel production increased from 19,643 long tons in 1867 to 198,796 in 1873 and 1,588,314 in 1881. The expansion of steel led to comparable increases in mining and other basic industries.

The North and Midwest attracted growing numbers of immigrants, drawn by the promise of economic opportunity and inexpensive land. The growing population spurred construction of housing and infrastructure, which in turn attracted more immigrants in a circular process that continued until the Panic of 1893, which

Civilian Conservation Corps

slowed the economy. The economy after the Civil War was initially driven by the construction of railroads connecting the industrial communities of the northeast and the agricultural regions of the Midwest and plains. In 1886, the railroads standardized the gauge (width) of the track, bringing the South into a national railway system. As it matured the industrial area expanded to include communities in the Midwest with an expansion of agricultural regions further west. The economy that developed after the Civil War was still sharply divided regionally along the same lines as the antebellum economy had been.

See also: Civil War (Economic Causes of), Homestead Act

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CIVILIAN CONSERVATION CORPS

Civilian Conservation Corps (CCC) was a federal agency created in 1933 as part of the New Deal program of President Franklin D. Roosevelt (1882–1945). Originally called Emergency Conservation Work, CCC had its name formally changed to Civilian Conservation Corps in 1937, when Congress extended its period of operation. To minimize the effects of the Great Depression, CCC was given responsibility for conserving the nation's resources, in particular timber, soil, and water. CCC was designed to provide jobs for unmarried men between the ages of 17 and 25, who would receive a base pay of \$30 per month for a six-month stint. Normally, \$25 of their monthly pay was sent home to the workers' families. Food, clothing, and shelter were provided to CCC workers at no charge.

Although the men who served in the CCC were required to live in work camps run by the Department of War, they were not subject to military control. Conservation training included instruction on how to plant trees, build dams, and fight forest fires. Approximately 3 million men served in 2,600 camps during CCC's ten years of existence, with enrollment peaking at about 500,000. With the outbreak of World War II (1939–1945), the production of industrial materials and munitions was emphasized at the expense of resource conservation. In 1942 Congress voted to abolish CCC, and the president's order for liquidation followed within six months.

See also: Great Depression, New Deal, Franklin Delano Roosevelt

CLAY, HENRY

Henry Clay (1777–1852) was a paradox. An eloquent speaker known for charm and generosity, Clay served in the U.S. House of Representatives and the U.S. Senate, as well as U.S. Secretary of State. He also ran for the presidency five times and lost each time. Clay was a leader of the “War Hawks”—a group that pushed Congress to declare war against Britain in 1812—but he opposed the war against Mexico and did much to avoid civil war in the United States. Though Clay was a slave owner and often spoke in support of the slavery dominated South, he also helped craft the compromise that kept slavery out of new U.S. territories.

The son of Reverend John Clay, a Baptist minister, and Elizabeth Hudson Clay, Henry Clay was born on April 12, 1777, in Hanover County, Virginia. British and Loyalist soldiers raided the area during the American Revolution (1775–1783) and looted the Clay home in 1781. That year, the elder Clay also died. Henry Clay's mother remarried when he was fourteen. Clay's stepfather moved the family to Richmond. With only three years of formal schooling, Clay began working as a store clerk at his stepfather's recommendation.

From 1793 to 1797, Clay worked as secretary to George Wythe, chancellor of the High Court of Chancery. As secretary, Clay copied and transcribed records. Wythe encouraged Clay to continue his education, and in 1796 Clay took up the study of law under the Attorney General of Virginia, Robert Brooke. At age twenty, Clay graduated and immediately relocated to Kentucky, where his mother had moved. Frontier land disputes were fertile territory for a young lawyer, and Clay became well known as a defense attorney. He married into a leading family when he wed Lucretia Hart in 1799; they had 11 children. Clay prospered, and

eventually owned a 600-acre estate, which he called “Ashland.”

Henry Clay was tall and slim, with an expressive face, warm spirit, and personal charm. He had an excellent speaker’s voice and became well known for his skill as an orator. Clay fought duels in 1809 and 1826. He lived the life of a frontiersman, and was prone to drinking and gambling. John Quincy Adams (1767–1848) noted that Clay was “half-educated,” but that he possessed “all the virtues indispensable to a popular man.”

Clay eventually became involved in politics. He participated in the constitutional convention for Kentucky in 1799, and in 1803 was elected to the Kentucky Legislature. He was appointed to two terms in the U.S. Senate, first from 1806 to 1807 and again from 1810 to 1811. Clay was elected to the U.S. House of Representatives in 1811 and was immediately chosen to be Speaker of the House, a position he held six times during his tenure in the House, which lasted until 1821. In that year, Clay made his first bid for the presidency. From 1825 to 1826 he served as Secretary of State in the Cabinet of President John Quincy Adams (1825–1829). He was elected to the U.S. Senate in 1831, where he served until 1842.

Clay was a lifetime advocate for business and protectionism. He pushed for federal support of infrastructure such as roads and canals. He developed the “American System,” a program to improve home manufacturing and business. It was Clay’s intention to unite the commercial and manufacturing interests of the East with the agricultural and entrepreneurial interests of the West. The American System was intended to establish protection for U.S. industries against foreign competition and also centralize financial control in the U.S. Bank. Clay backed the Tariff of 1816 and the annexation of West Florida by President James Madison (1809–1817). His protectionism reached its peak in the Tariff of Abominations in 1828.

As a nationalist and an expansionist, Clay advocated war with Britain in 1812 due to the British trampling of U.S. rights on the high seas. The “War Hawks” as they were known, supported the War in 1812 (1812–1814). Clay supported the Latin American rebellions against the Spanish, and the Greek rebellion against the Turks. He was not in favor of war with Mexico, but supported the government nonetheless, losing one of his sons in the Battle of Buena Vista (1847).

Clay worked hard but unsuccessfully in the Kentucky constitutional convention to abolish slavery in the new state. He never reconciled his attitudes over

slavery, defending the southern states on the one hand and owning slaves himself, but working hard for slavery’s abolition on the other hand. At his death, his 50 slaves were willed to his family, but with the provision that all children of these slaves after January 1, 1850, be liberated and transported to Liberia. Clay was a founder of the American Colonization Society in 1816—a society that advocated the repatriation of slaves to Africa.

As an expansionist Clay worked for the addition of states and territories to the Union. A lifelong proponent of the ideals of the American Revolution (1775–1783), he worked for the preservation of the Union. He supported the Missouri Compromise, which allowed Missouri to enter the Union as a slave state while preventing slavery above the 36th parallel. He personally acquired the assurance of the Missouri Legislature that it would not pass any laws that would affect the rights and privileges of U.S. citizens. During the Missouri debates, Clay argued the side of the southern States, continuing the dualism that would be present throughout his life—advocating the rights of slave states while working at the same time to abolish slavery.

In 1849, aligned with statesman Daniel Webster (1782–1852), Clay advocated the Compromise of 1850, which was credited as postponing the American Civil War (1861–1865) for a decade. The compromise was actually a series of proposals that admitted California to the Union as a free state, abolished slavery in the District of Columbia, set up the territories of New Mexico and Utah without slavery, and established a more rigorous fugitive slave law.

Clay ran unsuccessfully for the presidency five times. He was a fearless fighter for his ideas, even if his positions on issues were primarily based on his own self interests. He was devoted to the Union, even if his compromises only postponed an inevitable clash between the North and the South. He considered himself an advocate of Jeffersonian democracy and was involved in party politics, including the establishment of the Whig party. He owned slaves, advocated the removal of blacks from the United States, and worked continuously for the abolition of slavery. As such a self-contradictory individual, Clay had as many fervent supporters as he did enemies.

Henry Clay was well respected by ordinary citizens. In his old age Clay was considerably in debt and when it became known that he was thinking of selling his beloved estate Ashland, common people donated enough money to clear his debts. Few of Clay’s children survived him; many did not live to maturity. His

Clayton Anti-Trust Act

son Thomas was ambassador to Guatemala under President Abraham Lincoln (1861–1865). His son James was charge d'affairs at the U.S. embassy in Portugal under President Zachary Taylor (1849–1850). Clay left no surviving descendents, however, when he died in Washington, DC, on June 29, 1852.

See also: Protectionism, Slavery, Tariff of Abominations

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CLAYTON ANTI-TRUST ACT

Passed by Congress in 1914, the Clayton Anti-Trust Act strengthened the legislation of the Sherman Anti-Trust Act of 1890. The Clayton Act thus provided the government with more power to prosecute trusts (large business combinations that conspired to limit competition and monopolize a market). The Sherman legislation declared as illegal every "contract, combination, or conspiracy in restraint of interstate and foreign trade." The Clayton legislation outlawed price fixing (the practice of pricing below or above cost to eliminate a competitive product), made it illegal for the same executives to manage two or more competing companies (a practice called interlocking directorates), and prohibited any corporation from owning stock in a competing corporation. The price-cutting provision was later strengthened (in 1936) by the passage of the Robinson-Patman Act. The Clayton Act also exempted labor unions from prosecution under the Sherman Anti-Trust Act; before the 1914 legislation, businesses had invoked, with some success, the Sherman legislation when labor strikes affected business in more than one state, citing the interruption as a conspiracy of interstate trade. Since organized labor had not been the target of the Sherman legislation, lawmakers exempted them from the antitrust legislation of 1914.

Between 1880 and the early 1900s, corporate trusts proliferated in the United States, becoming powerful business forces. The vague language of the Sherman Anti-Trust legislation and the courts' reluctance to prosecute big business based on that act did little to break up the monopolistic giants. The tide turned against corporate trusts when Theodore Roosevelt (1901–1909) became president in September 1901, after President William McKinley (1897–1901) was assassinated. Roosevelt launched a "trust-busting" campaign; through the attorney general's office, his administration launched some 40 lawsuits against American corporations such as American Tobacco Company, Standard Oil Company, and American Telephone and Telegraph (AT&T). Government efforts to break up the monopolies were strengthened in 1914, during the presidency of Woodrow Wilson (1913–1921), when Congress passed the Clayton Anti-Trust legislation and created the Federal Trade Commission (FTC), which is responsible for keeping business competition free and fair. Trust busting declined during the prosperity of the 1920s, but was again vigorously pursued during the 1930s by the administration of Franklin Roosevelt (1933–1945).

See also: Monopolies, Theodore Roosevelt, Sherman Anti-Trust Act, Tobacco Trust, Trust-Busting, Woodrow Wilson

CLIPPER SHIPS

To accommodate increasing overseas trade, North American shipbuilders developed fast sailing vessels called clipper ships in the mid-1800s. With their slender hulls and numerous sails (as many as 35), these swift ships were said to "clip off the miles." The first true clipper ship, *The Rainbow*, debuted in 1845. The vessel was designed by American naval architect John W. Griffiths (1809–82) who, the next year, launched another famous clipper, the *Sea Witch*. Another clipper, the *Flying Cloud*, was launched in 1851 by Canadian-American shipbuilder Donald McKay (1810–80). This ship sailed from New York's East River, around the tip of South America to San Francisco in just under 90 days—a record. Clipper ships transported settlers to the west (including those who made the trip as part of the California Gold Rush). They were fast, but carried relatively little freight. As a result, they were used only for high value cargo, such as silk, spices, and tea. Clipper ships carried goods and people from as far away as China and Australia, and were used by slave traders to outrun British ships that were on patrol for them in the Atlantic.

The construction of canals around the globe shortened most sea trade routes and virtually eliminated the need for the swift clippers. They were replaced by square riggers, which were slower but could carry larger loads. Eventually steam-powered ships proved to be more dependable and quicker than any wind-powered craft.

See also: Steamboats

CLOSED SHOP

A closed shop was a workplace in which anyone who hoped to gain employment had to first join a labor union. Closed shop requirements remained one of the most aggressive methods a labor union could use to maintain its power among a company's workforce. A less radical form was a "union shop," in which nonunion workers could join the workforce provided they joined the union within a certain period of time. Conversely, a workplace where workers freely belonged to a union or remained nonunionized was called an "open shop."

Labor unions first became powerful during the Industrial Revolution of the nineteenth century when workers banded together for improved pay and working conditions. During the Great Depression of the 1930s, economic conditions became so difficult that the federal government passed laws such as the National Industrial Recovery Act of 1933 and the National Labor Relations Act of 1935. These acts gave workers the right to bargain collectively (as a single group) with management and required management to negotiate with duly elected union officials. However, during the remainder of the 1930s and in the 1940s some unions in the Northeast and Midwest, the regions with the most heavy industries and the most unions, began requiring that prospective employees be union members before a company could hire them.

After World War II (1939–45) and the damaging labor strikes of 1946, attempts were made to rein in the growing power of the U.S. labor union, culminating in the Taft-Hartley Act of 1947. The act sharply limited the circumstances in which closed shops were legal and enabled state governments to outlaw union shops if they chose. However, even after the Taft-Hartley Act became law many workplaces continued to be informal closed shops. In such workplaces there was no "union only" requirement written anywhere in the labor agreement, but only workers who were already members of the union were ever hired. In some workplaces union workers would simply refuse to work with anyone who was not already a member of the union—this practice

is a "de facto" closed shop. Closed shops are most common in industries where the company allowed the union to hire workers and where workers were employed by a specific company for a short time, as in the construction industry or among longshoremen.

See also: Labor Movement, Labor Unionism, National Industrial Recovery Act, National Labor Relations Act, Taft-Hartley Act

CLOVIS POINT

Clovis point is a particular kind of spear point, used by Paleo-Indians (the first inhabitants of North America) to hunt large game such as the now-extinct mastodon and mammoth. The Clovis point was made of stone and had a leaf-like shape, fluted edges, lengthwise channels on each side, and a long, slender point. Named for Clovis, New Mexico, where it was first discovered by archeologists, the spear point is believed to have been widely used throughout what is today the mainland United States. There lived a hunting people that was dominant in North America from about 15,000 to 8000 B.C.. Archeologists and scholars refer to this people as a Clovis culture or civilization.

The Clovis groups were succeeded by the Folsom culture, which began to emerge around 9200 B.C.. The Folsom culture is named for its own distinctive spear point, also found in New Mexico. The Folsom point was smaller than the Clovis, had a concave (rounded inward) base, and a lengthwise groove on each side. This spear point was used to hunt smaller animals (such as deer and rodents) and was used primarily on the east side of the Rocky Mountains, particularly in the Great Plains. The Folsom groups did not rely as heavily on hunting as did their predecessors. They began to better exploit their natural environments, turning to both foraging and fishing for sustenance.

See also: Paleo-Indians

COAL INDUSTRY

Coal is a rock that is made up mostly of carbon. Because it is combustible, it is used as a fuel that can provide light, heat, and power. Most coal was formed during the Carboniferous Period and the Permian Period, approximately 250-to 350-million years ago. Warm moist swampy areas became covered with vegetation that decomposed into peat, which in time and under pressure turned into different types of coal, depending on the exact conditions. There are four major grades of

coal (from softest to hardest): lignite, subbituminous, bituminous, and anthracite. Bituminous coal is the type most often produced in the United States.

The use of coal may trace back to China around 1000 B.C.. The Romans may have used coal in the fifth century A.D., and there references to the use of coal in medieval Europe. However, there was no widespread use of coal until the Englishman Abraham Darby began to burn it as fuel for his furnace. The invention of the steam engine provided another important use for this product.

By 1745 coal began to be commercially mined in North America, but it was not until the American Revolution(1775–83) brought a halt to the importation of coal from Europe that the American coal industry began to expand at a rapid pace. By the 1840s there were numerous small mining companies in the north-eastern United States. The development of the steam locomotive in the second half of the nineteenth century improved transportation and distribution of coal over long distances. The Industrial Revolution also contributed greatly to the expansion of the coal mining industry in the United States.

By the 1920s the coal industry experienced a decline in coal processing, largely because of over-expansion. Many mines closed and as many as 150,000 coal mining related jobs were lost. As other fuels such as petroleum and natural gas became popular, coal continued to drop in price. An act of Congress called the Bituminous Coal Act (1937) attempted to improve the stability of the coal industry.

The 1940s saw the conversion of steam locomotives to diesel fuel, but the loss of this use of coal was replaced by greater use of coal in electric power plants. Throughout the rest of the twentieth century, electric power plants continued to be a major consumer of coal. More efficient methods of shipping coal by train that were introduced in the 1960s allowed greater quantities to be moved across the country. Oil shortages in 1973–74 also caused the demand for coal to increase. Several developments in the 1970s limited productivity and profits although they forced coal operators to become better corporate citizens. Among them were stricter federal regulations on safety, labor practices, and environmental pollution, all areas where coal companies had a questionable reputation. In addition, other fuel resources such as nuclear power came into use as alternatives to coal.

Two very common ways to mine coal on the surface are strip mining and auger mining. However,

the most hazardous method to mine coal is underground. Coal mining was always a dangerous undertaking and some of the early coal operators took advantage of mine workers. Dangers included mineshaft collapse, explosions, and exposure to coal dust, which could cause “black-lung disease.” In 1890 miners banded together to found their own union, the United Mine Workers (UMW), to improve safety and working conditions. The union also improved wages; the UMW remained active through the end of the twentieth century. However, though automation and advancements in technology reduced the dangers, elements of risk would always be present.

The 1980s saw some profit increases for coal producing companies through advancements in technology that improved efficiency and productivity. In the 1990s growth in coal production remain slow but steady, although the numbers of people employed in the coal industry continued to drop. The major use of coal in the United States continued to be the production of electric power. In the 1990s coal resources in the United States were projected to last for another 250 years. According to these estimations, this natural resource would continue to be utilized as a means of power for generations to come.

See also: **United Mine Workers**

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COCA-COLA BEVERAGES

Coca-Cola Beverages is the world’s largest soft drink producer and distributor, holding 47 percent of

the global market. The company produces several beverages other than Coke and owns a line of food products. About 90 percent of the company's revenues come from beverage sales, while the balance comes from food sales. Despite its popularity and presence in the United States, 68 percent of Coca-Cola's soft drink products are sold outside North America.

Coca-Cola Beverages is regarded as one of the best managed companies in the world. In *Fortune Magazine's* 1997 Annual Survey of corporate reputations the Coca-Cola company ranked first based on its strong marketing skills, financial soundness, corporate and environmental responsibility, quality products and services, and overall business performance. In the same survey corporate executives rated Coca-Cola as America's most admired corporation.

The company traces its origins to May 8, 1886, when the Coca-Cola soft drink (Coke) was invented by pharmacist Dr. John Styth Pemberton in Atlanta, Georgia. Experimenting with a three-legged brass kettle in his backyard, Pemberton mixed caramel colored, cane sugar syrup with carbonated water, caffeine, and extracts from kola nuts and coca leaves. Pemberton's bookkeeper, Frank M. Robinson, suggested the name Coca-Cola. Robinson also created the product's distinctive handwritten logo.

Coke generated profits of only \$50 in its first year of sales. Pemberton had to sell two-thirds of his pharmacy business in 1888 to cover his losses. In 1891 Asa Candler, an Atlanta druggist, acquired total control of Coca-Cola for \$2300. In 1892 Candler and his partners formed the Coca-Cola Company. That same year Candler spent \$11,000 on an advertising campaign that placed the Coke logo on common, everyday household items like calendars and drinking glasses. Candler was among the first businessmen in the United States who used coupons to entice customers to try his product. In 1893 Candler registered Coca-Cola as a patented trademark.

Coke was initially sold as a soda fountain drink. In 1899 Candler sold the rights to bottle his product to two Tennessee lawyers who established an extensive bottling franchise system that still exists today. In 1915 the Root Glass Company designed a contoured glass bottle for the soft drink that was shaped in the form of a coca bean. This bottle design quickly became nationally associated with Coke. During World War I (1914–1918) sugar rationing measures temporarily slowed the company's growth; however, a revolutionary process was invented whereby fuel could be saved by mixing sugar and water without heat.

In 1919 the Candler family sold the Coca-Cola Company to Georgia businessman Ernest Woodruff for \$25 million. The Woodruff family presided over the company until 1955 and made a lasting impression on the product's marketing. Under the Woodruffs the familiar slogan "Coke is the real thing" and the six-pack carton of Coke were developed. During World War II (1939–1945) Coca-Cola boosted its image by promising to provide a free Coke to every U.S. soldier. The company also took risks with its image by continuing to distribute Coke from its plant inside Nazi Germany. In the 1950s Coca-Cola took another risk by featuring African Americans in advertisements before the Civil Rights Movement had taken hold.

During the next decade Coca-Cola began to diversify, merging with the Minute Maid Corporation in 1960 and Duncan Foods in 1964. In 1969 Coca-Cola acquired Belmont Springs Water Company. The 1960s also marked the debut of canned Coke and the introduction of four new soft drinks in the United States: Fanta, an orange soda, Sprite, a lemon-lime soda, Fresca, a grapefruit-flavored soda, and Tab, a diet cola. From the 1970s Coke has been packaged in two-liter plastic bottles. In 1982 Coca-Cola introduced Diet Coke, which has outsold all other soda products almost since its inception.

Two years later, in 1984, Coca-Cola began experimenting with its recipe. Concerned by indications that its main competitor Pepsi-Cola had drawn even in market share, Coca-Cola introduced New Coke, a sweeter cola that tasted much like its competition. But the American public rejected the modified recipe, and Coca-Cola returned to producing Coke with its original flavor under the name Coca-Cola Classic. Every year since the change in recipes Coca-Cola has increased its share of the soft drink market. Nonetheless, Coca-Cola still sells New Coke, renamed Coke II, in a number of states.

In the 1990s Coca-Cola continued to challenge itself and the competition. Attempting to reduce Gatorade's dominance of the sport drink market, Coca-Cola rolled out a fruit punch flavored beverage called PowerAde. In 1994 it introduced Fruitopia, a line of fruit juices and teas. The next year Coca-Cola bought Barq's root beer. At the 1996 Olympics in Atlanta, Georgia, Coca-Cola launched a successful \$250 million advertising campaign, which spurred sales at double the competition's rate. In 1997 the company began selling Surge, a soft drink marketed as containing higher levels of caffeine and sugar than ordinary soda.

Still headquartered in Atlanta, Georgia, the Coca-Cola Company shows no signs of slowing. Its stock is

Cold War

traded on the New York Stock Exchange and the company is listed on the prestigious Dow Jones Industrial Average Index of blue chip companies. As the century approached its conclusion, Coca-Cola announced that Coke was sold in more than 200 countries at a pace of nearly one billion eight-ounce servings per day.

See also: Charles Hires, Trademark

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COLD WAR

Never reaching a direct military conflict, the Cold War was a 45-year rivalry between the Western powers, led by the United States, and the Soviet Union. Beginning after World War II (1939–1945) and lasting until 1990, this worldwide conflict grew from the ideological differences between communism and capitalist democracy.

The United States and the Soviet Union shared a mutual distrust that existed years before the onset of the Cold War. After a century-long friendship, the United States and Russia competed over the economic development of Manchuria in the 1890s. Following the 1917 Bolshevik Revolution in Russia, the competition turned into an ideological rivalry that pitted U.S. capitalist democracy against Russian Communism. Although the United States and Russia became allies against the Axis nations (Germany, Italy, and Japan) in 1941 during World War II, friction arose within their



The Berlin Wall being dismantled in 1990, ending a 45 year rivalry between the Western powers and the Soviet Union.

alliance. Throughout the war the Soviets disagreed with the United States and Great Britain over military strategies and postwar plans for Germany.

After two German invasions into Russia and nearly 25 million Soviet casualties, Soviet leader Joseph Stalin (1879–1953) was determined to use his Red Army to control Poland and to keep Germany from ever regaining its strength. In the United States, President Harry S. Truman (1945–1953) was determined to ensure an open, capitalist, international economy—starting with the rebuilding of Europe's economic infrastructure, which included West Germany. After the war, the United States and other Western powers saw the expansion of the Soviet Union as a threat, while the Soviets feared that the powerful Western capitalist nations would overthrow their Communist regime. The Cold War began.

FROM STETTIN IN THE BALTIC TO TRIESTE IN THE ADRIATIC, AN IRON CURTAIN HAS DESCENDED ACROSS THE CONTINENT.

Winston Churchill, Iron Curtain Speech, 1946

Following World War II, Europe was devastated and in a severe economic crisis. Between 1945 and 1947, the Soviets seized power over much of Eastern Europe with the might of its Red Army and supported communist and Soviet-friendly regimes throughout the



In 1949 the U.S. and 11 European nations formed the North Atlantic Treaty Organization (NATO), with intentions of safeguarding against Communist expansion. The Communist Bloc responded in 1955 with the Warsaw Pact.

region. Alarmed by the rise of communism in Europe and wanting to contain its spread, the United States initiated a European recovery program known as the Marshall Plan, which helped restore war-ravaged Western Europe's economic growth. Wary of capitalist intrusion, the Soviet Union and other Eastern European nations strongly opposed the American plan.

Fearing the threat of a revived Germany, the Soviet Union restricted access into West Berlin (which it was overseeing in the post-war period) in 1948 by setting up road, train, and canal blockades into the city, but the United States flew supplies into Berlin until the blockades were removed in the following year. When the United States denied the Soviet Union war reparations in the form of West German factories, the Soviets secured East Germany as a communist state. Great

Britain's Winston Churchill criticized Moscow for barricading the new Soviet Empire with an "iron curtain."

The Western bloc developed a policy of containment, which was aimed at containing the Soviet-backed states within their current borders and preventing any further spread of communism. U.S. officials sought to strengthen their alliance with other nations and increase military defense spending. When the Soviets detonated their first atomic bomb in August 1949, President Truman ordered U.S. engineers to develop a hydrogen bomb. Also in 1949, the United States joined 11 other nations to form the North Atlantic Treaty Organization (NATO). To counterbalance NATO, the Communist bloc formed the Warsaw Treaty Organization military pact, or the Warsaw Pact, in 1955.

The Cold War spread into Asia in 1950, the year the Soviet Union negotiated an alliance with China, and Communist North Korean forces attacked South Korea, starting the Korean War (1950–1953). Communist China supported guerrillas in Cambodia, Laos, and Vietnam. In response, the United States helped establish the Southeast Asia Treaty Organization and provided neutral Asian nations tremendous military support, though guerrilla warfare persisted.

After Joseph Stalin's death in 1953, a relaxation in Soviet policy led to optimism for cooperation between the Soviet Union and the West. A permanent ban on nuclear weapons seemed likely. The launching of the Sputnik satellite in 1957, however, demonstrated the Soviet Union's technological capabilities, spurring a new race in space exploration and missile production. Both Soviet Prime Minister Nikita Khrushchev (1958–1964) and U.S. officials threatened "massive retaliation" for any aggression on the other's part. Meanwhile, the Cold War struggle continued in Southeast Asia, Africa, the Middle East, and Latin America. Vying for the allegiance of these neutral Third World regions, the two superpowers each provided military and financial aid to support often brutal regimes.

In 1961 the East German government built the Berlin Wall to prevent the emigration of East Germans to the West. In 1962 American intelligence discovered Soviet missile bases in Cuba, where a Communist allegiance had formed in 1959, following Fidel Castro's revolution. When President John F. Kennedy (1961–1963) sent U.S. ships to intercept Soviet vessels carrying rockets to Cuba, Khrushchev ordered a retreat. After this incident, known as the Cuban Missile Crisis—one of the few direct confrontations to take place during the Cold War—the United States and the Soviet Union both made careful efforts to avoid nuclear war and subsequently agreed to ban nuclear testing.

Meanwhile, the two superpowers had begun to weaken. In Europe, France considered withdrawing its presence from NATO, while Romania departed from its allegiance with the Soviet Union. In 1968 a Czechoslovakian reform movement was terminated by Soviet leader Leonid Brezhnev (1977–1982). The once friendly Soviet and Chinese troops began to battle one another along their common border, and heavy military expenditures damaged the Soviet economy. American involvement in the Vietnam War (1964–1975) was a controversial example of Western determination to achieve the goals of the containment policy, as the United States went to long efforts to assist the South Vietnamese government in resistance against the aggressive communist North.

In the early 1970s U.S. President Richard Nixon (1969–1974) signed the SALT I treaty with Soviet President Brezhnev to reduce the need for spending on strategic weapons, and an agreement was made to strengthen American and Soviet economic bonds. Shortly afterward, however, tensions resurfaced when political clashes erupted in the Middle East, Angola, and Chile, and the two superpowers rivaled for influence.

American President Ronald Reagan (1981–1989) heightened Cold War antagonism in the early 1980s by calling the Soviet Union the "evil empire," increasing military spending, intensifying the nuclear arms race, and imposing economic sanctions to protest Brezhnev's recent crackdown on Poland. Relations between the United States and the Soviet Union deteriorated until tensions were the worst they had been since the height of the Cold War in the late 1940s.

Tensions began to ease in 1985 after Mikhail Gorbachev (1988–1991) took control in Moscow. Aware that the Soviet economy was failing, he made major reforms that called for economic restructuring, openness, and democracy within Communist bloc countries. Gorbachev meant his reforms to be a slow and mild effort. In fact, his policies resulted in the fall of the Berlin Wall, the reunification of Germany, the disintegration of Soviet military forces, and nuclear disarmament. The United States accepted military arms and economic agreements. In 1989 Gorbachev declared that the postwar period had ended, and Washington officials concurred that the world had outgrown Cold War policies.

By 1990 Gorbachev's reform policies and a Soviet economic collapse led to the overthrow of communist governments in Czechoslovakia, East Germany, Hungary, Poland, and Romania. The downfall of the Soviet Union officially ended the Cold War.

See also: Korean War, Marshall Plan, Space Race, World War II

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COLLATERAL

Collateral is anything accepted as security for a loan. It works like this: when a lender loans money to someone, the borrower is obliged to repay the loaned sum. But, in addition to a spoken or written promise to repay, a lender often demands some collateral (such as property) so that if the borrower fails to repay, the lender will at least have the collateral. For example, if a borrower put up his or her home as collateral and then failed to repay the loan, the lender has the right to take the house. Other common types of collateral include stocks and bonds. (The borrower does not necessarily have to give the collateral to the lender until a loan is repaid. It is sometimes enough that the lender has the legal right to take the collateral if the borrower defaults on his or her obligation.)

COLLECTIVE BARGAINING

Collective bargaining is a formal negotiation process in which representatives of labor (employees) and management (employers) meet to hammer out a written, binding labor agreement. The purpose of labor agreements is to find common ground on such issues as wages, benefits, seniority, job security, grievance resolution, and working conditions. Collective bargaining offers labor and management a way to resolve differences so as to avoid a strike or lockout. By bargaining as a group rather than individually, workers no longer have to compete against each other for improved pay and benefits and can push for such improvements without fear of losing their jobs. Collective bargaining may take place between a single firm and labor organization, between the workers and management of an entire industry, or at the national level between the employees and management of several industries. The agreement produced by collective bargaining may be several hundred pages in length and remains in effect for a limited, specified period of time. If labor and management cannot come to agreement on their own

they may submit their dispute to a third party in an arbitration proceeding.

The term collective bargaining first came into use in the United States at the end of the nineteenth century, when America's national labor unions were organizing to win decent wages and working conditions in an era that was characterized by low pay, long hours, and harsh work environments. The Clayton Anti-Trust Act of 1914 gave labor the legal right to strike, but it took the devastating effects of the Great Depression to highlight the need for fundamental labor reform. The National Labor Relations Act of 1935 established a set of laws to encourage labor and management to resolve labor issues peacefully and "in good faith," and it explicitly gave labor the right to form unions and bargain collectively for better wages and working conditions. This act also established the National Labor Relations Board (NLRB) to ensure that union elections were fair, to determine who could bargain on behalf of employees, and to promote equitable labor practices. By creating a formal, legal, defined system for negotiating differences between labor and management, collective bargaining has generally improved wages, benefits, and working conditions for U.S. workers and made them more uniform across industries and regions of the United States.

***See also:* Clayton Anti-Trust Act, Closed Shop, Labor Movement, Labor Unionism**

COLONIES, CORPORATE

The British colonies of North America were founded as either corporate colonies or as proprietary colonies. Corporate colonies had a charter that the English monarch granted to stockholders, but they were essentially governed by the monarch. King James I (1603–25) granted corporate charters for the settlement of Virginia (founded 1607) and Massachusetts (1620). The charters stipulated that the king appoint the colonial governor who arrived in America with a royal commission and a set of instructions from the British Board of Trade. Each colony would have its own legislature made up of a crown-appointed council (of important citizens) and an elected assembly. The assembly was empowered to pass laws that had to be approved by the royal government of England before they could go into effect.

There were many problems with this system. While England regarded the royal commission given to

each governor as absolute, the colonists often lacked reverence for the commissions, viewing them as impractical instructions. Colonial governors were supposed to serve the interests of the king as well as the interests of the colonists. These concerns were often in opposition to each other. Because the legislative assembly had control over all money bills, if it was in opposition to the governor, it could delay appropriations bills favored by the governor and it could even refuse to pay the governor's salary. The governor, on the other hand, could veto assembly legislation he did not favor. He could also, with the approval of the council (advisory board), appoint judges and other officers, issue paper money, establish martial law, and summon the assembly.

In the mid-1600s the English crown began converting the American colonies from either corporate or proprietary status to a third type of colony—royal. Eight of the 13 became royal colonies. In the process power was gradually taken away from the governors. Between 1689 and 1702 the king resumed control of all British warships in the colonies. The power to appoint officials was revoked; instead, the crown sent its appointees to the colonies. In 1755 the king dispatched a commander in chief to North America to control royal troops centrally and to rescind any military authority from the governors. Civil authority in the colonies had also been seriously diminished. This contributed to the colonists' growing political dissatisfaction with England.

Three other colonies were founded as self-governing corporate colonies: the Plymouth Colony (1620; it was merged with Massachusetts in 1691), Rhode Island (1636), and Connecticut (1636). The latter two remained self-governing throughout the colonial period and were not converted to royal colony status.

See also: Colonies (Proprietary)

COLONIES, DISTRIBUTION OF WEALTH IN (ISSUE)

By studying the way wealth was distributed in the American colonies, we can learn a great deal about their economy, like the relationship of the social structure to economic opportunity. The diversity of the regional economies and the uneven quality of statistical information from the period make broad generalizations difficult, but there are some general trends that can be identified, and it is possible to characterize the distribution of wealth in different colonies and the colonies as a whole.

After an initial period of extreme difficulty, known in the Chesapeake as the starving time, each of the colonies offered their settlers relatively high incomes and more opportunity to become wealthy than was the case in England or continental Europe. The accumulation of wealth was generally more rapid in the seventeenth century than in the eighteenth and in newer areas rather than those settled initially, reflecting the maturing of the colonial economy and the greater opportunity available to early arrivals.

It is important to distinguish between the colonial regions since there were sharp differences in climates and economies as well as in the composition of wealth. Among the mainland colonies, the white southerners were the richest, on average, with about twice the wealth of New England or the Middle Atlantic region. If we include the West Indies as one of the colonial areas, then its thriving sugar industry made it the wealthiest. Slavery was not the only reason for this difference. Confining our scope to the mainland colonies, we find that Southerners owned twice as much land as the average inhabitant of the other areas. The other regions were not poor, however, both income and the standard of living were generally higher in North America than in England by the end of the colonial period.

In New England, land was the most important component of wealth from first settlement through the American Revolution (1775–1783). In nearly all of New England, large-scale commercial agriculture was not possible because of climate, topography, and the quality of the soil. In the interior farming predominated (supplemented, early on, by trapping) but most of these farms were engaged in subsistence agriculture that provided, at most, a small surplus for their owners. The distribution of land was fairly egalitarian in nearly all of New England because of the custom of dividing land among heirs. Over time, however, there was social stratification as a result of land speculation.

But the quality of life in New England, especially in the early period, was good, compared to the Chesapeake and, even more, to England. The first European New Englanders were healthy and lived a long time. In contrast to the predominantly male Chesapeake colonies (which tended to be marked by a high level of violence), there were roughly equal numbers of men and women in New England. Their society was based on farm families and on a common Puritan religion. In the coastal communities of New England the economy was much more complex, for in addition to farming there was mercantile trade, shipbuilding, and a variety of service industries related to shipping. As a result New England developed substantial numbers of

propertyless adult men and a wide range of incomes and wealth holdings. The income gap between merchants and master craftsmen and laborers increased throughout the colonial period.

The Middle Colonies, specifically New York and Pennsylvania, were similar to New England in that they had commercial communities with diverse economies and a broad range of incomes and wealth and a large number of farming communities with a higher degree of property ownership. These trends were most pronounced in New York City and Philadelphia. In New York there were large farms in the lower Hudson Valley. These were extensive tracts of land, some dating back to the holdings of the Dutch patroons (wealthy landholders). Tenants farmed these vast tracts of land.

Since William Penn offered land to all comers on generous terms, Pennsylvania had perhaps the easiest access to ownership of land for those who could afford their own passage to America. It also had the largest number of indentured servants whose passage from England was paid for and who worked off the debt with up to seven years of labor. Indentured servants were severely exploited, but the custom was to grant them money or land after they completed their period of service. As the price of land in the settled portions of Pennsylvania increased, however, they found themselves forced to the fringes of the settlement.

In the Southern colonies land was also an important component of wealth, but after 1660, slaves also contributed greatly to the income of their white masters. The climate and soil of the South were well suited to the cultivation of staple crops—tobacco in Virginia, Maryland, and North Carolina and rice in coastal South Carolina and Georgia. Success was linked both to the ownership of land and control of labor in the form first of indentured servants and later of African slaves. Slave owners possessed the majority of wealth in the Southern colonies; those who could not afford slaves or land found themselves pushed into the interior, where lack of access to transportation made commercial farming less profitable.

See also: *New Netherlands, New Sweden, Slavery, Subsistence Agriculture*

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COLONIES, PROPRIETARY

The British colonies of North America were founded as either proprietary colonies or as corporate colonies. A proprietary colony was a gift made by the king to a trading company or an individual, who then privately owned it. This type of colony was administered by a colonial governor, who was elected by the owner or owners and supposed to serve in their best interest. The legislature comprised a council, which was chosen by the owners and an elected assembly.

Maine (founded 1623), New Hampshire (1623), New York (1624), New Jersey (1624), Maryland (1634), Pennsylvania (1638), Delaware (1664), North and South Carolina (1665), and Georgia (1733) were all founded as proprietary colonies. In an effort to preserve its empire, in the mid-1600s England began converting its American colonies to royal colonies—regardless of whether they had been founded as corporate or proprietary. Of the proprietary colonies, only Maryland, Delaware, and Pennsylvania remained as such; they were not converted to royal colonies. In the others, the crown exerted its authority at the expense of the royal governors and the legislatures. The military and navy were brought under the central control of the crown. The situation greatly contributed to the outbreak of the American Revolution (1775-83).

See also: *Colonies (Corporate), Colonies (Proprietary), Delaware, Distribution of Wealth in the Colonies, Georgia, Maryland, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, South Carolina*

COLORADO

Mention the state of Colorado and Americans still conjure up images of freewheeling gold and silver mining towns, rugged mountains, open spaces, health spas, and ski resorts. To a large extent, all of these stereotypes correctly describe aspects of the state and its history. First developed by prospectors looking for riches in gold and silver, the state also discovered its agricultural potential and promoted its many tourist attractions. Contemporary Colorado has a healthy industrial base, as well as a steadily growing population attracted by the state's many amenities.

In the early 1600s, Spanish conquistadors arrived in Colorado, finding a number of warring Native American tribes. French fur traders were not much interested in what was called the Colorado region, which then included most of the area east of the Rocky Mountains. France ceded the territory to Spain in 1763, then regained it in 1801. In 1803 the area east of the Rockies became part of the Louisiana Purchase when France ceded it to the United States.

In 1806 Lt. Zebulon M. Pike (1779–1813) set out to explore the southwestern border of the territory, and he unsuccessfully attempted to scale the peak that now bears his name. In 1819 the United States and Spain established a boundary along the Arkansas River, then north to the Continental Divide. Stephen Long (1784–1864) soon arrived to explore the new border, and Dr. Edwin James was the first to climb Pikes Peak. Western and southern Colorado became U.S. territory after the Mexican War (1846–1848). John C. Frémont (1813–1890) led five expeditions into eastern Colorado between 1842 and 1853.

THE PIKES PEAKERS CREATED [THE COLORADO TERRITORY], PROPELLED BY FAITH, GREED, AMBITION, AND ZEST FOR ACHIEVING THE IMPOSSIBLE.

Marshall Sprague, *Colorado: A Bicentennial History*, 1976

It was an exaggerated report of the discovery of gold at Cherry Creek (now Denver), however, which brought thousands of prospectors into the territory beginning in 1858. The so-called "Pikes Peakers" sent home glowing reports of fortunes to be made in Colorado. A number of mining towns sprang up, and by 1860 the population of Colorado was more than 30,000. In 1861 Colorado formally became a territory, with Denver becoming the capital in 1867.

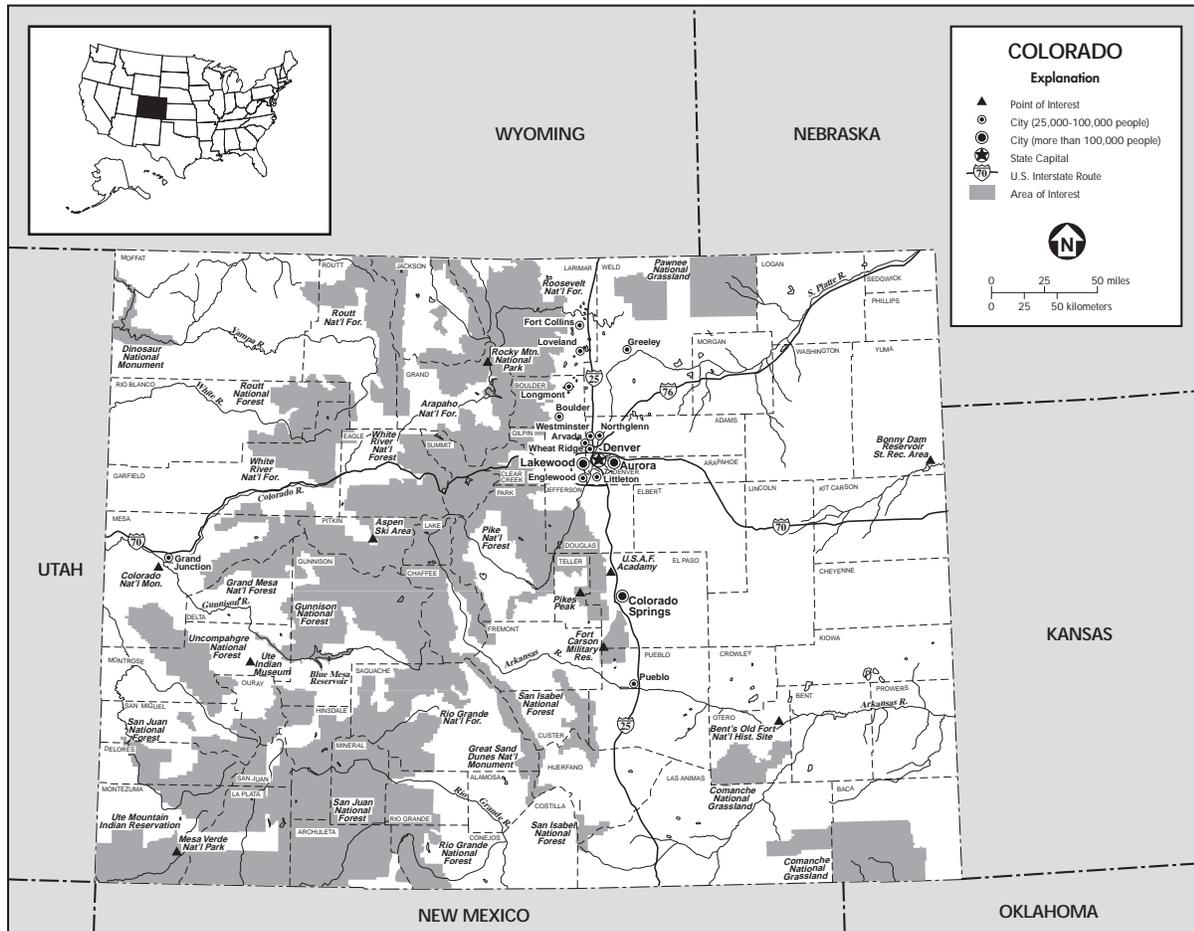
Expansion and settlement of the Colorado region was not without its difficulties. The early history of the

territory was marked by serious conflict between white settlers and Native Americans. Cheyenne and Arapaho Indians, who had been pushed onto reservations, began to rebel, raiding towns and attacking travelers. After a brutal massacre of the Indians at Sand Creek in 1864, more warfare followed; but most of the Plains Indians were eventually moved to reservations in the Oklahoma territory. In 1873 the Ute Indians were forced from their large reservation, supposedly forever given to them by the U.S. government, when gold and silver were discovered there. After a number of unsuccessful attempts, Colorado finally entered the Union in 1876 as the thirty-eighth state.

More people trekked to Colorado during the 1870s and 1880s to seek their fortunes in the silver and lead mines, and farmers were attracted to the High Plains. At first bypassed by the transcontinental railroads, Colorado soon had rail access from Denver to the Union Pacific rail station at Cheyenne, Wyoming. Early tourism was also important to the economy of the new state. Resorts developed around the many mineral springs, and narrow-gauge trains brought travelers to the scenic mountain areas. Colorado Springs, one of the most important early spas, attracted thousands of tourists during this period, as did Denver. Unfortunately, this boom in the economy ended abruptly with a depression during the early 1890s. Silver became a glut on the market when the U.S. government adopted a gold standard in 1893. In addition, a severe drought caused many to abandon their farms.

California mineral miners experienced a number of violent disturbances during the last two decades of the nineteenth century. The Knights of Labor led around 35 strikes against mine owners between 1881 and 1886; and the Western Federation of Miners struck at Telluride and Cripple Creek. The United Mine Workers shut down operations at a number of mines in the early 1900s; a particularly violent episode occurred at Ludlow in 1914, when several women and children were killed after the governor called out the militia.

In the early twentieth century, farmers began returning to the land after a period of farm depression. Many German and Russian immigrants planted sugar beets in the Colorado, Arkansas, and South Platte river valleys. Cattle barons from Texas also drove their longhorns to Colorado's public lands for grazing. Later local farmers began to fence their land to produce the more popular shorthorns and Herefords. Water, always in short supply in the semiarid state, was made more available during this period by large reclamation projects. Tourism also increased as more roads were built in the mountain areas.



State of Colorado.

The state's economy fell after World War I (1914–1918), when mining and agriculture went into decline. The population growth rate in the state also declined, as did employment. During World War II (1939–1945) a number of military bases brought jobs, as did postwar expansion of federal facilities. Colorado Springs benefited from the placement of the North American Air Defense Command, the U.S. Air Force Academy, and the Air Force Space Operations Center. Between 1960 and 1983 Colorado grew twice as fast as the rest of the nation; by 1983 the state ranked ninth in per capita income.

In the 1970s and early 1980s Colorado's economy boomed as the oil, mining, and electronic industries continued to expand. In the mid-1980s, however, a drop in oil prices and the closing of several mines brought a recession, with the number of new businesses dropping 23 percent between 1987 and 1988. An upturn, however, occurred in the late 1980s and early 1990s. The state continues to face challenges, including air pollution, overcrowding on the eastern slopes of

the Rockies, water shortages, and unemployment caused by cuts in defense spending.

Though agriculture and mining continue to be important economic sectors in Colorado, more jobs were created in trade, government, and manufacturing between 1975 and 1985. The service sector now accounts for more than 50 percent of the state's gross product. The companies that grew the fastest in Colorado during the 1980s and early 1990s were high-technology concerns such as IBM, Hewlett-Packard, Apple Computer, and MCI Telecommunications. Tourism generates more than \$6 billion each year for the state. Ski resorts, such as Vail and Aspen, and tourist attractions, such as the Air Force Academy and Colorado's rugged mountains, continue to bring thousands of visitors to the state during all seasons. The per capita income of Colorado in 1996 was nearly \$25,000, placing thirteenth in the nation. Denver ranked thirtieth among the most important metropolitan areas in income.

See also: Louisiana Purchase, Pike's Expedition

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COLT'S MANUFACTURING COMPANY

Colt's Manufacturing Company is located in Hartford, Connecticut. Incorporated in 1855, Colt's Manufacturing produced and sold firearms for the law enforcement and sporting industries. Colt had produced firearms for the military since the early years of the republic. This relationship with the U.S. military can be traced back to the company's founder, Samuel Colt (1814–1862), who was fascinated for many years with revolvers and other types of weaponry. While on a voyage to Asia, Colt developed his now famous "revolving pistol." The crucial design aspect of this invention was that the revolving cartridge advanced the chambers each time that the trigger was pulled. The Colt revolver represented greatly increased firepower.

While the flintlock pistol was only able to fire one or two shots at a time, Colt's pistol was able to fire up to six shots before reloading. In 1832 Colt attempted to obtain a patent for his pistol from the U.S. government. He was also interested in marketing his revolver pistol among ordinary citizens as well as military procurement officials. By the late 1830's Colt's pistol had been tested and had gained wide acceptance with the military. The Colt pistol was quite effective in the Seminole Indian conflict (1835–1842) and the Texas War of Independence (1832–1836). Colt, however, was unable to expand sales with the gun-buying public because of their unfamiliarity with the basic concept of the revolver. More frustrating for Colt was his inability to get a sales contract with the federal government, even after the positive performance of the revolver in Florida and Texas. In 1842, Colt's economic condition

became so dismal that he had no alternative but to leave the firearms industry altogether.

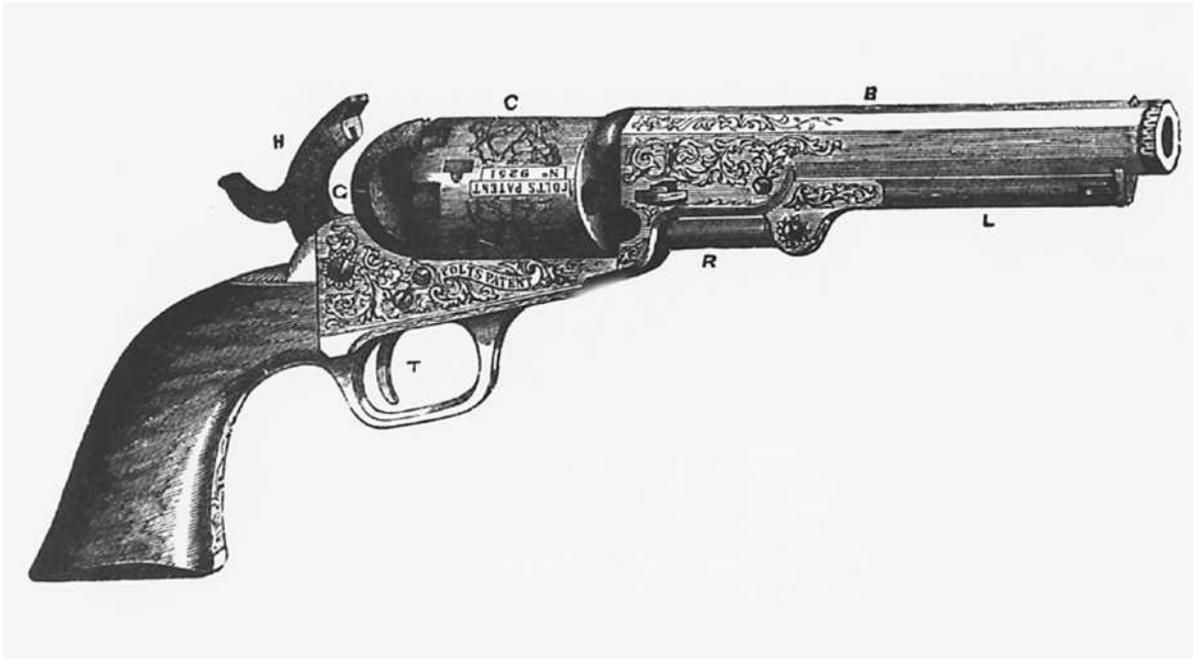
To meet his financial obligations that same year Colt had to sell the U.S. patent on the revolver that he had received back in 1836. Nevertheless, there were those in the military establishment who were favorably impressed with the performance of Colt's new invention in the Texas War of Independence. In particular, Captain Samuel H. Walker encouraged Colt and helped him improve the revolver design. Unlike the earlier model, the "Walker" was simpler and more easily manufactured. More important, Captain Walker was able to secure for Colt a United States Ordinance Department purchase contract for a thousand Walkers. With the help of his friend, Eli Whitney, Jr., Colt was able to produce and deliver this order by the middle of 1847. The United States Army demonstrated the superiority of the Walker in the war with Mexico (1846–1848).

Further achievement of success was due not only to the effectiveness of Colt's weaponry, but to his efforts in the area of marketing. Traveling across Europe and the United States, Colt succeeded in touting the superiority of the Colt revolver.

In 1855, Colt opened a huge plant in Hartford, Connecticut in which he was able to manufacture 150 guns per day. That year Colt named his new company the Colt's Patent Firearms Manufacturing Company. By the beginning of the American Civil War (1861–1865), Colt employed 1,000 workers and reporting yearly revenue of 250,000 dollars. Upon his early death on January 10, 1862 Colt left his business to his wife, Elizabeth Jarvis Colt. From 1862 to 1901 the Colt manufacturing company was a family firm.

Colt's original factory was destroyed by fire in 1864. Elizabeth Colt saw to it that the new structure was as fireproof as possible. Another significant development for the Colt company was the contribution of another firearms designer, John Browning. After the Civil War Browning helped develop and produce a "gas-operated" machine gun. Unlike the hand crank-operated Gatling machine-gun, the Browning version used the escaping muzzle gases to help power the mechanism. Colt Firearms also developed and produced the Browning designed Automatic Rifle and the Colt 45 semi-automatic pistol.

Early in the twentieth century, Colt Firearms enjoyed a secure relationship with the U.S. military. Its Colt 45 semi-automatic weapon was widely used both in World War I (1914–1918) and World War II (1939–1945). The Second World War generated enough orders to maintain an employment level of about 15,000



The original "Colt's Revolver," greatly increased firepower by enabling six shots to be fired before reloading. The revolving cartridge advanced the chambers each time the trigger was pulled.

in its Hartford factories. Its fate hinged on being able to maintain government orders for its weaponry. Following the end of World War II, the U.S. government lost confidence in Colt's aging factories and production techniques. Also, as Colt's workers were now unionized, so the payroll expenses increased. While the Colt business gained some financial ground during the Korean War (1950–1953), U.S. Government sales dramatically declined at the end of that conflict.

In the year of its centennial, 1955, Colt Firearms needed cash. It merged with Penn-Texas Corporation, led by Leopold D. Silberstein. Penn-Texas was a holding company that ran subsidiary companies. Colt Firearms was one of many other subsidiaries. In 1959 a block of stockholders ousted Silberstein and took control of the business under the new title of Fairbanks Whitney. Under this new leadership, Colt Firearms improved its standing with the U.S. military by developing new weaponry. In 1960 Colt came out with the M-16 full-automatic rifle. With the U.S. fighting in the Vietnam War (1959–1975), there were heavy demands on Colt to supply arms for the troops. By the end of the 1960s Colt had produced one million M-16s which had become standard issue for U.S. soldiers.

In the 1970s, the Vietnam War came to a formal close. Colt Firearms then confronted the challenge of peacetime production. During this period its management turned to variety of novel markets in the gun

industry. For example Colt Firearms turned its ingenuity to the development and production of sporting guns and rifles. Colt also focused its marketing skills on those who collect rare and unique firearms. In 1976 Colt opened the Custom Gun Shop. The Custom Gun Shop produced and sold copies, for example, of the Walker and the 1860 Army revolver. As the 1970s came to an end, Colt's Custom Gun Shop was reporting yearly revenue of three million dollars.

Despite the success of the Custom Gun Shop, however, Colt was still in a slump. Unable to overcome its financial difficulties, Colt Firearms laid off about 700 employees between 1982 and 1983. Facing an uncertain future, the remaining employees, members of the United Automobile Workers union (UAW), went on strike in 1986. The situation for Colt management was made even more tenuous when it lost its contract on the M-16 in 1988.

The company, however, survived and business began to turn around. In 1989 C.F. Holding Corporation bought Colt Firearms for \$100 million. Renamed Colt's Manufacturing Company, it was able to end the UAW strike in 1990. Under the terms of the agreement, Colt Manufacturing hired back its workers and gave the union three seats on the board of directors. Furthermore the state of Connecticut assumed 47 percent ownership of the company. Colt Manufacturing proved unable to compete successfully in the gun market, however, and in 1992 the company declared bankruptcy.

Columbian Exchange

In 1994, Donald Zilka (of Zilka and Co.) bought Colt's Manufacturing Company. Not only did Zilka attempt to upgrade the production facilities, he also bought out some of the competition that produced firearms and other types of weaponry. Zilka bought Saco Defense, which produced and sold military and sporting weaponry. Saco Defense produced the M-60 machinegun and the Weatherby rifle. In 1998 Colt Manufacturing finalized an agreement with the U.S. military to produce the M4A1 rifle. In trying to anticipate consumer demand, Colt Manufacturing is also developing a "smart gun" which can only be fired by a person wearing a particular microchip. This allows families to have guns for home protection without worrying about their children accidentally discharging them. In preserving the place of the sidearm in the home, Zilka hopes to maintain Colt's place in the firearms industry in the years to come.

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COLUMBIAN EXCHANGE

Columbian Exchange refers to the great changes that were initiated by Spanish explorer Christopher Columbus (1451–1506) as he and other Europeans voyaged from Europe to the New World and back during the late 1400s and in the 1500s. When Columbus landed at Hispaniola (present-day Dominican Republic) in 1492, he brought with him horses and cattle. These were the first animals of their kind seen in the Western Hemisphere; the American Indians had no beasts of burden prior to the arrival of the Europeans. In subsequent trips Columbus and other explorers

would introduce horses and livestock (including cattle, sheep, pigs, goats, and chickens) throughout South and North America. Diseases were another early—albeit accidental—transport from Europe to the New World. Native inhabitants had no immunities to the foreign illnesses and, once exposed, died in numbers.

While Europe carried its seeds of change to the Western Hemisphere, the new lands yielded many plants unknown in Europe. On Columbus's 1492 voyage he became the first European to discover maize (corn), sweet potatoes, capsicums (peppers), plantains, pineapples, and turtle meat. Subsequent expeditions found potatoes, wild rice, squash, tomatoes, cacao (chocolate beans), peanuts, cashews, and tobacco. These plants, many of which had been developed and cultivated by the American Indians, were carried back to Europe and their cultivation spread to suitable climates throughout the world. Europeans later carried plants from the east back to the Americas where they took hold. These included rice, sugar, indigo, wheat, and citrus fruits.

The discovery of new lands in the west set off waves of migration which have ebbed and flowed ever since. But the discovery also resulted in exchanges of plants, animals, diseases, and even knowledge that brought dramatic changes to the world: it transformed the way people dressed, ate, traveled, and provided for themselves and their families.

See also: Corn, Horses, Potatoes, Rice, Sugar, Tobacco

COMMAND ECONOMY

A command economy is one based on centralized decision making by government authorities rather than private individuals, and such decisions are not dictated by market conditions. The centrally planned economy requires a formal administrative hierarchy staffed on many bureaucratic levels. Basic decisions are grounded in ideologies and political imperatives. Key decisions involve all aspects of a firm's activity and are issued by commands, directives, and regulatory guides based on a national plan of inputs and outputs. The government determines what will be produced, production targets, investment in plant equipment, coordination between firms, use of natural resources, and how products will be distributed to the populace. Capital and national resources are property of the state rather than private persons. Prices and wages are centrally controlled and frequently remain at fixed levels for long periods of time.

Advantages of a command economy may be: (1) maximum mobilization of resources toward an urgent national objective, such as rapid industrialization of an underdeveloped economy or in times of war; (2) coordinated economic activity reducing wasteful duplication; (3) production of needed and desirable commodities; (4) reducing unemployment and idle capacity; and, (5) protection of the economy from the outside world.

Disadvantages of a centrally planned economy stem from the enormous amount of information required to achieve efficiency and the necessity of coordinating large numbers of components and decision makers at each level of the economic process. The supply of reliable information to all factions is generally not efficient enough to allow a high level of coordination or flexibility. Rigidity, exacerbated by a large organization or bureaucracy, leads to resource allocation which does not necessarily match resource availability, a nation's requirements, or consumer wishes. Manifestations include persistent shortages of some goods combined with surpluses of others. Throughout the decision process problems of accountability, self-serving behaviors, decisions made on inappropriate parameters, interference by party and other authorities, and divergent interests complicate the procedure. To alleviate inefficiencies, underground economies develop and lead to widespread corruption.

The Union of Soviet Socialist Republics (USSR) and Eastern European nations served as models of highly centralized command economies until the collapse of many of these Communist-styled governments in 1989 and 1990. Dissatisfaction with the failure of planned systems to deliver goods was partially to blame for the upheaval. Those economies have since moved to more decentralized systems based on competition and market demands. The People's Republic of China remained an example of a command economy in the 1990s.

COMMODITY

A commodity is a basic good, material, or product that is produced in very large quantities and is usually sold in raw or only partly processed form. The most common commodities are essential agricultural products such as wheat, sugar, rubber, and coffee and basic mineral-derived products like copper, tin, or silver. On a more general level, a commodity may also be any manufactured product—for example, computer chips—that has become so common or inexpensive in design or manufacture that it is almost impossible to tell the

difference between two producers' versions of that commodity.

Commodities are bought and sold in three markets: the spot market, the forward market, and the futures market. When an individual or company wants to buy (or sell) a commodity right away, they do so on the spot market, where they can negotiate the price, quantity, and other conditions with the seller (or buyer) immediately. When an individual or company wants to prearrange a purchase or sale of a commodity for a specific future date, they turn to the forward market where they can finalize a commodity transaction in advance and according to their requirements without having to wait and see what market conditions will be like months down the road. Both the spot market and the forward market are called the "actuals" market because actual commodities are bought and sold. The third commodities market, the futures market, involves the buying and selling of contracts or "bets" on the future price of commodities rather than the commodities themselves. For example, if the price that a commodities trader is planning to pay for a ton of wheat in six months is lower than the current price for that commodity, he or she may buy a futures contract on wheat that acts as a kind of insurance "bet" that the price of wheat six months from now will be *higher*. If the price of wheat goes down, the trader can buy the wheat at the price he or she desired. However, if the price of wheat goes higher the trader will win his or her insurance "bet" and make money anyway.

The earliest market or exchange for buying and selling commodities in the United States was a produce exchange operated in New York City during the 1750s. In the nineteenth century, Chicago emerged as the major U.S. commodities market because it was the primary hub for shipping Midwestern farmers' grain to the east coast and beyond. By the time the Chicago Board of Trade (the world's largest commodities exchange) was established in 1848, cotton, tobacco, lumber, and sugar were also being bought and sold there, and new commodities exchanges were being opened in New Orleans, Minneapolis, Duluth, and St. Louis.

COMPARATIVE ADVANTAGE

The idea of comparative advantage is one of the most fundamental arguments in favor of international trade between nations. In his revolutionary book *The Wealth of Nations* the Scottish philosopher Adam Smith (1723—90) argued that it is more efficient for a business to have each of its workers specialize in

Competition

making a specific part for a product than to have each worker make the entire product from start to finish. According to Smith, this division of labor also applies to international trade: the wealth of all nations can be improved if each country specializes in making the products it is best at making. Similarly, a country should import the products it makes less efficiently. However, critics argued that Smith's idea of a "division of labor" among nations was flawed. What if a country (for example, Portugal) can make *every product* more efficiently than another country (for example, England)? In this case, Smith's critics argued, Portugal would have no reason to trade with England because it could make all products more efficiently on its own, and England would have no reason to trade with Portugal because the more efficiently made Portuguese products would overwhelm England's economy. In some cases, Smith's critics contended, a country's best interests were best served if it stopped trading internationally and instead strived for self-sufficiency.

Writing 41 years after Smith, the British economist David Ricardo (1772—1823) refuted Smith's critics. Ricardo used a hypothetical example in which Portugal could make both cloth and wine more efficiently than England, giving Portugal an "absolute advantage" over England in both these goods. In Ricardo's example, however, the increase in efficiency that England would enjoy by specializing only in cloth production would be greater than the increase in efficiency Portugal would gain by specializing only in wine production. Thus, if Portugal specialized only in wine production and England specialized only in cloth production England would have a "comparative advantage" over Portugal because it would gain the greatest boost in efficiency. For Ricardo and the defenders of international trade, Portugal should let England specialize in the goods that result in the greatest increases in efficiency because Portugal would then be free to specialize in the products where it enjoys the greatest efficiency gains. If economies produce only the goods that utilize their workforces most efficiently, the living standards of all countries increase.

See also: Balance of Trade, Division of Labor, David Ricardo, Adam Smith

COMPETITION

Competition is the term used by economists to describe the nature of the relationship between businesses vying against each other to sell their goods and

services to consumers. McDonald's and General Motors do not compete with each other because a consumer's decision to buy a hamburger has no effect on his or her decision to buy a car. However, McDonald's and Burger King are competitors because a consumer's decision to dine at one involves a *de facto* decision not to dine at the other.

Economists have defined three major types of competition: perfect, monopolistic, and oligopolistic. The trout fishing industry is an example of perfect competition because trout are interchangeable as products, so trout fishing firms can only compete with each other by lowering prices. The computer operating system industry is an example of monopolistic competition because consumers purchase software programs that can only work on a single (firm's) computer operating system, (e.g., Windows, OS/2, Linex, etc). The automotive industry is an example of oligopolistic competition because there are only a handful of competing firms, the cost to break into the industry is prohibitive, and if one firm lowers its prices the others will automatically lower theirs. Oligopolistic firms, therefore, compete through advertising and customer loyalty.

Prior to 1815, U.S. businesses cooperated with each other to compete against the market outside the United States. Because of their religious beliefs, the harsh conditions of colonial life, and the socially-oriented economic philosophy the United States had inherited from England, early U.S. entrepreneurs banded together to work out a "fair" price for their goods. From about 1815 to the end of the nineteenth century, however, advances in manufacturing, communication, and transportation technologies created economic capitals like New York and Chicago. Powerful new industries were born that opened up a huge new national marketplace where competing firms could gain advantage by undercutting each other's prices. This long period of industrial, price-driven competition led to the third age of U.S. competition and the birth of the corporation. By combining oil and steel firms, industrial leaders like J. P. Morgan (1837–1913), John D. Rockefeller (1839–1937), and Andrew Carnegie (1835–1919) built huge monopolistic enterprises that sought to manage prices and control competitive chaos. In the twentieth century, the federal government played a significant role in breaking up these monopolies and managing the economy. Of note, the emergence of the personal computer and Internet industries during the 1980s and 1990s seemed to herald a partial return to the spirit of competition of the nineteenth century.

See also: Capitalism, Andrew Carnegie, Free Enterprise, Monopolies, J. P. Morgan, John D. Rockefeller, Trusts

COMPUTER INDUSTRY

Computers have become a useful and necessary part of modern society. They have been used in all types of businesses ranging from mail order and retail sales, to communications such as phone lines and internet access. Computers are prevalent in hospitals and supermarkets, universities and malls, restaurants and government agencies. By 1998, over 40% of all families in the United States had a personal computer.

The earliest type of machine used for computing was the abacus, dating back to possibly 3000 B.C. in Babylon. Still used in the 1990s, it was a simple system of beads that slid on wires. The next major improvement was made by Blaise Pascal (1623–1662) in 1642, when he developed a “mechanical adding machine” he called the Pascaline. In 1694, Gottfried Wilhelm von Leibniz (1646–1716) made changes to the Pascaline so it could multiply as well. An Englishman named Charles Babbage (1791–1871) designed the first modern computer. Named the Analytical Engine, it used punched cards. American Herman Hollerith (1860–1929) used the punched card technique to make a machine for use in tabulating results of the U.S. Census in 1890. He founded the Tabulating Machine Co. in 1896, which became International Business Machines (IBM) in 1924. Dr. John V. Atanasoff and assistant Clifford Berry developed the first electronic computer circuits using Boolean algebra in 1940. In 1944, IBM finished the Mark I computer, which used electromagnetic signals.

From this point, computer history was marked by “generations.” The first generation of computers featured the use of vacuum tubes, which contributed to their characteristically huge size. Another limitation was their programming language. This period lasted roughly from the late 1940s to the mid-1950s. The second generation, approximately mid- to late-1950s to the early-1960s, saw the use of the transistor instead of the large vacuum tubes. This led to smaller, more efficient, and less costly machines. Improvements in programming language gave them greater flexibility. This generation of hardware generated new jobs in the computer industry such as programmers and software developers.

The third generation, mid-1960s to 1971, was based on the innovation of the semiconductor which

replaced transistors, reducing heat and also the size of the computers. Another new development was the use of the operating system, which used one central program to control access to numerous other programs. Also, a new programming language called BASIC was developed by two Dartmouth professors. The fourth generation of computers began in 1971 and continued into the late 1990s with the new development of large-scale integrated circuits. This again reduced the size and price of computers. In 1975, the first personal computer, the Altair 8800, was introduced by Micro Instrumentation and Telemetry Systems (MITS). IBM released its version in 1981 which used the Disk Operating System (DOS) developed by Bill Gates of Microsoft, one of the most prominent software companies. Apple brought out its Macintosh computer in 1984. By 1986 there were over 30 million computers in the United States.

Other important computer businesses that began during the 1980s were Compaq Computers, Sun Microsystems, and Unisys Corporation. In the late 80s, Texas Instruments and Motorola marketed new microprocessors. Microsoft’s Windows, 1985, Windows 3.0, 1990, Windows NT, 1993, Windows 95, and Windows 98 became extremely popular operating systems due to the use of graphics which made them easy to use. In 1997, Microsoft’s Office 97 for businesses saw sales totaling \$78.8 million. Other very popular software in the 1990s were computer games, such as “Riven: The Sequel to Myst,” the top seller in 1997.

The Internet or World Wide Web came about due to the efforts of Tim Berners-Lee. In 1989 he helped develop a system of “hyperlinks” that could be used to get access to related information, and by August 1991, that system was being used on the Internet, greatly improving the sharing of data. E-mail was a popular way to exchange messages on the Internet. The number of Internet users grew vastly throughout the 1990s, and by 1998 about 5 million people were using the Web.

Trends in the computer industry in the late-1990s included rental or lease options on computer systems, numerous models of personal computers in the below \$1,000 price range, portable laptop computers, and a change in popularity from the large mainframe business computers to a “client/server system” which used a set of smaller, faster, and cheaper computers. Another innovation was “e-commerce,” where consumers could browse through on-line catalogs and then place an order. Goods were purchased directly on-line, and banking and investments were controlled through the Internet. By the late-1990s, it was estimated that there were over 400,000 businesses world wide with web sites.

Comstock Lode

The end of the twentieth century had seen the personal computer become a part of the average citizen's daily life. The demand for workers with computer skills was expected to increase as the computer industry continued to play an important role in the strength of the American economy.

See also: Paul Allen, Steve Case, Bill Gates, Internet, Microsoft, Netscape, Stephen Wozniak

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COMSTOCK LODGE

The richest silver mine in the United States, the Comstock Lode also contained a large amount of gold. The ore deposit was found in 1857 at Mount Davidson in western Nevada, about 16 miles (26 kilometers) southeast of Reno. The discoverers Ethan Allen Grosh and Hosea Ballou Grosh, however, died before they could record the claim. Prospector Henry T.P. Comstock (1820–1870) laid claim to the lode in 1859, but later he sold it for an insignificant amount compared to what it was worth. The mine flourished until 1865 and again between 1873 and 1882—when the "Big Bonanza," a super-rich ore vein, yielded more than \$100 million. By 1882, near the end of the Comstock Lode's greatest activity, it had yielded \$397 million in ore and had produced half of the United States' silver output during the period.

Western Nevada became a hotbed of mining activity, attracting numerous prospectors. Among those

who made their fortune from the Comstock Lode was mining magnate and future senator George Hearst (1820–1891). He used his fortune to buy the *San Francisco Examiner* in 1880, which was taken over by his son, newspaper publisher William Randolph Hearst (1863–1951), seven years later. Virginia City, established in 1859 at the site of the discovery, became one of the West's boomtowns during the late 1800s. By 1898 the mines at Comstock Lode were all but abandoned; wasteful mining methods and the demonetizations of silver brought about the mine's demise.

See also: Gold Rush of 1848, Westward Expansion

CONFEDERATE DOLLAR

Confederate dollars were the paper money issued by the Confederacy (of Southern States) to help fund the war against the Union. After the South seceded early in 1861, fighting broke out on April 12 at Fort Sumter, South Carolina: It was the first battle of the American Civil War (1861–65).

The North held much of the nation's wealth, and so the newly formed Confederacy was faced with the problem of financing its war effort. The South's agricultural economy made it difficult to raise taxes and the large sums of money required to make war against the Union. In need of funds the provisional government of the Confederacy issued \$100 million in paper currency in August 1861. As the war continued, the Confederacy was forced to print more paper money. Because there was nothing to back up the currency, the dollars quickly lost value and became almost worthless.

As the currency became devalued, inflation climbed: In 1861 the price per bushel of salt was eighty cents in Confederate currency; by the end of the following year this price rose to 30 Confederate dollars per bushel. By January 1865 wartime inflation had reduced the value of Confederate paper money to \$1.70 per \$100 (or just under two cents to the dollar).

The South's inability to raise the capital it needed to wage war was a major factor in its eventual defeat. While funding the war was also a struggle for the Union, the industrial-based economy of the northern states helped the country sustain, and eventually win the conflict. On April 9, 1865, General Robert E. Lee (1807–70) surrendered his ragged Confederate troops to Union General Ulysses S. Grant (1822–85) at old Appomattox Court House, Virginia.



A Confederate five dollar bill.

See also: Civil War (Economic Causes of), Civil War (Economic Impact of), Greenbacks, Inflation, National Bank Act of 1863

CONGRESS OF INDUSTRIAL ORGANIZATIONS (CIO)

Congress of Industrial Organizations (CIO) was an organization of trade unions that represented all workers in major mass-production industries. Formed in 1935 by John L. Lewis (1880–1969), the CIO was initially called the Committee for Industrial Organizations, a collection of eight unions within the American Federation of Labor (AFL). But differences soon presented themselves between the AFL and the CIO. Except for miners and textile workers, the AFL was divided into craft unions. Boilermakers, machinists, upholsters, painters, and other trades were separated into local unions by the type of skills required to make their products. The CIO advocated an industrial unionism, whereby workers would be organized according to the nature of their products (their industry). Steelworkers would have one union, for example, and the building trades another. The CIO also had an open-door policy to African Americans and other classes of society rejected by the AFL. In 1938 the eight unions represented by the Committee for Industrial Organizations left the AFL, and reorganized themselves under the name Congress of Industrial Organizations. The CIO faced formidable opposition in its early days. The AFL collaborated with local unions and state and federal legislators to brand the CIO a communist

organization. Employers murdered, gassed, beat, and intimidated their workers to demoralize the CIO's unionizing efforts. World War II (1939–1945) pulled the AFL and CIO closer together, as both organizations supported governmental efforts to mobilize industry for military production. During the Korean War (1950–1953) the AFL and CIO formed a joint committee to deal with federal labor policies. This committee facilitated the formal merger of the two organizations in December 1955.

See also: American Federation of Labor, Labor Movement, Labor Unionism

CONGRESS OF RACIAL EQUALITY

Although World War II (1939–1945) signaled the end of the Great Depression for many Americans, the new age of prosperity largely bypassed African Americans. The Civil War amendments to the Constitution that guaranteed equal rights to African Americans were circumvented by Jim Crow laws throughout the South, and segregation remained common. This deprived blacks of access to education, jobs, and decent housing. In 1942, an interracial group founded the Congress of Racial Equality (CORE) to work for social change through nonviolent means. CORE members worked with black organizations, such as the Southern Christian Leadership Conference (SCLC) and the Student Nonviolent Coordinating Committee (SNCC), to bring national attention to issues such as segregation and voting rights.

Connecticut

One of the most effective strategies against segregation was the sit-in, the first of which occurred on January 31, 1960, when a group of black college students sat down at the “white only” section of the Woolworth’s lunch counter in Greensboro, North Carolina. The students refused to leave, drawing attention to the injustice of segregation statutes. Soon, protesters were engaging in other sit-ins throughout the South. Many participants were beaten and arrested.

In 1961, CORE, with the help of SNCC, organized “freedom rides.” These sent busloads of northern blacks and whites on rides to various cities and town in the South. The riders expected to encounter hostility in the region, but racial discrimination on interstate buses was illegal and the participants planned to demand that the U.S. attorney general’s office protect their right to travel together. The Freedom Riders were frequently attacked by white mobs; in Birmingham, Alabama, police officers conspired to allow Ku Klux Klansmen to beat them without intervening. In some places, freedom riders’ buses were burned. Attorney General Robert F. Kennedy (1925–1968) finally authorized federal protection for the freedom riders against mob violence, but not from illegal arrest. Freedom rides and other actions helped to galvanize support throughout the country for the growing Civil Rights movement. Though the slow pace of change through the 1960s drew some African Americans toward more extremist groups, such as the Black Panthers or the Black Muslims, CORE remained dedicated to nonviolent confrontation and continued to include white members.

See also: **Civil Rights Movement, Jim Crow Laws, Sit-Down Strikes**

CONNECTICUT

A colony established by no-nonsense Puritans and pushed forward by so-called “Yankee ingenuity,” Connecticut has become an economic success story. Before the middle of the nineteenth century the state was well on its way to becoming an industrial powerhouse. Despite occasional downturns, changes in its population base, and fluctuations in its industrial character over a period of years, the state remains one of the wealthiest in the United States.

Early Dutch settlers in Connecticut were lodged by the large migration of English Puritans who came to the colony between 1630 and 1642. The Puritans established settlements all along the Connecticut River and formed a colony in 1639. After several years of friendly relations with the English, the

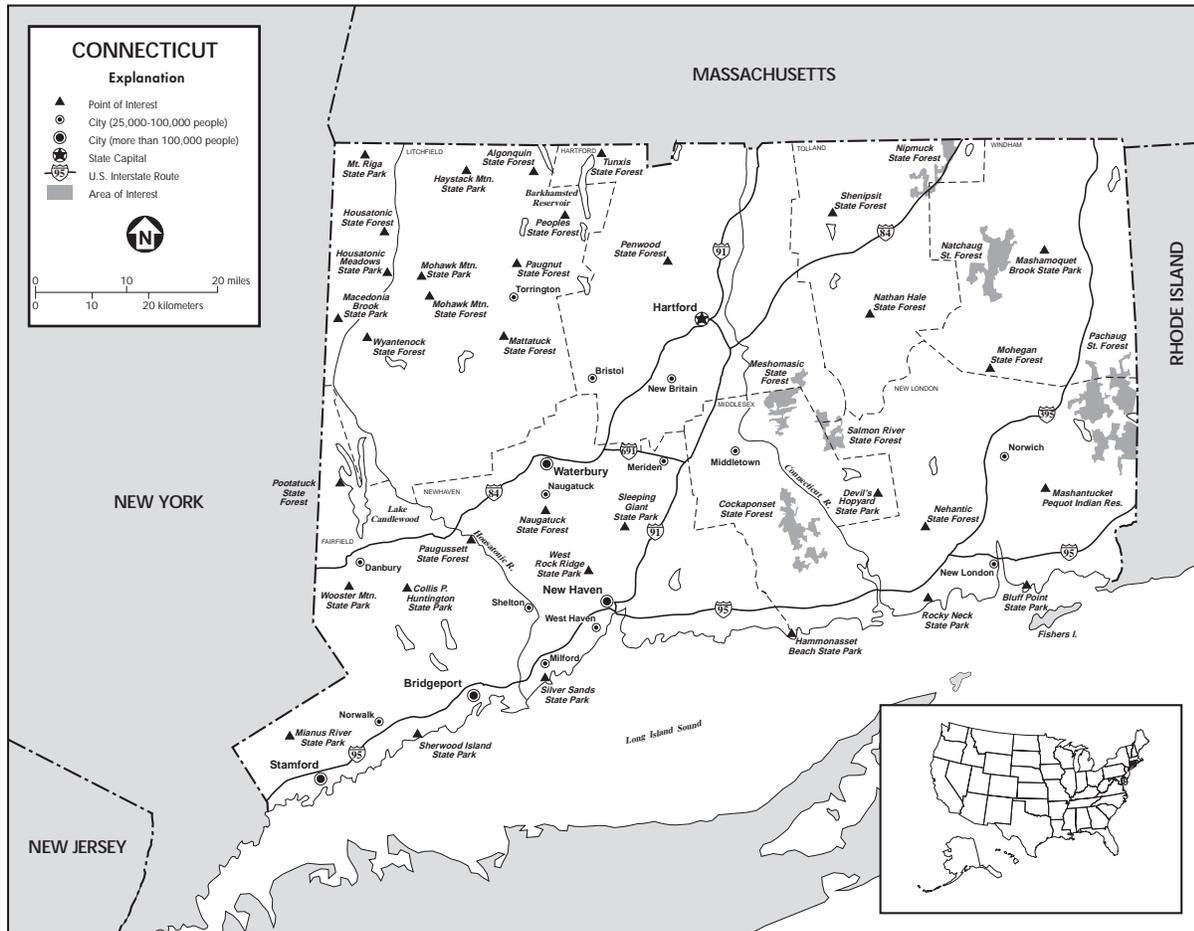
situation deteriorated, and by 1770 the Native Americans of Connecticut had been largely driven out. Connecticut received legal recognition as a colony in 1662 and after it had a number of years of bitter border disputes with Massachusetts, Rhode Island, New York, and Pennsylvania. A relatively autonomous colony, Connecticut was a strong supporter of the American Revolution (1775–81). During the war Connecticut was known as the Provisions State because it supplied so much food to General George Washington’s army. Connecticut ratified the new U.S. Constitution in 1788.

By the mid-nineteenth century Connecticut was unable to support itself through farming alone. Several important industries developed, including shipbuilding and whaling. In whaling ports the city of New London ranked behind only Nantucket and New Bedford in Massachusetts. The state has also led the insurance industry since the 1790s.

The inventiveness of early Connecticut manufacturers was a boon to the small state. Eli Whitney invented his famous cotton gin there and developed a system of interchangeable parts for rifles. Charles Goodyear developed a vulcanizing process for rubber, which later gave rise to the Goodyear Tire and Rubber Company. Linus Yale and his son created locks that still bear their name. Samuel Colt produced the rifles which had such an important effect on the winning of the American Civil War (1861–65), and Elias Howe invented the sewing machine. Clockmakers, like Eli Terry and Seth Thomas, made Connecticut a leader in clock and watch making.

Known as a conservative state, Connecticut was rather slow to develop railroads. They did not appear until the 1840s. After some opposition from turnpike and steamboat companies, the first railroad connected Hartford and New Haven, and later Northampton, Massachusetts. By the 1850s a number of routes connected Hartford with other eastern Connecticut cities. The most important Connecticut railroad was the New York, New Haven, and Hartford.

This network of railroads, along with a healthy industrial base, made Connecticut an important contributor to the Union cause during the Civil War. A longtime antislavery state, Connecticut sent some 55,000 men to fight and provided large amounts of war materials. Gun manufacturers, such as Colt and Winchester, along with manufacturers of textiles, brass, and rubber, sent much-needed supplies to the war front. The war consolidated Connecticut’s place as an industrially strong state. This development was made possible not only by the presence of railroads, but by abundant water power, sufficient capital from the many banks



State of Connecticut.

and insurance companies, and the technological and marketing skills of Connecticut’s citizens.

Around the turn of the century Connecticut was an important producer of products like electrical fixtures, machine tools, hardware, hats, and typewriters. Connecticut produced \$50 million in textiles (ranking it sixth in the nation in 1900), and it was soon putting out four-fifths of the U.S. supply of ammunition and one-fifth of its firearms (not including governmental production). In addition to the increased urbanization brought on by industry, population patterns began to change as well. By 1910 the foreign-born, attracted by the prospect of employment, made up 30 percent of the population. Most came from Ireland, Italy, Germany, and Austria.

During World War I (1914–18) Connecticut supplied not only men but also substantial monetary contributions and war materiel. Liberty Loan drives in the state netted \$437 million, more than any other state collected. The firearms produced in Connecticut, among them Enfield and Browning rifles, were invaluable to

the war effort. Other war-related products produced in the state included silk for parachutes, woven articles, and military hats.

Except for a brief recession just after the war, Connecticut’s economy continued to boom in the 1920s. Factories churned out specialty parts for airplanes, automobiles, and the electric power industry. Hartford’s Pratt and Whitney Company made the state a leader in the aviation industry, increasing the number of employees to over 2,000 by 1935. At the same time the textile industry in eastern Connecticut was declining, as more and more factories moved to the low-wage southern states.

The Great Depression of the 1930s brought hard times to the state, with thousands jobless and local and state governments struggling to find operating funds. In 1930 in Bridgeport, for example, 22,000 people applied for relief, and the city had to borrow \$500,000 to pay for jobless benefits. This desperation led the state’s voters to elect a Democratic governor for the first time in years. Connecticut then began to take

Conservatism

advantage of the many federal work relief programs provided by the federal government under President Franklin D. Roosevelt (1933–45). According to historian David M. Roth, “Out of the misery of the Depression there came a progressive political tide such as had never been experienced in the state, a tide that enabled Connecticut not only to weather the Depression but to emerge as a far more liberal society than it had ever been before.”

The renewed manufacturing activity brought by World War II (1939–45), however, was the real catalyst to economic revitalization. Defense contracts in Connecticut totaled \$8 billion by 1945, and industrial employment increased by 200,000 between 1939 and 1944. Major products sent to the war front from Connecticut included submarines, Navy Corsair fighter aircraft, helicopters, ball bearings, and small arms.

After the war the state retained its economic health by diversifying its industrial base and relying more on the service industry. Urban problems began to plague the state in the 1950s as more and more middle-class whites fled to the suburbs, leaving ethnic minorities and the poor in the central part of cities like Hartford, New Haven, and Bridgeport. Housing in particular remained a problem in these areas. In addition, because Connecticut repeatedly rejected a state income tax, the state’s taxes were among the highest in the nation.

During the 1980s, however, Connecticut boasted the highest per capita income in the United States, based largely on the expansion of defense contracts. This optimistic trend was threatened, however, when the Cold War began to defuse in the late 1980s, and manufacturing employment dropped by 25 percent. In 1991 defense-related contracts had dropped 37.7 percent from the year before. Pratt and Whitney and General Dynamics’s Electric Boat Division announced major layoffs in 1992. Though service sector jobs increased by 23 percent, the total number of jobs in the state had dropped by 10 percent in 1992. Strapped for funds, the state passed a controversial personal income tax in 1991.

In the early 1990s the wide discrepancy between the standards of living of white suburbanites and inner city, ethnic populations was quite evident in Connecticut. Governor Lowell L. Weicker (1990–94) attempted to alleviate this situation by channeling more funds to urban communities. The employment outlook in the state had improved by the mid-1990s. By 1996 the state again ranked first in per capita income, at \$33,189, and less than 10 percent of the population fell below the federal poverty level. To encourage business the state

offers a number of tax incentives and it has begun to reduce its high corporate tax rate.

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CONSERVATISM

Although conservatism in the United States did not become a generally coherent intellectual movement until the close of the American Revolution (1775–1783), it had strong roots in the colonial era nonetheless. The planter societies of Virginia, Maryland, and South Carolina, especially, were governed for the most part by principles that were solidly conservative—respect for religious establishments, aristocratic constitutions, a recognition of corresponding rights and duties, and guarantees for the protection of property, particularly property in land. Even the colonies founded upon dissent, such as the New England settlements and Pennsylvania, became relatively conservative very shortly after they acquired considerable population and wealth.

At their core, “conservative” debates in the colonies were really disputes between two political factions of Whigs, both attached to the Whig idea of liberty, but differing over views of the colonies’ relationship with the Crown (England). For both of these groups, fears of political excesses, economic egalitarianism (equal rights and privileges for all), and cultural vulgarity defined conservatism politically and culturally. Neither of these factions was radical, although some leveling elements were contained in the faction that, at the time of the American Revolution, came to be known as “Patriots.” The triumph of the Patriots in the Revolution expelled from America what little Toryism (support for allegiance with Britain) had existed there, and

along with it some of the moderate Whigs. Many scholars view the American Revolution as simply a War of Independence—a revolution, in the words of consummate conservative Edmund Burke, “not made, but prevented.”

In general, the United States Constitution retained a fundamentally conservative core. It expressed principles intended to conserve justice, order, and liberty in the United States: arrangement of political checks and balances, restrictions upon power, respect for individuality, and protection for private property and the rights minorities. James Madison (1751–1836), the primary author of the Constitution, feared mass tyranny and spoke of the danger of majoritarian rule and elective tyranny.

For the most part, the political contests of the early years of the Republic were long and often times heated debates between two conservative interests—the mercantile and industrial interests of the North, and the agricultural interest of the South. President John Adams (1797–1801) in the North and President James Madison (1809–1817) in the South, dominated these political interests during the early national period. But gradually, Jacksonian democracy and the slavery debate began to divide the nation and tear at the conservative core. Statesman John Randolph (1773–1833) and politician John C. Calhoun (1782–1850) spoke eloquently for the agricultural interest, while orator and statesman Daniel Webster (1782–1852) spoke for Northern conservatism.

During the Gilded Age (the period after the American Civil War through the 1920s), political principles were often neglected in the face of growing materialism. But things began to change quickly during the Progressive era. The term “progressive” captured the sentiment of the age, and represented to many what was best about the nation. But what counted as “progressive” politically was debated. Conservatives, insurgents, socialists, and modern liberals all claimed to be progressive. By the 1910s, however, the predominant political usage of the term came to be associated with political reformers who supported the expansion of the regulatory powers of government as a means to lessen societal problems. Conservatives believed their programs offered the best hope for true political progress. John William Burgess, a political scientist at Columbia University, and his colleague, Nicholas Murray Butler, argued that “limitations on the power of government” were themselves progressive and that relaxing those limitations (as the progressives desired) would be at the expense of individual civil liberties. Freedom of choice, Butler maintained, could only

be maximized through restrictions on governmental activism.

The American Liberty League became the greatest voice of political conservatism during the New Deal era. During its six-year existence, the American Liberty League gained support from some of the wealthiest businessmen and professionals in the United States. Among them were Irénée du Pont of the Du Pont Company; Nathan Miller, head of U.S. Steel Co.; Edward F. Hutton of General Foods; and John Jacob Rascob, former director of General Motors and one-time head of the Democratic Party. Among other disillusioned Democrats active in the League were two former Democratic presidential candidates: John W. Davis, who lost to Calvin Coolidge in 1924, and Alfred E. Smith, who lost to Herbert Hoover in 1928. The American Liberty League offered conservative criticism of the New Deal. Its stated purpose was “to defend and uphold the Constitution . . . [and] to teach the duty of government to protect individual and group initiatives. . . .” Claiming that the New Deal threatened the constitutional system of checks and balances by concentrating power in the chief executive, the American Liberty League also opposed the New Deal’s monetary policy, its deficit spending, its progressive taxation of businesses, and its efforts to enlarge government in general. Though the American Liberty League suffered from its popular image as a club for millionaires and did not gain wide popular support, its membership reached almost 125,000 at its height in 1936. The League fell apart after President Franklin D. Roosevelt’s (1933–1945) decisive electoral victory that year.

With the emergence of the United States as a global power after World War II and the rise of the Soviet Union as a nuclear threat, the conservative movement shifted its focus. It abandoned its isolationist position in foreign policy, which was incompatible with its militant anti-communism views. The right was also critical of foreign aid and distrustful of American involvement in the United Nations. It was libertarian in its view of economics, opposing taxes, government regulation of business, government spending, and social programs. It was also socially traditional, stressing moral order and maintenance of the community.

After the election of Ronald Reagan (1981–1989), a conservative president, the right found itself in a position of power that it had not held for decades. Its advocates, like William Buckley Jr., became television personalities, and the movement gained a respectability that it lacked in the 1960s, when its presidential candidate Barry Goldwater was successfully branded

Consolidation

as a dangerous extremist. Later, even a Democratic president William Clinton (1993-) declared that “the age of big government is over,” an essentially conservative message. It was during Clinton’s first term that the Republicans, the more conservative of the two major parties, took control of both houses of Congress. Conservatives also saw the fall of the Soviet Union in 1989 and nearly worldwide rejection of socialism that followed as their victories. Nevertheless success also brought dissension. Conservatism became divided into two camps. There were libertarians who emphasized a laissez-faire economic policy, and social conservatives, who felt strongly about issues like abortion. The ability of these two groups to find common ground will be an important factor in the future of the movement.

See also: Laissez Faire

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CONSOLIDATION

The growth and expansion of economic activity in the United States over time was due, in large part, to businesses joining together or combining under single ownership or control. The two most common ways businesses combine were by consolidation and merger. Consolidation was the joining of two or more companies on relatively equal terms to form a new composite company. Frequently, company titles were maintained. For example, when Chase National Bank and Bank of Manhattan consolidated, the new organization became known as Chase Manhattan Bank. Conversely, a merger was the absorption of one company by another so that the absorbed company lost its identity. In both consolidations and mergers, shareholders agreed to exchange their stock holdings in the old company for

shares in the new company, thereby combining capital to form a single new company.

Consolidations and mergers are horizontal combinations involving competitors who produce the same product or provide the same service. Vertical combinations take place when businesses performing different steps in an industrial process came together. A classic vertical example is the U.S. Steel Corporation, which combined with companies that mine, ship, and smelt ore, and fashion the resulting steel into various products. The terms consolidation and merger in practicality are used interchangeably. A third variation on the consolidation evolved in the mid-1960s: the conglomerate. A conglomerate is an organization of previously independent firms with dissimilar activities brought under the same management and control of a corporate holding company.

Four main waves of business consolidation have occurred in U.S. history. A consolidation wave rolled through U.S. industry between 1895 and 1904 producing giant twentieth century corporations, such as U.S. Steel, American Tobacco, DuPont, and Anaconda Copper. Likewise the 1920s, a high economic growth period with a relaxed government attitude toward mergers, experienced a sharp increase in consolidation of industrial power among large firms. In these first two periods of heavy merger activity, horizontal combinations predominated with a principle purpose of controlling output and prices to end cutthroat competition. During the 1960s conglomerates emerged as the chief form of consolidation. A prime conglomerate example was International Telephone and Telegraph (ITT) which owned such diverse firms as Wonder Bread, Sheraton Hotels, Hartford Insurance, and Burpee Lawn and Garden Products. In the 1980s, under a prevailing national *laissez faire* philosophy and driven by the increased need to compete in foreign markets, another wave of mergers occurred.

See also: Laissez Faire, Merger, Tobacco Trust

CONSTITUTION, ECONOMIC BENEFITS OF THE (ISSUE)

The basis of the discussion in the constitutional convention during the summer of 1787 was the economic rights and the political liberties of the American people. In other words, the Constitution was an attempt to define the terms and the relationship of freedom and property. This generation saw no contradiction between the two. In 1775 Arthur Lee of Virginia summed

up this reciprocal relationship of economic rights and personal freedom, stating that “[t]he right of property is the guardian of every other right, and to deprive a people of this, is in fact to deprive them of their liberty.” This, undoubtedly, was the perspective of people who owned some property. The slaves in the South might be forgiven for disputing this equation. For them, after all, the property interest of the slaveholder negated their own liberty.

Following the American Revolution (1775–1783) in the mid-1780s, during the period of the Articles of Confederation (1777–1788), the states assumed the burden of government. The central government was little more than a loose and impotent alliance between the states. The Articles of Confederation reserved to the states the power to tax and regulate commerce among the states. But the states could do little to fix the underlying economic problems of the 1780s, which included trade and tax disputes among the states, an influx of cheap British goods that threatened to devastate an infant manufacturing capacity, and a lack of common currency.

These problems, as well as the threat of popular uprisings of bankrupt farmers (like Shay’s Rebellion in western Massachusetts in 1787) who faced bankruptcy during the post-war depression in the mid-1780s. The Constitutional Convention, held from May to September 1787, initially set out to revise the Articles of Confederation. Soon it became clear that most of the delegates favored a complete revamping of the document. Thus was born the U.S. Constitution, which was not ratified by all states until 1788. The new government began operation in 1789.

The Constitution spoke directly to economic issues. Article 1, section 8 stated that “Congress shall have Power To Lay and collect Taxes, Duties, Imposts, and Excises”; and further gave Congress the power “[t]o regulate Commerce with foreign Nations, and among the several States.” These two clauses outline a new rationale for federal power. The authors of the Constitution looked on central government to troubleshoot and regulate economic life, rather than fearing that the federal government might dominate economic and political life. The same section goes on to give the central government the power to standardize the rules of bankruptcy and to invest the federal government with the powers to coin and borrow money, to declare war, and to provide for armies and navies.

Article 1, section 10 prohibits the states from passing any law “impairing the obligation of contracts” or imposing its own impost or duties on

THE CONSTITUTION SPOKE DIRECTLY TO ECONOMIC ISSUES. ARTICLE 1, SECTION 8 STATED THAT “CONGRESS SHALL HAVE POWER TO LAY AND COLLECT TAXES, DUTIES, IMPOSTS, AND EXCISES”; AND FURTHER GAVE CONGRESS THE POWER “[T]O REGULATE COMMERCE WITH FOREIGN NATIONS, AND AMONG THE SEVERAL STATES.”

imports or exports. Moreover, to ensure that southern states ratified the Constitution, the constitutional convention approved protection for slave owners. The Constitution clearly regards slaves as “chattel,” or property. The three key clauses addressing slavery are article 1, section 2—the three-fifths clause dealing with representation; article 1, section 9—the international slave trade clause, which stopped the international slave trade in 1808; and article 4, section 2—the fugitive slave clause, which provided a federal guarantee of the return of runaway slaves.

Much of the legal history of the United States is the history of state and federal laws enacted to encourage and regulate economic development. Over the years new legislation—new trade regulations, for example, and the rise of tort (wrongful act) law in the nineteenth century—illustrate the way that the Constitution supports and shapes the economy. This relationship is apparent in the numerous Supreme Court decisions made during the terms of two Chief Justices, John Marshall (1803–1835) and Roger B. Taney (1836–1864). During the Marshall years, the Supreme Court held the states to their contractual promises, in *Fletcher v. Peck* (1810), and the Court ruled that the contract clause of the Constitution protected private corporations from state interference, in *Dartmouth College v. Woodward* (1819). Marshall also upheld the validity of state bankruptcy statutes in the absence of federal regulations in the 1819 case of *Sturges v. Crowninshield*.

Perhaps no case better exemplifies the close relation between the law, the Constitution, and the economy than the 1824 steamboat case of *Gibbons v. Ogden*. In this decision, Marshall’s Supreme Court held that the commerce clause of the Constitution provided Congress, not the states, with the power to establish regulations for commerce among the states. In effect, *Gibbons* established a national free-trade zone throughout the United States, allowing merchants to ship goods into and through various states without obstruction from the states. States could still regulate intrastate commerce (commerce wholly within their borders), but trade of this nature disappeared as the national

Consumer Goods

market economy expanded over the course of the nineteenth century.

Chief Justice Taney's 1837 decision in *Charles River Bridge v. Warren Bridge* provides another example of the relationship between constitutional law and the economy. In this decision Taney struck down a restrictive understanding of property rights and upheld a more risk-oriented view of property rights. Taney established a legal environment that allowed for the release of entrepreneurial energies—an environment that mirrored the risk-taking values of his era. Both *Charles River Bridge* and *Gibbons* illustrate the way that constitutional law has fostered an energetic U.S. economy.

The era of the American Civil War (1861–1865) brought changes to the Constitution, shifted power away from the states and toward the federal government. In *Dred Scott v. Sandford* (1857) Chief Justice Taney was finally faced with having to choose between property rights and individual human liberty. He came down on the side of protecting the property rights of the slaveholder by denying the humanity of the slave, Dred Scott. In doing this, he also sought to “federalize” the question and to abolish whatever discrepancy might exist between the various states’ interpretation of the law. This decision was swept away by the Civil War and the Thirteenth and Fourteenth Amendments explicitly affirm both the humanity of the ex-slave and the civil rights of all citizens, including the ex-slaves. One common theme that these judgments share with Taney’s ruling on Dred Scott is that they “nationalize” the legal condition of black people. No longer could the civil rights of black people be a function of whatever state they might live in. These post-Civil War pronouncements guarantee full civil rights to all citizens.

That industrialism took deep root in American culture is due in large part to the judicial deference to property and a willingness of Congress, the federal courts, and the states to promote corporate expansion. With the Great Depression of the late 1920s and 1930s Congress and the courts employed the language of the Fourteenth Amendment to support the rise of the social welfare state. This new approach, beginning with the New Deal’s numerous regulatory boards and administrative laws, has lasted to the current day. Using the reach of the commerce clause, Congress and the administrative agencies regulate almost every aspect of the U.S. economy, theorizing that a national economy demands national regulations. Conservative states’ rights advocates may not like it, but, for most Americans, the interconnected character of modern American society

leads them to expect the government to assist in the development of the economy. In a reciprocal relationship, the Constitution benefits the economy and the economy is bolstered by the constitutional system.

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CONSUMER GOODS

Consumer goods are goods or services that are ready for consumption by individuals, social groups, or governmental bodies. Consumer goods are the final result of the production process. Because consumer goods are purchased for personal use, they serve a different purpose than capital goods, which are used by businesses to manufacture or produce more goods. Consumer goods can be categorized as either durable or non-durable. Durable goods have a long life and are not easily used up or destroyed. Examples of durable goods include stoves, cars, and computers. Generally, durable goods have an expected useful life of more than three years. Durable goods are sometimes called hard goods. By contrast, consumers can easily use up or discard non-durable goods, which are usually perishable in nature. Food, clothing, gasoline, and hair-styling services are all considered to be non-durable. Because of the short-term life of non-durable goods, they need to be purchased frequently.

See also: Capital Goods, Consumption, Durable Goods

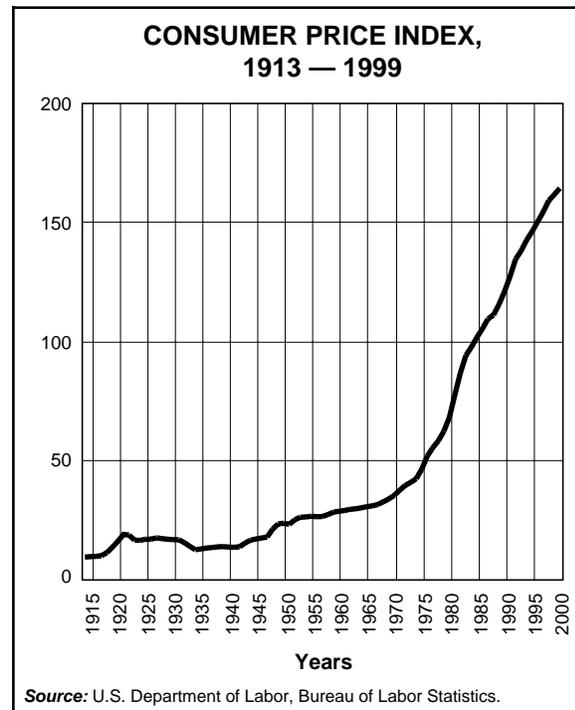
CONSUMER PRICE INDEX

The Consumer Price Index (CPI) is a continually updated statistical survey of the prices consumers are paying for various basic goods and services. The Bureau of Labor Statistics (BLS) defines the prices it wants to track of a group or “basket” of about 2,400 typical consumer goods and services. (The “contents” of a basket can be quite varied, e.g., medical care, transportation, housing prices, or the current prices of entertainment, clothing, and food.)

Hundreds of BLS field representatives visit an average of 24,000 to 29,000 families and thousands of retail stores in 85 representative cities to determine the current prices paid and charged for each specific good. (A typical example of BLS inquiry might include, “Men’s high work shoes, elk upper, Goodyear welt, size range 6 to 11.”) During the next 20 days which follow visitations, government analysts use computers and complex computer programs to combine, sort, and refine all their price data, taking into account the fact that some goods play a more important role in the economy and in household budgets than others. (A change in the price of gasoline, for example, will have a much greater impact on a family budget than will a change in the price of toothpaste.) About the middle of every month, the Bureau publishes the CPI for the previous month. A typical BLS news release begins: “The CPI for all urban consumers rose 0.1 percent in February 1999 . . . to a level of 164.5 (1982–84 = 100). . . For the 12-month period ended in February, the CPI has increased 1.6 percent.”

The first attempt in the United States to use an index to compare price changes was prepared for the U.S. Senate in 1893. When labor and management began meeting to hammer out labor agreements in the early years of the twentieth century, they needed an accurate, official CPI so workers would receive automatic wage increases that kept pace with inflation. During World War I (1914–18), inflation accelerated, and an accurate CPI became more important than ever.

When Keynesian economic theory gained acceptance during the 1930s, the CPI became a tool government economists could use to fine-tune fiscal policy. For example, if the CPI showed that prices were falling, the government might become concerned that demand was weak and could lower taxes to stimulate consumer spending. As the twentieth century closed, the CPI remained one of the most closely watched measures of the health of the U.S. economy. Besides determining appropriate wage increases, the index was



The Consumer Price Index is a statistical survey of commonly used goods and services. The constant rise of the Consumer Price Index for the last quarter of the century is depicted.

also used to calculate Social Security payment adjustments and income tax brackets.

See also: Inflation, Keynesian Economic Theory

CONSUMPTION

Consumption refers to the using up of goods and service by consumers. In fact, consumption of goods is considered to be the final step in the production process and the ultimate purpose of production. While the term consumption can include both capital consumption and nonproductive consumption, it generally is restricted to mean nonproductive consumption. Nonproductive consumption is when goods or services are not used in any further production processes. This is different than capital consumption, which refers to the use of goods and services to produce more goods and services. An example of capital consumption is the use of factory equipment to make products such as running shoes. Nonproductive consumption, on the other hand, occurs when individuals or families purchase personal-use items or services such as cars, computers, paper clips, or manicures. Governmental bodies can also engage in nonproductive consumption. An example of this might be the decision of a city or town to build a public facility, such as a school or library. Therefore, nonproductive

consumption most often includes consumption by private individuals, social groups, and the public.

THE CONTEMPORARY WORLD, 1974 TO THE PRESENT (OVERVIEW)

During the 1970s Americans became preoccupied with questions of economic well-being. Despite the fact that the United States still possessed the world's largest gross national product, a fear of decline overtook American culture. The public had lost confidence in New Deal policies that valued stability and equitable distribution of wealth over opportunities for growth and upward mobility. Concerns over prosperity became the guiding force in American politics.

In the 1970s Presidents Gerald Ford (1974–1977) and Jimmy Carter (1977–1981) responded by initiating a policy of deregulation, which was an effort to minimize government intervention in the market economy. While the initial efforts of deregulation were applied to government's relations with businesses, the logic of deregulation extended to government intervention in the economic lives of individual citizens. Presidents Ronald Reagan (1981–1989), George Bush (1989–1993), and Bill Clinton (1993—) all sought to diminish the influence of the federal government over the economy. The result has been a public policy designed to permit every business and every citizen to succeed or fail without government intervention.

A reassessment of the definition of monopoly has been key to this process of deregulation. Presidential administrations began to tolerate consolidations in industry. Congress abandoned the assumption that monopolies are only safe when they are regulated as a public utility. The federal courts became reluctant to interfere with market forces. The result has been a revolution in economic competition.

The elements involved in reconstructing the relationship between government and business came together in the antitrust prosecution of American Telephone and Telegraph (AT&T). Until the initiation of this case in 1974 the government had supported AT&T's monopoly over both local and long distance telephone service and encouraged its dominance over research and development of telephone technology. In exchange for high profits on long distance service, AT&T guaranteed affordable local service to every household and state of the art technology. In 1984 the federal courts reversed this arrangement and separated AT&T long

distance from its local service providers (the “baby bells”). Since the AT&T decision other public service monopolies, most notably in the electrical generating industry, have been forced into open competition.

While breaking down public utility monopolies, the government became more tolerant of corporate consolidation. As a result corporate mergers in industries as varied as banking and oil refining have constructed business enterprises of a power and efficiency not seen in America since the nineteenth century. A small, regional bank in North Carolina (National Bank of North Carolina) was unchallenged in its transformation into the fifth largest bank in the United States (First Union). The unification of Mobil and Exxon resulted in a coordination of production that rivaled Standard Oil Corporation before Taft's (1909–1913) administration's antitrust prosecutions.

This acceptance of large scale corporations has been accompanied by a consistent policy of deregulation of industry. New Deal regulatory policies, which guaranteed reasonable corporate profits in exchange for an end to destructive competition, fell under attack and disappeared within a generation. The restrictions of the Glass-Steagall Act (1933), which were designed to promote banking stability and prevent the concentration of capital, were abandoned. Limits on interest rates, mergers, and establishment of new branches were eliminated. Successful American banks became better capitalized and could provide customers with a wider range of services; unsuccessful banks disappeared, with some spectacular collapses in the savings and loan industry. The airline industry, once protected by a Federal Aviation Administration's system that traded high passenger fares for strict controls on distributing profitable and unprofitable markets, was thrown open to competition with the Airline Deregulation Act of 1978. While air fares, fell new airlines emerged and the service to major airports expanded. Scheduling delays increased, airlines went bankrupt, and service to small cities diminished. This pattern of deregulation extended to agricultural production. Like the banking and airline industries, agriculture had benefited from the New Deal policy of guaranteeing profitability in exchange for limits on competition. The federal price support mechanisms of the Department of Agriculture limited the production of key commodities and prevented food processing industries from also owning farms. The Freedom to Farm Act of 1996 eliminated those restrictions in an effort to lower federal subsidies and promote greater efficiency on American farms.

Although the general pattern of government-business relations has been to dismantle regulation of business activity, a notable exception has emerged in

the area of environmentalism. Since the establishment of the Environmental Protection Agency in 1970, the government has expanded its authority over standards of air and water pollution, introduced the concept of environmental clean up as a precondition of further industrial development, and curbed development in fragile ecological zones. The American public has accepted the idea that the general need for environmental safety outweighs corporate profit interests.

Deregulation and the reassessment of monopolies were designed to improve efficiency. As industries were forced into higher levels of competition, they had to become more productive. Improvements in productivity could be achieved by either introduction of new technology or a more effective use of labor. However, as corporations were adjusting to this new climate of regulation, they were suddenly hit by the disruptive impact of the embargo by the Organization of Petroleum Exporting Countries (OPEC). During the 1970s OPEC raised the price of crude oil, more than doubling the average price of energy in the United States. Corporations were forced to spend more money on energy, leaving less for the purchase of new technology or wage packages that would raise worker morale. The economic pressures felt by businessmen were also experienced by workers. The increasing cost of gasoline and home heating fuel raised the cost of living at a time when wages stagnated. The net result was frustration for managers, workers, and consumers.

Not only did the OPEC price shocks damage the patterns of corporate investment, they illuminated important weaknesses in the American economy. Businessmen in Germany and Japan adopted computer and robotics technology in the 1960s and early 1970s. By the mid 1970s American factory managers realized they needed to catch up, but were reluctant to modernize when rising energy costs had depleted their profit margins. German and Japanese firms were poised to challenge American corporations in their own domestic markets.

IT'S THE ECONOMY, STUPID.

James Carville, Clinton presidential campaign manager, 1992

By the end of the 1970s the American economy was mired in stagflation (simultaneous high unemployment and high inflation). Despite efforts to improve productivity through deregulation, American manufacturing continued to be eclipsed by competition from Japan and Germany. Public morale continued to falter as consumer costs remained high, wage rates

stagnated, and long-term unemployment became common place. Once the epicenter of the American economy, the urban strip that began in Chicago and followed through Detroit, Cleveland, Pittsburgh, and to Philadelphia became known as "the rust belt."

Reaganomics emerged as the political solution to this problem. The process of deregulation begun under Presidents Ford and Carter was supplemented by the adoption of an aggressive anti-inflation policy and a decision to push money into the private sector through severe cuts in federal taxes. The Reagan and Bush administrations argued that deregulation, combined with lower taxes, would improve productivity. Clearly businesses would benefit from such a policy, but advocates of Reaganomics also argued that the benefits of improved productivity would "trickle down" to workers and consumers.

The Reagan and Bush policies coincided with important technological breakthroughs. Just as businesses were encouraged to restructure and invest in new processes, major innovations were made, including the development of desk-top computing and high speed digital transmission.

The adoption of new technology made American corporations more effective competitors in the world economy. Without federal curbs on the formation of monopolies, corporations could absorb rivals and divest unprofitable subsidiaries. These more powerful corporations sought to enlarge their operations in foreign markets. To support these corporate efforts, the United States government negotiated to eliminate tariff barriers. The most successful of these negotiations resulted in the North American Free Trade Agreement (NAFTA), which was designed to stimulate commerce among the United States, Canada, and Mexico.

The experience of American corporations had important ramifications for the American labor force. During the 1970s American business increased its use of part-time and temporary workers. This trend was particularly profitable for employers; wage costs could be lowered, and, in addition, benefits such as health insurance and pension plans could be dropped. The increasing reliance on part-time and temporary workers continued into the Reagan-Bush years. This pattern held important implications for worker-management relations.

The traditional power of labor unions rested in manufacturing. However, poor productivity in the 1970s triggered layoffs and forced unions to focus on the equitable distribution of remaining jobs in unionized plants. Workers with little seniority were pushed out of

union jobs, often into service sector work or self-employment. The adoption of new technologies during the Reagan-Bush era reduced the number of employees needed in manufacturing and continued this process of moving workers away from unionized shop floors.

The movement of workers out of a collective bargaining process weakened organized labor. The leadership of the large national organizations such as the American Federation of Labor-Congress of Industrial Organizations (AFL-CIO) called for prudence and cooperation with management for the protection of jobs. But increasing numbers of workers participated in spontaneous strikes to protest the adoption of new technologies or proposals to utilize part-time or contract workers. Because they did not have the full support of the national union leadership, these job actions had limited success. This weakness of labor authority in the workplace was magnified by changes in federal policy toward labor. The National Labor Relations Board, the federal agency that supervises management-worker relations, became more sympathetic to business concerns. During the Reagan presidency this skepticism toward labor interests solidified, as demonstrated by the federal intervention against striking air traffic controllers in 1981.

Without strong labor unions to defend worker interests, market forces became the predominant factor in setting wage rates and working conditions. Skills that were useful to the reorganization of American business earned high wages and generous benefits packages. Computer literacy was one of the most sought after qualities of workers. Those who clung to older standards of training risked being left behind as the economy was transformed.

An important divide emerged in the American standard of living. The distribution of American wealth concentrated in the hands of fewer people. According to the U.S. Bureau of the Census, in 1993 the richest 20 percent of the American population controlled 46.2 percent of the wealth (as compared to controlling 40.4 percent in 1967). This gain of wealth among rich families occurred at the expense of the bottom 60 percent of the American population. Higher salaries and the added benefits of annual bonuses and stock options raised incomes for those Americans in the upper 20 percent of the population. These higher rates of earning were augmented by substantial tax cuts in the 1980s and 1990s, which permitted the wealthy to retain a larger share of their income.

Families that were not wealthy began to compensate for their diminishing earning power by working more. These families became increasingly reliant on

pay checks from both the husband and wife. An income study done by the U.S. Bureau of the Census demonstrated that families with two members in the paid labor force experienced a .76 percent improvement in their annual incomes between 1970 and 1993. On the other hand, families with only one income experienced a decline in their standard of living. Families in areas where jobs were more plentiful benefited most from this pattern. Geographical patterns of poverty were magnified because the distribution of jobs was not even. During the 1970s and 1980s most new jobs were created on the East and West Coasts. In addition, jobs were more likely to be created in suburban areas. Those living in the suburbs of Washington, D.C., or San Diego found a different set of opportunities than those living in Detroit or rural Wyoming.

The desire to lower taxes and free money for investment spurred a search for government spending cuts in the 1980s and 1990s. Welfare reform became a primary objective. Politicians first limited the dollar amounts granted to poor citizens, and then the length of time for eligibility. As federal support for welfare, public health programs, and housing assistance diminished, the poor witnessed a diminishing quality of life.

The push for efficiency and productivity has carried mixed consequences. National chain stores like Walmart have provided lower prices to consumers, but have driven out locally based businesses. The introduction of computers and robotics in manufacturing has saved companies from bankruptcy, but has reduced the number of blue-collar jobs. Extraordinary wealth coexists with grotesque poverty. The gross national product of the United States is still the envy of the world, but the landscape of the American economy has completely changed.

See also: **Airline Deregulation, AT&T, North American Free Trade Agreement (NAFTA), OPEC Embargo, Savings and Loan Failures**

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CONTINENTAL CONGRESS (SECOND)

The Second Continental Congress convened in Philadelphia's Independence Hall on May 10, 1775, shortly after the first fighting broke out in the American Revolution (1775–1783). England had rebuffed the proposals of the First Continental Congress (1774). In response, colonial delegates met again as the Second Continental Congress and began preparing for the fight against the Mother Country. Many of these delegates ultimately became known as founding fathers of the United States—George Washington (1732–1799), John Hancock (1737–1793), Thomas Jefferson (1743–1826), and Benjamin Franklin (1706–1790).

The Second Continental Congress created the Continental Army and named George Washington commander in chief. Although armed conflict was underway, Congress moved cautiously toward proclaiming independence from Britain. On July 10, 1775, two days after issuing a declaration to take up arms, Congress made a last appeal to England's King George III (1738–1820). They hoped their appeal would settle the conflict without further combat. The attempt failed. The Second Continental Congress responded by forming committees to draft the Declaration of Independence.

In their Declaration of Independence the thirteen American colonies declared their freedom from Britain and forwarded reasons for doing so. They named the “causes which impel them to the separation” and objected to the British government's violations of individual rights (“the history of the present King of Great Britain is a history of repeated injuries and usurpations” aimed at establishing “an absolute Tyranny over these States”). The opening paragraphs stated that an ideal government existed for the benefit of the people and that “all men are created equal.”

Thomas Jefferson, the chairman of the Second Continental Congress committee that prepared the Declaration, wrote and presented the first draft to the Congress. The Declaration was approved July 4, 1776. The thirteen colonies had proclaimed themselves the United States of America.

While the American Revolution raged, the Second Continental Congress acted as the new nation's central government. This role continued until March 1, 1781, when the Articles of Confederation, the forerunner of the U.S. Constitution (1789), were adopted. After declaring independence, the primary objective of the Second Continental Congress was financing the war. The Congress issued paper money (called Continentals), urged each of the colonies to set up its own republican government, and actively sought the support of other countries in its battle against the powerful British Empire. But since a formal constitution had not been written, the Second Continental Congress stopped short of collecting taxes from the colonies.

See also: [Articles of Confederation](#), [Continentials](#), [European Loans](#), [Thomas Jefferson](#)

CONTINENTALS

Continentials were the paper money issued by the United States government during the American Revolution (1775–83). After the Declaration of Independence (1776) was made and before the Articles of Confederation (1781) were approved, the Second Continental Congress governed the new nation and ran the war effort against Great Britain. The governing body did not have the power to levy taxes, since no constitution had been drawn up yet. The Congress appealed to each state to contribute to the war fund. However, states that did not face imminent danger—those in which there was no fighting—often did not answer the call. Many of the new nation's most prominent citizens remained loyal to the British and refused to contribute money to the American patriotic cause. Yet money was needed to buy supplies, ammunition, and pay soldiers. In order to finance the Revolution, Congress was compelled to issue paper bills that promised holders future payment in silver. But as Congress issued more Continentals, the currency became devalued. There was not enough silver to back up promised payments. By 1780 there were so many Continentals in circulation that they had become almost worthless. The phrase “not worth a continental” was used by Americans to describe anything that had no value. To help solve the financial crisis, some patriotic citizens contributed

Convention of 1818

sums of money; in exchange, they received interest-bearing securities from the U.S. government. But funds remained scarce. The problem of funding the revolutionary effort was not solved until foreign powers stepped in to aid the fledgling nation in its fight against the powerful British. European loans to the United States were instrumental in the American victory in the revolutionary war.

See also: American Revolution, Articles of Confederation, European Loans, Rag Money

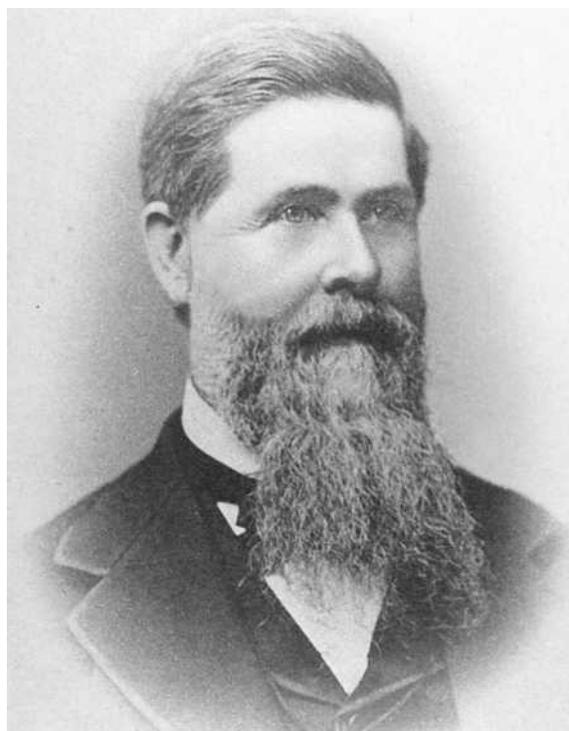
CONVENTION OF 1818

On October 20, 1818, a convention was signed by the United States and Britain which established part of the present-day border between the United States and Canada. The agreement stipulated that 49 degrees north latitude (or the 49th parallel) would mark the boundary, from Lake of the Woods (in present-day northern Minnesota, southwestern Ontario, and southeastern Manitoba) west to the Rocky Mountains (in present-day Montana and Alberta). The two countries further agreed that for 10 years they would jointly occupy the Pacific Northwest territories—the area that begins at 42 degrees north latitude (the southern boundary of present-day Oregon) and extends north to 54 degrees 40 minutes north latitude (in present-day British Columbia). However, even before the agreement was made, and even before the United States and Britain had fought the War of 1812 (1812–1814), American expansionists had begun to demand the seizure of Canada from Great Britain. Thus, after the eastern boundary had been established by the Convention of 1818, expansionists began to suggest that the Pacific Northwest territories ought to be part of a strategic claim made by the United States.

See also: Expansionists, Oregon Country Cession, War of 1812

COOKE, JAY

Jay Cooke (1821–1905) was the foremost investment banker in the United States during the mid-nineteenth century. He pioneered new ways of mobilizing the savings of Americans for productive ends, most significantly to fund the Union effort during the American Civil War (1861–1865). For this reason he was known as the “Financier of the Union.”



Jay Cooke.

Born in Sandusky, Ohio, Cooke attended public school until the age of 14. He then ended his formal education and took a job as a clerk in a general store. In 1838 he obtained work with his brother-in-law's canal transport company in Philadelphia, but the firm failed shortly after Cooke's arrival in the city. Cooke returned to Sandusky. Two years later he was lured back to Philadelphia by a job offer as an office boy with banker F. W. Clark. Cooke worked in the Clark banking house from 1839 to 1857. He rose quickly in the firm, and in three years, at the age of twenty-one, he became a partner.

F.W. Clark's profits derived from dealing in “domestic exchange.” This meant the firm bought and sold bank notes from various parts of the country, pricing them according to risk. The nation in those days had no official government currency except metallic money. Private bankers provided the paper medium of daily exchange. With the bank notes of so many banks in circulation, a banker had to be shrewd when it came to judging the worth of paper that often purported to be “good as gold.”

In the 1850s Cooke began to invest his own money in ventures outside of banking. One of his investments included a land speculation deal in Iowa and Minnesota that involved obtaining land from the government at prices below \$1.25 an acre. The land was then resold to

incoming farmers at \$3.00 and \$4.00 an acre. The land speculation scheme made Cooke very wealthy.

Growing restless as a junior partner at F.W. Clark and Company, Cooke left the firm in 1857. For the next few years he devoted his attention to private investing, particularly in railroads. He decided to reenter the banking business on the eve of the American Civil War. On January 1, 1861, he opened Jay Cooke and Company.

When Abraham Lincoln (1809–1865) took office he found the U.S. Treasury nearly empty. In order to finance the Union effort in the Civil War, the government was faced with three methods: taxation, borrowing, or printing paper money. Unlike the opposing Confederate States of America, Lincoln chose to borrow money to pay the war, a strategy that worked largely because of the efforts of Jay Cooke. Conversely, the Confederate government in Richmond chose to print paper money. This created an inflation rate of 5000 percent by the end of the war.

The traditional method of government finance was to offer government bonds to private bankers at competitive auction. In 1861 many bankers were unsure whether the Union would survive to pay the debt. Secretary of the Treasury Salmon P. Chase insisted on selling the bonds at par (one hundred cents on the dollar), but most bankers considered them to be too risky at that price. Cooke approached Chase and proposed marketing bonds directly to the public. Chase initially rejected the idea. But as the war turned against the Union in the summer of 1862, he became more receptive. He appointed Jay Cooke and Company as sole agent to sell \$50 million in government bonds at 6 percent interest. The bonds were due in 20 years but the government could redeem them in five; hence, they were popularly called “5-20s.”

Cooke promised one million dollars worth of daily sales in 5-20s. He also took a fee of 1/2 percent on the first \$10 million he sold and 3/8 percent on the remaining bonds. His strategy exceeded all expectations. In 1865 he repeated his earlier success by helping the government finance a new issue of bonds. These were the so-called “7-30s” (bonds due in 30 years but redeemable in seven).

After the war Jay Cooke and Company engaged in further government debt financing, but by 1869 the government finance business had wound down and opportunities for profit appeared elsewhere. Cooke agreed to be the banker and agent for the Northern Pacific Railway Company. The rail line was projected to connect Lake Superior with Puget Sound on the

Pacific coast, promising to become the largest construction project in U.S. history.

Originally financing for the Northern Pacific was earmarked to build the line westward. To finance further construction and service the debt, money was raised from fees charged to traffic along the first completed sections of the track and from the sale of a congressional land grant worth \$50 million. With great difficulty Cooke managed in 1870 to raise \$5 million for construction. He then initiated a public campaign to sell \$100 million in Northern Pacific bonds at 7.3 percent interest. His goal was to raise enough money from small investors to complete construction of the railroad, but the results were disappointing. He only sold about \$16 million worth of bonds in 1871 and 1872. Like major American and European bankers, small investors, were wary despite the high interest rate offered and regardless of Cooke’s reputation for reliability.

Poor sales of Northern Pacific bonds and a tightening of the money market forced Jay Cooke and Co. to declare bankruptcy in 1873. Cooke lost most of his vast fortune and spent the next several years trying to satisfy his creditors. In 1880 he resumed business as an investor in Western mining ventures and was able to make a second fortune before his death.

Jay Cooke changed the nature of investment banking by reaching out to hundreds of thousands of Americans and asking them to invest their small holdings to support the Union cause during the Civil War. In the following century Wall Street would follow Cooke’s lead by devoting itself to attracting the savings of the individual investor.

Clearly, Cooke’s ideas created more than a new way of doing business on Wall Street. His innovative financing methods also kept the U.S. government afloat during crisis. In fact, without the millions of dollars invested by individuals of modest means, the financing of government debt and major industries in the late nineteenth and twentieth centuries might well have been unimaginable.

See also: Bonds, Salmon P. Chase, Inflation

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They were aided by the development of the mechanical planter and other farm machinery. In 1870 U.S. corn production topped one billion bushels for the first time. This figure doubled in the next 15 years so that in 1885 production stood at two billion bushels. Still, more uses for corn were yet to be found. By the end of the nineteenth century corn would be mixed with oats to produce a superior feed for livestock. It was also added to pancake mix. Corn was made into flakes in a breakfast cereal introduced by American physician and entrepreneur John H. Kellogg (1852–1943). Throughout the twentieth century new uses combined with a growing population to produce an ever-increasing demand.

See also: Aztec, Inca, Kellogg's, Maya

CORN

Corn was first cultivated in Mexico where early Indians grew grasses that were the grain's ancestors. These grasses were steadily improved between 5000 B.C. and 2000 B.C.. By the time of the Aztec (c. 1325), corn had become the primary food source in central Mexico. As the Aztec came into contact with other Indian peoples, the cultivation of corn spread—reaching the Maya in southern Mexico and Central America, the Inca in South America, the native peoples in the Caribbean, and as far as the Canadian tribes in the north.

The grain was unknown to Europeans at this time. It was Christopher Columbus (1451–1506) who, upon his arrival in Cuba in 1492, discovered corn and took it with him when he returned home. By the end of the sixteenth century corn was well established as a crop and a primary food source in southern Europe, Africa, the Middle East, and Asia. During the next century corn became a staple of the colonial diet. European settlers in America learned from the Indians how to cultivate, harvest, and process the grain. In the late 1500s Virginia farmers planted their fields according to the Indian method, producing a much higher yield per acre (200 versus 40 bushels). From cornmeal colonists made mush (also known as hasty pudding), grits, hoecake (an unleavened cake), and bread. Hominy (a dish made of softened corn), succotash (a corn and bean casserole), and roasted corn were also widely consumed. Bourbon whiskey was made out of corn in Kentucky in 1789 and its popularity soon eclipsed that of brandy or rum in the American colonies.

To keep up with growing demand for this versatile grain, growers became commercialized during the 1800s.

CORPORATE RESTRUCTURING

Many companies are more successful than their rivals because they are able to take advantage of new technology and produce, market, and distribute their products quicker and more cheaply than their rivals. They are able to provide services and products more efficiently. Conversely, companies that have failed to incorporate these improvements have lost the ability to compete effectively, resulting in losses in market share and profit margin. These companies must reorganize the way they do business in order to raise quality, lower costs and speed the production of their product. This process of reorganization is called restructuring. Parts of the company that are not profitable or not necessary to the principal business are sold or closed down, with the proceeds used to invest in improvements in the core business.

These improvements commonly involve increased automation and better, more efficient organization and processes, often resulting in the elimination of jobs. The combination of spinning off non-core businesses and reducing employment is referred to as “downsizing,” or “right-sizing.” In fact, the operative factor is often improved skill matching, where people with outmoded job skills are replaced by people with skills that are better matched to new business processes. This typically means workforce reduction as new, more efficient processes allow consolidation of job functions. During the 1980s, many companies in service and manufacturing sectors restructured in response to increased competition, both from within the domestic economy and from foreign competitors able to enter new markets because of the progressive removal of trade barriers.

CORPORATION

Along with sole proprietorships and partnerships, corporations were one of the three basic ways of organizing a business. Virtually all of the largest and most powerful businesses in the United States were corporations, and thousands of many very small businesses were as well.

Corporations had specific legal rights and characteristics that made them ideal for engaging in major economic enterprises. The owners of a corporation were not legally liable for more than their own investment in the corporation. In contrast, if the business of a sole proprietor accumulated massive debts the proprietor was personally, legally responsible for all of them. Corporations were thus also known as “limited liability companies.” The corporation also did not have to reincorporate or legally reorganize itself every time one of its owners transferred his or her ownership. The buying, selling, and transferring of the ownership shares (called stock) in a corporation did not affect the corporation’s legal identity. More, a corporation was a legal “person” in the sense that it could establish contracts, sue (and be sued), and own property just like an individual person. Finally, a corporation would continue to exist even if all the people who originally incorporated it died or ceased to participate in it. Corporations could raise huge amounts of capital by “going public,” that is, selling ownership shares to anyone who wanted them. However, even private corporations, owned by only a small group of people (sometimes a family), enjoyed tax advantages that made incorporating an efficient way to organize a business.

The first U.S. corporations began to appear in the early nineteenth century and represented a new version of three older types of business organization: the joint stock company, the monopoly chartered by a monarch, and the medieval corporation (such as universities and trade guilds). The growing American economy needed large, financially strong organizations to build expensive highways, canals, and railroads. At first, individual states issued thousands of special “charters” to establish these new corporations. After the American Civil War (1861–65), states began to compete with each other to attract corporations by writing incorporation laws that offered corporations an increasingly generous range of powers and advantages. Beginning with the Sherman Anti-Trust Act in 1890 the federal government successfully curtailed the power of the big corporations. A century later, this consumer protection process against the corporation was enacted again

when the U.S. government sued Microsoft Corporation for “monopolistic” practices.

***See also:* Civil War (Economic Impact of), Microsoft, Monopolies, Sherman Anti-Trust Act**

COST OF LIVING INDEX

The Cost of Living Index is a term used to describe a method by which the government measures the rise and fall of prices in the economy. Such measures are important because much government policy, such as the amount paid to senior citizens in Social Security checks, is adjusted according to changes in the cost of living. The Consumer Price Index (CPI), known informally as the cost of living index, is the best known of the government’s measures of price changes. The CPI is calculated by tracking changes in the price of a set of consumer items (such as gasoline, housing, dairy products, clothing, etc). The average price increase or decrease for this list is expressed in terms of a percentage change; for example, “the cost-of-living index rose two percent last year” means that consumer prices, on average, rose by two percent. The index is designed to reflect, as realistically as possible, the actual price changes that households face in daily life.

Since a process of steadily rising prices is known as inflation, the rate of change in the CPI is often called the inflation rate. The CPI is one of the most closely watched of all economic indicators. The CPI is the basis for calculating changes in many types of benefit payments, such as pensions. In addition, the government uses the CPI to help set economic policy. A sharply rising CPI may lead the government to restrain economic growth, either by raising taxes or raising interest rates. A very low CPI, in turn, means that inflation remains in check, and the government may decide to stimulate economic activity by cutting taxes or lowering interest rates.

Economists debate how accurately the CPI measures price changes. Some economists contend that the CPI may be somewhat inaccurate because, they argue, it may put too much emphasis on some consumer items, such as milk or gasoline, or not enough on others, such as computers or movie tickets. It is also important to note that the CPI probably will not reflect the experience of any one family. A family that is very careful about how it shops may have a lower cost-of-living index than a family that pays little heed to price changes.

Cotton Gin

The government agency that calculates the CPI is the Bureau of Labor Statistics. The CPI is issued monthly.

See also: **Consumer Price Index, Inflation, Price**

COTTON GIN

American inventor Eli Whitney (1765–1825) is credited with developing the cotton gin, a machine that removes cottonseeds from cotton fibers. A simple cotton gin (called the *churka*) dates back to ancient India (300 B.C.). But Whitney's gin would prove to be far superior. In 1792 Whitney, who had recently graduated from Yale University, was visiting the Georgia plantation owned by Katherine Greene, widow of American Revolution hero General Nathaniel Greene (1742–1786). Whitney observed that short-staple (or upland) cotton, which has green seeds that are difficult to separate from the fiber, differs from long-staple (also called Sea Island) cotton, which has black seeds that are easily removed. The latter was the staple of American commerce at the time.

In 1793 Whitney, who is described as a mechanical genius, completed an invention that could be used to clean bolls of short-staple cotton of their seeds. He patented it the next year. The machine worked by turning a crank, which caused a cylinder covered with wire teeth to revolve; the teeth pulled the cotton fiber, carrying it through slots in the cylinder as it revolved; since the slots were too small for the seeds, they were left behind; a roller with brushes then removed the fibers from the wire teeth.

The cotton gin revolutionized the American textile industry which was then but a fledgling concern. The increase in the production of processed cotton was phenomenal. One large gin could process fifty times the cotton that a (slave) laborer could in a day. Soon plantations and farms were supplying huge amounts of cotton to textile mills in England and in the Northeast of the United States where in 1790 another inventor, British-born industrialist Samuel Slater, had built the first successful American water-powered machines for spinning cotton cloth. Together the inventions founded the American cotton industry. Whitney struggled to protect his patent. His problem was getting Southern courts to enforce his patent. The courts, dominated by plantation interests, refused in every case to uphold his patent.

For the southern slaves, Whitney's invention was a disaster. Prior to the invention of the cotton gin a consensus had prevailed that slavery would fade away.

There were the moral objections to slavery (which, however, for the first 250 years of its existence in colonial and early republican America, never seemed to be quite persuasive enough to put an end to it). But there was also the fact that slavery was inefficient when applied to most kinds of agriculture or skilled production. Cotton, however, was a labor-intensive crop requiring large gangs of workers moving through the fields at different times in the growing cycle, planting, hoeing, and harvesting. With the invention of the "gin," cotton suddenly became a highly profitable cash crop. Although the Constitution had stipulated that the importation of slaves would end in 1808, now the price of slaves rose and the slave system was reinvigorated at the very time when it was being outlawed in most of the rest of the world.

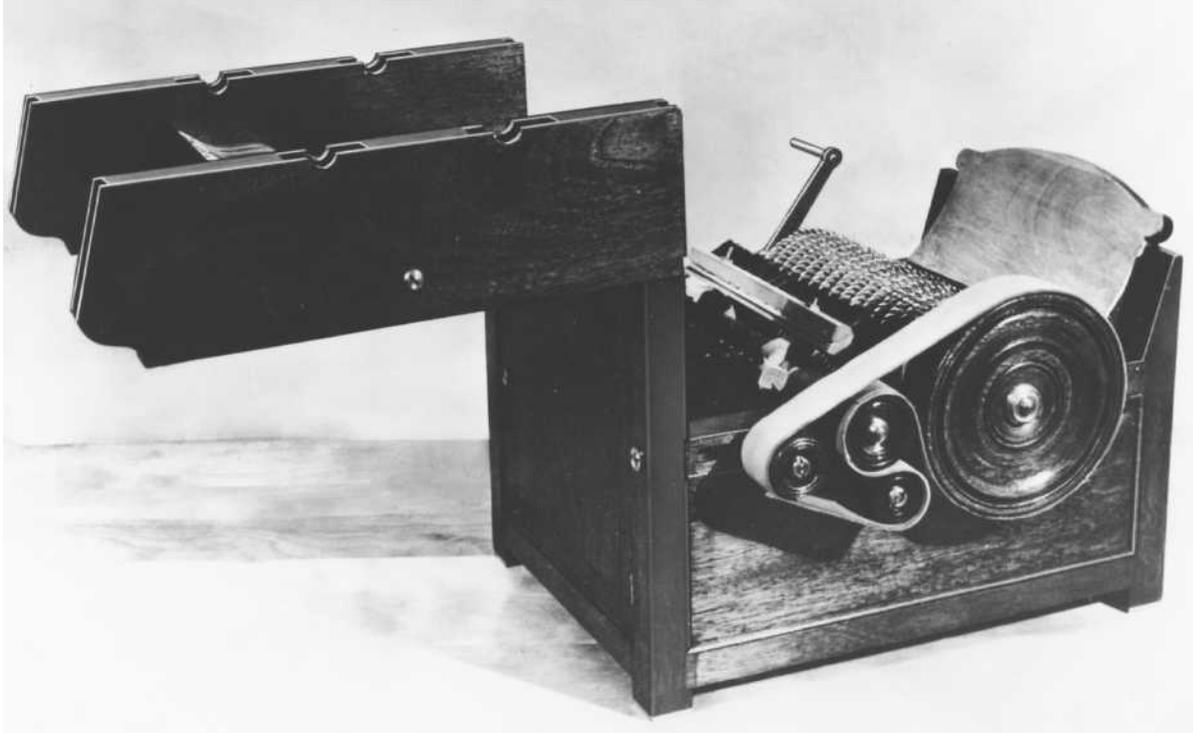
See also: **King Cotton, Samuel Slater, Slavery, Textile Industry**

COUGHLIN, CHARLES EDWARD

Charles Edward Coughlin (1891–1979) is not a household name in the later part of the twentieth century, when talk radio has taken on such a prominent role in public discourse. But from 1926 to 1940, this name was well known as a radio voice with a mission. A Roman Catholic priest first, radio personality second, and political activist third, Charles Edward Coughlin was a pioneer in radio talk who used the medium to promote his church, his religious beliefs, and his political agenda.

Born on October 25, 1891, in Hamilton, Ontario, Canada, Coughlin was educated at Catholic schools and at St. Michael's College of the University of Toronto. He was ordained a priest in the Roman Catholic Church in 1916, and was assigned to assist parishes in the Detroit, Michigan, area. Coughlin was made a full parish priest (i.e. incardinated) by the Detroit diocese in 1923. In 1926 he was assigned his own church, the new Shrine of the Little Flower in Royal Oak, Michigan. Coughlin set about building the new parish by publicizing it. He began broadcasting a weekly show of religious topics over the local radio station, which proved to be widely popular, and within four years the show was picked up by the Columbia Broadcasting System (CBS) for national play.

Coughlin began his radio career speaking entirely on spiritual and religious matters. But by 1930 he spoke out strongly against communism. His denunciations gained him a reputation and earned him an



A cotton gin.

appearance before the Committee to Investigate Communist Activities of the U.S. House of Representatives. The Great Depression (1929–1939) had begun by the end of 1930, however, and Coughlin's attention over the air waves turned to matters of poverty and despair.

“The radio priest,” as he was known, addressed social problems through the years of the Great Depression, and he attacked Bolshevism and socialism as enemies of social justice. His constant attacks on the Hoover administration (1929–1933) and other controversial subjects in his broadcasts caused CBS to discontinue them in 1931. Coughlin then put together an independent broadcast network that eventually grew to 26 stations.

Coughlin championed Franklin D. Roosevelt (1933–1945) in the presidential election of 1932, calling the choice “Roosevelt or ruin.” In turn, Roosevelt cultivated Coughlin's support but did so without embracing the politics of the priest. Coughlin advocated a program for altering American capitalism keyed to monetary inflation, which was based upon a late nineteenth century Papal encyclical, *Rerum novarum*. When Roosevelt refused to fully accept his ideas, however, Coughlin turned on Roosevelt and became a bitter critic.

Coughlin formed the National Union for Social Justice in 1934, an organization dedicated to combating communism and fighting for currency inflation and

government control of big business. By 1936 Coughlin's animosity towards Roosevelt had grown to the point that he not only actively spoke out against his reelection, but also made his National Union for Social Justice the nucleus for the Union Party, an independent opposition party. The Union Party, inheritors of the followings of the late Huey P. Long (1893–1935) and Francis E. Townsend (1867–1960), polled fewer than 900,000 votes in Roosevelt's landslide victory in 1936. The National Union died with the election.

Charles Coughlin's influence declined over the next several years. He established a magazine, *Social Justice*, which ran from 1936 to 1942. He organized a new vehicle for his ideas, the Christian Front, and publicly pushed for his program and opposition to Roosevelt. As the 1930s wore on, however, Coughlin concentrated more and more on Communists and Jews as the source of societal and economic problems. Eventually, his rhetoric embraced a program that was anti-Semitic and fascist. He advocated a corporate state under which most political institutions would be demolished.

Coughlin's controversial attitudes split the Catholic populace. In 1940 the larger radio stations in Coughlin's network of affiliates did not renew his contract. When he refused to moderate his positions against the government following Pearl Harbor in

The great betrayer and liar, Franklin D. Roosevelt, who promised to drive the money changers from the temple, had succeeded [only] in driving the farmers from their homesteads and the citizens from their homes in the cities. . . I ask you to purge the man who claims to be a Democrat, from the Democratic Party, and I mean Franklin Double-Crossing Roosevelt.

Father Charles Coughlin, 1936

World War II (1939–1945), his bishop officially silenced him. The U.S. Post Office banned his newsletter, and the last of the radio stations quit broadcasting his program. Still the good priest, Coughlin pulled back his activities to focus on the duties of running the parish.

For the remainder of his days, Coughlin accepted his less outspoken position and was effectively silenced. From the high days of his radio program, when he had to hire one hundred clerks to answer his mail and tabulate contributions, he remained the parish priest of the Shrine of the Little Flower until his retirement in 1966. From then until he died on October 27, 1979, he tended his home in Birmingham, Michigan, and wrote pamphlets denouncing Communism. A fiery, vibrant, and opinionated priest, he ultimately followed the orders of his church and restrained his own opinions.

See also: Communism, Socialism

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COUNCIL OF NATIONAL DEFENSE

Council of National Defense (CND) was an executive branch committee charged with the duty of inventorying the nation’s resources and reporting its findings and recommendations to the president during World War I (1914–1918). CND was required to appoint a seven-member advisory commission to carry out its functions. Later known as the National Defense Advisory Commission, this federal body was composed of cabinet members, industry executives, and labor leaders. They were asked to apply their specialized knowledge in mobilizing the military, governmental, commercial, and civilian sectors into a cooperative group aimed at bolstering the Allied cause through the exchange of information and materials. CND was established by the National Defense Act of 1916 during the presidency of Woodrow Wilson (1856–1924). Critics complained that CND lacked a clear mandate and was devoid of formal authority. Wilson, however, relied on CND in deciding how to allocate fairly scarce and valuable resources between the civilian and military production sectors. CND was briefly revived by President Franklin Roosevelt (1882–1945) in 1940 before it was replaced by the Office of Production Management in 1941, as the U.S. prepared to enter World War II (1939–1945).

See also: World War I

COVERED WAGON

The covered wagon came to symbolize America’s pioneer days. (The term was in use by 1745.) It consisted of a wooden wagon with a canvas top, which was supported by a frame of either wood or metal. Depending on size and cargo, the wagon was pulled by one team or several teams of horses, oxen, or mules. Pioneers relied on their covered wagons for shelter during long cross-country journeys. Another name for the covered wagon was prairie schooner, because the white canvas cover resembled the sails of a ship as it moved slowly across the “sea” of grasslands.

Another type of wagon used during pioneer times was the Conestoga, so named for Pennsylvania’s Conestoga Valley, where it was first built during the early 1700s. Alternately called the camel of the prairies, the Conestoga was an *uncovered* wagon, pulled by teams



A family poses with the covered wagon in which they live and travel during their pursuit of a homestead.

of four to six horses. This wagon had wide-rimmed wheels that prevented it from getting stuck in the mud. The wheels could also be removed so that the wagon could be used as a boat or barge. For this reason, the front and back of the Conestoga were built higher than its middle section.

See also: Westward Expansion

COW TOWNS

Cow towns were cities that sprang up at railroad terminals in the West. Abilene and Dodge City, Kansas, were two early and celebrated cow towns (also called cattle towns). Beginning in 1867, when the Union Pacific Railroad reached westward as far as Abilene, cowboys began driving large herds of cattle from Texas northward along the Chisholm Trail which were then loaded on trains and transported to markets in the eastern United States.

The cattle industry prospered in the years following the American Civil War (1861–65): demand for beef rose at the same time as large herds of cattle, the offspring of cows and bulls left behind by early Spanish settlers, roamed wild on the open range. Cowboys were hired to protect the herds from mountain lions and rustlers, round them up at the end of grazing season,

and drive them to railheads. At the end of the long trail drive, when the cowboys were paid, many of them went on spending sprees. With inns, saloons, and brothels that catered to the hard-working and free spirited cowboys, the cow towns were rough places. Many legendary lawmen, such as Wyatt Earp (1848–1929) and Wild Bill Hickock (1837–76), earned their fame trying to maintain law and order in the cow towns.

By the mid-1880s, changes on the frontier brought an end to the “Wild West.” Settlers used barbed wire to fence in their lands, effectively closing the open range. Railroads also reached into formerly remote locations thereby eliminating the need for cattle drives. The days of the long cattle drives were over. But cow towns continued to prosper as trading posts, serving the interests of farmers and ranchers alike. Many of today’s thriving cities in the West grew out of the cow towns of yesterday—including Wichita, Kansas; Fort Worth, Texas; and Cheyenne, Wyoming.

See also: Barbed Wire, Cowboy, Chisholm Trail, Longhorn Cattle, Open Range, Prairie

COWBOY

The cowboy, a person who rounded up and “drove” large herds of cattle, figured prominently in U.S. life



Cowboy with lasso working on the Sherman Ranch in Genessee, Kansas.

from the mid-1860s to the mid-1880s. During this 20-year period the cattle industry in the West grew rapidly.

After the Civil War (1861–65) demand for beef increased, and butchers in the East and North were willing to pay handsomely for it. At the same time, large herds of cattle, produced by bulls and cows left behind by the early Spanish settlers, roamed freely on the open ranges of Texas. Seeing the business opportunity, cattle ranchers hired cowboys to round up the cattle, brand them (burn the skin with a rancher's mark or symbol), release them again onto the open range, protect them from rustlers, and at the end of the grazing season, round them up. The cowboys then ran a trail drive—guiding the cattle as far as 1,500 miles (2,400 kilometers) to the nearest railhead, where the animals were loaded into railcars and transported eastward. The train terminals at Abilene and Dodge City, Kansas, made those cities into “cow towns,” frontier boom towns of the cattle industry.

By 1870 cattle ranches had spread northward into present-day Kansas, Colorado, Wyoming, South Dakota, North Dakota, and Montana. Between 1860 and 1880, the cattle population in these areas increased from 130,000 to 4.5 million. Where the cattle went, so did the cowboys, conducting roundups twice a year. Though there were probably no more than 100,000 cowboys (also called cowpokes or cowhands) in the West, they captured the American imagination and came to symbolize the days of the “Wild West.” (As many as 25 percent of the mounted cowboys were African Americans.) The innovation of barbed wire (1874) allowed ranchers to fence in their lands, and by the 1880s the railroads reached into previously remote

areas. The long cattle drives became a thing of the past and the need for cowboys declined.

See also: Cow Towns, Barbed Wire, Open Range, Chisholm Trail, Prairie, Longhorn Cattle

COXEY, JACOB SECHLER

Jacob Sechler Coxey (1854–1951) was a successful manufacturer and unusual reform leader. An advocate of pure paper currency and a champion for the unemployed, he was perhaps best known for organizing “Coxey’s Army” of unemployed men to march on Washington, DC, in the first public protest of its kind.

Jacob Coxey was born on April 16, 1854 in Selinsgrove, Pennsylvania, the son of Thomas and Mary Sechler Coxey. His father worked as a sawmill engineer. When Jacob Coxey was six years old, the Coxey family moved to Danville, Pennsylvania, where the boy went to school. Coxey quit school at age fifteen to work in an iron mill as a stationary engineer. In 1878, at the age of 24, he started his own business as a scrap iron dealer. He moved to Massillon, Ohio, in 1881 and opened a sandstone quarrying factory. This business supported Coxey and his family, while the proceeds allowed him to pursue a second career in politics.

In 1877 Coxey joined the Greenback Party, which supported the idea of switching to a pure paper (green back) currency as opposed to one based on gold or silver. Coxey was a firm supporter of monetary reform, declaring that “the government should not only coin money but issue it and get it direct to the people without the intervention of banks.” In 1885 Coxey ran unsuccessfully as a Greenback candidate for the Ohio State Senate.

Coxey’s politics combined many of the ideas that were being pursued separately by the Greenbacks, Populists, and labor groups. Coxey believed that the combination of these ideas would restore the country to prosperity. He specifically supported a more plentiful currency, public works projects in cities, better transportation in rural areas, and jobs for the unemployed.

Following the financial panic of 1893 Coxey called for government investment in public works projects such as road-building. He particularly wanted Congress to adopt two bills. The first was the Good Roads Bill, which would require the government to issue \$500 million of legal tender currency to improve county roads. The second was the Non-Interest-Bearing Bond Bill, which allowed any government body to obtain funds for public works through the issuance of

bonds without interest. In addition, both bills required the government to employ any unemployed man who applied for a position, at a minimum wage of \$1.50 per day, to work on these projects.

Coxey's ideals affected him personally when he was forced to lay off 40 laborers from his company. He then decided to become an advocate for the unemployed. Coxey joined forces with Carl Browne, a former radical politician and cartoonist from California. While Coxey was said to be soft-spoken and quiet, Browne was a flamboyant and eccentric character who dressed like Buffalo Bill. Together the two reformers organized a group of unemployed men to march across Ohio, Pennsylvania, and Maryland, to the capitol in Washington, DC, in an attempt to bring attention to their plight. "Coxey's Army" consisted of about 100 men when they left Ohio on Easter Sunday, March 25, 1894. When they arrived in Washington, DC, on May 1 that same year there were approximately 500 men. Coxey was not granted an audience with President Grover Cleveland (1885–1889, 1893–1897) but instead was arrested. Though Coxey did not succeed in his mission, he did introduce a new form of public protest—the march.

Despite this disappointment, Coxey continued to fight for his causes. In 1894 he ran unsuccessfully for Congress on the Populist ticket. Three years later he ran for governor of Ohio and was again defeated. In 1914 Coxey led another march on Washington, DC and this time he was allowed to speak to an audience from the Capitol steps. In 1922 he was given the opportunity to speak to President Warren Harding (1921–1923) and he argued for the abolition of the Federal Reserve System, which he believed to be a tool of the banking interests that he opposed.

Coxey continued to pursue political office in the early 1900s, running unsuccessfully for Congress, Senate, and President. He finally won a position as mayor of Massillon, Ohio in 1931, but lost his reelection bid in 1934. On the 50th anniversary of his first march on Washington, DC, May Day 1944, the 90-year-old Coxey was again given the opportunity to address a crowd from Capitol Hill. He died on May 18, 1951 in Massillon.

See also: Federal Reserve System, Gold Standard, Greenback Party, Greenbacks, Unemployment

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CREDIT

Credit allowed consumers and borrowers the power to buy something or receive money in exchange for future repayment with added interest. Credit card companies extended credit to consumers that allowed them to be in possession of goods and services before they were paid for. Businesses often purchased their raw materials from other businesses in advance through "trade credit," the most common form of short-term credit.

Credit was extended by individuals, businesses, and governments to pay for a variety of projects or purchases. The provision of credit generated debt that had to be repaid within a specified period of time. To protect themselves from the risk that a borrower might never repay, credit lenders charged the borrower interest. Commercial banks were the most important source of credit in the United States; they had the power to expand the amount of credit available in the economy through their willingness to assume the risk of extending credit to individuals and businesses.

In 1913 the Federal Reserve System was given the power to raise or lower the interests rate that determined how "expensive" it was for banks to extend credit. When interest rates were low, banks were more willing to borrow money from the Federal Reserve, which increased the amount of credit they could extend to consumers and businesses.

The amount of credit extended to consumers and businesses grew enormously in the twentieth century. Credit growth was fueled by the introduction of the credit card and the adoption of sophisticated "credit scoring" techniques that helped lenders analyze the creditworthiness of borrowers. To help fund World War II (1939–1945) and the Korean War (1950–1953), the Federal Reserve imposed "selective controls" on

Credit Union

the amount of credit that could be offered to consumers. However by the 1990s the willingness of U.S. lenders to extend credit and of consumers to take on credit debt created a credit crisis. In 1996 a record 1.35 million U.S. citizens filed for bankruptcy, and by mid-1996 U.S. credit card balances had reached \$444 billion.

See also: Federal Reserve System

CREDIT UNION

Credit unions were not-for-profit financial institutions formed by people who, joined by a common interest, pooled their savings and made loans to each other at below market rates. There were three fundamental differences between credit unions and savings and loan associations. First, credit union members usually worked at the same company, lived in the same community, or belonged to some other common organization, like a church. The second difference was that the money that credit unions loaned was generally used for prudent, short-term consumer loans, such as medical procedures, car purchases, emergencies, or home improvements. Finally because credit unions were based on the notion that their members shared community ties, they took a more flexible, personal approach to evaluating the creditworthiness of those they loaned to.

The first credit unions appeared in Germany in the middle of the nineteenth century, but it wasn't until 1909 that the first credit union was established in the United States. In that year a credit union opened in Manchester, New Hampshire, and Boston businessman Edward Filene successfully convinced his state legislature to legalize credit unions in Massachusetts. In 1921 Filene founded the Credit Bureau National Extension Bureau (CBNEB) to promote credit union expansion nationwide.

The CBNEB was replaced in 1934 by the Credit Union National Association, and 41 of the 48 U.S. states made it legal to operate credit unions. In the same year the Federal Credit Union Act made it possible for credit unions to be established anywhere in the United States, and by 1969 there were almost 24,000 credit unions nationwide.

In 1970 two federal agencies helped to further legitimized the credit union industry. The National Credit Union Share Insurance Act extended federal deposit insurance coverage to include credit union assets. The National Credit Union Administration was also established to regulate the credit union industry.

Following federal moves to strengthen public trust in credit unions, the number of U.S. credit unions dwindled as smaller unions consolidated to offer more services. Nevertheless, the number of individual credit union members increased. By 1999 credit union membership in the United States had climbed to more than 72 million.

See also: Savings and Loan Association

CROLY, HERBERT

Herbert Croly (1869–1930) was a writer and editor best known for founding the politically influential journal called the *New Republic*. The magazine became the voice of the “New Nationalism” and was instrumental in delaying the entry of the United States into World War I (1914–1918). Croly also wrote books outlining his views for a strong central government.

Herbert Croly was born January 23, 1869 in New York City to a family of writers. His mother, Jane Cunningham Croly, was a successful writer and editor, and his father, David Croly, was an abolitionist and editor for the *New York Daily Graphic*. The Crolys sought a good education for their son. Herbert Croly first attended J.H. Morse's English, Classical, and Mathematical School for Boys. At the age of fifteen he enrolled in the City College of New York. Two years later Croly moved to Cambridge, Massachusetts, to attend Harvard University. His success at Harvard was mixed, and he was enrolled there on and off for fourteen years.

In 1888 Croly left school to work as his father's secretary. He then took a job as the editor of the *Real Estate Record and Guide*, a magazine issued to help real estate agents keep up with the rapid changes occurring in New York. Three years later, Croly switched jobs to work on the staff of the *Architectural Record*. In the same year, Croly married Louise Emory, the daughter of a moderately wealthy family. Croly returned to Harvard in 1892, where his studies were interrupted when he suffered a nervous breakdown. He and his wife then traveled to Europe for a year so that Croly could recover. He returned to Harvard again in 1895, studying philosophy. His classes introduced him to inspiring thinkers, such as psychologist William James and educational philosopher John Dewey, whose ideas would later influence Croly's writings.

In 1899 Croly again left Harvard to edit the *Architectural Record*. He demoted himself to associate editor in 1906 and worked part time so that he could

write a book about his views on society and politics. The late 1800s were a time of great change as the United States became an industrialized society. Croly believed that the growth of big business needed to be guided by the government, and he supported a system with a strong and organized federal government. By 1909 Croly had written a 450-page book, *The Promise of America*, outlining his views on U.S. history. Croly explained in his book his belief that the years between the war of the American Revolution (1775–1783) and the American Civil War (1861–1865) were dominated by a pioneering spirit. When the wild frontier began to disappear people in the United States began to search for ways to put their country and their lives in order. As the country grew it was difficult for U.S. citizens to protect their interests under the weak central governments of Presidents Thomas Jefferson (1801–1809) and Andrew Jackson (1829–1837). The promise of America was being threatened by the closing of the frontier, powerful corporations, organized labor, and the growing role of the United States in world politics. The answer to this problem was a revival of U.S. nationalism and a government that served the people. A strong government would ensure that big business served national interests, preserve international peace, and redistribute wealth equitably among U.S. citizens.

While Croly's book was not a bestseller, it appealed to a number of intellectuals and politicians, including President Theodore Roosevelt 1901–1909). Roosevelt's "New Nationalism" reforms were strongly influenced by Croly's work. Due to the book's success, Croly was finally awarded a Bachelor of Arts from Harvard in 1910. Four years later, Croly joined Willard and Dorothy Straight in the creation of a new magazine dedicated to exploring the ideas outlined in Croly's book. Croly became the editor of the *New Republic*, which published its first edition on November 7, 1914, the day World War I began in Europe. Croly hired talented writers such as Walter Weyl, Walter Lippmann, and Felix Frankfurter, who were already well known champions of socialism. The provocative journal was an instant success and circulation reached 40,000 by the end of World War I.

Croly and the magazine became strong supporters of Woodrow Wilson's (1913–1921) presidency, and the magazine influenced Wilson's decision to delay the United States' entry into World War I. Despite this rapport with the president, Croly, in an editorial published by the magazine, denounced the Treaty of Versailles, which ended the war. This controversial position cost the *New Republic* half of its circulation.

Croly became very pessimistic about the policies and economy of the United States after World War I.

He eventually left the *New Republic* to write independently and became a political advisor. In the last years of his life Croly moved away from politics altogether and devoted his final years to studying religious and metaphysical questions. He died on May 17, 1930.

See also: Publishing Industry, Socialism

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CROSS OF GOLD SPEECH

William Jennings Bryan (1860–1925), a populist firebrand, delivered his famous "Cross of Gold" speech at the Democratic Party's national convention held in Chicago in 1896. The convention went on to nominate Bryan as the Democratic candidate for president. Bryan's speech, in which he declared that advocates of hard money should not be allowed to "crucify mankind upon a cross of gold," was a dramatic expression of one of the central battles in the political history of the United States. The confrontation between hard and soft money proponents reached back to the American Revolution (1775–1783) and followed in large measure regional and class lines. By 1896, the clash over monetary policy had become one of the central issues in the presidential campaign.

Hard money proponents believed U.S. currency should be backed by the gold standard in the interest of economic security and stability. For this group, government debt and inflationary policies debased the currency and undermined confidence in the economy, leading to the flight of capital. The gold standard, which theoretically limited the amount of money in circulation to the supply of gold, restrained the power

Having behind us the producing masses of this nation and the world, supported by the commercial interests, the laboring interests and the toilers everywhere, we will answer their demand for a gold standard by saying to them: You shall not press down upon the brow of labor this crown of thorns, you shall not crucify mankind upon a cross of gold.

William Jennings Bryan, Democratic Presidential Candidate, "Cross of Gold" Speech, 1896

of government and of banks to trigger inflation with excessive emissions of paper money.

Bryan and other advocates of the free coinage of silver, or a "soft money" policy, believed that moderate inflation was not an economic evil but a vital boost to economic development. Indeed, in the context of 1896, Bryan and his followers argued that an increase in the supply of money, based on the unlimited coinage of silver at a ratio to gold of 16 to 1, was necessary medicine for the depressed economy after the Panic of 1893.

On the presidential stump in 1896, Bryan continually hammered at the monetary issue, portraying eastern stockbrokers, industrialists, and bankers as dangerous opponents of farming and labor interests. Bryan's brand of class warfare created a split in the Democratic Party. Although western and southern Democrats believed an increase in the money supply would eliminate the scourge of low agricultural prices, eastern "gold" Democrats were appalled by Bryan's rhetoric and position on silver. Many Democrats, including former president Grover Cleveland (1885–1897), refused to campaign on behalf of Bryan.

Although Bryan campaigned tirelessly and effectively, his Republican opponent, William McKinley (1897–1901), carried the day, with 7,036,000 popular votes to Bryan's 6,468,000 votes. Bryan's loss was not completely due to business and financial interests lining up solidly against him. Farming interests also voted for McKinley in large numbers, particularly in those states not severely affected by the agricultural depression, such as Michigan and Wisconsin. Most of the labor vote also voted Republican, impressed by McKinley's honesty and his long record of supporting the rights of industrial workers. While governor of Ohio, McKinley supported the arbitration of industrial disputes and upheld a law fining employers who prevented their workers from joining unions.

With their defeat in the election of 1896, the advocates of free silver faded in significance. Ironically, new gold discoveries in Alaska and South Africa, as well as new extraction techniques, led to a dramatic expansion of the money supply in the United States.

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CUMBERLAND GAP

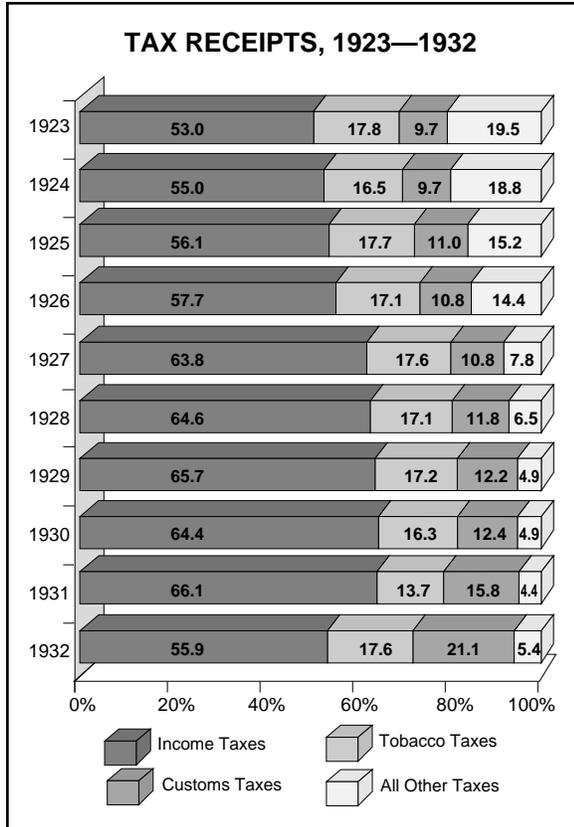
The Cumberland Gap is a mountain pass in Claiborne County, northeastern Tennessee near the intersection with Kentucky and North Carolina. A natural low spot in the Cumberland Plateau range of the Appalachian Mountains, the gap rises only to 1,650 feet (500 meters). The gap was first discovered by European Americans in 1750 when land speculator and explorer Thomas Walker (1715–94) led a party to survey lands in the west. The Wilderness Road, forged between 1761 and 1771 by American pioneer Daniel Boone (c. 1734–1820), ran through Cumberland Gap. The gap became a strategic military objective for both sides during the American Civil War (1861–65). Today it is a National Historic Park.

See also: **Appalachian Mountains, Back Country, Daniel Boone, National Road, Wilderness Road**

CURRENCY

Currency refers to money in any form, either paper or coin, as long as it is in "current" use to pay for goods and services. Although it may have collector's value, money that is no longer accepted for payment, such as coins from ancient Rome, is no longer considered currency. Economists sometimes use the term currency in various specialized ways. A reserve currency, for example, is any medium of exchange, such

CUSTOM DUTIES



Tax receipts from 1923–1932 depicts the percentages of federal revenues collected including customs taxes. The custom tax is a charge collected by the federal government on goods brought into the U.S. from other countries.

as gold, that is used for settlement of international debts. The U.S. dollar, which serves as currency within the United States, also serves as a reserve currency to settle accounts which arise from trade among many nations.

See also: Money

Custom duties are charges or taxes collected by the federal government on goods brought into the United States from other countries. The tax rates are computed as a percentage of the price of the goods.

An agency of the Department of the Treasury, the U.S. Customs Service was established in 1789 to levy and collect custom duties. Prior to the advent of personal income taxes in the 1910s, various duties provided most of the federal government’s revenue. In the 1990s the Service administered seven regions in the United States, Puerto Rico, and the Virgin Islands. Within the seven regions there are 300 ports of entry where agents inspect the baggage of all travelers returning from foreign countries. Returning travelers must declare any articles brought in from abroad. “Declare” means to identify and state the dollar value of the article. Amounts up to \$400 are exempt from any duty tax. Amounts over \$400 incur a duty. An individual may only claim the \$400 exemption once every 30 days. Also, the individual’s trip abroad must have lasted at least 48 hours. Trips to Mexico or the Virgin Islands do not fall under the 48-hour rule. If the traveler is not able to claim the \$400 exemption because of the 30 day period or the 48-hour rule, they can claim a \$25 exemption but must pay duties on all values over \$25.

Customs prohibits illegal drugs, dangerous weapons, and obscene publications from entry into the United States. Custom duties produced little federal revenue in the 1990s, but they served as an important policing tool in preventing smuggling and enforcement of many federal laws concerning illegal substances.

See also: Tariffs



DE-INDUSTRIALIZATION

De-industrialization can be understood as the steady erosion of the industrial base of the United States, especially in the North-Eastern “fertile crescent” of heavy industrial investment from Chicago to New England. It is associated both with cheap industrial imports from newly industrialized countries as well as with the ongoing transformation of the maturing economy of the United States itself. The availability of import items (cars, for instance) at lower cost has created intensely competitive conditions for industrial employment in the United States. As the steel plants and automobile factories built in the early twentieth century got older and less efficient, jobs disappeared, and many U.S. blue-collar workers had to seek jobs outside of the traditional, often unionized and high-wage industries. They often found employment in mostly non-union, relatively poorly paying service jobs. In the 1970s, many U.S. corporations began to shut down their plants in high wage areas and relocated them in the newly industrialized, cheap labor areas of South Korea, Hong Kong, Taiwan, and Singapore. Low-skilled workers in U.S. industry have experienced the biggest losses. Workers displaced by foreign competition were forced to seek jobs in lower paying service industries, while industrial production in the United States eroded. De-industrialization, which began in the 1970s, the corporate merger-mania of the 1980s, and government neglect of trade policy all seem to have set the stage for a massive loss of high-paying jobs for millions of U.S. workers during the last three decades of the twentieth century.

See also: Corporate Restructuring, Rust Belt

DEBS, EUGENE VICTOR

Eugene V. Debs (1855–1926) was a pioneer labor organizer and five-time Socialist Party candidate for

the U.S. Presidency. Debs advocated abolition of child labor, the right of women to vote, unemployment compensation, and a graduated income tax. His proposals were radical in the early twentieth century, but later became standard public policy for both major political parties.

Born on November 5, 1855 in Terre Haute, Indiana, Debs left home at age 14 to work in a railroad shop, where he was paid 50 cents a day for scraping grease and paint from locomotives. He later became a locomotive fireman, and in 1875 Debs helped organize a local lodge of the Brotherhood of Locomotive Firemen. An active union member, he became editor of the association’s *Firemen’s Magazine* in 1878 and was elected national secretary and treasurer of the union in 1880. He also served as city clerk of Terre Haute from 1879 to 1883 and as a member of the Indiana legislature in 1885.

Early in his career Debs gained recognition as an effective labor organizer. In addition to organizing numerous locals for the Brotherhood of Locomotive Firemen he was an organizer for other railroad-related labor organizations. They included the Brotherhood of Railroad Brakemen, the Switchmen’s Mutual Aid Association, the Brotherhood of Railway Carmen, and the Order of Railway Telegraphers. Since these organizations failed to join together in their dealings with management, Debs found a union that would include all railroad workers, the American Railway Union in 1893. He later became its president. Against Debs’s advice the new union participated in the Pullman Strike of 1894 in sympathy with Pullman Palace Car workers. One of the most famous strikes in U.S. labor history, it nearly paralyzed commerce in the western half of the nation before it was finally halted by a federal injunction. For his involvement in the strike, Debs was jailed for six months in 1895 in Woodstock, Illinois.

Debs spent much of his prison time reading and was deeply impressed by the works of Karl Marx. He became convinced that no single union could protect the rights of workers. In the presidential election of

Debt

1896 he campaigned for the Democratic-Populist candidate William Jennings Bryan, but a year later Debs announced his conversion to socialism.

For the next 30 years Debs was the leading spokesman for democratic socialism to millions of U.S. citizens. He helped form the Socialist Party of America in 1898 and was its presidential candidate in 1900, 1904, 1908, 1912, and 1920. Debs attracted huge crowds during his energetic campaigns throughout the country; he was an exceptionally effective public speaker, winning wide support through his personal warmth, integrity, and sincerity. His speeches also raised much-needed funds for the Socialist Party. Though he failed to win a large percentage of the vote on election day, the number of people who voted for him was substantial, ranging from 96,000 in 1900 to 915,000 in 1920.

DEBS ADVOCATED ABOLITION OF CHILD LABOR, THE RIGHT OF WOMEN TO VOTE, UNEMPLOYMENT COMPENSATION, AND A GRADUATED INCOME TAX. HIS PROPOSALS WERE RADICAL IN THE EARLY TWENTIETH CENTURY, BUT LATER BECAME STANDARD PUBLIC POLICY FOR BOTH MAJOR POLITICAL PARTIES.

Debs's writings and speeches spread his ideas far beyond the confines of a relatively minor political party. In 1912 he ran for president against future president Woodrow Wilson (1913–1921), former president Theodore Roosevelt (1901–1909), and incumbent president William Howard Taft (1909–1913). At the time Debs found that both Wilson and Roosevelt were advocating many of the ideas he had introduced in earlier campaigns. In a spontaneous speech after he won the Socialist Party nomination in 1912 he eloquently expressed his underlying philosophy: "When we are in partnership and have stopped clutching each other's throats, when we have stopped enslaving each other, we will stand together, hands clasped, and be friends. We will be brothers and sisters, and we will begin the march to the grandest civilization the human race has ever known." Although he again lost the election, Debs considered the campaign a moral victory.

Instead of running for the presidency in 1916, Debs waged an unsuccessful campaign for Congress. In 1920 he ran for president as a Socialist candidate for the last time. He campaigned from a prison cell where he was serving a 10-year sentence for sedition under the 1917 Espionage Act. His case became a rallying point for those who believed he should be freed as a matter of freedom of speech. He was released from prison by order of President Warren Harding (1921–1923) in 1921, but he never regained his citizenship,

which was taken away from him at the time of his sedition conviction. It was restored in 1976, forty years after his death.

Following his release from prison, Debs spent the remaining five years trying to improve his impaired health and attempting to reconstitute the Socialist Party. Yet, in spite of the large and enthusiastic crowds that flocked to hear him, the 1920s was an era of capitalist domination and the Socialist Party was in decline. Although many of his followers had joined the Communist Party, Debs refused to do so because he opposed the Soviet system and its suppression of free speech.

In his final years he concentrated on prison reform, since he had firsthand experience about prison conditions. He also became interested in the trial of Sacco and Vanzetti, two Italian anarchists accused of murder. This case involved heightened public attention towards labor and political radicals. In the summer of 1926 Debs returned to a sanitarium where he had spent extended periods in 1922 and 1924. He died in Elmhurst, Illinois, on October 20, 1926.

See also: William Jennings Bryan, Labor Movement, Pullman Palace Coach Company, Pullman Strike, Railroad Industry, Socialism, William Howard Taft, Woodrow Wilson

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DEBT

Individuals, businesses, and governments all incur debts, which are amounts owed to others. Household or consumer debt most commonly resulted from auto loans, home equity lines of credit, credit cards, and personal loans.

During the 1990s consumer debt climbed rapidly, rising 20 percent a year between 1993 and 1996 alone.

By the end of 1996 consumers' outstanding credit card debt alone was approaching \$500 billion. Given these numbers, it is not surprising that between 1996 and 1997 the number of U.S. citizens filing bankruptcy claims climbed 25 percent—100 percent higher than in 1986.

Large corporations accrued debt in the form of short-term bank loans or longer-term debt like bonds in order to invest in their own futures, use their cash efficiently, or discourage other companies from considering a takeover. U.S. tax law encouraged firms to borrow money by allowing businesses to take tax deductions on the interest payments they make on their debts. When a corporation's debt came due, rather than pay it all off debt was generally rolled over by borrowing new funds—old debt was replaced with new debt.

Like individuals and businesses, governments got into debt when their expenses exceeded their revenues. Throughout U.S. history wars and recessions have been the largest causes of federal debt. The United States began with a \$75 million debt that was used to finance the American Revolution (1775–1783). Since only one quarter of the cost of the American Civil War (1861–1865) was paid using tax revenue, government budget surpluses for several years were used to pay off the \$2.7 billion Civil War debt. The next major war, World War I (1914–1918) raised the federal debt to \$26 billion, and the tax revenue the government lost because of the Great Depression (1929–1939) raised U.S. debt to \$43 billion by 1940. But World War II (1939–1945) expenses dwarfed any public debt in the country's history. Where U.S. debt had never exceeded one third of Gross National Product (GNP) before the war, in 1945 the government's debt exceeded the entire national GNP by 29 percent. For the most part the government remained in debt after the war. It reached crisis proportions in the 1980s, but the government now hopes to retire the debt by 2015 because of cuts in spending and a thriving economy. Although almost all discussions of government debt focused on federal debt, the debt of U.S. state and local governments was also quite large and totaled some \$454 trillion by the mid-1980s.

See also: Credit, Deficit, National Debt

DEERE, JOHN

With his invention of a practical steel plow John Deere (1804–1886) played a major role in opening up the Midwest in the United States to wide-scale productive agriculture. The pioneers' traditional iron and wood plows were no match for the rich, heavy soil of

the Great Plains of the United States. Deere's modern steel plow could cut through the earth with speed and efficiency. As an inventor and manufacturer Deere helped enable the settling of the United States. He brought to the new frontier effective agricultural equipment for the first wave of hard-working productive farmers who populated and settled the wilderness of the newly-founded United States.

Deere was born in 1804 in Rutland, Vermont, the son of a tailor. He spent his boyhood and young adulthood in Middlebury, where he attended school and served a four-year apprenticeship as a blacksmith. In 1825 he became a journeyman blacksmith. His careful workmanship and ingenuity earned him respect throughout western Vermont, and he soon became a financial success as well. When hard times hit the region in the 1830s, Deere decided to leave his wife and family temporarily and venture west.

Deere traveled both overland and by canal and lake boats for several weeks before he arrived in Grand Detour, Illinois. It was a community settled by fellow-Vermonters Major Leonard Andrus and others from his native state. The need for a blacksmith was so great that two days after his arrival in 1836 Deere had built a forge and was busy at work.

Deere quickly realized the iron and wooden plows his customers brought from the East were unsuited to the heavy clay soil they found in the Midwest. The plowing was slow and frustrating because the area's rich soil clung to their plow bottoms, and after short intervals it was necessary to scrape the soil off. Deere set about to invent a new kind of plow to make the most of this fertile but formidable land.

From a broken saw blade, Deere fashioned a curved plow blade, shaped by bending the material over a log. By 1838 he had made and sold three of these new plows. Continuing to refine his design he produced 10 improved plows in 1839 and 40 in 1840. Unlike other blacksmiths of his day who produced custom-ordered tools Deere went into the business of manufacturing plows before he had orders for them. He was more aggressive in selling them than any of his competitors, and his plows came to be considered the best available.

Deere's first plows had to be produced with whatever he could find at hand. By 1843 he had arranged for a shipment of special rolled steel from England. Shipped across the ocean and then up the Mississippi and Illinois rivers, the steel finally arrived at the little plow factory in Grand Detour by wagon. In 1846, when his annual output had grown to 1,000 plows, the first slab of cast plow steel ever rolled in the United States was



John Deere demonstrating his new plow.

made for Deere. It was shipped from Pittsburgh to Moline, Illinois. Deere moved there in 1847 to take advantage of the Mississippi River's water power and transportation potential.

The John Deere Company was officially organized in Moline in 1857. That year the company produced 10,000 plows that were carried in nearly every covered wagon heading further west across the prairie. The Deere plow became known as the "singing plow" because of the high-pitched humming sound it made while slicing through the dirt.

In 1858 Deere took his son Charles into partnership, and in 1868 the firm was incorporated as Deere & Company. The company soon expanded to manufacture cultivators and other agricultural implements. Deere remained president until his death at age 82.

See also: Mississippi River, Steel Plow

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DEFENSE SPENDING

Defense spending has become an issue in the twentieth century economy of the United States because of the vastly increased inputs of wealth into modern warfare. The constantly evolving military technology also enhances the impact of war and defense preparedness on the national economy. The "spin-offs" of defense-related research and development technology into civilian use is another important aspect of defense spending. To avoid the large costs of war most nations seek to deter aggression, at the first level,

by allocating resources for an ongoing minimum military capability, so that the costs to a potential aggressor of starting a war will far exceed any likely gains of aggression. The financial policies that a government uses to conduct war are collectively known as “war finances,” a branch of “defense economics.” The prime concern of defense spending is to determine what proportion of economic wealth a society must devote to war preparations and what is left over for the civilian sector of the economy. In the nuclear age economists concerned with defense spending have also had to plan for the allocation of resources for the different types of military confrontation that a country may face. Modern defense spending involves planning and weapons-development that pose extremely complex and problematic defense scenarios. For example, planners of defense procurement in the United States must decide how the government should spend its defense dollars. Should it invest on the “Strategic Defense Initiative” (SDI, or “Star wars”) anti-missile defense system that was first proposed during Ronald Reagan’s presidency? Should it concentrate on conventional warfare, or should it spend its money on counter-terrorism? The answers to these questions will shape the future of defense spending. It will establish the nature of the relationship between the government, the defense industry, and the research apparatus of major universities. It is a relationship that President Dwight Eisenhower (1939–1945) once identified as the emerging “military-industrial complex.”

See also: **Military-Industrial Complex**

DEFLATION

Deflation is a general and sustained reduction in the level of prices. It is the opposite of inflation. Falling prices may seem to bring widespread benefits to society, making everything more affordable; in reality, deflation may pose serious dangers. Falling prices are usually a sign that economic activity is slowing down to an alarming degree. That means that companies take in less money and make less profit; therefore, they can hire fewer workers and they may have to lay off those they have. Falling prices also mean that fewer companies will be able to invest in new plants and equipment. Failures to modernize can often hurt companies in the long run. With smaller paychecks, families will buy less, which further dampens economic activity. Extreme examples of deflation, most notably the Great Depression (1929–1939) of the 1930s, have been marked

by hardship and high unemployment. In general, economists prefer that prices neither rise nor fall too quickly; they instead prefer to see prices remain steady over time.

See also: **Inflation, Price**

DELAWARE

Delaware, the second-smallest state in the nation, was once compared by President Thomas Jefferson (1801–1809) to a diamond—small, but highly valued. Through most of its history this diminutive state, located between the Atlantic coast and Delaware Bay, has rivaled many larger states in economic prosperity. This prosperity has largely been associated in the public’s mind with the du Pont family, the entrepreneurs who created much of Delaware’s wealth in the chemical industry.

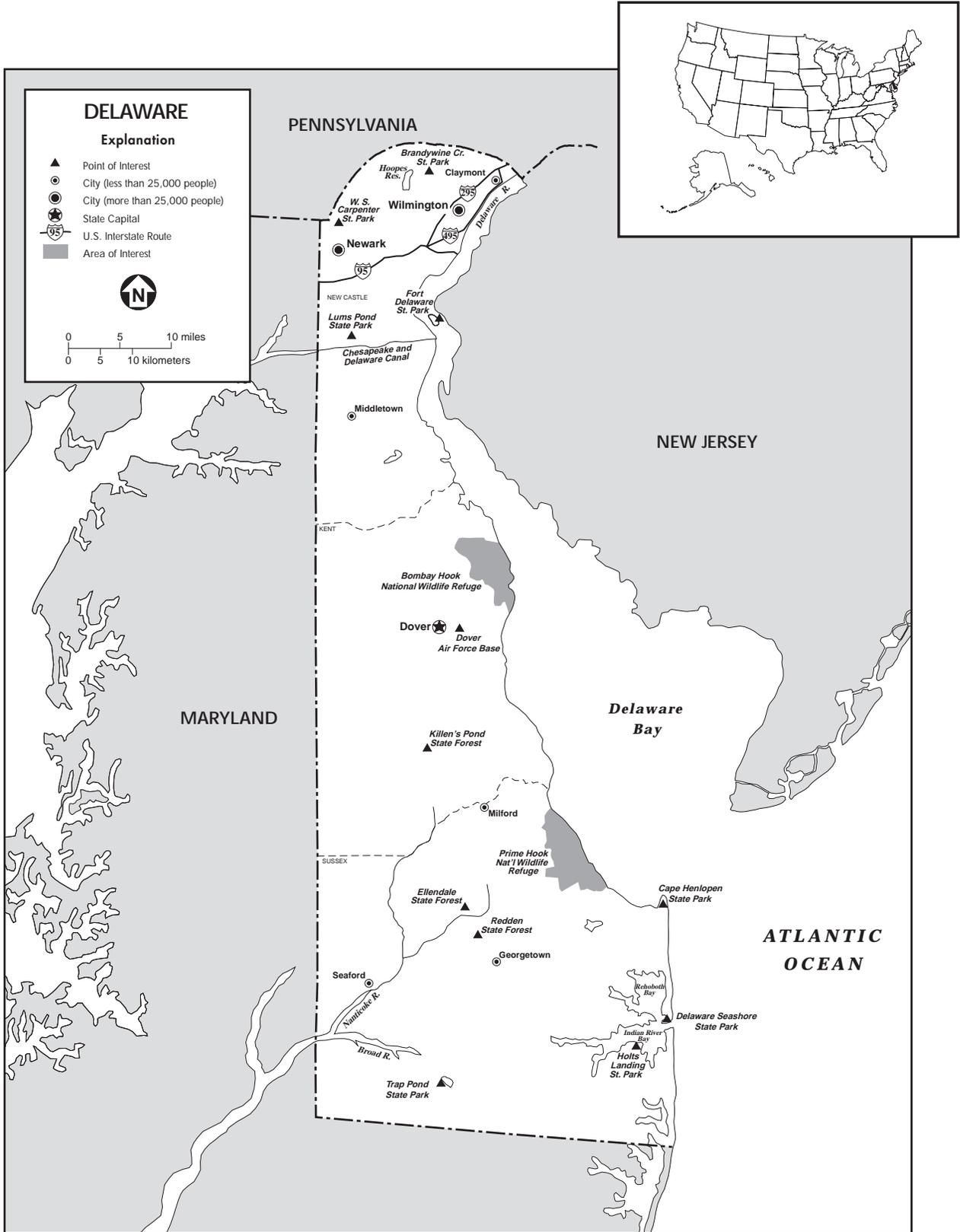
Both the Dutch and the Swedes staked out colonies in Delaware in the seventeenth century, but it was the English who took over the colony in 1664. The Duke of York ceded the colony to a proprietor, William Penn (1644–1718), who kept Delaware closely tied to his family and to his beloved Pennsylvania until 1776. Delaware was the first of the new states to ratify the U.S. Constitution in 1787.

When it was still a colony Delaware depended on agriculture. Tobacco was a major crop in the colonial period; it was superseded later by corn, wheat, and peaches. Fishing was also an important economic factor during this period. The industrial development of the state really started with the construction of railroads, the first being the New Castle and Frenchtown Railroad completed in 1832. Finished in 1838 the Philadelphia, Wilmington, and Baltimore Railroad made the industrial development of northern Delaware possible.

By 1900 the population of Wilmington grew dramatically and comprised forty percent of the entire population of the state. Immigrants from Ireland and Germany in the mid-nineteenth century and from southern and eastern Europe in the early twentieth century helped to fuel this population growth and staff the developing industries. While the north developed rapidly the southern portion of the state remained agricultural and largely lacking in economic development. Farmers only gradually began to take advantage of new markets provided by the railroad.

Important Delaware industries in the nineteenth century, mostly centered in Wilmington, included flour and textile mills, shipyards, carriage factories, iron foundries, and morocco leather plants. Shipbuilding in

Delaware



State of Delaware.

particular was a vital force in the economy during this time, with shipyards making wooden sloops, schooners, and fishing boats located in all the port towns along the Delaware and its tributaries.

In 1802 a French immigrant named Eleuthère I. du Pont, found the right combination of a power source on the Brandywine River, a good location between Philadelphia and New York, and an adequate supply of timber, constructed a mill to produce gunpowder. His family's friendship with then-President Thomas Jefferson helped assure him of government contracts. The area of Wilmington around the Du Pont factory rapidly became a company town, encompassing a large house for the du Pont family, row houses for the workers and even dormitories for single workers and a Sunday school building. Work days were long (averaging 12 hours) and wages, never very high for men, were even lower for women.

Well before the railroad came to Delaware, Philadelphia businessmen saw the need for a better transportation route between Philadelphia and Baltimore. They encouraged the building of the Chesapeake and Delaware Canal, linking the Chesapeake Bay in Maryland with Delaware Bay via the Delaware River, which was completed in 1829. This three-hundred-mile-long canal benefited Delaware by circumventing the longer sea route from Philadelphia to Baltimore. By this time packet steamboats were plying the canal. Big sidewheelers were also a familiar sight along the Delaware.

Around 1900 the Du Pont Company employed only around four hundred people. It was no more important in Wilmington than a number of other companies. After Alfred I. du Pont, a descendant of the founder, along with his cousins T. Coleman du Pont and Pierre S. du Pont, took over the company, it became a major producer of explosives. During World War I (1914–1918) the company supplied nearly 1.5 billion pounds of explosives for the Allies, securing the fortunes of the company and making possible a post-war expansion into the chemicals industry. In the late 1990s Du Pont manufactured a host of products such as gasoline additives, antifreeze, dyes, nylon, and rayon; the company employed 11 percent of Delaware's total work force. It had only one major rival, Dow Chemical.

T. Coleman du Pont was also instrumental in promoting the state's first major highway project, begun in 1911, to connect the southern part of the state with Wilmington. The Du Pont Highway became the hub of a network of highways that eventually crossed the state. The trucking industry soon became a major economic force in the state, making possible a healthy

poultry industry and boosting the grain industry associated with it.

During the 1950s the population of Delaware grew by forty percent. Both the Wilmington area and the state capital of Dover grew, mostly because of its large air base. One of the impacts of the population's rapid growth was that it strained the state's infrastructure and social services. However because chemical plant workers fled to the suburbs, Wilmington proper actually decreased in population by thirteen percent between 1920 and 1960. Industry followed the same path, with a large General Motors and a Chrysler plant appearing in suburban Wilmington and Newark, respectively. Du Pont also located a huge experimental station near the site of the original powder mills, among other facilities. Another major economic impact was the new interstate, I-95, which was built in New Castle County in the 1960s.

Delaware's unique combination of heavy industry and coastal beauty has brought concerns to the fore regarding environmental protection. In 1971 a Coastal Zone Act was passed, outlawing all new heavy industry because it would be incompatible with the coastal environment. In 1979 this law was amended to allow offshore drilling and construction of coastal oil facilities. Environmentalists remain concerned about the dangers posed by oil tankers in Delaware Bay.

The 1980s were good to Delaware, bringing in an era of economic improvement. Unlike most of the rest of the recession-plagued nation, Delaware prospered during this time. In 1988 Delaware's unemployment rate was only 3.3 percent, the second lowest in the country. A 1981 state law raised the usury limits (interest rates allowable for money lending) and lowered taxes for large financial institutions. This encouraged over thirty banks to set themselves up in Delaware, including such large concerns as Chase Manhattan and Manufacturers Hanover. In addition, the state has been friendly to foreign corporations who seek to incorporate in the state. Since 1899 Delaware has also had an unusual law which allows companies to be incorporated and chartered in Delaware even if they actually do no business in the state and have stockholders' meetings elsewhere. Along with the efforts of Delaware Economic Development Office and the Delaware Innovation Fund (a private fund designed to encourage new companies), this law has helped to bring many new businesses to the state.

In the 1990s Du Pont remained the driving force in Delaware's economy, ranking as the tenth largest U.S. industrial corporation, with sales of \$39,689 billion in

1997. A number of other sectors were contributing to the state as well. Other manufacturers were also flourishing, such as the Chrysler Corporation and those associated with the food products industry. Tourism was second only to manufacturing in importance, bringing in \$836 million in 1993. Some of the most popular tourist venues include Rehoboth Beach on the Atlantic coast and the state's many historic sites.

Not surprisingly, along with its economic success, Delaware faces social welfare problems and other difficulties associated with industrial growth and decay and with urban blight. The state has lagged well behind many others in welfare benefits and has also experienced housing shortages, urban sprawl, and pollution problems. Since the mid-1970s, however, Delaware has maintained a position as one of the nation's most prosperous states. Delaware ranked fifth among all the states in per capita personal income in 1996, with average per capita disposable income at well over \$23,000.

See also: Chrysler Motors, Éleuthère Irénée du Pont, General Motors

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DELL, MICHAEL

Michael Dell (1965–) started Dell Computer from his dormitory room in 1984, when he was a college freshman. In only 14 years, Dell's revenues zoomed to \$12 billion and the company became the third-largest computer maker in the world.

Born in 1965, Michael Dell appeared destined to be an entrepreneur from his early youth. When he was

only 12 years old, he worked as a water boy and dishwasher at a Chinese restaurant and saved enough money to start a stamp collection. He turned the collection into \$2000 via a stamp-trading enterprise he operated through the mail. In high school, while he worked as a newspaper delivery boy for the *Houston Post*, he expanded his roster of subscription clients by obtaining mailing lists of marriage license applicants. He then mailed personalized letters offering two weeks free service to newlywed couples. The enterprising teenager's paper route made between \$18,000 and \$20,000, which he used to buy his first BMW.

Dell's parents hoped their son would become a doctor. His father Alexander was an orthodontist. But soon after Dell entered the University of Texas in 1983, he was operating a business adding components to remaindered IBM and IBM-clone computers and selling them for a profit either by mail order or door-to-door on campus.

The summer following his freshman year at Texas, Dell was able to devote his full attention to his rapidly growing computer business. In the final month of his summer vacation he sold \$180,000 worth of personal computers and convinced his parents to agree he could quit school. He incorporated his company, PCs Unlimited, and began operating out of a storefront. By the end of 1984, the company's sales reached \$6 million.

By early 1985, PCs Unlimited had 30 employees, and in July of that year the company introduced its own computer, the Turbo PC. By the end of its second year of business, company sales reached \$34 million. The company was renamed Dell Computer Company in 1987, and went public in 1988. By 1993 sales surpassed \$2 billion.

Dell built his business by adhering to a few basic concepts. First, he realized that if he bought parts directly from suppliers and assembled computers himself, he could sell the finished products more cheaply. Dell also eliminated the middleman—the retail dealer—by selling directly to the consumer. This was another way to lower the price of individual units. He advertised in computer trade magazines and established phone numbers that customers could call to order a computer. Competitors scoffed at the idea that prospective buyers would make such a major purchase without first seeing the product. Dell, however, believed that experienced computer users would be comfortable ordering equipment over the phone or through the Internet, and those buyers comprised the market he was seeking to capture. Direct sales also appealed to

corporations and government organizations, which comprised 90 percent of Dell's customers.

Dell backed up his direct sales model by guaranteeing that customer service on Dell PCs would be first-rate. He also made a practice of never manufacturing a computer until it had been ordered, thereby eliminating backlogs of unsold merchandise. Finally, because each component ordered indicated a user preference, he used customer orders as an automatic form of market research.

The path of Dell's success was not without its twists and turns. In the early 1990s the company tried to introduce a high-end product, the Olympic, but it proved to have little customer appeal. Dell canceled the line entirely, revamped the way the company approached new products, and used the best of Olympic's new technology in other products. As Dell wrote in his 1999 autobiography, *Direct from Dell*: "Thanks to our customers, we turned a potentially disastrous mistake into a great opportunity, and pushed the company to the forefront of technological development."

After steady growth over 14 quarters, Dell Computer posted two consecutive quarterly losses in 1993. Dell moved quickly to bring in experienced managers to reorganize the company's operations. The company again began to focus on the bottom line. By the end of 1993 Dell Computer was again turning a hefty profit, and in the next three years its revenues grew 50 percent a year. By the end of 1997 (after 16 consecutive quarters of growth in revenues and earnings) the company expanded into the server business to better compete in the corporate market. Michael Dell led his company in an international expansion during the late 1990s.

See also: Computer Industry

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DEMING, WILLIAM EDWARDS

William Edwards Deming (1900–1993) was largely responsible for introducing quality control to mass production. He developed his management theory while working as an economic consultant in Japan. Eventually his ideas took hold in the United States as well, and many major corporations began to incorporate quality control into their businesses through Deming's teachings.

William Edwards Deming was born October 14, 1900, in Sioux City, Iowa, the oldest son of Pluma Irene and William Albert Deming. When he was young, his family moved to Wyoming, where Deming graduated from high school in 1917. He then enrolled at the University of Wyoming. Deming worked his way through college as a janitor until he graduated in 1921. With a Bachelor of Arts in engineering, Deming started his career teaching mathematics. He taught physics at the Colorado School of Mines, while pursuing a Master of Science at the University of Colorado. He then taught briefly as an assistant in physics before accepting a scholarship to Yale University.

Deming pursued a Ph.D. at Yale and worked summers at the Western Electric plant in Cicero, Illinois. It was during this time that Deming learned the early quality control theories of Walter Shewhart, a physicist at Dell Laboratories. Deming earned his Ph.D. in 1928 and began working for the federal government. For the next 19 years he worked for various branches of the government—as a mathematical physicist for the Department of Agriculture, a lecturer in the National Bureau of Standards, the department head of the Mathematics and Statistics Division of the Department of Agriculture, and the chief mathematician and advisor in sampling and survey techniques for the Bureau of Census.

After World War II (1939–1945) Deming gave up his government career to start his own international consulting firm. His aim was to help war-torn countries rebuild their economies. Deming traveled to such diverse countries as Greece, Turkey, India, West Germany, and Mexico, and he even worked with the United Nations. However, it was in Japan that Deming made his biggest mark.

In Japan, Deming developed and implemented his approach to quality management. He combined Shewhart's statistical theories of controlling quality in mass production with his own thinking to create a specific philosophy for achieving practical quality control. This philosophy stressed cooperation among employees, rather than competition. In addition, it

Department Store

called for a continuous improvement in products and services and the use of statistical measurements to track the quality of products. Deming created what he called a “System of Profound Knowledge,” which was a comprehensive theory for management.

Deming is probably best known for his “14 Points for Management.” Among other things, this plan encourages leaders to stop doing business based on price alone, to constantly improve the production system, to utilize job training, and to encourage pride in workmanship. Deming also taught management leaders to encourage cooperation at all levels. In addition, he instructed them to assure job stability and to equally value all employees.

Deming is credited for contributing largely to the “Japanese Industrial Miracle,” whereby Japan not only recovered from the damages of World War II, but quickly came out ahead as a world economic leader. Deming’s teachings were such a great success that he was awarded the Second Order Medal of the Sacred Treasure by Japanese Emperor Hirohito in 1960. It would, however, take twenty more years for his ideas to take root in his native country. Only in the 1980s, when the United States could no longer ignore Japan’s economic successes, did U.S. business become interested in Deming’s techniques.

Deming, along with Joseph Juran, launched the Total Quality Management (TQM) movement in corporate America. Deming was hired as a consultant by large companies like Ford, General Motors, Dow Chemical, and Hughes Aircraft, among others. It was Deming’s philosophy that influenced Ford Motor Company chairman Donald Peterson to make quality an important part of his corporation, so much so that the company’s new slogan became “Quality is Job 1.”

Deming was finally recognized for his contributions in the United States in 1987, when he received a special award, the National Medal of Technology, at the White House. The award was in recognition of his determined support of statistical methodology, his contributions to sampling theory, and his advocacy of these methods to corporations. Deming continued to teach his business philosophy until his death in 1993. In that same year, the W. Edwards Deming Institute was founded to continue to teach quality control management to corporations around the world.

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DEPARTMENT STORE

Department stores emerged in the mid-1800s and offered a wide variety of goods for sale in various categories. Many were transformed general stores (which offered a variety of goods but were not divided into departments), while others evolved out of dry goods stores (which sold textiles and related merchandise). The first bona fide department store was established in Paris: the *Bon March* (French, meaning “good bargain”) opened its doors in 1838.

Between the 1850s and 1880s, numerous department stores opened in U.S. cities. The department store Jordan Marsh was founded 1851 in Boston, Massachusetts. R.H. Macy’s was founded 1858 in New York City and was known for its creative advertisements. Wanamaker’s, founded in 1861 in Philadelphia, successfully implemented fixed pricing so that customers no longer haggled over price. Marshall Field was founded in 1881 in Chicago, Illinois, and within twenty-five years it became the world’s largest wholesale and retail dry goods store. These pioneer department stores, multi-storied buildings located in downtown areas, introduced many innovations to merchandising, including the policy of returnable or exchangeable goods, ready-made apparel, clearly marked prices, and window displays.

By the early 1900s department stores could be found throughout the country. The timing was right for their emergence: urban centers grew rapidly at the end of the century, giving department stores a ready clientele. Also the advent of the telephone, electric lighting, and billing machines helped retailers conduct business efficiently. Transportation improvements allowed for



Marshall Field's store in Chicago, as it appeared in 1879.

the shipment of large quantities of goods, a variety of finished goods were mass produced (which increased supply and lowering production costs and consumer prices). By the 1910s the stores were part of a new mass culture, which centered in U.S. cities. During the twentieth century, department store sales typically generated between six and twelve percent of total annual retail sales.

See also: Chain Store, Mail-Order House, Retail Industry

DEPRECIATION

Economists use the term *depreciation* to refer to the loss of economic value suffered by business assets and equipment, consumer goods, and currency as time passes. The most common use of depreciation in economics is in business tax law. The Internal Revenue Service (IRS) allows businesses to lower the amount of taxes they owe by counting as a business expense the total depreciation of aging equipment and assets over the previous year. For example, if a business bought a photocopier in March, by December it will have declined in value by some amount. To claim this depreciation in value as an expense, the business must first determine the average “life span” of the photocopier, so it will know what percentage of the photocopier’s total value has eroded in the past year. The two most common methods for determining how much assets have depreciated were the “straight-line” method and the “declining-balance” or “declining-charge” method.

During World War II (1939–1945), the U.S. government began to allow businesses to “accelerate” the depreciating value of their assets. For example, rather than telling businesses that typewriters had a “life span” of seven years, the IRS allowed businesses to claim that typewriters had a useful life of, say, five years. This meant that businesses could enjoy the tax savings they gained from the declining value of their typewriters in five years rather than seven. Speeding up the depreciation of a company’s assets in this way gave businesses more money in the short term to invest in expansion and new equipment. Among the first legislation of President Ronald Reagan’s (1981–1989) administration was the Economic Recovery Tax Act of 1981, which attempted to encourage companies to expand by shortening the standard five-year depreciation for business assets to three years.

The term depreciation also referred to the decline in value of one currency against another. If one U.S. dollar bought 1.5 German marks one year but only 1.4 marks the next year, the dollar “depreciated” against the mark.

See also: Appreciation

DEPRESSION AND WORLD WAR II, 1929–1945 (OVERVIEW)

When Herbert Hoover (1929–1933) took the oath of office as president of the United States in March of 1929, he and most Americans were confident that the economic prosperity that had characterized the 1920s would continue indefinitely. Individual income had risen from \$480 in 1900 to \$681 in 1929. Purchasing power had increased even more as improvements in manufacturing methods and technology brought down prices for many goods. Yet, by the end of 1929, millions of Americans were unemployed and much of the nation’s industrial capacity was idle. Hoover’s promise that poverty was about to be eliminated from the nation was mocked through the name “Hooverville” attached to the many ramshackle camps of the dispossessed. The nation was mired in the Great Depression (1929–1939), which continued until preparations for World War II (1939–1945) began to revive the economy.

The causes of the Great Depression were complex and rooted in the transition of an economy based on the production of durable goods and building infrastructure to one based on the manufacture and sale of consumer goods. The introduction of a wide range of new consumer products after World War I (1914–1918) helped



Unemployed by the Great Depression, large numbers of people line up for food at a New York City relief kitchen.

end the post-war recession relatively quickly and firmly established the new economy.

Farmers had not shared in the prosperity of the 1920s. They were encouraged to expand production during World War I and had borrowed heavily to bring more land into production and to take advantage of mechanized farm equipment, especially the tractor. This created a problem when the end of the war came almost before the farmers could bring their new land and equipment into full use. As Europe recovered from the devastation of the war farm prices fell, leaving farmers with sizable gaps between their incomes and their expenses.

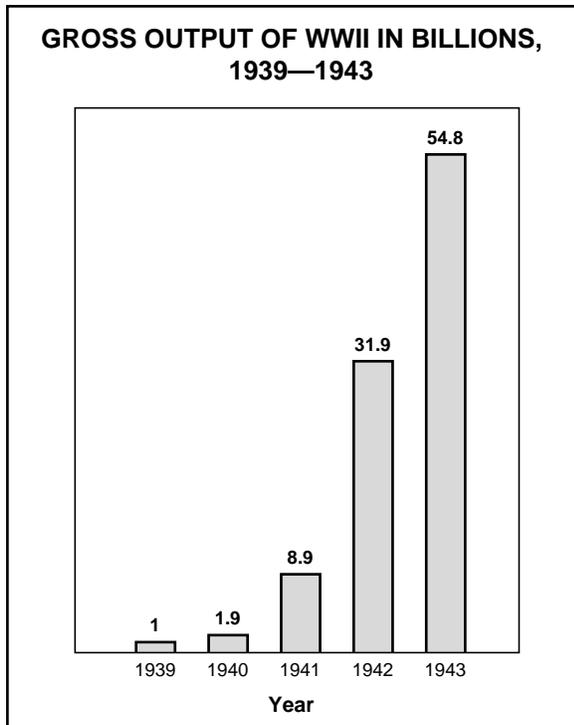
On the industry front, rising wages for workers during the 1920s were rooted in increasing efficiency. Industrial production increased faster than industrial employment; profits increased even faster. Fewer workers were needed to produce more goods. Much of the wealth created by the new economy was returned to shareholders as stock dividends. While this spurred reinvestment and kept the economy healthy when infrastructure and durable goods were its backbone, the new consumer products-based economy presented a different situation. Surpluses of inventory began to accumulate and many industries began to cut back on production and employment.

A third factor leading to the depression was the increase in consumer debt. For most of U.S. history

debt was seen as a negative thing. Except for a mortgage, most consumers avoided debt and saved for things they needed. The array of new products available during the 1920s, along with the introduction of the installment plan, broke down this traditional resistance to making payments over time and Americans accumulated unprecedented levels of debt.

A fourth factor was the interconnection of the U.S. and European economies. Following World War I the United States began lending money to Germany to facilitate the payment of war reparations. Germany paid England, France, and the other allies, who then repaid their war-time loans from the United States. When the European economies experienced economic crises in the late 1920s the cycle was broken and shortages of capital quickly hit the United States.

The final factor leading up to the depression was the national fascination with the stock market and large-scale speculation with borrowed money. The expansion of industrial production and profits made stocks an attractive investment. New companies (formed to manufacture new products) and established firms that expanded their sales offered very impressive returns on their stocks in the early 1920s. As stock prices rose steadily the market attracted investors who only intended to hold the stock until it turned a profit. The dividends, or actual return on the investment, became secondary to the market itself. The seemingly endless



The significant increase in war output from 1939 to 1943 greatly helped to revive U.S. industrial production, expand agriculture and stimulate the economy.

capacity of the market to rise lured millions of Americans to buy stock on margin, i.e., a credit loan with the promise to pay within a stipulated period, usually 30 days. As long as the stock increased in value everything was fine.

In October 1929 the stock market began to show signs of reversing its long upward trend. Many firms began to experience a decline in or slower growth in profits due to excess inventories caused by slowing sales. Declining stock prices forced those with margin contracts to sell their investments in order to minimize their losses. Stock prices, which had surged upwards steadily for years, now spiraled downward. J.P. Morgan and others tried to stabilize the market, but its crash wiped out many investors. The most serious consequence of the collapse of the stock market was that it became almost impossible for companies to use the sale of stock to raise capital or to cover their short-term needs. Massive layoffs and wholesale closures of plants followed rapidly after the market's collapse.

The economy now spiraled downward, seemingly out of control. Unemployment spread across the nation and banks began to fail as debtors defaulted and depositors withdrew their funds. Within weeks it was clear that the entire nation faced a grave economic crisis.

The Hoover administration did not see the depression as a reason to deviate from its basic economic policies and it attacked the depression with traditional remedies. Federal construction projects were moved ahead of schedule and Hoover urged state and local governments to do the same. The Agricultural Marketing Act was designed to encourage the organization of farm cooperatives to address the farmers' problems. Other federal legislation established the Grain Stabilization Corporation and the Cotton Stabilization Corporation to shore up prices of those key crops. Hoover and his administration tried to keep people's hopes up with frequent predictions of the imminent revival of the U.S. economy.

The Smoot-Hawley Tariff of 1930 raised tariff rates in an effort to promote the purchase of U.S. manufactured goods. By early 1931 there were signs that the economy was on an upward swing and that the Hoover administration's optimism and adherence to traditional policies were about to be vindicated. In March of that year, however, the European economic situation turned from bad to worse. Hurt by the loss of U.S. markets due to Smoot-Hawley and the resulting crisis, Europe's economic problems dragged the fragile U.S. economy down to new depths. A wave of bank failures further eroded public confidence in the economy and dried up sources of financing for businesses. Many individuals lost their life savings when banks failed.

Hoover responded by proposing the formation of the Reconstruction Finance Corporation (RFC). Chartered by Congress in January 1932, the RFC loaned funds to banks, railroads, and building and loan associations. This was followed by the expansion of funds available to Federal Land Banks and a liberalization of Federal Reserve requirements for banks. The Glass-Steagal Act released gold to meet foreign demands and the Federal Home Loan Bank Act tried to stabilize the mortgage market. Hoover, however, refused to agree to any more direct programs to help end the depression and vetoed the Garner-Wagner Act which would have provided direct relief and large scale public works. He did sign legislation allowing the RFC to lend money to states for self-liquidating public works projects and to help with relief when state and local funds were exhausted.

Despite Hoover's efforts the economy worsened and appeared headed for a shut down. At the beginning of the summer of 1932 iron and steel production, for example, stood at twelve percent of capacity, unemployment nationally approached 25 percent and was much higher in single industry towns. Businesses failed

at record rates, banks closed their doors, and the once vibrant economy was moribund.

During the presidential election of 1932 Franklin Delano Roosevelt (1933–1945) campaigned on the promise of a New Deal, offering hope for an economic recovery. During the months between the November election and his March 4 inauguration, Roosevelt and his “Brains Trust” developed a legislative agenda to provide relief for those out of work, recovery for the economy, and reforms to prevent such a disaster in the future. The first three months of the Roosevelt administration, known as the 100 Days, saw an unprecedented volume of legislation move quickly through Congress.

Roosevelt’s first priority was relief and a number of government agencies were formed to provide work. The Civil Works Administration (CWA), the Public Works Administration (PWA) and the Works Progress Administration (WPA) provided jobs initially on public works construction projects cosponsored with local governments. The WPA developed a wide range of projects that employed writers, actors, and historians, among others, to use their special skills and talents. The National Youth Administration (NYA) provided work and job training for young people and helped them stay in school to complete their education. The Civilian Conservation Corps (CCC) provided jobs for young men on conservation and reforestation projects. These programs and others, cumulatively, put millions of people back to work.

While New Deal employment programs gave people money to meet their needs, its recovery programs sought to allow the economy time to regain its strength. The National Industrial Recovery Act (NIRA) established a series of boards to oversee every industry in the country. Each National Recovery Administration (NRA) board established rules for its industry, setting hours of work, wages, prices, and many other details. The idea was to limit competition while the economy regained its strength. Businesses that subscribed to the NRA code for their industry received a “Blue Eagle” emblem and consumers were urged to buy where they saw the blue eagle. In 1935 the Supreme Court held the NIRA unconstitutional in the case *A.L.A. Schechter Poultry Corp. et. al. v. United States*.

A second recovery goal was solving the longstanding problems of farmers. The Agricultural Adjustment Act provided price supports for farmers linked to limits on production and paid for by a processing tax administered by the Agricultural Adjustment Administration (AAA). The Commodity Credit Corporation provide loans to farmers who agreed to take land out of production. Despite initial negative images of crops

being plowed under and hogs and piglets slaughtered in 1933, the program succeeded in raising farm income and crop prices and reducing farm debt from their 1932 levels. In 1936 the Supreme Court held the processing tax unconstitutional in *United States v. Butler et al.* In 1938 a second AAA was created by Congress to address the continuing problems of farmers.

The third aspect of the New Deal was its attempt to reform the economy to prevent future depressions. Several agencies were created to address specific problems that were seen as major factors in bringing on the depression. The Securities and Exchange Commission (SEC) was established to regulate the stock market and the Federal Deposit Insurance Corporation (FDIC) insured deposits against loss if the bank failed. In 1935 Roosevelt proposed a social security system, financed by a payroll tax, to provide pensions for those over age 65. The Social Security Act also established unemployment insurance, aid to the disabled and blind, and to women with young children. In a more general way the New Deal established the federal government as a major participant in every aspect of the economy.

Despite all the New Deal programs the economy remained stalled and millions remained unemployed, underemployed, or employed in federal programs. The value of industrial production of consumer goods in 1937 was still only 89 percent of what it had been in 1929 and declined to less than 75 percent in 1938. Steel production in 1938 was half what it had been in 1929, having declined sharply after several years of recovery. Throughout the economy it was hard to find good news as 1937 turned into 1938.

German leader Adolf Hitler’s (1889–1945) invasion of Poland in September 1939 brought war to Europe, a war the United States was determined to avoid. It became clear to Roosevelt and his advisors that with the fall of France U.S. neutrality was impossible, even if the country avoided combat. The war led Congress to authorize large sums to build up the nation’s defenses—which helped revive industrial production. The defense build up also included expanding the armed forces and equipping them. In September 1940, Congress authorized a military draft. Beginning with the Lend-Lease program the United States gradually began to supply the British and later acted to defend ships carrying the weapons and other war materiel to them. War preparations brought mines and factories back in to operation, provided markets for farm production, and put people back to work.

The revival of the U.S. economy was impressive for its scale and its speed. Manufacturing production

had an index value (a measure of production) of 58 in 1929 and had fallen to 46 in 1938, by 1940 it had reached 66, and rose to 110 by 1942 and 133 in 1943. Steel production, to cite a key industry, passed its 1929 level of 56 million tons in 1940 and reached 80 million tons in 1944. Unemployment fell from 19 percent in 1938 to 1.2 percent in 1944. Average weekly earnings in manufacturing more than doubled between 1938 and 1944. The challenge facing the economy changed from a shortage of jobs to a shortage of workers. The demand for workers in defense industries created new opportunities for women, Hispanics, and African Americans. The expansion of industrial production not only revived existing industrial operations and fields but saw new plants built, usually by the government, for war production in existing industrial areas. In addition, plants were built in new areas to disperse production of war materiel in case of sabotage or bombing. This policy decision greatly expanded the industrial capacity of the United States and spread it over a much wider area of the country.

Manufacturing was not the only segment of the economy to benefit from the war-time demands for increased production. Agriculture also expanded tremendously. The parity ratio, which compares farm prices with farm expenses, had edged downward from 1917 through 1941, falling from 120 to 93, with a low of 58 in 1932. The parity ratio rose to 113 in 1942 and remained above 100 until 1953. Farm wages rose from an index figure of 89 in 1932, to 208 in 1942, and 366 in 1945.

The revival of the economy during the war combined with the manpower demands of the armed services brought the various New Deal employment programs to an end. The federal government, however, remained heavily involved in the economy and a number of regulatory and coordinating agencies were created. Not only did defense contracts drive the manufacturing sector, but the government provided draft deferments for those working on farms or with critical industrial skills and mounted an advertising campaign encouraging women to work in the defense industry. The government also coordinated industrial production through the War Production Board, while the National War Labor Board set wages, hours, and working conditions and the War Labor Disputes Act allowed the government to seize factories in case of strikes. There were also price controls and extensive rationing of consumer goods including tires, gasoline, coffee, shoes, canned foods, sugar, and others administered by the Office of Price Administration. The War

Food Administration worked to reverse the AAA's efforts to limit agricultural production to meet increased demand.

As the end of the war drew near there was concern about the conversion to a peacetime economy. The return of millions of servicemen seeking jobs during the conversion potentially compounded the problem. The Servicemen's Readjustment Act of 1944 (popularly known as the GI Bill of Rights) provided unemployment insurance, business loans, low-cost home mortgages, and educational assistance to returning veterans. The program spread the reentry of veterans into the workforce over a number of years and stimulated the home building industry. The GI Bill was an important factor in avoiding a post war recession.

At the end of the war there was tremendous demand for consumer goods that people had not been able to purchase for some time, first because of the depression and then because of the conversion of the economy to war production. Combined with the accumulated savings from money invested in war bonds and in savings due to the lack of goods during the war, the economy was poised for a period of prosperity.

See also: Civilian Conservation Corps, GI Bill, Glass-Steagall Act, Great Depression, Lend-Lease Act, National War Labor Board, New Deal, Office of Price Administration, Rationing, Reconstruction Finance Corporation, Franklin Delano Roosevelt, Smoot-Hawley Tariff, Social Security Act, Speculation, Stock Market, Stock Market Crash of 1929, War Production Board, Works Progress Administration, World War II

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DEVOS, RICHARD

Richard DeVos (1926–) founded Amway, the largest direct-sales company in the world. The privately-owned firm sells more than 450 personal care, nutrition, home, and commercial products through three million distributors (many of whom work part-time) to customers in more than eighty countries and territories. A billionaire, DeVos's personal wealth made him one of the richest men in the United States in the last decade of the twentieth century.

DeVos was born in 1926 and grew up in Grand Rapids, Michigan, in a devout fundamentalist Christian family. Church attendance was a requirement, twice each Sunday. DeVos credited the values he learned there, including piety and a sound work ethic, as defining influences in his life. Throughout his life he was a devout churchgoer; in the 1990s he gave \$14 million to a Florida church.

DeVos met his lifetime friend in high school, fellow conservative Christian and business partner Jay Van Andel. Company legend has it that their friendship actually began with a business proposition that DeVos struck with Van Andel for a ride to school in return for 25 cents a week. Both entered the military during World War II (1939–1945), and they vowed to start a business together as soon as the war was over. Their first joint venture was a drive-in restaurant.

In 1948 the two young men took off in a sailboat from Connecticut, hoping to see the world. Their boat sank off the shores of Cuba and they later returned to Grand Rapids, Michigan. Back home, DeVos and Van Andel went to work as sales agents for Nutrilite, a California-based vitamin company that marketed products directly to customers. Van Andel and DeVos (who was a natural salesman) were both successful in the firm's direct sales environment. They broke away from Nutrilite in 1959 to found their own company, Amway. "We call our company Amway because the American way of private ownership and free enterprise is the best way," DeVos said at the time. The new company, patterned on Nutrilite's multilevel, commission-based model, was headquartered in the basements of the founders' homes in Ada, Michigan.

DeVos and Van Andel developed a complex, and sometimes controversial, company structure, involving salespeople who convinced others to join the sales force through the purchase of a starter kit which consisted of Amway products and sales information. After a salesperson signed up a requisite number of new recruits, he or she became a "distributor," entitled to a percentage of every sale that the new members

of the team subsequently made. Despite revival-like techniques, including many motivational tapes recorded by DeVos himself, most of Amway's approximately 2.5 million-member sales force earned comparatively little for their efforts.

The company, however, prospered, posting record growth in the final decades of the twentieth century. In 1998 alone sales were up five percent over the preceding year, totalling \$5.7 billion. This success was not without its difficulties. Beginning in the 1970s, Amway was taken to court for allegedly overstating the earnings potential of its salespeople. In 1983, charged with customs fraud in Canada, the company paid a \$25 million fine. Three years later, in 1986, Amway paid another \$100,000 in fines as a result of an investigation by the U.S. Federal Trade Commission. In the 1990s a class-action suit in a Pennsylvania district court was open to anyone who had been an Amway distributor between 1990 and 1996.

The company survived these lawsuits and expanded into money management with its stock fund, Amway Mutual. It also continued to improve its products. From the start, Amway attempted to create and market products that did not harm the environment. The company's first products were household cleaners, including a biodegradable soap. In the 1990s almost all of Amway's products were biodegradable, including their packaging. For its consistently forward-looking approach to environmental issues, Amway was awarded the Environmental Programme Achievement Award from the United Nations in 1989.

Though liberal on the environment, DeVos and Van Andel became noted for their staunch conservatism in regards to other issues. Van Andel, for example, built the Arizona-based Van Andel Creation Research Center to support Creationism, the belief that Man was a creation of god and not a result of evolution. DeVos was a major contributor to the Republican Party. He donated \$2.5 million in 1994 to pay for the television broadcast costs of the party's 1996 national convention, and in 1997 he donated \$1 million to cover Republican debts from the 1996 election.

Edward DeVos and his partner Jay Van Andel retired and focused their efforts on charity; each man was reported to have a private fortune of more than \$1.4 billion. When DeVos retired from day-to-day operations at Amway in 1992, he underwent triple-bypass heart surgery. The DeVos and Van Andel families retained ownership of Amway. Edward DeVos's son Dick became president and Co-CEO with Steve Van Andel, the son of Jay Van Andel.

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DINGLEY TARIFF

Passed by Congress in July 1897, the Dingley Tariff Act increased duties by an average of 57 percent. Tariff rates were hiked on sugar, salt, tin cans, glassware, and tobacco, as well as on iron and steel, steel rails, petroleum, lead, copper, locomotives, matches, whisky, and leather goods.

Protective tariffs figured prominently in nineteenth century political debates. Tariffs were used in the United States as early as the 1790s. In 1828 Congress passed a bill (called the “Tariff of Abominations” by its opponents) levying government taxes on imported goods as a way of protecting the nation’s burgeoning industrial interests. Thereafter tariffs were adjusted depending on current economic conditions and the political atmosphere. Republicans came to stand for higher tariffs, while the Democrats, leery that such protectionism favored monopolistic business practices in U.S. industry, championed lower rates. Since the Republicans controlled the government for most of the period between 1860 and 1890, tariffs remained high.

The presidential election of 1896, which pitted Republican candidate William McKinley (1843–1901) against Democrat William Jennings Bryan (1860–1925) was dominated by the debate over Free Silver, but the subtext of the debate centered about the tariff issue. Since they knew him to be a strong advocate of protection, the Republicans chose McKinley as their candidate. (Indeed, in 1890, McKinley had sponsored a high tariff, which bore his name.) McKinley saw the collection of tariffs as an effective way to replenish the U.S. Treasury. After winning the election he wasted no time in bringing the issue to the fore.

Calling a special session of Congress in March 1897, President McKinley (1897–1901) worked with

House speaker, Thomas Brackett Reed (1839–1902), and the Ways and Means Committee Chairman, Nelson Dingley (1832–1899), to pass tariff-increase legislation in near-record time: three weeks after convening, the House passed the bill. When it reached the Senate, the moderate increases sought by McKinley were raised sharply, to an average 57 percent. The rate hike was the result of a coalition formed between eastern and western senators who agreed to higher rates on goods produced by their respective regions in exchange for the support of another region. The Dingley Tariff was the highest protective tariff in U.S. history. The legislation’s effect was to raise the cost of living by nearly 25 percent between 1897 and 1907. The cost of living was mitigated only by an influx of gold from the Klondike (Yukon Territory, Canada), which helped end a four-year economic depression and begin a decade of prosperity.

The tariff was not lowered until 1913 when the Underwood Tariff reduced rates to approximately 30 percent. That same year, the ratification of the Sixteenth Amendment, which provided for a federal income tax, helped alleviate pressure for high tariffs by providing the federal government with another stream of revenue.

See also: Tariff, Underwood Tariff

DISCOUNT RATE

The discount rate is the interest rate charged member banks for loans from Federal Reserve Banks (FRB). The Federal Reserve System (FRS), established in 1913, has 12 FRBs in 12 districts and 25 FRB branches. All national commercial banks are required to be members of the FRS. Just as individuals use the banking services of a local bank, member banks use the banking services of the FRB in their district. The Federal Open Market Committee (FOMC) determines the interest rate or discount rate member banks pay when borrowing money from the RRB. The FOMC meets ten times a year, and depending on the monetary needs of the country, it adjusts the discount rate up or down.

A decrease in the discount rate increases the money supply by making money less expensive. This allows member banks to borrow more money, which is then made available in their localities. Member banks pass on the savings within a few days or weeks by lowering rates on loans to businesses. Likewise, rates on home mortgages, consumer loans, and credit cards began to fall, stimulating borrowing and spending. Businesses began growing and more jobs become

Discrimination

available. When spending exceeds business' ability to produce goods, the price of goods goes up thereby increasing the rate of inflation. The FOMC may then find it necessary to increase the discount rate. The increased discount rate decreases the money supply by making money more expensive. This, in turn, discourages borrowing and spending, and the economy slows down.

When the FRS first began operating, the discount rates constituted the FRS' primary, almost exclusive, means of monetary control. By the second half of the twentieth century, the FRS influenced the flow of money to promote economic stability in three ways. It could change the discount rate, conduct open market operations (the sale or purchase of government securities), and change reserve requirements (the percentage of deposits all commercial banks are required to set aside). The discount rate is used to signal overall changes in the Federal Reserve monetary policy.

The discount rate ranged between 1.5 percent and 8 percent from 1922 to 1978, and then climbed to an all time high at 14 percent in 1981. With the economy faltering, the RFS lowered the rate in an effort to stimulate business activity. The rate fell relatively steadily to 4 percent in 1994, remaining between 4 and 5 percent through 1998.

See also: Federal Reserve System, Inflation, Interest

DISCRIMINATION

When two individuals with equal productivity receive significantly different wages for doing similar work, discrimination is said to exist. In addition to wage discrimination, inequalities in employment are reflected in the higher unemployment rates of minorities and young persons when compared to the unemployment rates of adult white males and females. The unequal treatment is based on worker's personal characteristics, unrelated and irrelevant to productivity. Discrimination issues center on differential treatment by race or ethnic group, gender, age, or handicap.

Economists speak of two types of discrimination: pure and statistical. Pure discrimination involves personal taste or preferences. Some employers may prefer not to be associated with members of a certain group such as minorities, women, young people, old people, or persons with disabilities. They tend simply not to hire that group. Statistical discrimination involves eliminating people from consideration who, as a group, have unstable work histories or poor work habits. This type

of discrimination assumes all members of a group are less qualified because their group's education or training is widely perceived as inferior. A firm may be able to lower its recruiting costs by limiting its search to adult, white, married males. But, not hiring from certain demographic groups limits the pool of candidates in very competitive markets and can be costly to a business.

Since the early 1960s federal legislation in the United States prohibits job discrimination based on race or national origin, sex, age, religion, or handicap. The seven major laws are: Title VII of the Civil Rights Act of 1964, Age Discrimination in Employment Act of 1967, Equal Pay Act of 1963, Title I of the Americans with Disabilities Act of 1990, Civil Rights Act of 1991, and Section 501 of the Rehabilitation Act of 1973. In the 1970s the government also began a program called affirmative action, to counteract past discrimination by giving preferential hiring to disadvantaged groups.

Despite extensive legislation, statistics show continued inequality in employment practices and wages. Employment figures from the Bureau of Labor Statistics show that black unemployment is more than double the rate of unemployment for whites in 1997. Concerning wages, statistics show that in 1997 women's overall earnings was seventy-four percent of men's earnings. Although legal gains are considerable, longstanding discrimination in job opportunities and wages persisted toward the conclusion of the twentieth century.

See also: Affirmative Action, Americans with Disabilities Act

DISINCENTIVES

A disincentive causes certain actions or activities to not be profitable, thereby decreasing motivation to carry them out. Typical disincentives in the United States revolve around the income tax structure. Income taxes cause work disincentives. With marginal rates of tax, people have less incentive to earn more dollars because they will have to pay more of it in taxes. Although few people choose the poverty of unemployment to avoid paying income taxes, some evidence indicates people may decide not to work overtime or take a second job. Married women may prefer not to work outside the home. Research shows that work disincentives are not strong influences for the majority of taxpayers. In fact, data indicate that many low and middle income groups, trying to meet their family

budgets, work longer hours so their net income will be higher.

Effects of tax disincentives most often appear at very high income levels and at very low levels. At the highest levels those subject to the highest marginal tax rates may increase their leisure time rather than work to earn more. At the lowest levels individuals may fall into a poverty trap. Certain benefits paid by the government such as free school lunches for children, medical care, or supplemental income, will be reduced or not paid at all if a person reaches a certain income level. Individuals will choose to not work or work only enough so that their income stays at a very low level.

The tax system creates disincentives to save. Savings are an important source of funds for investment in the United States. Interest earned on savings accounts must be declared to the Internal Revenue Service each April when filing taxes. A family's gross adjusted income is raised by interest on savings, increasing their tax bill. Reporting interest income therefore acts as a disincentive to save.

Economists also look at the home mortgage deduction allowed as a disincentive to save. The yearly home mortgage interest deduction represents large tax savings to families. This tax saving encourages them to go into debt, the opposite of saving, for the purchase of large homes. If this deduction were eliminated, people would demand smaller houses to save more of their income. Less money would be invested in housing, making more funds available for lending to other industries.

See also: Incentive, Mortgage, Profit, Savings

DISNEY, WALTER ELIAS

Walt Disney (1901–1966) was a major business pioneer of the twentieth century. He created cartoons, live-action movies, imaginative theme parks, and wholesome family entertainment on a global scale. Having himself grown up almost without a childhood, Disney found a way to find the child in everyone by making cartoons and filling them with amusing characters like Mickey Mouse and Donald Duck.

Born in 1901, Walt Disney had a difficult upbringing. His father Elias, a restless and unsuccessful carpenter and farmer, was a stern religious fundamentalist who readily disciplined his children with his belt. He also denied the children toys, games, and sporting



Walt Disney brushes up on his Spanish with the help of Mickey Mouse and Donald Duck.

equipment. This experience may have had an impact on his son's later determination to look on the sunny side of life. As the father changed jobs, the family moved frequently: from Chicago to Marceline, Missouri, to Kansas City, Missouri, and back to Chicago. Because of the family's constant traveling and the necessity for the children to contribute to the household's income, Disney's formal education ended at the ninth grade. At age 16, hoping to become a newspaper cartoonist, he joined an art class at the Academy of Fine Arts to develop his drawing skills.

In 1919, after a stint as a driver in the Red Cross Ambulance Corps during World War I (1914–1918), Disney moved to Kansas City, Missouri. There he worked at a variety of jobs as a commercial artist and cartoonist. With another young artist, Ub Iwerks, he formed his first small cartoon-film production company in the early 1920s. Along with brief animated advertising films, the company produced a series of animated fairy tales, "Alice in Cartoonland." With Disney's brother Roy as business manager, the little film company moved to Hollywood and produced 56 "Alice" films in three years. They also introduced the

Disposable Income

“Oswald the Rabbit” series, producing 26 of these cartoons in less than two years.

Mickey Mouse came to life in 1928, first as an airplane pilot, then as an adventurer and a sort of pirate-character. After viewing the first sound movie, “The Jazz Singer,” late in 1928, Disney decided to make the first talking-and-music cartoon: Mickey Mouse as “Steamboat Willie.” (He used his own voice for Mickey.) Soon, Mickey was joined by a girlfriend, Minnie. Their popularity led to the invention of such familiar characters as Donald Duck, Pluto, and Goofy. By 1936, eight years after the mouse with human characteristics appeared on the scene, Mickey Mouse had become one of the most widely recognized personalities in the world. Throughout the 1930s Disney continued to make both long and short cartoon features, many of which later became classics, including “Snow White,” “Pinocchio,” and “Dumbo.”

In the 1940s, despite his many successes, Disney produced a series of financial failures, notably “Fantasia,” a very different animated film set to classical music and later regarded as a classic. Disney was devastated when “Fantasia” did poorly at the box office and when half his artists went on strike to protest his dictatorial style. The training films combining live action with cartoon characters that he made for the federal government during World War II (1939–1945), however, turned Disney in a new and very successful direction.

Following the war, Disney made many films combining live-action and cartoons, including “The Song of the South.” His company also produced very popular full-length animated films, including “Cinderella,” “Alice in Wonderland,” and “Peter Pan.” In the early 1950s Disney made a popular series of nature films. His film career was capped by “Mary Poppins” in 1964, for which he won five Academy Awards.

By the mid-1950s Disney had begun to produce such television shows as “Davy Crockett” and “The Mickey Mouse Club.” At the same time, he was also developing the first of his famous Disneyland theme parks. The first Disneyland, near Los Angeles, California, opened in 1955. Disney’s brilliant move was to integrate all his business ventures, using his television programs to motivate people to visit Disneyland, intending Disneyland to inspire parents and children to attend family-oriented Disney films. Disneyland was such a success that later the Disney company opened another theme park, Disney World, near Orlando, Florida.

By the 1960s Disney had created a very diversified entertainment empire, built on cartoon themes, animal icons, nostalgic sentiment, and a high level of quality

control. His imagination, highly-developed merchandising skills, and uncanny ability to tap into the fantasies of children of all ages ensured that his company would thrive long after his death from lung cancer in 1966.

See also: Amusement Parks, Entertainment Industry, Movies

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DISPOSABLE INCOME

Disposable personal income, or take-home pay, is the income received by households after personal income tax and social security contributions are paid. The income may result from wages in payment for labor and/or from government transfer payments. Government transfer payments are payments from the government and include social security, Medicaid, and unemployment benefits. Disposable income is the amount of income that households can spend or save. Historically, people spend approximately ninety percent of their disposable income. When disposable income increases, consumer spending increases. Personal consumption expenditures constitute approximately sixty-seven percent of the Gross Domestic Product (GDP), a measure of the total production of an economy. The GDP serves as an assessment of the health of the economy as a whole, the nation’s economic report card. When disposable income grows and spending increases, overall level of demand rises, the GDP grows, and economic forecasts are positive. Conversely, when disposable income is flat or decreases, consumers spend less, slowing economic growth. Overall, consumers spend less when anxious about the

future, but release their pent-up spending urges during boom times.

See also: **Gross Domestic Product**

DIVIDENDS

Dividends are a sum of money paid to stockholders out of a corporation's earnings. Once a dividend has been declared, the percentage of dividend that stockholders receive is based on a dollar amount per share of stock owned by the stockholder. Preferred stockholders generally have a prior right to dividend payments over common stockholders. Dividends are usually paid in cash. However, they can also be distributed in other forms: stock dividends and stock splits; scrip, which is a company's promise to pay in the future; or property, such as inventory goods. Most commonly, corporations declare dividends at regular intervals, such as monthly, quarterly, or annually. Before a dividend is paid, the board of directors must make a dividend announcement. This announcement sets the amount of the dividend, the date of record, and the payment date. The date of record is important as all stockholders have the right to receive the dividend on that date. By law, dividends can be paid only from corporate profits; they can not be paid from a corporation's capital. This measure, known as the impairment of capital rule, is intended to protect the corporation's creditors.

See also: **Capital, Stock**

DIVISION OF LABOR

Division of labor refers to the specialization of jobs in any complex economy, particularly in a manufacturing enterprise. Since the British writer Adam Smith (1723–1790), economists have noted that division of labor is the most important feature of modern capitalism. Smith showed how several people with different skills are required to manufacture even a simple object like a pin; each person specializes in his own aspect of the job. Division of labor allows workers to become expert at a single task and to perform it very quickly; therefore, it allows great precision in the manufacturing process. Division of labor makes the modern consumer economy possible, because a person can use the wages from one specialized job to buy all the other products he or she needs, rather than trying to produce everything themselves. A downside of division of labor is can lead to mind-numbing, even dehumanizing, factory work. An assembly line worker, for

example, does nothing by tighten the same bolts all day long.

See also: **Assembly Line, Mass Production, Adam Smith**

DIX, DOROTHEA LYNDE

Dorothea Lynde Dix (1802–1887) was born to Joseph and Mary Dix on April 4, 1802, in Hampden, Maine. Her father was a farmer but became an itinerant Methodist preacher when he failed at farming. Dorothea Dix spent her early years in poverty, moving frequently and living a life she saw as bleak and lonely. At age twelve she moved to live with her grandparents in Boston. This was the first of several dramatic turns she was to experience in life.

Dix enjoyed and excelled at learning, and set up her first school at age fourteen. While she displayed a joy in teaching, she was also strict—she did not shy away from humiliating disobedient children. Dix operated her first school for three years in her aunt's home in Worcester. She closed the school to return to Boston and her own studies. In 1821 Dix opened another school in her grandmother's Boston home. After a year she added a free charity school for poor children.

Even while her schools were successful, ill health plagued Dix. Typically, Dix overworked herself and was forced to temporarily abandon teaching. She took to writing children's books while convalescing from frequent attacks of chronic lung disease. Her writing included textbooks, hymnbooks, and poetry.

Dix was attracted to the Unitarian Church. She admired Boston activist, (Unitarian) William Ellery Channing (1818–1901), whose children Dix tutored. Catering to Boston's Unitarian community, Dix revived her school in 1831, but she was forced to close it in 1835, again because of ill health. She moved to England to recover.

Dix returned to Boston in 1841 and began working as a Sunday school teacher in the women's jail at East Cambridge, Massachusetts. The conditions at the jail disgusted her, especially the treatment of mentally ill inmates. Dix took the jailer to court to improve conditions and won the case, beginning her life-long passion: championing the rights of the mentally ill.

Dix's work began in the Commonwealth of Massachusetts, where she brought attention to the plight of the mentally ill. To further her cause she became one of the first to gather and publish social statistics. In 1845



Dorothea Dix.

her statistically supported presentations secured reforms from the state legislature. Encouraged, Dix spread her crusade across the country, founding new hospitals or additions in fifteen states and Canada. In 1848 Dix lobbied Congress for legislation endorsing the sale of public lands to provide revenue for asylums, but the measure was defeated. Discouraged, she left for Europe on a tour of its hospitals and asylums. There, she observed the work of Florence Nightingale (1820–1910), whom she admired.

The American Civil War (1861–1865) brought Dix back to the United States, where she was appointed Superintendent of Women Nurses. Dix attempted to replicate for the U.S. Army Nightingale's work in the Russian Crimea. She was not popular with the U.S. government bureaucrats but nevertheless served her complete term before returning to her reform efforts. Chronic ill health forced her retirement in 1870. She retired to an asylum she had designed and built forty years earlier and died there in 1887.

Dorothea Dix lived her life at extremes: poverty and wealth, periods of great effort and success punctuated by ill health and infirmity, success in her teaching and her reforms punctuated by often deep opposition to her strident and strict ways. But because of her efforts, the number of mental hospitals in the United States

increased from only thirteen in 1841 to 123 at the time of her death.

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DOLLAR DIPLOMACY

The concept of the U.S. government protecting U.S. commercial enterprises abroad and offering political loans to foreign governments is not unique to any specific time period. The term "Dollar Diplomacy," however, became particularly associated with the policies of President William Howard Taft (1909–13) that were designed to further U.S. interests in Latin America and China. Taft sought to use U.S. economic aid in order to coax underdeveloped countries to follow U.S. political leadership and at times accept a U.S. military presence.

Almost a century earlier in 1823 President James Monroe (1817–25) established what became known as the Monroe Doctrine. While Spain was involved in the Napoleonic Wars in Europe, a number of New World countries proclaimed their independence. Concern rose in the United States that Spain might attempt to reassert its colonialist control in countries of the Western Hemisphere following the war. Anticipating increased economic trade prospects with newly independent Latin American countries, Monroe held that the hemisphere was closed to further European colonization. Any efforts by European nations to reestablish political control would be considered a threat to U.S. security. President Theodore Roosevelt (1901–09) later broadened the Doctrine by asserting that the United States had the right and obligation to intervene when Western Hemisphere nations became so politically or economically unstable that they were vulnerable to European control. However Roosevelt's forceful intervention with several countries stirred considered hostility in the region.

As Secretary of War in Roosevelt's administration, Taft oversaw construction of the Panama Canal and establishment of the U.S. Canal Zone. In his later role as president, Taft and his advisors, including Secretary of State Philander C. Knox, became concerned over security of the canal and how to protect it from foreign encroachment. Heavily indebted to European nations, the overwhelmingly poor Latin American countries experienced continual economic and political unrest. Fearing that European nations might forcibly intervene in Latin American affairs while seeking repayment of outstanding loans, Taft and Knox sought to promote an aggressive program of economic and political stability.

UNDER TAFT, PAN-AMERICANISM MADE NO PROGRESS. WHILE BRAZIL ATTEMPTED AT THE FOURTH PAN-AMERICAN CONFERENCE AT BUENOS AIRES IN 1910 TO WIN AN ENDORSEMENT OF THE MONROE DOCTRINE, THE DELEGATES MADE IT QUITE CLEAR THAT THEY WISHED TO LIMIT UNITED STATES INFLUENCE IN THE CARIBBEAN.

Paolo E. Coletta, *The Presidency of William Howard Taft*, 1973

Chief targets for Dollar Diplomacy included Colombia, Honduras, and Nicaragua. Dollar Diplomacy consisted of Taft and Knox lobbying private U.S. bankers to "invest" in these nations. The bankers would provide the countries with loans so they could pay off their debts to European nations. The U.S. was to control investment markets of the Latin American nations, thereby eliminating economic competition while incorporating the countries' economies into the political and economic world of the United States.

Taft began putting Dollar Diplomacy into action, but he ran into many obstacles. Colombia, heavily in debt to European banks but still bitter from the loss of the land surrounding the Panama Canal, refused U.S. economic advances without first settling the loss of Panama. Taft also lobbied U.S. bankers in 1909 to loan money to Honduras so that it could pay its debt of \$110 million, which was primarily owed Britain. After Taft successfully persuaded J.P. Morgan (1813–90) and others to participate, Congress failed to approve the plan. Revolution erupted in Honduras, leading to U.S. armed intervention. Fearful of the political instability and Honduras' refusal to fully cooperate, the companies withdrew their loan offers and the proposal died. Nicaragua, holding an alternative canal route to the Panama Canal, antagonistically threatened the United States that it would sell canal rights to Great Britain or Japan. Taft sought to have U.S. bankers loan Nicaragua

\$20 million, but Congress withheld approval until after Taft left office. Dollar Diplomacy in Latin America was a failure.

Taft and Knox also attempted to apply Dollar Diplomacy to the Far East in 1910. Knox was convinced that European funding of major railway construction in China threatened U.S. access to free trade. Taft again arranged for financier J.P. Morgan to establish a syndicate of U.S. bankers to enter the project. Though loans were made, little profit resulted. Concern also arose over possible Japanese and Russian involvement in railroad construction in Manchuria. Taft arranged for U.S. bankers to form a six-nation consortium to fund the project. Both of Taft's efforts in Asia failed.

Taft had been unabashed in his efforts to expand the U.S. economy through international trade, reporting to Congress a \$300 million gain in exports in 1910 and another \$200 million in 1911. Taft even suggested that Congress establish U.S. banks abroad.

Dollar Diplomacy failed as a crudely designed foreign policy. Critics saw it as economic imperialism replacing territorial imperialism. Indeed Taft himself described it as "substituting dollars for bullets." The strategy's blatant nature brought the policy into disrepute and was bitterly debated at home and abroad. Many viewed with alarm use of government employees, such as diplomats and consuls, to establish new inroads for private U.S. commercial enterprise. The term itself became a derogatory description of international economic coercion. Following Taft in the White House, President Woodrow Wilson (1913–21) explicitly repudiated Dollar Diplomacy in 1913. The United States continued to pursue programs of political intervention by providing economic and military aid to Latin American countries, but with less blatant economic gain in mind. In 1965 President Lyndon Johnson (1963–69) unsuccessfully tried similar tactics in Southeast Asia when he offered \$1 billion in aid in an attempt to avoid armed conflict.

See also: Big Stick Diplomacy, William Howard Taft

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DOW, CHARLES HENRY

Charles Henry Dow (1851–1902), co-founder of Dow, Jones and Company, Inc. and first editor of *The Wall Street Journal*, was a journalist and financial analyst. He created an index of a dozen leading stocks, mostly railroads, that eventually became the Dow Jones Industrial Average (DJIA), the most popular and widely-read of all stock measurements.

Born in 1851, Dow's only formal education took place in a one-room village schoolhouse in Connecticut. He left home at age sixteen to work as an apprentice printer and reporter and began a newspaper career that took him to Springfield, Massachusetts, Providence, Rhode Island, and finally to New York City in 1879.

Writing for the *Providence Journal*, Dow filed a series of stories from Leadville, Colorado, about a huge silver strike that brought thousands of speculators, miners, and gamblers to the area. He realized he had a talent for financial reporting and analysis, and upon returning from the West, he decided to relocate to New York. Within months, Dow had a job as an editor with the Kiernan News Agency, a firm that wrote and delivered handwritten, brief news bulletins to banks and brokerage houses. At the same time, a former newspaper colleague, Edward D. Jones (1856–1920), also joined Kiernan as a reporter.

In November 1882, Dow and Jones left Kiernan and formed their own financial news service, Dow Jones and Company. They were a well-balanced team. Jones was a first-rate financial reporter with excellent sources. Dow's strength was his thoughtful analysis of companies, industries and market trends. They set up a news bulletin service in a small room next door to the New York Stock Exchange. Throughout the day, their boy messengers rushed "flimsies" (bulletins handwritten with a stylus on thin paper to make multiple copies) containing business news and analyses reported and written by the two partners to subscribers in



Charles Henry Dow.

banks and brokerage houses throughout the financial district.

On July 3, 1884, Dow and Jones began to publish a two-page afternoon newsletter with the average closing price of representative active stocks, including nine railroads and two industrials. Twelve years later, the Dow Jones Industrial Average, limited to 12 representative industrial stocks, appeared. Both lists were determined by Dow's research to be reliably indicative of market trends.

The first issue of *The Wall Street Journal*, published by Dow Jones and Co., appeared July 8, 1889. Charles Dow was the editor. The new daily afternoon paper cost two cents a copy, but reduced rates were offered to bankers and brokers, and the paper was delivered free to subscribers of the company's news bulletin service. Correspondents from London, Boston, Washington, D.C., and Chicago regularly wired news stories by telegraph from those cities.

By the turn of the century, *The Wall Street Journal* was clearly headed for success. Its circulation reached 10,000 in 1899, and Dow sought to expand its readership from Wall Street insiders to the general public. On April 21, 1899, he introduced a regular column, "Review and Outlook," in which he attempted to educate readers on the stock and bond markets. These essays provided an analysis of stock market behavior that

remained valid and became the basis for what was later called the Dow Theory. Charles Dow died in 1902, having firmly established the Dow Jones Industrial Average and *The Wall Street Journal* in the American financial and investment markets.

See also: Dow Jones Industrial Average, Stock Market, Wall Street, Wall Street Journal

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DOW JONES INDUSTRIAL AVERAGE (DJIA)

A measure of stock prices of important industrial companies, the Dow Jones Industrial Average (DJIA) was first printed in the *Wall Street Journal* in 1897. The average is an indicator of the overall stock market and is used, along with other indexes, by investors, stockbrokers, and analysts to make investment forecasts and decisions.

In 1882 Dow, Jones and Company (the comma between the two names was later dropped) was founded by financial reporters Charles Henry Dow (1851–1902) and Edward Davis Jones (1856–1920). Since the founding of the New York Stock Exchange (NYSE) in 1792, business reporting had been largely based on rumor or speculation. Dow and Jones were determined to provide U.S. businesspeople and investors with up-to-date and accurate reporting on the stock market.

Dow, Jones and Company began publishing composite lists of major stocks in 1884. In 1897 the Dow Jones Industrial Average made its first appearance in the *Wall Street Journal*. Dow and Jones had conceived of the index as a summary measure of the market, which could be used to analyze past trends, indicate

current trends, and even predict future ones. The first DJIA averaged the prices of 12 major companies. The list had been expanded since—in 1916, it averaged the stock prices of 20 companies, in 1928, 30 companies were averaged. Adjustments were made as the result of company mergers and dissolution. Though it was a measure only of the New York Stock Exchange, the Dow Jones Industrial Average has been called a barometer of the stock market. News of fluctuations in the DJIA can affect market prices around the world.

See also: Charles Dow, New York Stock Exchange (NYSE), Wall Street Journal

DRED SCOTT CASE

After a lifetime of slavery, Dred Scott (1795?–1858), who had been born a slave in Southampton County, Virginia, sued the state of Missouri for his freedom in April 1846. He argued that he had traveled with his owner in Wisconsin and Illinois, states where slavery had been prohibited by the Missouri Compromise of 1820. By the compromise, Congress decided to admit Missouri as a slavery state and Maine as a free state, and declared that, with the exception of the state of Missouri, the territories north of the 36th parallel (present-day Missouri's southern border) were free.

The case, which hinged on Scott's travels in free territories in the North, went through two trials. (The second trial was granted because of a procedural error in the first.) In 1850 at the conclusion of the second trial, a Missouri jury ruled Scott a free man. This decision was based on his prior residence in a free territory or state, which according to precedent, resulted in his emancipation, regardless of the fact that Missouri itself was a slave state. John F. A. Sanford, the lawyer for Scott's owner, immediately appealed the decision before the Missouri Supreme Court, where a pro-slavery judge reversed the ruling, rescinding Scott's freedom. But the case did not end there.

Sanford filed the court papers under Scott's own name rather than that of Scott's former owner; thus, the case of *Scott v. Sanford* took an interesting twist. As a litigant, Scott had legal status. Scott hired a new lawyer who was able to have the case heard before the federal court. Sanford had moved to New York, and because the appellant (Scott) and the registered defendant (Sanford) were now residents of different states, the case came under federal purview. In 1854 a circuit court in St. Louis again heard Scott's case, but he was again denied his freedom. The decision was appealed to the United States Supreme Court, which began hearing the case in 1856.

In March 1857 the Supreme Court, which had a Southern majority, ruled that Scott's residence in Wisconsin and Illinois did not make him free. The court ruled that an African American (a "Negro descended from slaves") had no rights as an American citizen and therefore could not bring suit in a federal court. Further, the court ruled that Congress never had the authority to ban slavery in the territories. The decision pronounced the Missouri Compromise unconstitutional, deepened the divide between North and South, and helped pave the way for the American Civil War (1861–65). Dred Scott died the following year.

See also: Abolition, Missouri Compromise, Slavery

DREW, DANIEL

Daniel Drew (1797–1879) grew up under difficult financial circumstances in the early 1800s, but he grew to become an extremely wealthy and notorious stock manipulator. In an era noted for "robber barons" Drew used every means available, including fraud and deception, to make a fortune in investments in the transportation industry. In the end, however, Drew became a victim of his own game, and died a poor man.

Daniel Drew was born on July 29, 1797 in Carmel, New York, the son of Gilbert Drew and Catherine Muckleworth. Drew's father owned a modest hundred-acre cattle farm. He died when the boy was only 15, and left the family in poverty. Drew then enlisted in the War of 1812 (1812–1814) as a substitute for someone who sought to avoid military service and could afford to pay Drew \$100 to act as his replacement. After his brief military service, Drew worked with a traveling zoo before finding work as a cattle drover.

Drew began his business career by buying cattle and sheep in New England and the Midwest and selling them to butchers in New York City. He received some financial assistance from a wealthy businessman, Henry Astor. Drew, however, quickly gained a reputation on his own as a sharp dealer. For example, it was believed that Drew would have his cattle over-drink before their sale, so that they would look healthy and weigh more. Through this shrewdness Drew established himself as a capable businessman. In 1820 he married Roxanne Mead, and the couple had one son. By 1829 Drew had moved his young family to Manhattan, where he established the headquarters of his livestock business.

In the 1830s Drew became interested in the steamship industry. In 1834 he used the profits from his

livestock trade to invest in a steamboat fleet that ran on Long Island Sound and the Hudson River. This business venture brought Drew into direct competition with Cornelius Vanderbilt (1794–1877), a shrewd businessman who liked to monopolize the industries in which he invested. Drew and Vanderbilt became lifelong business adversaries.

After a decade in the steamboat business, Drew had earned a fortune. He used these profits to open a Wall Street banking and brokerage firm in 1844, called Drew, Robinson, and Company. Within a decade Drew's business partners had died and, left to himself, he became an aggressive stock manipulator. He specialized in railroad stock and became involved in the Erie Railroad in 1853. In 1857 Drew took advantage of a financial panic to make himself director of the railroad. This brought him once again into direct competition with Cornelius Vanderbilt, who had also developed an interest in the railroad industry.

In 1864 Vanderbilt tried to drive Drew out of the railroad business. Vanderbilt failed, but he nonetheless caused Drew to lose \$500,000. In 1866 Drew joined forces with James Fisk (1834–1872) and Jay Gould (1836–1892) to drive Vanderbilt out of their business. Drew was treasurer of the Erie Railroad, and he advanced company money for 50,000 newly printed shares of fraudulent stock. This move drove up the value of the stock. Drew then sold the fraudulent stock on the resulting bull market for a huge profit. As the price of stocks fell, Drew continued to make money by manipulating the bond market. In doing so, he further angered Vanderbilt and set himself up for a showdown.

Vanderbilt lost a considerable amount of money in the so-called Erie War and, in 1868, he persuaded a judge to order the arrest of Drew, Fisk, and Gould for their questionable stock market activities. To avoid arrest, the three ran off to a hotel in New Jersey, where they continued to run their business. The group never faced prosecution for their illegal dealings because Gould was able to bribe judges and state legislators to legalize the fraudulent stock issued by Drew.

Though Drew gained a fortune through the Erie War, he soon lost it because of the unscrupulous dealings of his business partners. After their joint defeat of Vanderbilt, Fisk and Gould betrayed Drew. In 1870 they sold Erie Railroad stock in England, driving down the value of Drew's holdings. Drew lost \$1.5 million from their misdeed. Soon afterward, he lost the rest of his fortune in the nationwide financial panic of 1873. He was forced to declare bankruptcy in 1876. Shortly thereafter, Drew retired to New York, where his son William H. Drew helped to support him.

Notwithstanding his sly and often unethical business dealings, Drew was a pious man who contributed generously to the Methodist Church. In 1866 he founded the Drew Theological Seminary (now Drew University) in Madison, New Jersey, with an endowment of \$250,000. He also founded Drew Seminary for Young Ladies in Carmel, New York, though he went bankrupt before he could give the seminary all the money he had pledged. Daniel Drew died on September 18, 1879, in New York City, leaving behind an estate worth less than \$500.

See also: Jay Gould, Cornelius Vanderbilt

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DRUCKER, PETER FERDINAND

Peter Drucker (1909–) is considered to be the founding father of modern management. In a career that spanned most of the twentieth century Drucker has remained a highly influential writer, teacher, and philosopher of business management principles. The author of more than 30 books that have been translated into at least 25 languages, Drucker's contributions to management have been likened to Isaac Asimov's influence on astronomy.

Born in Austria as the eldest son of a liberal civil service official, Peter Drucker grew up among a cultured society that admired the city of Vienna before World War I (1914–18). After high school Drucker left war-torn Austria to take an apprentice job at an export firm in Hamburg, Germany. To please his father he also enrolled in University of Hamburg to study law. Although young Drucker worked during the day, the University offered no evening classes. He passed his courses by taking final exams without attending a single class. That was not to say that he did not study; many of Drucker's evenings during his college years

were spent reading library books printed in various languages.

In 1929 the twenty-year-old Drucker published his first article, in which he confidently predicted that the stock market would rise. A few weeks later the market crashed. Having learned a lasting lesson about the unpredictable nature of stock markets, an older and wiser Drucker confessed that this was the last financial prediction he ever made. "Fortunately, there is no copy of the journal left," he stated in his book *The Concept of a Corporation*.

Drucker earned his doctorate in public and international law from the University of Frankfurt while working as an editor and financial writer. Shortly after the Nazis came into power in 1933, Drucker was offered a job as a writer by the Ministry of Information. Because he was opposed to Nazism, Drucker dared to publish a pamphlet that ridiculed that party's oppressive, totalitarian politics. The Nazis banned and burned the pamphlet. Drucker soon left Germany for England, where he took a job at an insurance company as a securities analyst.

While attending a Cambridge University seminar led by the famous economist John Maynard Keynes (1883–1946) Drucker suddenly realized his interest was in people, not economics. He shifted his focus of study to management. In 1937 he came to the United States as the correspondent for British financial newspapers. Drucker's first book, *The End of Economic Man: The Origins of Totalitarianism*, was published in 1939. In his lifetime more than 30 well-received books would follow.

In 1943 General Motors allowed Drucker to study their management practices. His observations of GM set the tone for *The Concept of a Corporation*, the first book to treat a business enterprise as a political and social institution. *Concept of a Corporation* became one of the most popular management books in history. It advocated the emerging era of cooperation between labor and management by explaining one of Drucker's most famous ideas—employees having managerial responsibility in job structure and the performance of major tasks, as well as decision-making power over schedules, safety codes, and work benefits. But when Drucker first proposed these ideas during the 1940s, they were considered a rebellious challenge to managerial authority.

Drucker has said that writing is the foundation of all his work. His topics are varied and include advice to managers in *Managing for Results* (1964) and *The Effective Executive* (1966); general management in *Management: Task, Responsibilities, Practices* (1974);

Dry Farming

social and political analysis in *The Age of Discontinuity* (1969); essay collections such as *The Ecological Vision* (1993), and two novels. His famous autobiography was titled *Adventures of a Bystander* (1979).

Along with his books Drucker also wrote articles for the world's most respected business journals, including *Forbes, Inc., New Perspectives, The Atlantic Monthly, Esquire, Harvard Business Review, Foreign Affairs, The Public Interest, and The Economist*. From 1975 to 1995, he wrote a monthly column in the *Wall Street Journal*.

Drucker spent his life teaching others as a consultant and as a professor. He served on the faculties of Sarah Lawrence, Bennington College, New York University, and the Claremont Graduate School. He taught not only management and economics but also government, statistics, religion, philosophy, and literature. Every three to four years of his teaching career he would take on a new subject, ranging from Japanese art to sixteenth-century finance. Drucker said that in more than half a century of teaching he never found a subject that did not spark his interest.

Sixty years after the publication of his first book, Peter Drucker remained a mentor to generations of managers. He was respected for his past insights and the originality of his contemporary ideas. As he approached the age of 90, Drucker appeared on the cover of *Forbes* magazine with the caption "Still the Youngest Mind."

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DRY FARMING

Dry farming was an agricultural method that allowed crops to be cultivated on the prairie, which

typically received low levels of rainfall and endured very hot summers and harsh winters. Growers who practiced dry farming cultivated some fields while allowing others to lie fallow, so that a field only supported crops every other year. In the off-year, the soil stored up enough moisture and nutrients for the following growing season. Another method of dry farming called for the soil to be tilled, rather than plowed, to a depth of only three or four inches (eight to ten centimeters).

While there was evidence that American Indians on the Great Plains and in the Southwest practiced dry-farming techniques, settlers of European descent did not adopt the method until late in the nineteenth century, when increasing westward expansion necessitated it. Ample enticement to move westward was provided by the Homestead Act of 1862, which granted settlers up to 160 acres (64 hectares) of frontier land as long as the settler built on it or cultivated it. Population growth in the East, largely the result of increased immigration in the late-1800s, also spurred westward migration during the last two decades of the nineteenth century. By 1900, more than a half million families had settled in the West under the Homestead Act. Determined to settle the prairie lands of the Great Plains (in present day Oklahoma, Kansas, Nebraska, South Dakota, and North Dakota), homesteaders experimented with dry farming; they found that wheat was particularly well-suited to the method. Early in the twentieth century, the Great Plains, which received many of the settlers, became one of the world's leading wheat-producing regions.

The widespread practice of dry farming had a catastrophic effect in the 1930s: the Dust Bowl. By the end of the nineteenth century Great Plains farmers, aided by steel plows, uprooted most of the native prairie grass, which held moisture in the soil. Strong winds and extended droughts had not disturbed the land when the grasses covered it. Because the demand for wheat increased after World War I (1914–1918), Great Plains farmers responded by planting more than twenty-seven million new acres of wheat. By 1930 there were almost three times as many acres in wheat production as there were ten years earlier. In 1934 drought, high winds, and the stripped land combined to create the Dust Bowl in the Plains. The situation prevailed into 1937, at a dear cost to crops and livestock. This combined with the effects of the Great Depression (1929–1939) to cause great hardships. Though many homesteaders abandoned their lands, other stayed and eventually replanted the Great Plains. The region was spared a recurrence of the Dust Bowl

due to conservation efforts, which staved off overplanting and restored some prairie lands to their natural states.

See also: Dust Bowl, Homesteaders, Prairie

DUKE, JAMES BUCHANAN

James Buchanan Duke (1856–1925) was a driving force in the development of the U.S. tobacco industry. Through innovative marketing and production techniques Duke popularized cigarettes in the United States and abroad. He also made his mark in the electric power and textile industries. As a successful businessman Duke shared his good fortune through generous philanthropy, most visibly in his endowment to Duke University in North Carolina.

James Buchanan Duke was born on December 23, 1856 on his parents' farm in Durham, North Carolina. He was one of five children born to Washington and Artelia Duke.

While his father was away fighting for the South in the American Civil War (1861–1865) Union soldiers destroyed much of the 300-acre Duke farm. The farm had produced corn, oats, wheat, and tobacco crops, but only some stored leaf tobacco escaped destruction.

The Duke family then turned to the tobacco crop and subsistence farming for their survival. Because so much tobacco was destroyed throughout the South during the Civil War, demand for tobacco skyrocketed once the fighting stopped. Sensing the demand for tobacco and its greater market potential, Duke's father sold the family farm in 1874 and set up business in a tobacco factory in downtown Durham. James joined the family business, W. Duke and Sons, after completing business training at a New York school. It was there that the younger Duke began to seek creative ways to promote and improve the family business.

James Duke developed innovative marketing and production techniques that helped propel his family business to success. One of these innovations was the 1884 acquisition of the Bonsack cigarette-rolling machine, which allowed mechanized mass production of cigarettes. Before the Bonsack machine was introduced cigarettes were hand-rolled and difficult to mass produce. They were not very popular. Once Duke set mass production in motion, he directed his efforts to capturing public attention. In 1884 he moved to New York City and opened a company office. He studied the operations of retail stores in the city and planned his strategy based on his findings.

As a promotional effort Duke offered free samples of his cigarettes to new immigrants, hoping they would come back for more as paying customers. He advertised on billboards and posters, as well as in newspapers and magazines. He used the Duke family name to support sporting events and included coupons inside packets of Duke cigarettes.

Duke's aggressive marketing techniques were unprecedented in his day and they paid off. By 1889 the business, now called W. Duke, Sons and Company, produced 45 percent of all cigarettes sold in the United States. Duke's attempts to win an ever-greater share of the growing tobacco market culminated in an 1889 merger with four other major tobacco manufacturers. The American Tobacco Company was thus born. It controlled 90 percent of all tobacco sales in the United States.

As president of the company, James Duke became the dominant leader in the tobacco industry. He was determined that the company retain market and industry superiority. Duke closed less efficient factories and discontinued unpopular cigarette brands. He undercut the retail prices of his remaining competition and hired non-union labor at low wages. He also signed a contract with the Bonsack Company to restrict its sales of the automatic cigarette-making machine to any company other than the American Tobacco Company. By 1898 the American Tobacco Company had almost eliminated its competition. In 1910 the company expanded to the overseas market.

The United States government watched the business practices of the American Tobacco Company for several years. As early as 1907 the company faced lawsuits alleging violations of anti-trust regulations. In 1911 the federal government charged American Tobacco with violations of the Sherman Anti-Trust Act, inhibiting fair and reasonable competition in the marketplace. Ultimately, the U.S. Supreme Court determined that much of the American Tobacco Company's business was pursued with illegal secret agreements and false public promotions. Its practices were "unreasonable" in the fair U.S. marketplace. To encourage competition, the Supreme Court ruled the tobacco giant be broken up into four smaller firms, the American Tobacco Company, Liggett and Myers, P. Lorillard, and R.J. Reynolds.

Duke remained president of the American Tobacco Company, now at 40 percent of its previous size. His attention, however, turned to more diversified business interests. He invested heavily in hydroelectric power plants, founding the Southern Power System in 1905. Southern Power built eleven plants (1907–1925). At

DuPont Company

the same time Duke invested in textile mills producing cotton and wool. The mills ran on power supplied by Duke's hydroelectric plants. The Southern Power System eventually became known as the Duke Power Company.

Duke shared his good business fortune with the public through his generous philanthropy. In 1924 he established the Duke Endowment with \$40 million. A portion of the endowment went to Trinity College in North Carolina. The school was later renamed Duke University. The Duke Endowment was also established to support other educational institutions, health care organizations, children's homes, and churches.

James Buchanan Duke pioneered the development of the U.S. tobacco industry and made significant contributions to philanthropy and business. He died in 1925.

See also: American Tobacco Company, Mass Production, Sherman Anti-Trust Act, Tobacco, Tobacco Industry, Tobacco Trust

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DUPONT COMPANY

E.I. du Pont de Nemours & Company, better known as DuPont, developed from a family business, which manufactured gunpowder and explosives, to a

multinational corporation that produces petroleum, natural gas, chemicals, synthetic fibers, polymers, and various other products. DuPont brand names—such as nylon, Teflon, Lycra, and Mylar—are part of the everyday vocabulary of people across the world. At the end of 1998 DuPont employed about 84,000 people in 70 countries and was the sixteenth largest industrial service corporation in the United States.

The founder of the company was the French nobleman with the impressive name of Éleuthère Irénée du Pont de Nemours, who had studied with the famous chemist Antoine-Laurent Lavoisier. Du Pont came to the United States in 1797 and built a gunpowder factory on the Brandywine River in Delaware. His sons continued producing superior gunpowder after his death and also manufactured smokeless powder, dynamite, and nitroglycerine.

When competition in the early twentieth century became fierce, shareholders of the company voted to sell the company to the highest bidder. Alfred I. du Pont and two of his cousins, Pierre S. du Pont and Thomas Coleman, acquired the company in a leveraged buyout in order to keep it in the family. Pierre du Pont and Coleman, with Alfred in a lesser role as vice president, guided DuPont to unprecedented success, acquiring 54 other companies within three years. By 1905 DuPont held a 75 percent share of the U.S. gunpowder market and had become a major producer of explosives and one of the nation's largest corporations. With laboratories in New Jersey and Wilmington, Delaware, it was one of the first American companies to devote itself heavily to research. DuPont had also become the economic lifeblood of the state of Delaware.

Much of the company's success was due to its efficient structure, which designated different levels of management. In this sense, DuPont profoundly influenced the way U.S. corporations were run. Too much success, however, ultimately worked against the company. DuPont controlled so much of the explosives market that in 1912 the U.S. government ordered it to divest itself of a number of its assets. Adding to the company's troubles was a continuing feud between Alfred du Pont and his cousins, who eventually took away all of Alfred's real responsibilities within the organization.

DuPont continued to diversify in the early 1900s. Pierre Samuel du Pont began to buy General Motors (GM) stock in 1914, and he soon became embroiled in a struggle for power within that company. William C. Durant (1861–1947), founder of GM, fought to maintain control of the company, which he later lost. Pierre

du Pont eventually acquired enough stock to be a dominant force within the company during the 1920s. This facilitated an economic relationship between General Motors and DuPont, and DuPont began selling to GM its Duco paint, antifreeze, and lead additive for gasoline.

DuPont also expanded into the textile business, manufacturing artificial fibers for use during World War I (1914–1918). When the company acquired rights from the French to manufacture cellophane in the 1920s, it began manufacturing rayon and developed a stronger version of the cord used in automobile tires. By far the most important of DuPont's creations was nylon, developed in 1930 by a research group headed by Wallace H. Carothers. DuPont's thermoplastics division spun off all kinds of products, including shower curtains, radio dials, eyeglass frames, and screwdriver handles.

In many ways, DuPont contributed to the American effort to win World War II (1939–1945). Through a partnership with the U.S. government, DuPont established an atomic bomb research center in Hanford, Washington. After the war women lined up to purchase DuPont-produced nylon stockings, which had been unavailable during wartime. Some of DuPont's other product innovations included neoprene, Lucite, Orlon, and Dacron, products that revolutionized the global consumer industry.

DuPont's string of successes came to a halt in the mid-1970s, when the demand for artificial fibers began to decline, and the costs of raw materials increased. DuPont's concentration on rebuilding its old business rather than branching out into new areas cost it dearly; moreover, a recession in 1980 hurt the company. In that same year, however, the development of a product called Kevlar brought renewed success. Kevlar was a light, strong polymer with five times the tensile strength of steel. It could be used for such products as fire-resistant clothing, tire reinforcements, and bulletproof vests. Its cost, however, was high since it was derived from petroleum.

Mergers and acquisitions in the 1980s helped bring DuPont out of the recession. The most important of these was the acquisition of Conoco, which provided DuPont with oil at competitive prices. DuPont also involved itself in joint ventures with such companies as P.D. Magnetics, the Sankyo Company (pharmaceuticals), the Mitsubishi Rayon Company, and British Telecom (optoelectronic components). The company, moreover, began to branch out from stock chemicals and petrochemically based fibers into the life sciences, taking on such fields as genetic engineering and the

manufacture of heart medications and the cancer-fighting drug interferon. In addition, DuPont took part in the development of pesticides and electronics parts supplies. By the mid-1980s DuPont owned about 90 businesses that sold a wide range of products.

In the late 1980s, however, management at DuPont decided that the company should begin concentrating on its most profitable areas—oil, healthcare, electronics, and specialty chemicals. While divisions such as pharmaceuticals and electronics were losing money, textiles continued to be its most successful product line, and the company began to publish a consumer products catalog featuring items made from its well-known fibers, such as Lycra, Zytel, and Supplex. The stretch polymer Lucre, favored by many fashion designers, became a big seller.

During the late 1980s and early 1990s DuPont paid particular attention to pollution control and clean-up, gradually replacing its environmentally harmful chlorofluorocarbons with safer chemicals, at a cost of \$1 billion. The company also began to market safer pesticides and entered the growing recycling market.

With the exception of a temporary rise in profits for Conoco as a result of the Persian Gulf War (1991), most of DuPont's operations lost ground during the early 1990s. The company began restructuring, divesting itself of unprofitable components and reducing staff levels. DuPont also concentrated more on its chemicals and fibers divisions, acquiring polyester technology from ICI; meanwhile, ICI bought out DuPont's acrylics business.

In the 1990s DuPont began to recover from the downturn of the 1980s. The company posted record profits in 1994 and 1996, and stock prices rose. New joint ventures in the areas of synthetic fibers, chemicals, and agricultural products continued to turn profits. In 1997 DuPont purchased a division of Ralston Purina that manufactured soy products, and also bought out Merck's share in the DuPont Merck Pharmaceutical Company. In an effort to concentrate on its core businesses, DuPont divested itself of Conoco in 1998. In that year DuPont had a net income of \$4.7 billion. Nearing the close of the twentieth century, the company could safely boast that DuPont products had become inseparable from the everyday life of most societies in the world.

See also: E.I. du Pont, William C. Durant

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DU PONT, ÉLEUTHÈRE IRÉNÉE

Éleuthère Irénée du Pont (1771–1834), a French refugee in the early days of the American republic, founded an international industrial giant, E.I. Du Pont de Nemours and Company. Begun as a small gunpowder mill on Brandywine Creek near Wilmington, Delaware, his company became a leading manufacturer of chemicals, plastics, and synthetic fibers and was one of the older continuously operating industrial enterprises in the world.

Du Pont was born in Paris, France, in 1771, the son of Pierre Samuel du Pont, a French nobleman. His mother died when the boy was fourteen. With his older brother, Victor, du Pont grew up at Bois-des-Fosses, a family estate sixty miles south of the French capital.

The political turmoil of revolutionary France strongly influenced du Pont's early life. His father was politically active, sharing the title of commander of the National Guard with the Marquis de Lafayette, the French general and statesman who came to the aid of the American army during the American Revolution (1775–1783). The elder du Pont, together with Lafayette, founded the conservative *Société de 1789* to promote a constitutional monarchy. The son aligned himself politically with his father. On August 10, 1792 the du Ponts led a sixty-man private guard to defend the king's palace from an assault by radicals dedicated to ending the monarchy. But their success on that occasion did not change the inevitable; the king, queen, and many supporters were later imprisoned and guillotined.

Among the many men and women put to the guillotine was Antoine Lavoisier (1743–1794), known as the father of modern chemistry. Lavoisier was one of



Éleuthère Irénée du Pont.

the greatest scientists of his day and a close friend of Pierre du Pont. He was also in charge of the royal gunpowder mills and, in that role, he taught the young du Pont the craft of gunpowder-making.

When the future emperor Napoleon Bonaparte (1769–1821) seized power in 1799, both Pierre and Éleuthère du Pont were imprisoned for their opposition to his autocratic rule. They were released when they pledged to leave France. The du Pont family arrived in Newport, Rhode Island, on December 3, 1800, it was in the United States that Éleuthère du Pont would thrive.

It was soon apparent to du Pont that gunpowder was a much-needed commodity in his adopted land. Guns were needed on the frontier. Settlers hunted for meat and skins and gunpowder was also used to clear land to build homes and roads. Although some gunpowder was produced locally, ninety percent was imported from France.

On July 19, 1802, du Pont purchased land on Brandywine Creek near Wilmington, Delaware, with \$36,000 in capital from a group of French investors, and he set about building his first black powder factory. In the spring of 1804 the first du Pont gunpowder was sold. The business was an immediate success and it

became highly profitable during the War of 1812 (1812–1814).

Following the teachings of his mentor, Lavoisier, and the scientific method the great chemist advocated, du Pont brought to the United States new ideas about the manufacture of consistently reliable gun and blasting powder. Unlike much of the black powder then available, du Pont's product ignited when it was supposed to. In 1811 former President Thomas Jefferson (1801–1809) wrote to du Pont to express his appreciation of the quality of the gunpowder he had purchased to clear the land for his new estate, Monticello.

DU PONT BROUGHT TO THE UNITED STATES NEW IDEAS ABOUT THE MANUFACTURE OF CONSISTENTLY RELIABLE GUN AND BLASTING POWDER. UNLIKE MUCH OF THE BLACK POWDER THEN AVAILABLE, DU PONT'S PRODUCT IGNITED WHEN IT WAS SUPPOSED TO.

Du Pont gave careful attention to preparing his raw materials. Saltpeter was thoroughly cleaned in du Pont's mills, no matter what the state of the material's cleanliness when it arrived at the plant. Sulfur was not used unless pure and clear in color.

Du Pont always sought ways to improve the quality of his product and the company's manufacturing methods. He was also a man of exemplary ethics. In March 1818, for example, an explosion killed 40 men and ruined his mills. Even though there were no laws requiring it, and it was not the business practice of the day, du Pont took it upon himself to compensate the families of the victims. He pensioned the widows, gave them homes, and took responsibility for the education and medical care of the surviving children.

Du Pont spent 32 years as president of his very profitable enterprise. At the time of his death in 1834 the privately owned company he had named E.I. du Pont de Nemours and Company had become highly successful. Following his death the company was passed down to his sons and, until 1940, the enterprise was headed by a member of the du Pont family.

See also: **DuPont Chemical Company**

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DURABLE GOODS

Durable goods are tangible commodities that will last more than a year with normal usage. Durable goods comprise two categories: consumer and producer durables. Examples of consumer durables are cars, boats, furniture, televisions, appliances, and fine jewelry. Producer or capital durables include machinery and equipment.

In the 1920s immediately following World War I (1914–1918) the United States witnessed a consumer durables revolution. Businessmen invested sharply in production facilities of many kinds. New manufacturing plants made possible a huge expansion in the output of durable goods, particularly automobiles, refrigerators, radios, washing machines, and vacuum cleaners. Individuals no longer restricted their spending to the amount of cash they had on hand. They bought on time. Finance companies specialized in providing installment credit, and buyers made wide use of the technique to purchase durable goods.

The role of durable goods in the business cycle, the ups and downs of business activity in the United States, are extremely important. The output of durable goods shows greater variability over the business cycle than output of other goods. An automobile is a "big ticket" item and lasts a number of years. Since it is a long lasting good, its purchase can usually be postponed for long periods. The purchase is usually with borrowed money involving the payment of interest. In a recession, usually accompanied by high interest rates, purchases of durables will fall dramatically. In

contrast during a time of expansion with low interest rates, durables are in high demand. On the other hand, the purchase of non-durables, like bread, milk, and beer, will change minimally over the business cycle.

Key statistics, or indicators, are used to analyze and forecast changes in the business cycle. The Gross Domestic Product (GDP) is the market value of all final goods and services produced within a certain time period. A key component of the GDP is personal consumption expenditures, which include durable goods expenditures. Durable goods alone accounted for approximately 8 percent of the GDP in the 1990s. Increased spending for durables contributes to a positive economic forecast whereas a decrease points to an economic slowdown.

See also: **Capital Goods, Consumer Goods**

DURANT, THOMAS CLARK

As a financier and an executive of the Union Pacific Railroad in the early 1860s Dr. Thomas C. Durant (1820–1885) was instrumental in building the first railway spanning the western United States. He ended his career, however, in scandal and financial disaster, having greatly enriched himself at the public's expense.

The Durants were a wealthy and distinguished western Massachusetts family. Bowing to the wishes of his parents, Thomas Durant graduated from Albany Medical College in upstate New York in 1840. But he never practiced medicine, choosing instead to devote his career to business.

After a period of working in his uncle's grain and flour export business, Durant moved to New York City and became involved in the stock market. The 1850s saw the wide-spread building of railways, the "super-highways" of that time. Durant recognized railroads as a good investment, and soon he began to concentrate his entire resources on financing railroad construction.

Together with engineer Henry Farnum, he orchestrated the construction of numerous major rail lines, including the Mississippi and Missouri railroad across Iowa. In 1862 he negotiated a contract with the U.S. government to build the Union Pacific, a rail line that would go westward from Omaha, Nebraska. It was expected to join the Central Pacific, which was moving

eastward from California to create a transcontinental railroad. Durant joined the company as vice president and general manager mainly in order to protect and extend his own financial interests.

The Union Pacific soon fell into financial difficulties. Durant attempted to solve the problem by creating a construction and finance company called the *Crédit Mobilier of America* to complete the building of the railroad. The *Crédit Mobilier* was a complex and corrupt scheme in which a small group of financiers contracted with themselves or their associates to construct the railroad, charging exorbitant prices for their services. Durant and his cronies pocketed huge profits for construction that was often faulty. *Crédit Mobilier* became a symbol of corruption in an era when illegal manipulation of large contracts was often the standard operating procedure.

Durant was instrumental in obtaining support and financing at every level of government. He lobbied President Abraham Lincoln (1861–1865) and both houses of Congress and with every favorable decision he pocketed more cash. He played on the fascination with the West during the war-torn 1860s and also exploited people's ignorance of the value of the vast area of land between the Mississippi River and California, which maps called the "Great American Desert." Therefore he was able to persuade Congress to pass the Pacific Railway Act of 1862 with a promise that the railroad would receive 10 square miles of land for every mile of track it laid.

In 1864 *Crédit Mobilier* took over the Union Pacific's construction contracts. Durant persuaded Congress to double the size of the land grants the railroad was previously awarded. He later sold some of this land but retained much more. This land holding added greatly to his wealth as did an elaborate scheme for padding his expenses. The original estimates for construction of the Union Pacific line had accurately set the cost at around \$30,000 per mile of track. The *Crédit Mobilier* doubled this figure, with Durant and a few others pocketing the difference. Construction methods were shoddy. Shortly after the 1869 track completion ceremonies construction crews were forced to undertake several years' worth of additional work rebuilding the tracks.

Durant's reign as the leading robber baron of the Union Pacific and *Crédit Mobilier* did not last long. In 1865 Durant and his associates faced a severe financial problem, which Oakes and Oliver Ames, who amassed a fortune in the pick and shovel business, promised to

ameliorate. They invested more than a million dollars of their own money in the railroad and raised an additional \$1.5 million upon the credit of their businesses. Shortly thereafter it was discovered that Oakes Ames, a member of Congress from Massachusetts, distributed shares of *Crédit Mobilier* stock as political favors. He and a colleague were censured by the House of Representatives. Vice President Schuyler Colfax, Speaker of the House James C. Blaine, and future U.S. President James A. Garfield (1881) were all implicated but were later absolved in the scandal.

Durant had managed to accumulate some \$23 million by defrauding the railroad's investors with his *Crédit Mobilier* scheme. An associate later called him "the most extravagant man I ever knew in my life." But, deeply involved in the worst financial scandal of his time and justifiably accused of bribery and fraud, Durant saw his fortune dwindle to virtually nothing following the financial Panic of 1873. He spent his latter days living quietly on his property in upstate New York, where he died on October 5, 1885.

See also: Oakes Ames, Oliver Ames, Central Pacific Railroad, Mississippi River, Panics of the Late Nineteenth Century, Transcontinental Railroad, Union Pacific Railroad, Westward Expansion

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DURANT, WILLIAM CRAPO

Born in Boston, Massachusetts, on December 8, 1861, William Crapo Durant (1861–1947) grew up in

Flint, Michigan. His parents divorced after his father went bankrupt in the late 1860s, and his mother moved the family to Michigan. There she reunited with her father, who had prospered in the lumber business and served as mayor of Flint and governor of Michigan. Durant left high school early to work in his grandfather's lumberyard and at various other jobs. One of those jobs was as a salesman for a local cigar manufacturer.

Durant was a natural salesman. "Let the customer sell himself," was his stated philosophy. In 1885, after finding a unique suspension system that minimized bounce, he organized the Durant-Dort Company to make carriages. This company was his first real success, and it became one of the leading manufacturers of horse-drawn carriages. By 1900 the company was the largest carriage manufacturer in the United States.

But Durant saw that the future of transportation rested in the automobile rather than the horse-drawn carriage. In 1904 he took over management of the Buick Motor Company, which had financial problems. That year, he arranged for Buick to participate in the New York Automobile Show and took orders for 1108 cars, more than 25 times the number of cars the company had ever manufactured. To raise the capital necessary to respond to this increased need, Durant sold Buick stock to anyone in Flint who was interested in buying. Production at the Buick Company went from 725 cars in 1905, to 1400 in 1906, to 4641 in 1907. Buick reached the position of number one in the country in 1908, with a production of 8820 cars, outselling Ford Motor Company and Cadillac combined.

Durant tried to buy Ford in 1907, but the bid failed when Henry Ford (1863–1947) insisted on being paid in cash. The next year Durant formed General Motors Company in response. Durant's concept for his new company was to be a total supplier of automobiles from the car itself to its parts and service. Durant added Cadillac, Oldsmobile, Oakland (Pontiac) and other lesser companies to the original Buick at General Motors. Durant was a great salesman, but not so great at purchasing companies. Many of his acquisitions were over-priced or ill advised. In 1910 General Motors was heavily in debt and under a cash crunch. Bankers rescued the company from its financial predicament, but the price was a loss of control for Durant.

Still believing in the automobile, Durant joined forces with race car driver Louis Chevrolet (1879–1941) and established Chevrolet Motor Company in 1911. Chevrolet was an instant success with the Model

Dust Bowl

490, which cost more than Ford's Model T, but offered greater refinements and comfort. The loan the bankers had made to General Motors expired in 1915, and with it, Durant's prohibition from involvement in the company. With the help of the Du Pont family, Durant was able to regain control of General Motors in 1916. Chevrolet was brought into the General Motors family of automobiles, and the company prospered.

Durant, however, was unable to effectively deal with the company's stock price problems during the Panic of 1920. General Motors stock fell from \$42 per share in March to just \$14 per share in October. Durant felt personally responsible to many of the shareholders, as he had made personal commitments to friends and neighbors to sell the stock. He tried valiantly to prop up the stock price and save his friends' investments, but he failed.

When the Du Ponts discovered Durant's position, they forced him out of General Motors in order to protect their own investment. Oddly, Durant could have weathered all the problems with stock prices and the company if he had just left the situation alone. By 1926, just six years later, General Motors stock was trading at \$210 per share. From April to November of 1920, Durant lost over \$90 million. Adjusted for inflation, that amount would have been over \$1 billion in the 1990s. Many believe this to be the largest relative loss of money in the history of the stock market.

Durant made another attempt to succeed in the automobile industry, starting Durant Motors in 1921, but it failed to establish itself in the market. By the time of the stock market crash of 1929, Durant Motors was already shaky and it lost ground steadily until its dissolution in 1933. By 1935 Durant had declared bankruptcy. He dabbled in a number of other business ventures, including a bowling alley, but none were particularly successful. He died in New York on March 18, 1947.

See also: *Automobile Industry, General Motors Corporation*

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DUST BOWL

Farmers across the Great Plains longed for rain during the spring of 1934. But day after day, the weather offered no relief, only intense sun, wind, drought, more sun, then gale-force winds. On April 14, massive clouds of dust blotted out the sun over western Kansas. At first the wind raced along the surface, tearing at the stunted wheat and licking up the topsoil. Then the dust thickened into low, heavy, dirt-laden clouds. From a distance, the storm had the appearance of a cumulus cloud, but it was black, not white; and it seemed to eat its way along with a rolling, churning motion. As the storm swept toward Oklahoma and Texas, the black clouds engulfed the landscape. For those at the storm center there was an eerie sensation of silence and darkness. There was little or no visibility, and wind velocity hit 40 to 50 miles per hour. The next month was exceedingly hot with a temperature above 100 degrees Fahrenheit every day. On May 10, the gales returned, this time from the west. Unlike the previous storm, these winds whipped up a formless, light-brown fog that spread over an area 900 miles wide and 1500 miles long. The next day an estimated 12 million tons of soil fell on Chicago, Illinois, and dust darkened the skies over Cleveland, Ohio. On May 12, dust hung like a shadow over the entire eastern seaboard. By the time they were over, these two storms alone blew 650 million tons of topsoil off the Great Plains.

The Dust Bowl covered 300,000 square miles of territory located in Kansas, Texas, western Oklahoma, eastern Colorado, and New Mexico. In the hardest-hit areas, agriculture virtually ceased. With successive storms, the wind and the flying dust cut off wheat stalks at ground level and tore out the roots. Blowing dirt shifted from one field to another, burying crops not yet carried away from the wind. Cattle tried to eat the dust-laden grass and filled their stomachs with fatal "mud



Children at a water pump shielding their faces against swirling dust. In 1935, 650 million tons of topsoil eroded in the Central Plains states. The nation's farmland endured intense dust storms, during time known as, "The Great Dust Bowl."

balls." The dust banked against houses and farm buildings like snow, and buried fences up to the post tops. Dirt penetrated into automobile engines and clogged the vital parts. Housewives fought vainly to keep it out of their homes, but it seeped in through cracks and crevices, through wet blankets hung over windows, through oiled cloths and tape, covering everything with grit. Hospitals reported hundreds of patients suffering from "dust pneumonia." The black blizzards struck so suddenly that many farmers became lost in their own fields and suffocated, some literally within yards of shelter. More than 350,000 people fled the Great Plains during the 1930s. These "Okies" loaded their meager household goods and struck out along famous highway Route 66 for California.

Fifty years earlier, a strong, protective carpet of buffalo grass had covered the Great Plains. The grass held moisture in the soil and kept the soil from blowing away. In dry years, the wind blew out huge craters, later mistakenly called "buffalo wallows," but as long as the turf remained, the land could recover. In the last two decades of the nineteenth century, farmers began staking out homesteads in regions once considered too

arid for anything other than range. Wherever they went, farmers plowed under the buffalo grass. During World War I (1914–1918) the demand for wheat, along with the invention of the tractor, meant plowing larger areas of the virgin grassland. Between 1914 and 1917, the area of wheat planted increased to 27 million acres, much of which (more than 40 percent) had never been plowed before. After the war, the plowing continued. Larger tractors and combines, new machines that could harvest and thresh grain in one operation, inaugurated the age of the wheat kings. By 1930, there were almost three times as many acres in wheat production as there had been a decade earlier, and that number was steadily increasing. The plow exposed the land to rain, wind, and sun. By 1932, the earth on the plains was ready to blow away.

The Dust Bowl sped the development of long-range federal programs in the new field of soil conservation. A veteran conservationist, President Franklin D. Roosevelt (1933–1945) in late 1933, created the Soil Erosion Service, later the Soil Conservation Service (SCS), with Hugh Bennett as its head. The SCS's task was to supply technical assistance and leadership,

Dust Bowl

while local soil conservation districts carried out Bennett's program of strip crops, contour plowing, stubble-mulch farming, and terracing. More dramatically, the Forest Service under Ferdinand A. Silcox in 1934 started planting a "shelter belt" of trees, within a 100-mile wide zone, from Canada to the Texas Panhandle. Ten years later, more than 200 million cottonwoods and other varieties of trees were serving as wind breaks and helping to conserve moisture. In 1936, the Agricultural Adjustment Administration (AAA), directed by Chester Davies, adopted soil conservation as a subterfuge to get around an unfavorable Supreme Court decision; but on the Great Plains, soil conservation was a legitimate part of the AAA program. Farmers received government checks for both acreage reductions and wind control practices.

After 1936, the New Deal added little to its conservation program. Roosevelt did appoint two special committees under the chairmanship of Morris L. Cooke, one to study Dust Bowl conditions and the other to recommend specific legislation. Congress passed a water storage bill along the lines that the latter committee had suggested, but did little else. In 1939 Harlan H. Barrows reported for the Committee on the Northern Great Plains but again, little was done.

Although it achieved less than it might have, the New Deal did much to hasten recovery in the Dust

Bowl; more importantly, the rains began anew. As the buffalo grass spread again, the bowl area rapidly shrank from 8.727 million acres in 1938 to 1.2 million in 1939. Yet there remained the danger that farmers would forget the terrible lessons from the drought and that the Dust Bowl would once again reappear.

See also: **Agricultural Equipment Industry, Agriculture Industry, Colorado, Kansas, New Mexico, Oklahoma, Texas**

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EARLY REPUBLIC TO CIVIL WAR, 1815–1860 (OVERVIEW)

At the end of the War of 1812 (1812–1814) the U.S. economy was overwhelmingly agricultural. It had a small industrial base concentrated in the Blackstone and Merrimac river valleys of New England and the Delaware River valley between Philadelphia and Wilmington, Delaware. The largest manufacturing industry was flour milling, followed by the production of leather goods, and then other food processing, including distilling. The iron, chemical, paper, and textile industries were very small.

During this period most industry was still carried out by the putting out system (in which craftsmen and their families did work in their homes). In 1810 ninety percent of the textile production in the nation was still done in homes, even though the textile industry was among the most industrialized in the nation at the time. The total value of manufacturing production was approximately \$200 million.

By 1860, however, there were over 140,000 manufacturing establishments employing more than 1.3 million people to produce just under \$2 billion in products. Very little of this output was produced by the putting out system, except in the shoe industry. Nearly all of this industrial growth took place north of Chesapeake Bay. By this time the United States was second in the world in manufacturing production behind only Great Britain. Between 1810 and 1860 the nation's population increased over four-fold, from 7.2 million to 31.5 million, with most of the growth occurring in the industrializing areas.

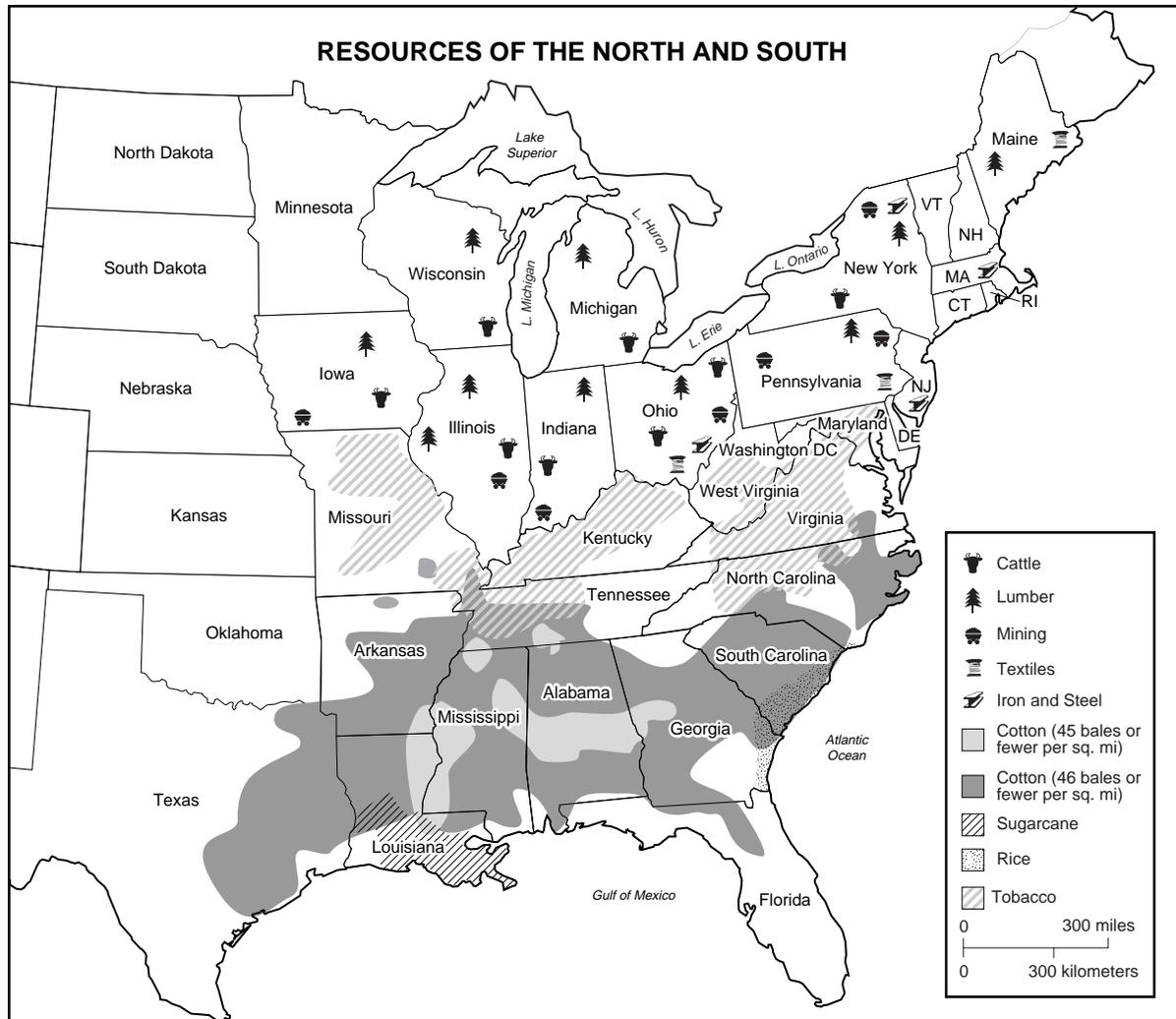
The economy in 1815 was not only largely agricultural, but it was also very localized due to poor roads. It was difficult to move bulky goods over any significant distance, with few alternatives for transportation outside the areas that could ship by river or sea. Steamboats, however, began sailing rivers in 1807 and

by the 1840s they carried 10 million tons of freight a year on the Ohio, Mississippi and other western rivers. Steamboats were much faster than sailboats, but their period of dominance was brief due to the rise of canals and railroads.

In 1825 the Erie Canal connecting New York City to the Great Lakes at Buffalo opened. Its immediate success led to a boom that saw canal construction increase dramatically. By 1840 there were 3,300 miles of canal in operation. However a decade later canal construction plans were being abandoned due to competition from the railroads. In the 1830s railroads began to appear and by 1860 the nation had over 30,000 miles of rail in operation. Local, state, and federal governments subsidized both canal and railroad construction as well as river and harbor improvements to facilitate transportation. The construction of this transportation network was a major factor in the economy, employing large numbers of people and facilitating the movement of raw materials and manufactured goods. Most importantly it allowed the inexpensive and efficient movement of food from the west to the industrial cities of the northeast.

Plantation slavery dominated the South during this period. The invention of the cotton gin in 1793 by Eli Whitney increased the potential profit in growing the short-staple cotton that grew well in the interior parts of the South. The expansion of the textile industry both in England and the northeastern United States provided a large and expanding market for the crop. Cotton production increased from just 209,000 bales in 1815 to almost 5.4 million in 1859. Planters moved their slaves in large numbers to the interior of Virginia, North and South Carolina, Georgia, Alabama, Mississippi, Arkansas, Louisiana, and Texas. World demand for cotton kept pace with increasing production and cotton plantations were highly profitable during most of the period leading up to the American Civil War (1861–1865). Tobacco growing did continue in Virginia and North Carolina as well as sugar cane and rice growing in coastal Carolina, Georgia, and Louisiana. But cotton

Early Republic to Civil War, 1815–1860 (Overview)



This map depicts the major resources of the Northern and Southern states in 1860. The North's economy was industrialized and dependent on a free immigrant labor force. The relatively independent economy of the South was primarily based on staple crop production and slave labor forces.

dominated the Southern economy and drove the political agenda of the Southern states. For example, railroad development in the South focused on short transport routes that moved cotton to the nearest river rather than an integrated system tying the region together. (Integrated transportation systems were only beginning to appear when the Civil War began.)

Cotton plantations were highly specialized: nearly all available land was planted in cotton while food and other goods were purchased from those areas in the upper South that were not well-suited to cotton, particularly Kentucky. Slavery was only marginally profitable in those areas that did not grow cotton, but the demand for slaves in the cotton areas kept slave prices high. A large internal slave trade developed rapidly after the importation of slaves ended in 1808. Southern capital was largely invested in land and slaves for the

production of cotton and the economy of the region was highly specialized by 1860.

Industry in the Northeast began to develop in several areas, initially using waterpower. For generations northerners had ground grain into flour, fullled cloth, and cut lumber using water-powered mills. There was an extensive community of millwrights familiar with water-powered machinery and who had worked on ways to mechanize work in those mills. For years northern merchants had traveled all over the world carrying world commerce and accumulating capital. In 1790 Samuel Slater brought detailed knowledge of the new British textile technology to the United States. With the support of Moses Brown he built a wool mill and a machine shop at Pawtucket, Rhode Island. Slater's venture was almost immediately successful and

gave the community of millwrights enough information to not only replicate the British machinery, but to begin independently improving it.

After the War of 1812 capital in the United States began to shift away from trade to domestic manufacturing. The Tariff of 1816 was the first truly protective tariff; it provided a secure environment for investment in factories. As a result, the textile industry, especially cotton textiles, began to expand rapidly. Cotton textile production increased from 600,000 yards in 1810 to 141.1 million yards in 1830, and ultimately reached over 857 million yards in 1860.

The scale of textile factories changed during this period. The small mills with a few dozen spindles and looms that characterized the initial period of the industry gave way to larger complexes. This pattern began with the Boston Associates complex at Waltham, Massachusetts. Waltham itself soon appeared small as the Boston Associates developed Lowell on the Merrimac River. The population of Lowell increased from 2,500 in 1826 to 35,000 in 1850. The Lowell Machine Shop became a center for innovation not only in textile machinery but waterpower technology as well. It also trained a generation of industrial engineers that spread throughout the economy. Lowell attracted further international attention because of its labor system that employed young women housed in corporate boarding houses with an extensive corporate welfare and cultural program.

The expansion of textile manufacturing was not only important in its own terms but also as a stimulus to the machine tool industry. This industry began developing machinery for a wide range of industrial activities, as well as iron and steel production. A key element of the machine tool industry was its emphasis on interchangeable parts for machinery. Known as the American system of manufacturing, it entailed an increasing range of products manufactured by machines that turned out identical objects and could be operated by a minimally skilled operator. The skill needed was built into the machine.

The increased demand for iron led to the expansion of what had been a small industry making iron with charcoal at a large number of small-scale furnaces and forges spread across the country. The new furnaces and forges were much larger in scale and capitalization, and they increasingly used coal to produce higher quality iron and steel. They used the Bessemer Process discovered by William Kelly (1811–1888), a west Kentucky iron master. The discovery of extensive deposits of rich iron and copper in the Upper Peninsula

of Michigan further contributed to the rapid development of the iron and steel industry. The completion of locks at Sault Ste. Marie in 1855 removed a major obstacle in the shipping of iron ore and copper to Cleveland and to the emerging iron and steel center at Pittsburgh.

The growth of large cities in the industrial northeast created a tremendous demand for food. The Erie Canal allowed the relatively inexpensive transport of bulky foodstuffs from western New York, Ohio, Indiana, and Illinois. Feeder canals and eventually railroads within those states expanded the transportation network, moving larger and larger amounts of food to the growing industrial cities. Agriculture in the Midwest was a large-scale commercial activity raising crops and livestock for sale to the east. The transportation system involving railroads, canals, and the Great Lakes linked the east and the Midwest, binding them together into a single economic unit. As commercial agriculture expanded in the Midwest farming declined in the northeast and the scale of farms increased. While 70 percent of the North's population lived on farms in 1820, by 1860 this figure was down to only 41 percent.

An important element in the development of the northeastern manufacturing economy was the large number of immigrants who arrived in the country during the 1820s. With the exception of a few southern seaports like Savannah most immigrants came to the North because of the greater economic opportunity there. Between 1820 and 1860 some five million people came to the United States, the vast majority of them derived from western Europe: as much as 85 percent came from Ireland, Germany, and Great Britain. Immigrants provided labor for expanding industries and for the construction of canals and railroads. The rapid expansion of population in the emerging industrial cities was a further stimulus to the economy, creating a tremendous demand for housing and other infrastructure.

During this period there were two largely separate economies north and south of the Ohio River. There were some connections between the two—northern textile mills used southern cotton and the South imported some manufactured goods from the North. But otherwise the two economies were almost entirely independent of one another. This can be seen clearly in their transportation systems, each built to facilitate the operation of its economy. The two systems connected at only one point in 1860: Bowling Green, Kentucky.

The economy in 1860 was not only much larger than it had been in 1810, it also produced a much wider

Eastern Woodlands Indians

range of products than ever before. The industrialization of the economy changed the material lives of people living in the United States. This involved new products and improved every day items, as well as lower prices due to the increasing efficiency of industrial production.

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EASTERN WOODLANDS INDIANS

The Eastern Woodlands Indians were native American tribes that settled in the region extending from the Atlantic Ocean in the east to the Mississippi River in the west and from Canada in the north to the Gulf of Mexico in the south. (The Woodlands Indians are sometimes divided further into the Northeastern Indians and the Southeastern Indians.) A majority of Eastern Woodlands tribes spoke Iroquoian or Algonquian. The Iroquois speakers included the Cayuga, Mohawk, Oneida, Onondaga, Seneca, and Huron. The Iroquoian tribes were primarily deer hunters but they also grew corn, squash, and beans, they gathered nuts and berries, and they fished. The Algonquian speakers included the Abenaki, Chippewa (or Ojibwa), Delaware, Mohegans (or Mohicans), and Pequot. The Algonquian tribes also cultivated corn, beans, and squash. While the northerly tribes relied more heavily on hunting, the tribes that settled in the fertile region of the Ohio River Valley and southward through the Mississippi Delta (the Cherokee, Choctaw, Natchez, and Seminole) developed a farming and trading economy. These groups were also Mound Builders—they erected huge earthworks as burial grounds.

The Eastern Woodlands Indians traveled on foot and in birch-bark canoes. In the north, they wore deerskin clothing and they painted their faces and bodies. In the southern region, they wore little clothing and they often tattooed their bodies. The Eastern Woodlands Indians of the north lived predominately in dome-shaped wigwams (arched shelters made of a framework of poles and covered with bark, rush mats, or hides) and in long houses (multi-family lodges having pole frames and covered with elm shingles). The tribes in the south lived in wattle and daub houses (wooden framed houses covered with reed mats and plaster). The Eastern Woodlands Indians built walls and fences around villages for protection. Warfare sometimes broke out among the tribes. The Indians used bows and arrows as well as clubs to defend themselves and their lands.

The Eastern Woodlands tribes that lived along the Atlantic Coast were the first native Americans that had contact with Europeans. Friendships were made; alliances forged; land deals struck; and treaties signed. But as settlers in increasing numbers encroached on tribal lands, conflicts arose. These conflicts were between white settlers and the Indians and between Indians and other Indians, as native inhabitants took sides in the conflicts. The Huron and some Algonquian groups allied themselves with the French. The fierce Iroquois League (made up of the Cayuga, Mohawk, Oneida, Onondaga, and Seneca tribes) sided with the British. When the American colonies waged a battle for freedom from Great Britain, the American Revolution (1775–83) divided the tribes of the Iroquois League. All but the Oneida allied themselves with the British. In the 1800s many Eastern Woodlands tribes were forced off their native lands by the U.S. government and were settled in Oklahoma and other western states. The 1838–39 migration of the Cherokee Nation is known as the Trail of Tears because not only did the Indians reluctantly leave their homeland, but many died along the way.

See also: Choctaw, Corn, Iroquois, Trail of Tears

EASTMAN, GEORGE

George Eastman (1854–1932) became fascinated with the hobby of photography in the 1870s, while working for a bank in Rochester, New York. At the time, taking and developing photos was a clumsy, cumbersome, time-consuming business limited to those who had the patience and the ability to deal with the expensive mechanical processes involved. When he failed to receive a promotion he believed he deserved,

**George Eastman.**

Eastman, still in his twenties, decided to quit banking and devote himself full-time to his all-consuming hobby.

Working in the kitchen of his widowed mother's boarding house, Eastman investigated the problems presented by photography's heavy plate-glass negatives, which required an immediate dipping in silver nitrate and processing on the spot. He began to experiment with various emulsions used to coat the "wet plates" on which most photographs of the time were taken. In his extensive reading on the subject Eastman came upon a formula for "dry plates" printed in an English almanac. The formula offered the opportunity to reduce the size and weight of the glass plates then in use. By 1880 Eastman had developed a gelatin dry plate that did not need to be immediately processed.

Eastman took out patents in England and the United States on his "method and apparatus for coating plates for use in photography," and he set himself up in business as the Eastman Dry Plate and Film Company to manufacture these dry plates. In 1884 he began searching for a way to produce a transparent and flexible film. The first commercial film, which his company began to produce a year later, was cut in narrow strips and wound on a roller device.

In 1888 Eastman introduced the first Kodak camera, a simple, hand-held box loaded with a 100-exposure film. Correctly guessing that "Kodak" would be

pronounced the same in every language, Eastman coined the word, which had no meaning. He reportedly chose "Kodak" because the letter "K" was the first letter of his mother's maiden name, Kilbourne, and he thought it was "strong and incisive." To acquire his patent in England, Eastman also needed to use a word not then existent in the English language. Leaving nothing to chance, Eastman also chose Kodak's eye-catching yellow packaging.

From the beginning, Eastman intended the Kodak camera for amateur photographers. It was made to be sent back to the factory for processing after its film was used. At \$25 a roll, however, the film itself was too expensive for most U.S. citizens at that time. By 1896 Eastman was producing a smaller version of his original camera, and it sold for a much more affordable \$5. Four years later he introduced the first of a long line of Brownie cameras, intended for use by children; the price tag: one dollar.

A brilliant marketer, Eastman promoted his cameras with the slogan, "You press the button, we do the rest," and began to sell cameras to millions worldwide. He adopted the strategy of constantly making improvements on cameras and film. This allowed him to introduce new and improved products well ahead of his competition.

In 1889 Eastman introduced transparent film. That same year, responding to a request by Thomas Edison (1847–1931) to come up with film for Edison's newly-invented movie camera, Eastman's chemists designed celluloid 33mm film, which remains the world standard today. Eastman incorporated his company in 1892 under the name Eastman Kodak Company.

At the turn of the twentieth century, Eastman began to buy out his competitors whenever possible. By 1927 Eastman Kodak controlled the U.S. market in cameras, plate cameras, printing paper, and motion-picture film. Eastman spent much of his later career embroiled in legal disputes related to his monopolistic activities and his alleged use of other inventors' ideas without proper acknowledgment. Although no longer a monopoly, Eastman Kodak retained its leadership in the photographic industry throughout the twentieth century.

George Eastman recognized early the value of retaining loyal employees. In an era when workers' rights were being defined by growing union activities, Eastman independently created many employee benefit programs. In 1910 he began to establish a profit-sharing program for all employees, and in the next decade he offered other progressive employee benefits.

Meanwhile, he had become one of the nation's wealthiest men. In 1905 he built a 50-room mansion in Rochester, New York. It included such amenities as a huge conservatory filled with plants and flowers, in which the lifelong bachelor breakfasted each day to organ music played on a full pipe organ by his private organist.

As the years went on, Eastman became a generous philanthropist, eventually giving away more than \$100 million. Although he had left school at age thirteen, his largest gifts were to academic institutions, including the Massachusetts Institute of Technology, the University of Rochester (and its Eastman School of Music) and the predominantly black Tuskegee Institute. In 1932, at age 77, stricken with a crippling spinal disease, Eastman took his own life.

See also: Eastman Kodak

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EASTMAN KODAK

Headquartered in Rochester, New York, the Eastman Kodak Company was one of the leading image photography businesses in the United States. The company had eight major divisions: Consumer Imaging; Kodak Professional, Digital and Applied Imaging; Entertainment Imaging; Health Imaging; Commercial and Governmental Systems; Business Imaging Systems; Office Imaging; and Global Customer Service and Support. Kodak was the top U.S. manufacturer of 35-millimeter (mm) film, capturing close to 75 percent of the market at the end of 1998 and 70 percent at the

beginning of 1999. But Kodak shared the lead with Fuji Photo in worldwide film sales. Kodak also manufactured cameras, information systems (including writable CDs and software), and medical imaging technology.

The Eastman Kodak Company traces its origins to 1881 when George Eastman (1854–1932) founded the Eastman Dry Plate Company. A bank clerk from Rochester, New York, Eastman had spent three years developing the dry-plate photography process, which was a vast improvement over the sloppy and awkward wet-plate process in use at the time. Determined to develop a camera that was as easy to work as a pencil, Eastman next produced a film consisting of gelatin coated paper packed in a roll that could be used in any dry-plate camera. In 1884 the company changed its name to Eastman Dry Plate and Film Company.

In 1888 the company introduced the first readily portable camera. Selling for \$25, the camera held enough rolled film for 100 photographs. Customers developed the film by sending it back to Rochester, where the company printed the photographs and re-filled the camera with a new roll. The product was advertised with the slogan, "You push the button, we do the rest." The small sized, easy to use camera revolutionized photography by opening it up as a hobby to thousands of people.

In 1892 Eastman renamed his business again, calling it the Eastman Kodak Company. Eastman chose the name "Kodak" after experimenting with combinations of letters starting and ending with the letter "k," which the founder thought was a "strong, incisive sort of letter." In addition, to register his cameras for trademark protection in Britain, Eastman needed to use a word that did not already exist in the English language. By 1897 Eastman Kodak had manufactured 100,000 cameras, but Eastman wanted to make photography more convenient and less expensive. In 1900 he did so, introducing the first Brownie Camera. It sold for \$1 and used a 15-cent roll of film.

During the next two decades Eastman Kodak continued introducing new products and technologies. In 1902 it offered a machine that developed film without a dark room. During World War I (1914–1918) Eastman Kodak developed products to help U.S. troops fighting in Europe, including aerial cameras and an unbreakable lens for gas masks. In the 1920s Eastman Kodak rolled out 16-mm motion picture film, a 16-mm motion picture camera, and the Kodoscope projector. Despite George Eastman's death by suicide in 1932, Kodak continued to thrive. In 1935 the company introduced Kodachrome film, the first commercially successful amateur color film.

Kodak's success, however, was not without some mistakes in judgment. During the 1940s the company rejected Edwin Land's offer to have Kodak market the instant camera he had invented. Land later went on to found a firm that competed with Kodak, the Polaroid Corporation. Bouncing back in the 1950s, Kodak brought out the inexpensive Brownie hand-held movie camera and the Brownie projector. In 1953 Kodak formed the Eastman Chemical Products Company to produce chemicals, plastics, and fibers used in film production, poising itself to serve the burgeoning new market of photofinishing. Five years later Kodak unveiled the first fully automated slide projector.

In 1963 Kodak again revolutionized amateur photography with its introduction of the Instamatic camera that used a film cartridge instead of a roll, eliminating the need to load film in the dark. Within ten years Kodak had launched five different, immediately successful pocket models of the Instamatic. By 1976 the company had sold about 60 million such cameras, 50 million more than the nearest competitor.

Kodak's commercial success was tempered by its legal setbacks. In the early 1970s several smaller companies filed a series of antitrust lawsuits, alleging that Kodak had illegally monopolized the photography industry. The most famous of these cases involved Berky Photo, which accused Kodak of conspiring with Sylvania Companies and the General Electric Company in developing two photographic flash products. The case was settled for \$6.8 million in 1981. Kodak also lost a patent infringement suit instituted by Polaroid during the 1980s. As a result, Kodak was forced to pay \$925 million in damages, cease production of instant cameras, and recall all instant cameras that had been sold to customers. In 1997 the World Trade Organization (WTO) denied Kodak's claim that it had been refused fair access to Japanese markets.

As its market share began dwindling in the 1990s, Kodak took several actions to reverse its fortunes. The company first began selling its peripheral businesses in chemicals, pharmaceuticals, and household products. Kodak then refocused its energies on its core imaging business, investing heavily in digital photography. In 1992 Kodak introduced the Photo CD system, allowing photofinishers to record 35-mm images on compact discs, and enabling customers to view the images on their televisions and personal computers.

Kodak also formed a strategic research alliance with some of its competitors, including Fuji Photo, Canon, Inc., Nikkon Corporation, and Minolta, Co., Ltd. This endeavor resulted in the 1996 release of the Kodak's Advanced Photo System (APS), featuring a

drop-in film cassette, a choice of print formats, and improved picture quality. But sales continued to decline, and in 1997 Kodak announced a restructuring program whereby it would reduce the company's workforce by 20 percent before the end of the century. By 1999 Kodak could boast that it manufactured a line of digital cameras among the best in the world. But the cost of such cameras, between \$700 and \$1000, was too high for most consumers.

See also: George Eastman

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ECONOMIC DEVELOPMENT, FEDERAL INVOLVEMENT IN (ISSUE)

While it may have certainly escalated with President Franklin D. Roosevelt and the New Deal and grown even more in the last half of the twentieth century (some economists say to the point of gross intrusion), federal involvement in economic development actually began with the earliest English settlements. Throughout American history, the federal government intervened in response to political pressure exerted by state, local, and national constituencies for such things as the capturing and preservation of rents, the mediation of market failure, and the attainment of private goals when private action proved impossible. But what has changed from the nineteenth to the twentieth century is that while government intervention was once seen as a question of last resort, today on the eve on a new millenium, it is too often seen as the first fix.

During the colonial period, government at all levels acted in the public interest, and could set the "just" price for milling and the price of bread, regulate the purity of beer, establish reasonable ferry charges and grant monopoly franchises. They could set wages

and even require work. In the process, many colonial regulations were established into the “common law.” To enforce this web of complex rules and regulations, colonial governments used constables, wardens and even gaugers. While many of the colonial regulations had disappeared by the time of the American Revolution (1775–1783), the Revolution itself did little to interrupt institutional continuity, and English common law remained the foundation of American law, as the Supreme Court repeatedly affirmed. The American Revolution only changed the form but not the nature of government.

While some economists see a period of *laissez faire* in the late eighteenth and early nineteenth-centuries and mark the period as that of a “market revolution,” the federal government remained a potent force in the economy nonetheless. Nowhere was this more clearly demonstrated than in the history of banking. The federal government established the First and Second Banks of the United States as central banks with effective power to regulate commercial banks chartered and licensed by state governments. The existence of a “national” or “central” bank raised numerous issues of constitutionality, states rights, federal power, scope and purpose, and national currency. After the Bank War, the Panic of 1837, and the demise of the Second Bank of the United States, the question of a central bank wasn’t seriously raised again until the financial insecurities and social displacements of industrialization at the beginning of the twentieth century forced the government to establish the Federal Reserve Bank in 1913.

But for well over a century, the dispute raged between advocates of a decentralized banking system and proponents of a strong central bank. The former argued that a national bank was dangerous because it concentrated the power of granting loans and expanding currency into the hands of a relatively small group of men who would follow private rather than national interests. But proponents of a central bank disagreed. They argued that a central bank was necessary to enlarge the national manufacturing base, maintain a stable currency, and keep up with the demands of a country whose boundaries and peoples increasingly pushed westward. For them, a central bank could keep the amount of currency in circulation flexible and provide the capital and credit needed to meet the demands of population increases, territorial expansion, and heavy industrialization.

As the central bank today, the Federal Reserve, established after the Panic of 1907, has two basic functions. Along with other federal agencies, it helps assure the financial soundness of private banks. As

lender of last resorts, it protects banks against insufficient funds (liquid assets) when those banks are forced to cover the withdrawal demands of their depositors. Secondly, the Federal Reserve monitors and controls the national money supply. It can order changes in the percentages of bank assets held as reserves which in turn changes the ability of banks to create money by making loans. Moreover, it can change the money supply directly by buying and selling government bonds in the market.

By the time the Federal Reserve System was established in 1913, the financial insecurities and social displacements of industrialization appeared to have settled the long pressing questions of constitutionality, and state rights, but no one could have imagined the degree to which the government would become involved in the economic development of the United States at the end of the twentieth century.

One way it was assisted in this role at the beginning of the century was its regulation of the railroad industry and in breaking up monopolies. When the National Grange, Farmers’ Alliance, Greenback Party and eventually the Populist Party flexed their political muscles in the last two decades of the nineteenth-century, Congress finally responded in 1887 with the Act to Regulate Commerce. It assigned the federal government the role of market arbiter. The act prohibited rate discrimination among rail shippers buying identical service, and also forbade rate discrimination between long and short hauls unless a specific exemption was granted. It also established the Interstate Commerce Commission to ensure enforcement. Between 1903 and 1913, Congress passed a series of laws, especially the Elkins Act, the Hepburn Act, and the Mann-Elkins Act, that broadened considerably the ICC’s statutory authority.

In addition to regulating commerce, the federal government also became involved in trade and breaking up monopolies. On October 15, 1914, Congress passed and President Woodrow Wilson signed the Clayton Antitrust Act which was designed to strengthen the Sherman Antitrust Act of 1890 by fully codifying specific illegal antitrust activities. The Clayton Act forbade a corporation from purchasing stock in a competitive firm, outlawed contracts based on the condition that the purchaser would do no business with the seller’s competitors, and made interlocking stockholdings and directorates illegal. It also contained provisions designed to make corporate officers personally responsible for antitrust violations. The Clayton Act also declared that labor unions were not conspiracies in restraint of trade, thus exempting them from provisions of the bill. To carry out and enforce the

Clayton Act and the Sherman Act, Congress created the Federal Trade Commission in a related measure.

With the advent of New Deal legislation, the federal government passed comprehensive legislation affecting the nations banking, industry, agriculture, and labor that were all directed primarily toward one of three goals: recovery, reform, or relief during the Great Depression. The National Industrial Recovery Act (NIRA) and the Agricultural Adjustment Act (AAA) addressed recovery; the Civilian Conservation Corps (CCC) and the Federal Emergency Relief Administration (FERA) relieved some of the suffering of the unemployed and destitute; and the Securities and Exchange Act of 1934 and the Glass-Steagall Act of 1933 attempted to reform institutions that were considered “failed.” Most economists agree that many of the New Deal’s structural reforms were misguided or inefficient. For example, minimum wages eliminated jobs for some unskilled workers. And farm programs have led today to a situation where there are more employees of the Department of Agriculture than there are full-time farmers. Moreover, the farming industry has still not contracted sufficiently to bring supply and demand into equilibrium.

The New Deal did however mark a watershed period for national economics. Not only was the scope of the government forever increased, the New Deal also represented a complete restructuring of the American economy and a complete reform of its institutions. From the New Deal onward, the federal government assumed responsibility for the relief of the poor and for unemployment. It gave farmers protection from foreclosure, and it guaranteed farm prices rather than allowing the market to do so.

Today, perhaps no other issue has raised as much concern over the federal government’s involvement in economic development as the military-industrial complex. It is industry which has devoted itself to the production of goods to supply weapons and other materials to the Pentagon, and it has formed a matrix of government spending, foreign initiatives, and ideological commitments. Within both the government and the market, the voices of private business and the military have only grown stronger since World War II (1939–1945). By the 1970s private business and the military had developed a formal and comfortable relationship of mutual support. Since the 1950s especially, military calls upon national resources have vastly increased, and for the most part, leading corporations have been the principal beneficiaries of that demand. While payrolls, research grants and political influence have been large enough to ensure a consensus for the system, the whole complex has been underwritten by a

popular and almost unassailable anticommunist ideology. But some conservatives fear that the military-industrial complex keeps military spending at a level higher than that dictated by the strict needs of national defense. They claim that it leads to economic dislocation at home and dangerous tensions abroad, and that the separate parts of the military-industrial complex will prove countervailing.

With these and other issues that tie the federal government’s role more intricately into economic development, any attempts to diminish their size or existence will meet with sustained and continued opposition.

See also: Glass-Steagall Act, Greenback Party, Hepburn Act, Mann-Elkins Act, Military Industrial Complex, National Grange, New Deal, Populist Movement

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ECONOMIC GROWTH

Economic growth is the increase in an economy’s output of goods and services over an extended period of time. The term *economic growth* refers to a much broader period of prosperity than the narrow expansion phase of the traditional business cycle since an economy can still be in a period of long-term economic growth while undergoing a recession. Periods of economic growth are marked by rising standards of living, increases in the variety and number of goods and services, and improving rates of productivity. The first analysis of economic growth was provided by the Scottish economist Adam Smith (1723–1790). In *The Wealth of Nations* Smith argued that an economy’s growth depended on its ability to engage in large-scale production, which depended in turn on the adoption of

refined manufacturing methods and the division of labor into highly specialized craftsmen. Perhaps the greatest economist of economic growth in the twentieth century was Joseph Schumpeter (1883–1950), who argued that the real sources of growth are the technological innovations of entrepreneurs. In his theory of “creative destruction,” successful entrepreneurs create an economy of copycats who strive to duplicate the entrepreneurs’ success but eventually wind up causing a depression by overinvesting. Economic growth continues again after these depressions, however, when the entrepreneurs’ new technologies make possible new phases of ever higher productivity.

Several factors combined to make the economic history of the United States perhaps the greatest historical example of economic growth. From the start, U.S. businesses benefited from the English work ethic, technological ingenuity, and principles of economic and political freedom. Fueled by a steady stream of enterprising immigrants, the U.S. labor force grew faster than in most other developed countries. Americans benefited from a large geographical territory with superior natural resources, and the country’s founding fathers put in place a system that encouraged the development of public infrastructure, education, technological innovation, and capital accumulation. Within half a century of its independence, the United States had already one of the richest and biggest economies in the world, and between 1840 and 1960 the United States maintained a 3.6 percent annual growth rate, which economist Robert E. Gallman has described as “extraordinarily high” by historical standards. More recently, between 1950 and 1990 the United States remained a model of strong economic growth, with its gross national product (*GNP*) growing at a very healthy 3.1 percent annual rate.

See also: Joseph Schumpeter, Adam Smith, Work Ethic

ECONOMIC OPPORTUNITY ACT

In 1964 President Lyndon Johnson (1963–1969) announced in his first State of the Union address: “This administration today, here and now, declares unconditional war on poverty.” This announcement was predated a few months earlier by a wave of urban riots in U.S. cities. The announced “War on Poverty” became a reality in August 1964 when Congress enacted the Economic Opportunity Act (EOA). This federal act created the Office of Economic Opportunity (OEO)

and gave it the responsibility of administering the Community Action Program (CAP) and the Job Corps. The CAP was designed to administer services to the poor, coordinate poverty functions of the federal, state, and local governments, and to create areas in the program where the poor would have some direct responsibility and power over those new programs. The Job Corps as another part of the EOA was a job training program aimed at disadvantaged youth in the United States. Though both programs were theoretically color-blind the EOA seemed likely to focus on the needs of many urban African Americans. Despite the major initiatives of the EOA the threatening racial tensions in the United States only worsened. Despite urban riots that began in 1967 and continued through the rest of the 1960s President Johnson continued in his efforts to wage war on poverty in the United States through the EOA. Responding to the riots in Detroit, Michigan, in 1967 he said that the only long-range solution for urban poverty was to continue EOA efforts to reduce the conditions of poverty: “ignorance, discrimination, slums, disease, and the joblessness.” EOA efforts disappeared with the Richard Nixon (1969–1974) presidency.

See also: Great Society, Poverty

ECONOMIES OF SCALE

Economies of scale allow businesses to reduce their per-unit fixed costs by making more of their products. Fixed costs include expenses such as insurance, rent, shipping, and administrative expenses, which are not affected by increases or decreases in sales or production. For example, suppose a stapler manufacturing company paid \$50,000 a month in fixed costs, and its monthly production was 15,000 staplers. For each stapler the company sold, \$3.33 went toward paying the company’s fixed monthly business costs. If the company increased its monthly production to 20,000 staplers, however, its fixed costs per mouse would have dropped to \$2.50—a cost savings of eighty-three cents per mouse. By increasing the “scale” or volume of its production, the company achieved an “economy” or efficiency in its per-unit fixed costs. Thus, the more staplers the company produced in one month, the more staplers sold in that month, and fewer dollars per unit spent on fixed costs.

In his landmark study of the capitalist system, *The Wealth of Nations*, Scottish economist Adam Smith (1723–1790) showed that economies of scale make businesses more efficient. Throughout the economic

history of the United States, businesses used the benefits of economies of scale to justify expanding their production capacity. However, there is a point, called the “minimum optimal scale,” beyond which the per-unit cost of stepping up production begins to rise again. For example, the stapler manufacturer may have found that if it increased the number of staplers the plant manufactured per month to 20,000, it would have to keep the plant open longer every week and pay more in shipping charges. Both of these actions would increase the company’s fixed costs and, as a result, the per-stapler fixed costs could climb back to \$3.33, or even higher. When expanding production increases per-unit fixed costs “diseconomies of scale” are the result. Companies with large production capacities or vast production resources are said to have the advantage of economies of scale over smaller competitors who can not increase their production as easily. The advantages of size, however, are not unlimited.

See also: Adam Smith

EDISON, THOMAS ALVA

As one of history’s great inventive geniuses Thomas Alva Edison (1847–1931) secured patents for more than a thousand inventions. His patents include the incandescent electric light bulb, the phonograph, and the motion picture projector. Edison was a classic example of the nineteenth-century American success story. Through talent, energy, and hard work, he rose from poor beginnings in a small Midwestern town to a position of eminence and wealth.

Born in Milan, Ohio, the seventh and youngest child of Samuel and Nancy Edison, Thomas was taught at home by his mother. With her encouragement he began his lifelong habit of voracious reading. One of his textbooks included instructions for several physics and chemistry experiments. By age 10 he set up a chemistry laboratory in the cellar and conducted original experiments.

Edison’s restless entrepreneurial spirit surfaced at an early age. At 12 years of age he took a job on the Grand Trunk railroad branch line that ran between Port Huron and Detroit, Michigan. He sold newspapers, magazines, candy, apples, sandwiches, and tobacco on the train. Identifying a potential market of readers among the line’s regular passengers, he set up a small printing press in an empty baggage car. There he produced a small newspaper at a subscription of eight cents per month. He also used the baggage car as a



Thomas Edison with his favorite invention, the phonograph.

chemistry laboratory. During long daily layovers in Detroit he read every book he could find.

As a teenager Edison was fascinated by the telegraph. He mastered telegraphy quickly and for the next few years worked as a telegraph operator in towns throughout the Midwest. In 1868 he became an expert night operator for the Western Union Telegraph Company in Boston, Massachusetts. Instead of sleeping during the day he experimented with electrical currents.

The first invention resulting from these experiments was a device for electronically recording voice votes taken by a legislative body. Edison received his first patent for this device, which raised little interest on the market. Thereafter he operated as a freelance inventor.

In June 1869 Edison was in New York City, desperately poor and looking for work. His first successful invention was the Edison Universal Stock Printer. This machine, together with several other derivatives of the Morse telegraph, produced the \$40,000 he needed to set himself up as a manufacturer in Newark, New Jersey. There he produced stock tickers and high-speed printing telegraphs. His firm quickly employed 50 consulting engineers. During the next six years Edison was granted about 200 new patents for inventions he and others made there.

Efficiency

In 1876 Edison began constructing a large new plant at Menlo Park, New Jersey. Here the “Wizard of Menlo Park” accomplished some of his most important work. This included the phonograph (1877), a primitive instrument in which sound vibrations were transferred by a steel stylus to a cylinder wrapped in tin foil. Despite enormous popular interest in Edison’s new toy, which he actively promoted, the inventor did not envision its commercial potential right away and abandoned its development for 10 years.

Meanwhile he worked hard to invent an economical, practical, and durable incandescent lamp. On October 21, 1879, Edison first demonstrated in public an incandescent light bulb made with charred cotton thread sealed in a vacuum that could burn for several hours. This time, Edison realized the immense implications of his discovery, and he spent the next few years adapting his invention for large-scale use. On December 17, 1880, he founded the Edison Electric Illuminating Company of New York, which evolved into the present-day Consolidated Edison Company. In 1882 his company began operating the world’s first electric power station, which supplied power to 400 incandescent lamps owned by 85 customers.

In 1887 Edison constructed a large laboratory in West Orange, New Jersey (since 1955, the Edison National Historic Site). The laboratory eventually employed 5,000 persons to produce a variety of new products, including improved phonographs that used wax records, mimeographs, alkaline-storage batteries, dictating machines, and motion picture cameras and projectors. Edison’s best known invention from this period was probably the kinetograph, a primitive moving picture. Edison produced *The Great Train Robbery*, one of the first movies ever made, using this technology. By 1913 he developed a prototype of the “talking picture.”

During World War I (1914–1918) Edison served as president of the U.S. Navy Consulting Board and contributed many valuable discoveries to the war effort.

Edison’s inventions have had a profound effect on modern society. No other man has ever been responsible for inventing products with such influence on so many lives around the world. In recognition of his accomplishments Edison was appointed Chevalier of the French Legion of Honor in 1878 and promoted to Commander of the Legion in 1889. In 1892 he was awarded the Albert Medal by the Society of Arts of Great Britain. In 1928 he received the Congressional Gold Medal for “development and application of inventions that have revolutionized civilization in the last century.”

Edison married twice and was the father of six children. He maintained residences in West Orange, New Jersey, and Fort Myers, Florida. He died in West Orange on October 18, 1931.

Automotive pioneer Henry Ford credited Edison with encouraging his early work on automobiles. Ford purchased the Menlo Park Laboratory complex in 1928, and moved it to his new historic park, Greenfield Village, in Dearborn, Michigan. The Henry Ford Museum and Greenfield Village complex is officially called the Edison Institute, in honor of Thomas Edison.

See also: Henry Ford, Western Union, World War I

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EFFICIENCY

Efficiency, or allocative efficiency, is a central concept of economic theory. If one plan produced a product with fewer resources than another plan, it is said to be more efficient. A system that produces maximum output from minimum input of resources is efficient. Resources, including natural resources from the earth, labor, and technology, are considered finite or limited. To reach technical efficiency, they must be allocated or distributed so that the best use of available resources is made without waste, undue effort, or cost. Technical efficiency must result in the consumers’ wants being satisfied within their economic purchasing power.

Increased efficiency is closely tied to improvement in technology. When a business adopts a new technology or improved plan of production to produce more of a product with fewer resources yet maintains

the product's quality, then an efficient change has been made. A classic example occurred in the early 1900s when Henry Ford (1863–1947) developed a new method for producing cars, the assembly line. Rather than a group of workers making a complete car one at a time, each worker performed one task and cars were mass produced. This approach greatly reduced the time and cost needed to make a car. Resources saved would ideally be used in other areas.

In a perfectly efficient economic system resources are allocated into their highest-valued uses as evidenced by consumers' willingness to pay for the final product. While furniture or flooring made of oak garners a high price, no one would pay extra for shipping pallets or matchsticks made of oak. In a free market economy as in the United States the forces of supply and demand guide resources to their most efficient uses. In other words profits signal moves in resources to their highest valued use. A central government allocates resources in a command or planned economy as in the former Soviet Union.

See also: Assembly Line, Mass Production, Productivity

EIGHTEENTH AMENDMENT

The Eighteenth Amendment to the U.S. Constitution (1790) forbade in all territories within its jurisdiction making, selling, or transporting “intoxicating liquors” in the United States. This controversial amendment was proposed in Congress on December 18, 1917, and ratified on January 16, 1919. Though Congress provided states with a period of seven years in which to ratify the amendment, approval took just over a year, such was the prevailing spirit among lawmakers. In the early decades of the twentieth century the Temperance Movement (which advocated abstinence from alcohol) was steadily growing: Thirteen of 31 states had outlawed the manufacture and sale of alcohol by 1855.

During the 1870s temperance also became one of the cornerstones of the growing women's movement. As the nation's women, joined by other activists, mobilized to gain suffrage (the right to vote), they also espoused sweeping cultural changes. Outlawing the manufacture and consumption of alcoholic beverages, which were viewed by many women to be a corrupt influence on American family life, was one such initiative. In 1874 a group of women established the Woman's Christian Temperance Union (WCTU); in 1895



Government official destroying a barrel of liquor during the prohibition era.

the Anti-Saloon League was formed. Such societies found increasing support and eventually influenced legislators to take action, many of whom were “dry” (anti-alcohol) candidates that the societies had backed. Even President Woodrow Wilson (1856–1924) supported Prohibition, as one of the domestic policies of his New Freedom program.

After the amendment was passed, Congress passed the Volstead Act to enforce the law. But enforcement proved difficult for the government. There was a proliferation of bootleggers (who made their own moonshine—illegal spirits, often distilled at night), rum runners (who imported liquor, principally from neighboring Canada and Mexico), and speakeasies (underground establishments that sold liquor to their clientele). More, organized crime soon controlled distribution of liquor in the country. Citizens had not lost their taste for alcoholic beverages.

The government now found itself with a bigger problem than prohibition of alcoholic beverages. As the Federal Bureau of Investigation (FBI) and police worked to control and end mob (organized crime)

violence, and as the country suffered through the early years of the Great Depression, lawmakers in Washington reconsidered the amendment. On February 20, 1933, the U.S. Congress proposed that the Eighteenth Amendment be repealed. Approved by the states in December of that year, the Twenty-First Amendment declared the Eighteenth Amendment null. The manufacture, transportation, and consumption of alcoholic beverages was again legal in the United States; thus ended the 13-year period of Prohibition. Franklin Delano Roosevelt (1933–45), president at the time of repeal, called Prohibition a “noble experiment.”

See also: Black Market, Prohibition, Twenty-first Amendment

EISNER, MICHAEL D(AMMANN)

Michael Eisner (1942–), a shrewd businessman in a tough industry, chairman of the board at the Walt Disney Company, became one of the most important and most highly compensated figures in U.S. business by the end of the twentieth century. Eisner turned Walt Disney Company into what *Fortune* magazine called “the Cinderella story of Hollywood.” By 1998 Disney’s annual sales and earnings had grown to \$22.9 billion and \$1.9 billion, respectively. The wealth of Disney’s shareholders increased more than \$80 billion during Eisner’s tenure as chairman. Through bonuses and stock options, in addition to an annual compensation of \$764,423, Eisner became one of the nations most highly paid executives. In 1997, for example, he sold 5.4 million Disney stock shares, which at the time had a market value of \$514 million. In June 1998 *Fortune* estimated the total value of Eisner’s exercised and unexercised stock options to represent \$1.43 billion.

The son of wealthy parents, Eisner was born in 1942. He was raised in suburban New York and educated at the Lawrenceville School and Denison University. His first brush with the entertainment industry was through a summer job as a page at NBC studios in New York. Following his college graduation in 1964, he worked briefly in low-level clerking jobs at NBC and CBS. Dissatisfied with these positions, Eisner mailed out 200 resumes. The only response was from a young ABC programmer, Barry Diller, who persuaded his network bosses to hire Eisner as assistant to the national programming director.

Eisner produced his first special, “Feelin’ Groovy at Marine World,” in 1967. The program was a success, and in 1968 Eisner became ABC’s director of

program development for the East Coast, responsible for Saturday morning programming. Among the projects he developed were animated programs based on the Jackson Five and the Osmond Brothers singing groups. Eisner’s fast-paced career track took him through vice president for daytime programming (1971), vice president for program planning and development (1975), and senior vice president for prime time production and development (1976). During these years, ABC moved from third to first place among television networks.

In 1976 Eisner was offered the position of president and CEO at Paramount Pictures. Again, his track record was phenomenally successful. Costs were down and profits up. During Eisner’s eight years at the helm, Paramount moved from last place to first among the six major studios. In October 1978, half the top ten box office attractions were Paramount films. Films produced by the studio during the Eisner years included *Saturday Night Fever*, *Raiders of the Lost Ark*, *Bad News Bears*, *Grease*, *Heaven Can Wait*, and *Beverly Hills Cop*.

In 1984 the Disney Company was looking for new direction. Since the death of its founder, creative genius Walt Disney (1901–1966), the studio had continued to earn profits on its theme parks and merchandising, and it had chalked up some box office successes. However, many analysts believed the company had failed to keep pace with changes in popular culture. With its earnings declining for three straight years, the company was vulnerable to corporate raiders.

Eisner’s contract to join Disney in 1984 made him the highest-paid executive in the motion picture industry. With his colleague, Frank Wells, Eisner lost no time in demonstrating that his creativity and drive were worth the price. Within months, Disney began to turn around, and within a few years Eisner had transformed the company into an industry leader. New blood was brought into the management team; the Disney film archives were used to their fullest capacity; the theme parks were restored to profitability with attendance again rising annually; the animation division of Disney returned to feature-length films; and stocks rose dramatically in value.

Among Eisner’s box office and merchandising triumphs in his first ten years at Disney were *Down and Out in Beverly Hills* (1986), *Who Framed Roger Rabbit* (1988), *The Little Mermaid* (1989), *Beauty and the Beast* (1991) (the first animated feature to be nominated for an Academy Award as Best Picture), *Aladdin* (1992), and *The Lion King* (1994). Disney returned to television with the hit show “The Golden Girls” and the “Disney Sunday Movie.” Disney diversified through



Immigrants arrived in the U.S. at its port of entry, Ellis Island, New York, from January 1, 1892 until its closure November 29, 1952.

its Hollywood Pictures subsidiary and, in order to produce films for a more sophisticated urban market, expanded through the acquisition of independent motion picture maker Miramax. A new amusement park, Euro Disney, was opened outside of Paris, France. In a move that positioned Eisner as the most powerful executive in the international communications industry, Disney acquired Capital Cities, which owned ABC television and the cable sports network ESPN. Revenues and stock market value skyrocketed.

In 1998 Disney launched a chain of interactive game attractions in major cities: Disney's Animal Kingdom (near Walt Disney World in Florida), the Disney Cruise Line, and Disney Quest. The company also financed renovation of Anaheim Stadium, home of the Disney-owned Anaheim Angels baseball team, and it purchased an Internet technology company, Starwave, as well as a search and information site, Infoseek. These investments dragged earnings down in 1998, but in a letter to stockholders published in Disney's 1998 annual report, Eisner promised that "in the long run (which is all that really matters), we believe they will enrich our company."

See also: Walt Disney, Entertainment Industry

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ELLIS ISLAND

Ellis Island is situated in the New York Harbor, off the southern tip of Manhattan. It was named for Samuel Ellis (n.d.), a merchant and farmer who owned the island during the late 1700s. New York acquired the land and, in 1808, sold it to the federal government. The site served as a fort and later, as an arsenal. By the end of the century record numbers of immigrants prompted the federal government to establish a bureau to process the new arrivals, the vast majority of whom entered the country at its largest port, New York City. On January 1, 1892, the Federal Immigration Station opened on Ellis Island—in the shadows of the Statue of Liberty (dedicated 1886 on nearby Bedloe Island). The

Emancipation Proclamation

Ellis Island facility, which by 1901 consisted of thirty-five buildings, was the country's chief immigration station. Its heaviest use was in processing the influx of immigrants who arrived between 1892 and 1924. The majority of new arrivals were European, but immigrants also came from the West Indies, Asia, and the Middle East. More men than women arrived at the immigration depot.

New arrivals (mostly third-class passengers; first- and second-class passengers were processed aboard their ships) were ferried from their transatlantic vessels to Ellis Island, where they disembarked and were guided into registration areas in the Great Hall and questioned by government officials who determined their eligibility to land. Upon completing the registration process newcomers were ushered into rooms where physicians examined them. The process, extremely business-like to the point of being dehumanizing, typically took between three to five hours. Ninety-eight percent of those arriving at Ellis Island were allowed into the country; two percent were turned back for medical reasons (as U.S. health officials tried to keep out infectious diseases) or for reasons of insanity or criminal record. Other facilities at the Ellis Island Immigration Station included showers, restaurants, railroad ticket offices, a laundry, and a hospital. At its peak the Ellis Island station processed some five thousand immigrants and non-immigrating aliens (visitors) daily.

The facility was closed on November 29, 1954—immigration quotas had drastically reduced the number of incoming people, eliminating the need for the mass processing center. On May 11, 1965, Ellis Island was designated a national historic site. During the 1980s it was extensively restored. More than twelve million people first entered the United States through Ellis Island; their descendants account for an estimated 40 percent of the nation's current population.

See also: **Immigration**

EMANCIPATION PROCLAMATION

President Abraham Lincoln's (1861–1865) Emancipation Proclamation, which freed the slaves of the rebelling Confederate states during the American Civil War (1861–1865), was signed on January 1, 1863. At first glance, the proclamation was a paradox. Although Lincoln abhorred slavery, he did not attempt to abolish

it after taking office or after the Civil War began in April 1861. Indeed, Lincoln initially stated that the Civil War was being fought to preserve the Union, not to end slavery in the South.

There were several factors behind Lincoln's reasoning. First, he felt duty-bound to honor the Constitution, which safeguarded slavery in any state whose citizens supported the institution. Instead, Lincoln favored gradual emancipation, voluntarily accepted by the states, with federal compensation to slaveholders. Second, after the start of the Civil War, Lincoln avoided policies aimed at abolishing slavery, fearing that the four pro-slavery border states that remained loyal to the Union—Missouri, Kentucky, Maryland, and Delaware—would withdraw their allegiance. Finally, Lincoln was intent on maintaining the solidarity of the political coalition of Republicans and Northern Democrats. Although anti-slavery sentiment was strong in the Republican Party, the Northern Democrats were split on the issue. Irish Democrats were particularly opposed to fighting a civil war whose purpose was to end slavery.

THAT ON THE 1ST DAY OF JANUARY, A.D. 1863, ALL PERSONS HELD AS SLAVES WITHIN ANY STATE OR DESIGNATED PART OF A STATE THE PEOPLE WHEREOF SHALL THEN BE IN REBELLION AGAINST THE UNITED STATES SHALL BE THEN, THENCEFORWARD, AND FOREVER FREE.

President Abraham Lincoln, Emancipation Proclamation speech, 1863

As the war continued, Lincoln eventually altered his public stance on slavery. He was influenced by a number of considerations. Perhaps most important, Lincoln was swayed by the strategic value of proclaiming the emancipation of the slaves. Slavery was an important asset for the South's military machine. Slaves tilled southern farms, worked in its munitions factories, and built the fortifications of the Confederate Army. Calling an end to slavery would demoralize the South and encourage Southern slaves to rebel or attempt escape to Union Army lines. Such calculations became especially important in 1862, when Northern armies were faring poorly on the battlefield.

Lincoln also quite rightly expected emancipation to generate much needed political capital. To be sure, an anti-slavery proclamation would alienate many Northern Democrats, but it would also strengthen Lincoln's support among his vital Republican constituency, which was increasingly anxious over the president's failure to move against slavery. Emancipation would also obtain

foreign support for the Northern cause and discourage European intervention on the side of the South.

Despite the incentives to accept emancipation, Lincoln would have supported the preservation of slavery in the core southern states if they had ended their secession. After the Battle of Antietam on September 17, 1862, Lincoln decided to leave the matter to the rebelling states. He publicly stated that unless the southern states returned to the Union by the end of the year, he would declare their slaves to be free. None of the Southern states returned to the Union, however, and Lincoln issued the Emancipation Proclamation on New Year's Day 1863.

The proclamation had an important and positive effect on Northern prospects of winning the war, which was now transformed into a moral crusade, reviving support for the Northern war effort. The proclamation also gained international approval and undercut support for Confederate independence. For example, British support for diplomatic recognition of the Confederate States began to decline after the Emancipation Proclamation cast the conflict not only as a struggle for national unity, but as a noble war in support of basic human rights. Equally important for the outcome of the war, the proclamation invited free Blacks and newly freed slaves to join the ranks of the Union Army. By the end of the war in April 1865, more than 190,000 Black men had enlisted.

See also: Civil War (Economic Causes of), Civil War (Economic Impact of), Slavery

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EMBARGO

An embargo is a formal policy by a government to prevent the movement of exports either out of its own ports or into another country. It differs from a boycott in that it only involves the interruption of exports, not other financial or commercial transactions. A civil embargo is directed against one's own shippers to prevent them from shipping vital materials to warring nations. A hostile embargo is directed against the economic well-being of a foreign power.

Because of the central role of the U.S. economy in global trade, the United States frequently uses embargoes as effective, nonviolent tools of foreign policy. Although the United States declared its neutrality when Great Britain and France went to war in the early 1800s, both of the warring countries blocked U.S. merchant ships. And in 1807 a British warship killed three U.S. citizens while forcing four British-born "deserters" to rejoin the British Navy. In response, President Thomas Jefferson (1801–1809) convinced Congress to pass the Embargo Act of 1807, which banned all U.S. ships from trading in foreign ports. French and British ships continued to attack U.S. ships, however, and the damaging affects on the U.S. economy forced Jefferson to repeal the embargo in 1809. When Great Britain continued violating U.S. neutrality and commandeering U.S. sailors, Congress passed the Embargo Act of 1812 to block all trade between the United States and Great Britain.

During the American Civil War (1861–1865) the Confederacy considered placing an embargo on cotton shipments to Great Britain, to force Great Britain to enter the war as an ally. The Confederate Congress never passed the embargo, but Confederate state governments and individual citizens imposed a voluntary embargo on cotton exports to England. The British remained neutral throughout the war, and the Southern economy suffered greatly from the North's embargo on exports to the South.

In 1941 the United States imposed an embargo on German, Italian, French, and Danish ships in U.S. ports before it was finally forced to enter World War II (1939–1945) after Japan's attack on Pearl Harbor. As a member of the United Nations, the United States used embargoes against North Korea and China during the Korean War (1950–1953), against Iraq after the Gulf War (1991), and against the former Yugoslavia in the 1990s. In June 1960 President Dwight D. Eisenhower (1953–1961) imposed the longest-running embargo in

Embargo Act

U.S. history by blocking all exports (except food and medicine) to Cuba because of Fidel Castro's (1926–) hostile actions against U.S. interests.

See also: Embargo Act, OPEC Oil Embargo

EMBARGO ACT

On December 22, 1807, President Thomas Jefferson (1801–09) signed the Embargo Act, which prohibited from leaving the United States ships destined for any foreign port. The legislation had been drawn up to pressure France and Britain. Those two countries were then at war and had been seizing United States merchant ships to prevent each other from receiving goods.

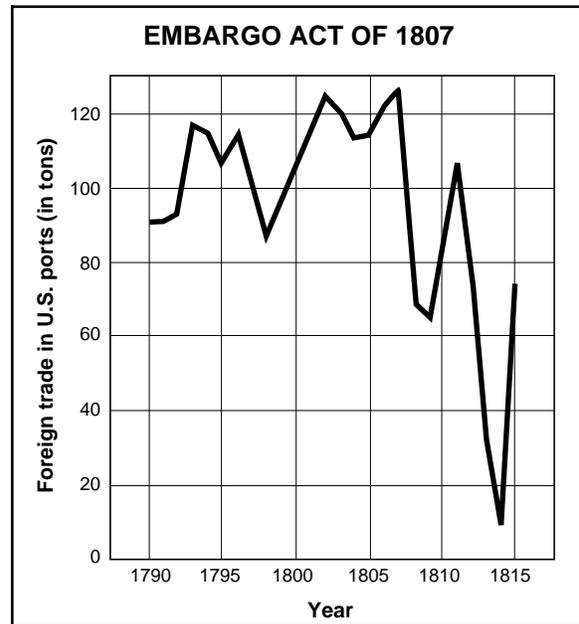
After the French navy was crushed at the Battle of Trafalgar (October 1805) by the British under Admiral Horatio Nelson (1758–1805), French ruler Napoleon Bonaparte (1769–1821) turned to economic warfare in his long struggle with the British. He directed all countries under French control not to trade with Britain. With an economy dependent on trade, Britain struck back by imposing a naval blockade on France, which soon retaliated by interfering with U.S. shipping.

The United States tried to remain neutral when the struggle began in 1793. But the interruption of shipping to and from the Continent and the search and seizure of ships posed significant problems to U.S. export business. The Embargo Act was an attempt by Jefferson to solve these problems without getting involved in the conflict. The effort failed.

The embargo made sales of United States farm surpluses impossible. New England shippers protested the act and were joined by southern cotton and tobacco planters in their opposition. Still, the embargo remained in effect for 14 months, during which time the U.S. economy suffered. Many ships resorted to smuggling. In 1809 Congress passed the Non-Intercourse Act, which limited the shipping embargo to France and Britain; all other foreign ports were again open to American ships.

Despite efforts to remain neutral, the United States was ultimately drawn into the conflict three years later and fought with the British in the War of 1812 (1812–14).

See also: Embargo, Thomas Jefferson, Napoleonic Wars (Economic Impact of)



The significant reduction of foreign trade in U.S. ports brought about the Embargo Act of 1807.

EMERGENCY PRICE CONTROL ACT

Emergency Price Control Act (EPCA) was a federal law that created the Office of Price Administration (OPA) to fix maximum prices and rents for the duration of World War II (1939–1945). Passed by Congress in 1942, EPCA directed OPA's Price Administrator to establish prices that "in his judgment" were "generally fair and equitable" and would effectuate the purposes of the act. The Price Administrator was also required to consider the prices prevailing in a two-week period during the fall of 1941 when wartime inflation was imminent, and make adjustments for national fluctuations in the cost of production, distribution, and transportation. Persons aggrieved by the maximum prices set in their trade or industry were authorized to file a protest with the Price Administrator. A special tribunal called the Emergency Court of Appeals was given exclusive jurisdiction to hear challenges to Price Administrator rulings. Violators who sold their commodities in excess of the prices set by the OPA could be prosecuted in criminal court or sued in civil court. Violators, however, were typically dealt with lightly, as less than two-percent of prosecutions resulted in prison sentences, and the normal civil remedy was a court order forbidding further transgressions. Some enterprises were entirely exempt from price regulation under the EPCA, including newspapers, magazines, and other print media. In August of 1945 price controls

were removed from petrol, fuel, oil, and processed foods. By the end of the year very few price limits remained. EPCA expired by its own terms on June 30, 1947. Before it expired the U.S. Supreme Court upheld its constitutionality against complaints that it abridged the Due Process Clause of the Fifth Amendment to the federal Constitution. Citing the language of the act, the Supreme Court said that EPCA was necessary to the effective prosecution of the war, as it helped stabilize the economy, protect persons with fixed incomes, prevent speculative increases in prices or rents, and eliminate profiteering, hoarding, and other disruptive market conditions.

See also: Office of Price Administration, Wage-Price Controls, World War II

ENCOMIENDA

Encomienda is a Spanish word meaning “commission.” It refers to a system that was used by Spain in the New World to reward the conquistadors (conquerors). The encomienda dates back to earlier times. It was developed in feudal Spain, when the Moors (North African Muslims) occupied parts of the Iberian Peninsula (present-day Spain and Portugal). An encomienda was booty given to a Spaniard who conquered a Moorish province. It was usually the land that had belonged to the Moorish leader of the conquered territory. This practice made its way to the West Indies (Caribbean islands) by 1499: Christopher Columbus (1451–1506), who is believed to have opposed the traditional feudal system, nevertheless conceded encomiendas to his men. After Spain conquered Mexico and Peru in the mid-1500s, the system was established on the mainland as well. Spaniards were awarded the lands occupied by the Native Americans whom they had conquered. The native inhabitants, who were *encomendado* (meaning “commended” or “entrusted”) to the Spaniards, were expected to pay tribute to the Spaniards and to work for them in the fields or mines. The encomienda system came close to slavery. It proved disastrous to the native populations. Mistreated by their supposed protectors and exposed to European diseases (such as smallpox, and measles) to which they had no immunity, the Indians died in large numbers. As the population declined the Spanish government made regulations to do away with the system. The encomienda became increasingly rare throughout the sixteenth century, and by the end of the following century it had disappeared altogether. The encomienda

system was at least partly responsible for the emergence of a new mixed population called Mestizos—people who are of white European and American Indian descent.

See also: Mestizo

ENTERTAINMENT INDUSTRY

The entertainment industry in the United States is a multi-faceted combination of a wide variety of disciplines. Radio, insurance, publishing, merchandising, television, film, music, and the computer industries are only a few of the elements that make up this immense industry. Any attempt to cover every aspect of this topic in less than five hundred pages would be foolhardy to say the least. However, it is possible to highlight specific elements of this industry and show how they have influenced U.S. economic history, particularly marketing and advertising.

Live entertainment became popular in the United States during the late nineteenth century. Two types of theater developed: the “variety” theater, offering comedy, musical performances, stage magic, and other spectacles at low prices; and the “legitimate” theater, which presented serious literary works for what were considered more “sophisticated.” The “variety” theater crossed ethnic and economic boundaries, emphasizing topics such as action and comedy. This form of theater was the model for vaudeville, a popular form of entertainment that existed in various forms from the early 1900s until the mid-1940s. Radio, and then television, pulled audiences away from the theater. This was due partially to the convenience of entertainment being provided in the home. Ironically, many of the performers from vaudeville successfully made the transition to these new media, thus regaining their audience. But this was far from the end of theater. Though vaudeville found an audience via mass communication, the “legitimate” theater thrived through the likes of Broadway, and through smaller venues across the country.

The film industry was born in 1889, when William Kennedy Laurie Dickson, working out of Thomas Edison’s laboratory, developed a motion picture camera and a primitive projection device known as a kinoscope. 1896 saw the arrival of the first commercial film projector, designed by C. Francis Jenkins and Thomas Armat. As there were no movie theaters in existence, films were shown in vaudeville houses and in a variety of other locations. The mass production of films did not begin until the early 1900s. The subsequent boom that followed would have a massive impact on the U.S. economy. From the 1920s to the



The enormous success of television changed American life and the entertainment industry forever. Watching television was often considered a family event in the 1940s.

1940s, Hollywood, California was the capital of the global movie producing market. One key to this industry's success was the manner in which it adapted when faced with economic and technological changes. Antitrust and patent infringement suits, the Great Depression, World War II, and other factors managed to damage the industry's financial status, but it always recovered quickly. Instead of bowing down, the film industry simply expanded. Initially the cameraman wore many hats, acting as director, producer, editor, distributor, and in other capacities. Mass production changed that; as more films were produced, it became necessary to delegate responsibility to several individuals.

This diversification led to the creation of many jobs, and opened up a new market for numerous existing jobs as well. By the 1990s, literally hundreds of people worked on each film produced. These artisans ranged from directors, cinematographers, and marketing specialists to insurance representatives, carpenters, and caterers. Production companies themselves had branched out into three different types: the majors, the mini-majors, and the independents. The majors are built up of large companies such as Disney or Sony, and usually handle not only film production

but also distribution and marketing. Mini-majors such as Orion Pictures Corporation, tend to specialize in specific film genres and have limited distribution ability. Lastly, the independents generally have no distribution power. In the mid-1990s, independent films were becoming more and more popular, as directors were able to apply more creative control to these pictures with very little corporate intervention. Regardless of the production company type, the film industry continued to prosper. Feature films produced in the United States earned approximately \$4.6 billion worldwide in 1991.

Radio started as a hobby in the early 1900s and grew to become the world's first "instant" mass medium. As early as 1921, radio stations were being constructed and broadcasting such programming as religious services, news, and sporting events. With the inception of the National Broadcasting Company (NBC) in 1926 and the Columbia Broadcasting System (CBS) in 1927, national broadcasting networks came into being. In 1927, the Federal Radio Commission (FRC) began regulating the content of the airwaves. However, these regulations did not hinder the marketing of commercial products to mass culture. Indeed, commercial radio broadcasting became the number one way to

advertise products of all types, including films—*King Kong* was the first motion picture to be promoted via the radio, in 1933.

However, this national mass media dominance came to an end in the late 1940s with the advent of television. However, the Federal Communications Commission (FCC) continued licensing new radio stations—so much so that between 1945 and 1960 the number of stations had increased from 973 to 4,306. Throughout the 1940s and 1950s radio stations developed a new marketing strategy; instead of targeting a national market, each station approached specific niche markets based on audience age, location, and other elements. A variety of musical forms such as country, jazz, and rock n’ roll could now be represented over the airwaves, catering to specific target audiences. Advertisers were able to promote their products based on the station’s audience type. This type of marketing remained the radio standard through the 1990s.

Many parallels can be drawn between radio and its successor—television. As with radio, television began its reign under the control of large national networks (NBC, CBS, and ABC). By 1955 over half of the homes in the United States had a television. Both radio and the stage lost a sizable share of audience, while radio suffered the added burden of losing some of its advertising to the visual mass medium.

In the 1950s, ABC found itself in a ratings slump. The network began experimenting with more risky programming designed to capture a specific audience—much in the same way that radio had begun to broadcast to specific niches of the market. *Maverick*, starring James Garner, was the first of these edgy shows. The gamble paid off and soon ABC was running programming that was heavy with sex and violence, such as *The Untouchables* and *77 Sunset Strip*. This would set a standard for the television industry that would continue through the 1990s. During the 1960s and 1970s, the other two networks (CBS and NBC) also began to angle their programming at target audiences as well.

The mid-1970s gave rise to a new threat to the networks: cable television. Home Box Office (HBO) and what would eventually become the Turner Broadcasting System offered a wider variety of programming. The Fox network was started by Rupert Murdoch in the mid-1980s with a goal of presenting programming that would push the barriers of good taste. Much like the “variety” theater of the past, the Fox network broadcast mostly low-brow comedies and action dramas.

The success of the Fox network spurred tremendous growth of the cable industry in the late-1980s

through the 1990s. The major networks began to lose ground as numerous cable stations were launched. The Golf Channel, the Family Channel, the Arts & Entertainment Network, and Comedy Central offer just a few examples of the choices viewers had in 1999. This type of specific marketing approach became known as narrowcasting. As with radio, television found itself catering to specific markets in order to increase advertising sales.

The television medium also provided additional outlets for the film industry: television programming and video tape sales. Major movie studios provided approximately half of all prime-time network programming in the early 1980s. By the 1990s, major film production companies were buying up television stations throughout the United States. Paramount Pictures Corporation, Disney Studios, joined Twentieth Century Fox as major players in the television industry.

Amusement parks offer many elements of the entertainment industry in one central location. The origin of the amusement park is rooted in medieval history, when European cities would host “pleasure gardens” alive with fireworks, games, dancing, rides, and other diversions. The 1800s saw America as the primary developer of amusement parks. This was due in part to the development of the trolley. In order to boost business trolley companies would construct amusement parks at the end of their line. This industry continued to grow and by 1919 over 1,500 amusement parks existed in the United States.

Unfortunately, World War II disrupted the industry’s success, causing many parks to close. This trend continued into the early 1950s, as television and other factors began to draw people away. However, with the opening of Disneyland in 1955, the theme park had arrived. Upon its success, theme parks began to spring up across the country. In the 1990s many amusement parks were associated with film and television companies—so much so that several offered attractions based on motion pictures. The two most prominent parks of this type were Disney/MGM Studios and Universal Studios. Both produced film and television material and also offered extensive entertainment facilities such as rides, restaurants, shows, and more.

By the late 1990s, the rapid advance of technology found many aspects of the entertainment industry receiving a facelift. Digital technology was changing the nature of film; from special effects to editing to projection, this high-tech approach opened a new realm of visual freedom to filmmakers and improved image quality in theaters as well. High Definition Television (HDTV) was in the works, offering drastic

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improvements in picture quality. Small satellite dishes that offered a wide variety of programming for less cost to the user were rapidly replacing cable. Cable companies, in turn, were hedging their bets on the Internet—the cable modem, allowing for faster access speeds and greater reliability. The World Wide Web became a global hub of home entertainment, allowing for global broadcasts of talk radio programs, theater and movie ticket purchases, television listings, and much more. Who can say where technology will take the entertainment industry in the future?

See also: Amusement Parks, Vaudeville, Jack L. Warner

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ENTREPRENEURSHIP

In French, to be an entrepreneur is to be “one who undertakes a task or project.” Thus, entrepreneurship has come to be defined as the act of risking capital and resources to identify and implement a solution to a problem with the goal of turning a profit. The eighteenth-century Irishman Richard Cantillon first used term *entrepreneur* in a business context to describe businessmen who bought goods and services only in order to resell them later at a higher price. This idea of risking one's fortune for the possibility of a large but uncertain future gain is still the central meaning of *entrepreneurship*.

In 1904 the German sociologist Max Weber (1864–1920) described the entrepreneur as a heroic, energetic figure whose “Protestant work ethic” relied on thrift

and hard work to make possible economic innovation and growth. The leading economist of entrepreneurship, Austrian Joseph Schumpeter (1883–1950), argued that in every capitalist society great risk-taking entrepreneurs arise who have the vision and energy to create new technologies and industries. But when lesser imitators attempt to recreate the success of these entrepreneurs, the economy becomes glutted with over-investment and eventually collapses into recession. Eventually a new generation of entrepreneurs arises to fuel a new boom in innovation.

The strong tradition of property rights in the United States created an ideal environment for the first great period of U.S. entrepreneurship. Between 1789 to 1932 U.S. entrepreneurship enjoyed its “classical” age. During this time business risk-taking and economic growth occurred largely through the efforts of individual men such as Andrew Carnegie (1835–1919), John D. Rockefeller (1839–1937), Thomas Edison (1847–1931), and Henry Ford (1863–1947). These entrepreneurs and many like them accumulated the capital, identified the opportunities, organized the resources, and crushed their competition to build vast corporate empires. Since 1933 the federal government has played a much larger role in ensuring that pure entrepreneurship doesn't harm the public interest.

To some people, the rise of Bill Gates (1955—) and the Microsoft Corporation in the 1980s represented the birth of a new age of corporate-style entrepreneurship. Some U.S. economists attributed the explosion in new Internet and technology companies in the 1990s both to the emergence of a new class of managers and risk-takers trained to pursue innovation and to economic conditions that created a large pool of investment capital for these entrepreneurs to draw on. But at the close of the twentieth century entrepreneurship means everything from starting a small home-based business to developing and marketing a new product or technology to establishing an entire corporation or industry

See also: Capital, Capitalism, Microsoft, Joseph Schumpeter, Work Ethic

ENVIRONMENTALISM

The environmental movement in the United States was born in the 1960s and it gathered strength in the 1970s, when a growing populace took interest in curbing the effects of industrial and agricultural practices on the natural environment and on public health. The literature written and the legislature passed during this

period led to many changes in the way that manufacturing and farming were conducted throughout the country. Federal regulations and agencies were established to restrict the use of harmful chemicals and their release into the environment. While certain companies found that they had to resort to costly measures in order to comply with these regulations, other manufacturers managed to find inexpensive or even money-saving solutions. Nevertheless, the new emphasis placed on environmental awareness altered the way in which many businesses were to operate nationwide.

Scientist and author Rachel Carson was a key figure in the early environmentalist movement: Her groundbreaking 1962 book *Silent Spring* alerted U.S. citizens to the hazards of several widely used pesticides and herbicides. Her arguments caused uproar among chemical manufacturers and created a stir in political circles around the country. Carson named specific chemicals responsible for contaminating the natural environment, for spreading disease among humans, and for killing birds, fish, and other wildlife. She painted a chilling futuristic picture of a world unfit to support life—of the silence of a spring without songbirds.

In addition to the appearance of this highly influential book, three events contributed to the rise of environmentalism in the 1960s United States: an oil spill in the Santa Barbara channel blackened the shoreline in Southern California; the chemically contaminated Cuyahoga River in Cleveland, Ohio spontaneously caught fire; and an active afternoon at the steel mills of Pittsburgh, Pennsylvania caused a temperature inversion in the city, which grew so dark and polluted that street lights and drivers' headlights were turned on at midday. Media coverage of these incidents increased public awareness about the dangers of certain chemicals and toxic substances widely used by industries. Concerned citizens and legislators called for action, asserting that industrial practices throughout the country would have to change.

WE ARE SUBJECTING WHOLE POPULATIONS TO EXPOSURE TO CHEMICALS WHICH ANIMAL EXPERIMENTS HAVE PROVED TO BE EXTREMELY POISONOUS AND IN MANY CASES CUMULATIVE IN THEIR EFFECTS. THESE EXPOSURES NOW BEGIN AT OR BEFORE BIRTH AND—UNLESS WE CHANGE OUR METHODS—WILL CONTINUE THROUGH THE LIFETIME OF THOSE NOW LIVING.

Rachel Carson, *Silent Spring*, 1962

In 1969 lawmakers passed the National Environmental Policy Act (NEPA), the first of a series of legislation designed to protect the environment. The

NEPA required federal agencies to submit statements about the environmental effects of their activities. In the same year Congress established the Environmental Protection Agency (EPA), which monitored federal agencies' compliance with the NEPA and with later legislation. The following year Congress introduced both the National Institute of Occupational Safety and Health, which conducted research on workers' exposure to harmful substances in the workplace, and the Department of Health and Human Services, which set on-site business standards for health and safety. The Clean Air Act (1970) called upon manufacturers to safeguard against the release of air pollutants in their vicinity and the Clean Water Act (1972) forbade manufacturers from contaminating nearby bodies of water. Many more acts and agencies were introduced throughout the 1970s, 1980s, and 1990s, and all were born out of the tremendously effective environmentalist movement.

After the regulations went into effect, the United States saw much improvement in air and water quality, as well as in the management of toxic substances, pesticides, and waste. In "Twenty-Five Years of Environmental Progress at a Glance" the EPA reported that between 1970 and 1994 emissions of six common air pollutants decreased by 24 percent and emissions of lead dropped by 98 percent. The EPA also noted that during the same period wastewater standards prevented more than one billion pounds of toxic substances from contaminating bodies of water. Considering that in the same amount of time the nation's economy grew by 90 percent; the population increased by 27 percent; and the number of motor vehicles driven rose by 111 percent, the environmental improvements achieved were quite dramatic.

Because environmental legislation targeted corporations in particular, many manufacturers had to spend a lot of money creating devices and conducting tests that would control the use and release of harmful substances. The EPA estimated that in 1997 U.S. corporations spent \$170 billion in efforts to comply with federal regulations. Critics of environmentalism noted that this figure represented 2.2 percent of the country's gross domestic product, a proportion that exceeded what was spent on environmental safety in other countries. Whether or not the benefits of the regulations merited this considerable expense was becoming a topic of heated debate.

Throughout the 1990s economics played a growing role in environmental policymaking, as powerful corporations had a great impact on the passing of legislation. Environmental policymaking became a struggle between big business, which wished to curb

Equal Opportunity Act

the spending required by federal regulations, and the proponents of environmentalism, who strove to continue improving air and water quality and enhancing public health. Those who straddled between economic and environmental interests believed, perhaps idealistically, that the two forces would keep each other in check and that taking both interests into account would lead to cost-conscious approaches to environmental protection in the United States.

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EQUAL OPPORTUNITY ACT

In the shadow of the Great Depression (1929–1939), the New Deal programs of President Franklin D. Roosevelt (1933–1945) expressed a new, broader vision of the social contract between the people and the government: from now on, the national governments of industrial societies were responsible for assuring the welfare of citizens unable to provide for themselves. This definition of the welfare state was largely put into practice in Western Europe after the war. But even as early as the later 1930s, this confident vision of the welfare state had begun to run aground on a politically conservative Congress and Supreme Court intent on dismantling the New Deal safety net. Given the national priority of fighting the World War II (1939–1945), social activism lost the compelling momentum that it had exhibited in the 1930s. But reform was not dead. Even as the patriotic consensus of World War II was

followed by the repressive anticommunist consensus of the early Cold War, the New Deal coalition of Democrats, organized labor, ethnic and racial minorities forged in the 1930s stayed in touch and waited for the opportunity to put forward its agenda.

The rise of the Civil Rights Movement in the mid-1950s appeared to signal this opportunity. Though not the full-throated liberal that his Vice President, Lyndon Johnson, was, newly elected President John F. Kennedy (1961–1963) embraced the ideals of social justice as he proposed education, health, and civil rights reforms. In the tradition of the New Deal, Kennedy tried to outline this program, which he called the "New Frontier." However, given his razor-thin victory over Richard Nixon in the 1960 election plus the non-cooperation from Congress, Kennedy was cautious in what he proposed. In 1963, Kennedy began to focus on poverty, requesting his Council on Economic Advisors to develop proposals for legislation for 1964. The president's assassination in November 1963 cut short his leadership in social reform, but he succeeded in raising public awareness of pressing social issues and stimulated greater political activism.

Kennedy's successor and vice president, Lyndon B. Johnson (1963–1969), grew up in the hills of central Texas. His family was not poverty stricken, but he had seen plenty of poverty when, as a young man, he bummed around and took jobs on highway crews and as a teacher in a largely Mexican-American school.

In contrast to Kennedy, Johnson knew how to get what he wanted from Congress. He could intimidate as well as flatter. He had been a leader in both houses of Congress. Johnson began by defining Kennedy's political testament in such a way that helped move legislation through Congress. Taking advantage of national sympathies over Kennedy's sudden death as well as the rise of non-violent leadership in the Civil Rights Movement, Johnson shepherded a series of social reform measures through Congress, including the landmark Civil Rights Act of 1964. Continuing the study of the poverty problem begun by Kennedy, in his State of Union address to the nation in January of 1964 Johnson declared war on poverty. He proposed a comprehensive domestic agenda.

A few months later Johnson began referring to the need to build America's "Great Society." The time appeared right to pursue domestic policies. In spite of the widening war in Vietnam, the public still backed Johnson, perhaps because the economy was booming.

By August 1964 Johnson signed the Equal Opportunity Act (EOA) into law, the legislative vehicle for his war on poverty. Rather than directly providing

money and jobs perpetuating welfare dependency, the focus was on helping individuals develop skills through education, job training, and community development, to break out of the cycle of poverty permanently. The act established the Office of Economic Opportunity (OEO) to administer a variety of antipoverty programs. The programs included Head Start for preschool children, the Job Corps providing vocational training to high school dropouts, Upward Bound assisting poor high school students entering college, work-study programs for college students, job-training for adults, grant and loan programs to farmers and businesses willing to hire the previously unemployed, and a domestic volunteer program patterned after Peace Corps called Volunteers in Service to America (VISTA). A central feature of EOA was creation of community action programs (CAP) that politically empowered residents of poor neighborhoods to create and implement specific programs tailored to their community's needs. But CAPs proved of limited effectiveness. Unforeseen conflicts arose with established local political regimes and traditional social service organizations who saw grassroots empowerment as a threat to their turf.

Other related legislation passed in 1964 included the food stamp program, a program providing free legal counsel for indigents, and programs for urban renewal and mass transit to revitalize inner cities. In the fall of 1964, Johnson won the presidential election with over 60 percent of the popular vote. The landslide victory significantly changed the political complexion of Congress establishing Democratic control in both houses. With the Democrats in control, Congress proceeded to pass almost one hundred bills in 1965 and 1966 building an extensive social reform program. Added was health insurance for the aged, health care for the poor, voting rights for minorities, funding for education programs, and environmental protection. The federal government had become a key player in promoting the quality of life in the United States.

This socially progressive agenda came to a quick end, however, as the Vietnam War escalated. Funding demands of the war and public disillusionment with urban riots between 1965 and 1967 led to funding declines for OEO and other social programs. OEO's budget fell from \$4 billion in 1966 to less than \$2 billion in 1967. The war on poverty made only modest gains.

Major political changes followed Johnson's presidency with conservative Republican control of the White House or Congress through most of the remainder of the twentieth century. Crime-fighting measures gained priority as white middle and upper class opposition to expensive welfare programs, extensive federal

regulation, and affirmative action began to threaten those who viewed the programs as altering the terms of a "zero-sum-game." However, the Johnson domestic agenda, driven by social activism at its height in the 20th century, made a lasting mark on U.S. society as many of the individual programs of OEO continued, though often scaled back from original forms.

See also: Civil Rights Movement, Great Society, New Frontier

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EQUITY

Equity, in economic and financial terms, stands for ownership or a share of ownership in property, a corporation, or other asset. Equity oftentimes is represented in the form of stock. A stock represents a claim on a portion of a corporation's assets and profits. It may be purchased on a securities market such as the New York Stock Exchange (NYSE), the National Association of Securities Dealers Automated Quotations (NASDAQ), and the American Stock Exchange (AMEX).

If, for example, one wishes to acquire equity in a new technology company listed on one of the securities markets, one will place an order to purchase a certain number of stock shares. Once the purchase is complete, the individual retains part ownership in the technology company until the stock is sold. With this ownership, the individual may become the recipient of dividends, a small amount of the companies profits distributed on a

regular basis to shareholders in the form of cash or additional stock shares.

Equity is also a technical term representing the value of a property minus the owner's outstanding debts, including a mortgage balance. A mortgage is money loaned to a borrower at a set interest rate in exchange for a portion of the profits when the borrower sells the mortgaged property. When the mortgage and all other debts are completely paid off, the owner retains 100 percent equity in the property.

See also: Asset, Dividends, Mortgage, National Association of Securities Dealers Automated Quotations (System), New York Stock Exchange, Stock

AN ERA OF ECONOMIC INSTABILITY, 1897–1920 (OVERVIEW)

The period in U.S. economic history between 1897 and 1920 was marked by prosperity and expansion. U.S. industry (especially the new industries that took advantage of new sources of power and new organization of labor) experienced giant gains in productivity. Agriculture also experienced productivity improvements because of the use of the internal combustion tractor and other mechanized farm implements. It was an era of mergers and the business sector expanded by consolidating clusters of sizeable businesses into monster corporations. The government set out to establish safe investment havens for U.S. corporations in Central and South America with the resulting rise in foreign trade. The national economy boomed during World War I (1914–1918). But nearly every period of expansion was countered by a downturn. Unbridled business expansion also brought governmental regulation and monitoring agencies. World War I stimulated the economy, especially heavy industry. After the war the agricultural sector of the economy began to experience weakness in some areas and the polarization of wealth began negatively to affect the domestic market. The nation as a whole vacillated between prosperity economic instability.

By 1890 the United States had conquered a contiguous stretch of the North American continent. The Bureau of the Census announced in 1890 that the frontier, as a line of settlement, no longer existed. As the economy continued to expand, business and political interests began to worry about an economy that was so productive that the domestic market was insufficient

to soak up the product. They began to look to international investments and international markets to solve the problem of “overproduction.” In 1898 the United States intervened in a Cuban revolt against Spain. During the ensuing Spanish American War (1898), the United States conquered Cuba, Puerto Rico, Guam, and the Philippines. When the war was over the United States had its own empire: it retained control of Puerto Rico, Guam, and the Philippines, and established dominance over independent Cuba. (The Philippines was granted independence in 1946, but Puerto Rico and Guam remain U.S. possessions. Dominion over Cuba was relinquished in 1934.)

During the early twentieth century the U.S. expansionist agenda continued. In 1903 the United States encouraged Panama to separate from Columbia and form a new republic. Then under a treaty signed late in the same year the United States was given the right to build and control a canal in Panama. In addition the United States intervened in the Dominican Republic in 1905, Nicaragua in 1912, and Haiti in 1915. These interventions resulted in the U.S. taking financial control of these countries and retaining control into the 1930s. A period of prosperity followed the Spanish American War, and the U.S. economy was bolstered by profits from these newly acquired holdings in South and Central America.

Prosperity in the early 1900s was linked to additional, domestic factors. The United States officially went on the gold standard in 1900. Prices began to rise for two reasons: new discoveries and increased mining expanded the gold supply, and the government issued more bank notes. Thus the per capita circulation of money increased from \$23.85 in 1893 to \$33.86 by 1907. Moreover the general price level rose 70 percent between 1896 and 1914, and per capita income rose from \$480 to \$567 between 1900 and 1920. During roughly the same period the population increased 40 percent from 76.2 million to 106 million, the number of factories increased 32 percent, capital investments soared by 250 percent, and the value of products rose 222 percent. Prosperity carried over to farmers, too. Between 1910 and 1920 gross farm income rose from \$7.4 billion to \$15.9 billion, and the value of farm property shot up 400 percent.

Prosperity was accompanied by the growth of super-large corporations and consolidations in the business world. There was a wave of consolidations (or mergers) between 1897 and 1904 that fundamentally changed the nature of the U.S. corporate system. By 1904 there were 236 giant industrial corporations with total capital of more than \$6 billion. In addition, 95 percent of railroad track in the country had come under

the control of six groups, and 1,330 public service companies had been consolidated into a mere handful.

Consolidation mania was a response to unbridled competition; business owners sought to establish some control over an unstable market and wild price fluctuations. One solution was merger and monopoly. Corporate heads and financiers were impressed by the results of three early mergers—Standard Oil, American Tobacco, and American Sugar. All three consolidated corporations had prospered handsomely. It seemed clear that through consolidation competition could be reduced, prices controlled, and markets equitably divided. Assisted by professional promoters and investment bankers, competitors in many industries narrowed their differences and combined their strengths. The steel industry, the copper industry, the smelting and refining industry, and the meat packing industry were among the business sectors that most actively merged assets and production processes. The consolidation movement paused in 1904 because by then almost all of the major industries were consolidated, and because the federal government began to accuse the resulting corporations of violating anti-trust laws.

It was this emergence of government regulation that offered another solution to the instability and erratic economic climate of unrelenting competition. Smaller would-be competitors found the regulated economy more difficult to break into. As the giant business consolidations emerged there arose a simultaneous demand for their regulation. The public appreciated the vast array of products and services provided by business, but they feared the great wealth and power of the corporate leaders. Political leaders responded and the result was a renewed interest by the federal government in controlling, or at least overseeing the relationship between business and society. These government efforts toward regulating business characterized the Progressive Era. The Progressive Era (roughly 1901 to 1920) was associated with the presidencies of Theodore Roosevelt (1901–1909), William Howard Taft (1909–1913), and Woodrow Wilson (1913–1921).

Roosevelt was regarded as the most progressive of the three. He used the Sherman Anti-Trust Act of 1890 to dissolve several large corporations, and he favored the passage of several regulatory laws. The Hepburn Act of 1906 increased the power of the Interstate Commerce Commission (created in 1887), The Pure Food and Drug Act of 1906 created the Food and Drug Administration (FDA) to define and enforce quality standards in products manufactured for human consumption. Roosevelt also placed great emphasis on the conservation of national resources. By presidential decree he added millions of acres to the protective

status of national parks and forests, and he prohibited the exploitation of certain important oil and coal lands by private enterprise. But there were limits to Roosevelt's radicalism. Though he knew there was a need for tariff revision (tariff rates were very high) and banking reform, Roosevelt did not touch these issues for fear that a conservative reaction would split the Republican party.

Few reforms occurred while Taft was in office (although Taft continued to prosecute anti-trust cases), but under Wilson there were several notable achievements. Tariffs were reduced and Congress passed the Clayton Anti-Trust Act (1914) and the Federal Trade Commission Act (1914). These were designed to alleviate certain unfair business practices in an effort to inhibit corporate mergers. They marked an important step forward for those who favored the regulation of business, but in the long run were not very effective. Business consolidations continued to be an important element of the U.S. economy.

Wilson's most important contribution was the Federal Reserve Act. The Federal Reserve System was designed to eliminate the defects of the most recent reform in the banking system—back in 1863. Chief among these defects was the inelasticity of currency—meaning, the money supply did not fluctuate with the needs of business. Instead the money supply fluctuated with the needs of the government because the amount of currency in circulation was directly tied to the volume of government bonds sold to the banks. Banks could only issue currency amounts equal to the value of the bonds they owned.

The Federal Reserve System divided the country into 12 districts, each with a Federal Reserve Bank. These were “bankers’ banks;” that is, they did not deal directly with the public. They loaned money to commercial banks, governed the interest rate, and issued Federal Reserve Notes. The result of the Federal Reserve System was that the volume of currency in circulation tended to fluctuate with the needs of business as determined by a governing board in Washington, D.C.

In the same year that the Federal Reserve Act passed through Congress, 1914, war broke out in Europe. The U.S. did not enter World War I until 1917, but the war had a significant effect on the U.S. economy from the outset. The United States served as the major source of raw materials, foodstuffs, and supplies to Europe; thus the war generated enormous industrial and agricultural expansion. The Gross National Product (GNP) increased by 15 percent between 1914 and 1918. During the same period the production of all

Erie Canal, Building of

types of metals increased substantially and there was an agricultural boom. Cotton prices rose from 8.5 cents to 35.9 cents per pound and wheat rose from 97 cents to \$2.73 per bushel. However, inflation became a serious problem. Between 1914 and 1920 the cost of living index increased from 100 to 200.

When the United States entered the war in 1917, the economy had to be mobilized. This meant a sudden and considerable increase in government activity and a shift from peacetime to wartime production. Mobilization went reasonably well and the United States was able to orchestrate its role in the war without disturbing economic growth or stability. Under authority provided by Congress the government created several special boards to administer the war effort. The most important of these was the War Industries Board, which had the power to control industrial production. It could determine priorities, fix prices, and even take over factories. Other boards with similar powers included the Food Administration, the Fuel Administration, the Shipping Board, and the Railroad Administration (which actually took over the railroads until the end of the war).

The increased needs of the wartime economy created a greater demand for labor at the very same time that the number of available workers declined. This was caused by a decrease in immigration, coupled with the fact that nearly four million men enlisted in military service. The overall effect of this worker shortage was to strengthen the position of labor. Wages rose significantly, from an index of 100 in 1913 to 234 by 1920. Labor unions also benefited—membership rose from 2.77 million in 1916 to 4.12 million in 1919. In addition, the government created the War Labor Board to settle disputes between workers and employers.

The United States financed as well as fought in the war by loaning the Allies more than \$10 billion. In order to cover its expenses the U.S. government resorted to a dual strategy: one-third of the cost of the war was funded through tax revenue, and the remaining two-thirds was financed through loans. Most of the loan money was generated through the sale of Liberty Bonds—in five issues the government raised \$25 billion. Additionally there were tax increases on liquor and tobacco, luxuries, and “excess” profits. Taxes rose from \$735 million in 1914 to \$4.64 billion in 1919. In some income tax brackets the tax rose as high as 70 percent.

Economic expansion during the war had long-term effects. In industries like coal, textiles, agriculture, and shipbuilding, expansion extended production capacity far beyond what the nation’s postwar economy demanded or could support. Thus key industries

were permanently weakened. Moreover sudden wage deflation after the war set the stage for major labor disputes and the opening of a new and turbulent era.

See also: Federal Reserve Act, Lever Food Control Act, Model T, War Industries Board, World War I

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ERIE CANAL, BUILDING OF

The Erie Canal was one of the largest and most controversial construction projects undertaken in the United States during the nineteenth century. It linked the navigable part of the Hudson River in eastern New York State with the Great Lakes. Western farmers were able to ship their produce directly to American markets without having to go through Canadian waters. The Erie Canal also symbolized the unification of the nation, binding the western frontier to the eastern markets by ties that were stronger than the East’s historic links to Canada or its former economic links to markets on the Mississippi River. But, the canal also raised important political questions about public versus private funding of infrastructure. Within New York itself, the canal became a heated point of debate between the major political parties, the Federalists and the Democratic Republicans. Later canal issues, such as the act to enlarge the waterway in 1835, divided the New York government against itself.

The concept of a canal linking the Hudson River valley with the Great Lakes was proposed during the first decades of independence following the American Revolution (1775–83). Before the war the area had been the home of the Iroquois Federation or Six Nations. During the war the future canal route through the Mohawk River valley had been the scene of many battles between British troops, Canadian irregulars,



Drawing of the opening of the Erie Canal, October 26, 1825.

and Native Americans on one side and the American rebels on the other. In 1783, after resigning his commission as general of the Continental Army, George Washington (1732–1799) made a tour of western New York and recommended linking eastern New York with the Ohio River and Lake Erie. In 1792 the New York legislature authorized the incorporation of the Western Inland Lock Navigation Company for the purpose of linking Albany on the Hudson River with Lake Ontario. By 1798 the company's progress on the canal made it possible for large boats carrying up to 16 tons of cargo to move alongside the Mohawk River to Rome, New York, a town about 75 miles west of Albany. It cut the cost of moving cargo between Albany and Seneca Lake (at least 80 miles west of Rome) by two-thirds and reduced the cost of moving cargo between Albany and the Niagara River on the Canadian border by half. Canal operations, however, were inefficient due to poor engineering, unreliable management, and scarce, expensive labor. One company supervisor was accused of embezzling funds and some locks were so poorly constructed that they had to be rebuilt four times. Nonetheless, the canal formed the nucleus of the future Erie Canal.

At the beginning of the nineteenth century Lake Ontario was still believed to be the logical endpoint of an internal New York canal. In 1800, however, Gouverneur Morris, the former Minister to France, foresaw the creation of a canal linking the Hudson River with Lake Erie. Such a canal was formally proposed in 1807–08 by Jesse Hawley, a merchant

from western New York who was in prison at the time because he was unable to pay his debts. At the same time, President Thomas Jefferson's (1801–1809) Secretary of the Treasury Albert Gallatin and surveyor James Geddes independently proposed canals that would link New York seaports to western markets, although they both preferred the Lake Ontario route. New York land speculators and politicians, such as future Governor De Witt Clinton, supported the prospect of federal dollars to pay for these internal projects. By 1810 they had revitalized the Western Inland Lock Navigation Company and launched plans to explore western New York for the best canal tracks.

I SHOULD LIKE TO KNOW WHETHER MY LITTLE FARM IN THE COUNTY OF JEFFERSON HAS GOT TO BE TAXED FROM YEAR TO YEAR, FOR THE PURPOSE OF ENABLING THE FARMERS ON THE SHORES OF LAKES ERIE, HURON AND MICHIGAN TO BRING THEIR PRODUCE TO MARKET FOR NOTHING.

"Peter Ploughshare" [pseudonym of Samuel Beach], *Considerations Against Continuing the Great Canal West of the Seneca*, 1819

The high hopes among New Yorkers for federal assistance in canal construction were soon dashed. Before the funding could pass through Congress, the United States declared war on England, launching the War of 1812 (1812–14). The war tied up funds for the canal and for other internal improvements. By 1815 it appeared that the canal idea had failed. This perception continued through 1816 when President James Madison vetoed the "Bonus Bill" that would have provided federal money for the Erie Canal. Fortunately, state money was substituted instead, thanks in large part to the support of DeWitt Clinton, who campaigned successfully for governor the following year on a canal platform. New York politicians quickly made the canal an issue in their campaigns and Democratic Republicans split between those in favor of the Lake Erie route (led by Clinton) and those opposed (led by future president Martin Van Buren, 1837–1841). Some landowners in southern New York objected to the canal project, seeing it as an excuse to tax them for the benefit of the rest of the state. Clinton's opponents, who drew some of their support from these people, formed the nucleus of the organization that later became known as Tammany Hall, a political force which controlled New York politics for most of the nineteenth century.

Paradoxically, the War of 1812 created strong nationalistic feelings among New Yorkers that boosted

European Loans

regional support for canal construction. The failed invasion of Canada in 1812 made Midwestern Americans aware of the dangers of shipping their produce through Canadian waters. It also made plain, to even the most hawkish Americans, that although much produce traveled to market via the St. Lawrence River, it would never be United States territory. The theater of war in the west centered on the Great Lakes—particularly Lake Erie—and brought public attention to the area. By the spring of 1816 construction on the canal was back on schedule.

Construction of the Erie Canal officially began on July 4, 1817 at Rome, New York. For almost nine years, teams of up to 3,000 workers cut a 40-foot wide, four-foot deep trench through 364 miles of wilderness. The Erie Canal crossed rivers and valleys; it included 18 aqueducts, 84 locks (each 15 feet wide and 90 feet long), and more than 300 bridges. Much of the work was done by immigrant Irish and Welsh laborers, who were poorly paid and often sick. Wages averaged fifty cents a day. A report from 1819 stated that about a thousand men were unable to report for work because of sickness. Nonetheless, the project was an unqualified success. The canal cut the cost and time of shipping freight from Buffalo to New York City from \$100 per ton and twenty days to \$5 per ton and 6 days. The canal cost \$7,143,789 to build, but by the time it opened on October 25, 1825, it had already earned \$1 million in tolls. The Canal was enlarged between 1835 and 1862 to meet the demands of increased traffic, even though by that time the railroads were beginning to crowd out canal freight. Even so, the peak year for use of the New York canal system was 1872.

The Erie Canal opened the New York interior to commerce and immigration. Before 1820 the population of the westernmost portion of the state was just over 23,000. By 1850 the state's population had ballooned to over three million. Equally important, the canal forged strong economic and political links between the west and the east. Before the Erie Canal opened, the western states tended to side politically with the South; their freight went down the Ohio and Mississippi Rivers to New Orleans and other southern ports. The Erie Canal changed the direction of western commerce from the slave-holding South to the industrial North. It helped equate western interests with northern interests and insured western support of the North in the American Civil War (1861–65).

See also: American Revolution, Civil War, Thomas Jefferson, James Madison, Mississippi River, New Orleans, War of 1812, George Washington

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EUROPEAN LOANS

European loans were critical to the patriotic cause of the American Revolution (1775–83). Had it not been for foreign aid, it is unlikely that the United States would have won the war of independence. When the fighting began at Lexington and Concord, Massachusetts, in April 1775, the colonies were hardly prepared to sustain war against the powerful British. But the nation's founding fathers rose to the occasion. Assembling in Philadelphia, Pennsylvania, in May 1775, the delegates to the Second Continental Congress quickly issued articles of war against Britain and named George Washington (1732–99) commander in chief of the Continental Army. After declaring independence from the mother country in 1776, the Congress turned its attention to financing a fight with Britain, which not only had the advantage of a highly trained military but also had tremendous material resources. To fund the war effort, Congress issued paper money, called Continentals, which it used to purchase supplies, ammunition, and pay its soldiers. But as the government issued more Continentals, the bills eventually became worthless.

The early days of fighting were grim: The mighty British navy readily claimed ports up and down the Atlantic seaboard; ground troops of the Continental Army were poorly supplied; and a financial crisis was evolving as the U.S. currency continued to devalue. The autumn of 1777 proved to be the turning point for the Americans. Victories at Trenton and Princeton, New Jersey, and at Saratoga, New York, encouraged

France, which had been quietly and cautiously supporting the patriots' cause, to establish an open alliance with the United States. Other countries—also foes of Great Britain—soon committed their support as well. After suffering a brutal winter in 1777–78, when Washington's troops at Valley Forge, Pennsylvania, went hungry and were in rags, foreign aid began to stream into the United States in the spring of 1778. In addition to clothing, food, muskets, and gunpowder, the United States now received borrowed money and cash gifts from France, the Netherlands, and Spain. With this assistance the Americans were able to muster a decisive victory over the British at Yorktown, Virginia. Within months the British government expressed its willingness to make peace. After two years of negotiations and intermittent fighting, both countries signed the Treaty of Paris in 1783, officially ending the American Revolution.

See also: American Revolution, Continental Congress (Second), Continentals

EVANS, OLIVER

Oliver Evans (1755–1819) was born in Newport, Delaware, on September 13, 1755. Evans was apprenticed to a wagon maker, or wheelwright, as a young man. But beyond the apprenticeship, he was a self-taught, natural mechanic who was good at figuring things out. Evans began his career as an inventor at the age of twenty-one, when he began work on a machine to make the toothed cards used to brush wool prior to spinning. In just a year, he perfected the process and had an operational machine.

Married in 1780, Evans moved to Wilmington, Delaware, to join two brothers in a flour milling business. Within five years, he had analyzed the milling machinery and built automatic machinery to mill grain in one continuous process. The machinery he invented included the grain elevator, conveyor, drill, hopper boy, and descender. With these improvements, grain could be milled and the process completely controlled by one person. Moreover, the end product was much cleaner than in the old process.

The legislatures of Maryland and Pennsylvania granted Evans exclusive rights to use this machinery, and in 1790, he was granted patents by the U.S. Congress. Evans' patent was the third ever granted by the U.S. government. However, he had trouble enforcing his rights and was unsuccessful at profiting from the inventions.

Evans moved to Philadelphia and established a manufacturing company to build and sell mill equipment. The next project Evans tackled was the steam engine. James Watt (1736–1819) introduced a low-pressure steam engine in 1802. In the Watt engine, condensing steam created a vacuum that “pulled” the piston. Evans worked on a high-pressure engine that used the expansion of steam to “push” the piston, a more efficient method of converting heat energy into work. A parallel effort in England at the same time is often credited with this particular improvement to the steam engine. However, British inventor Richard Trevithick had access to Evans' plans and drawings, and Evans grieved that others got credit for his work.

Evans built a steam-powered amphibious vehicle in 1804 to dredge mud and silt from the Schuylkill River. This vehicle was likely the first steam-powered vehicle on either land or water in the United States. Named the *Oruketer Amphibolos*, or amphibious vehicle, by Evans, the device moved over land with wheels and was propelled in the water with a paddle wheel. Evans lobbied for the first railroad, believing that the propulsion device could be adapted to moving vehicles over land on rails made from either wood or iron. Evans' plan was to run rails from Philadelphia to New York, but the first commercial railroad was not in place until years after Evans died. He continued to refine his design and work on the steam engine throughout his life.

Evans published books on his inventions and engineering. His *The Young Millwright and Miller's Guide* (1797), *The Young Engineer's Guide* (1805), and *The Abortion of the Young Steam Engineer's Guide* (1805) were early handbooks on these subjects. They were translated into French and published in Paris as well.

His iron foundries in Philadelphia and Pittsburgh, the Mars Iron Works, were founded in 1807. By the time of his death, they were producing mill equipment, steam engines, and other types of ironwork. Oliver Evans died in New York City on April 21, 1819.

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EXCHANGE RATE

The price of one country's currency described in terms of another country's currency is known as the foreign exchange rate. The rate is a mechanism used to convert the value of one country's currency into the currency of another. The rate is expressed in terms of the currencies of both countries such as dollars per pound, francs per dollar, or yen per franc. A U.S. citizen who buys a product from France would pay in dollars, but the French would want francs. The dollars are converted into francs at the current exchange rate. If the exchange rate is one dollar per five francs, the U.S. citizen would pay nine dollars for a French product that costs 45 francs.

The kind of exchange rate system countries choose to operate under determines exchange rates. Historically three choices have been available: a fixed rate, a flexible or floating rate, and a managed flexible or managed floating rate. A fixed or pegged exchange rate is a system where governments of different nations agree to a set ("par") value for their currencies. The price of one currency is fixed in terms of another so the rate does not change. Before 1914 all countries had fixed systems defining their currency in terms of a given amount of gold. If one ounce of gold were worth \$20, but four British pounds, then the exchange rate would be \$20 per four pounds, or five dollars to one pound. In a flexible rate system the market sets the value of currencies based on supply and demand. Under a managed floating rate countries are on a floating rate system, but if the exchange rate for their currencies rises or falls too far, the central banks intervene or manage the rate.

Difficulties with the fixed gold standard led to the Bretton Woods System immediately after World War II (1939–1945). Under this system countries maintained a fixed exchange rate with each other but based their currencies on the U.S. dollar which was fixed at \$35 per ounce of gold. All nations could trade their currencies for dollars and then buy gold at a rate of \$35 per ounce from the United States. The Bretton Woods agreement also created the International Monetary Fund, an international economic "police" organization. By 1971 President Richard Nixon (1969–1974) announced the United States would no longer redeem

EXCHANGE RATES

United States	\$1
Great Britain	0.618 Pound
Canada	1.461 Dollar
China	8.277 Renminbi
European Union	0.941 Euro
Germany	1.841 Deutsche Mark
Japan	121.506 Yen
Mexico	9.145 Pesos
Russia	26.24 Rubles

This is an example of the exchange rate. The exchange rate measures the value of national currencies. These rates change daily.

dollars for gold and since then the world has been on a managed floating exchange rate system.

See also: Bretton Woods Agreement, Currency, Gold Standard, Money

EXCISE TAX

An excise tax is a tax on the sales of specific commodities and on certain privileges. Goods and privileges taxed include alcohol and tobacco, gasoline, and specific licenses. Local, state, and federal governments can levy excise taxes. The government sets excise taxes on a per unit basis, such as by the gallon for gasoline, or as a certain percentage of the sale price of an item. In contrast to direct taxes, such as income tax, which is assessed directly on individuals, excise taxes are considered indirect taxes. They are levied against the goods rather than the individual, and the business passes the collected tax onto the government. Nevertheless the real burden is on the consumer who must pay higher prices. Since low-income families spend a greater percentage of their income than high-income families to purchase the same amount of goods, excise taxes tend to be regressive. This means that a greater burden is placed on lower income families.

Excise taxes on the sale of alcohol and tobacco are sometimes called the "sin" taxes. Gasoline is taxed at the pump and the revenues are used for highway construction and maintenance. License taxes include marriage and hunting licenses. Franchise taxes, also a form of excise tax, are licenses to operate certain types of businesses. Other types of excise taxes are severance taxes which tax the processing of a natural resource

such as timber or petroleum, taxes levied on airways and airports, and taxes on telephone services.

Article I, section 8, of the *Constitution of the United States* gave Congress the power to collect excise taxes. Opposition to the Excise Law of 1791, which placed a tax on whiskey, led to the Whiskey Rebellion in western Pennsylvania in 1794. By the end of the American Civil War (1861–1865), Congress had revised the tax system to incorporate more and larger excise taxes. Between 1870 and 1900 almost all federal internal revenues were raised through excise taxes and tariffs and most of those through excises on alcohol and tobacco. In 1913 the income tax amendment was passed and direct taxes on individuals and businesses quickly became the chief source of revenue. By 1997 excise taxes accounted for only four percent of federal receipts.

See also: **Regressive Tax, Revenue**

EXODUSTERS

Exodusters were African American homesteaders who moved westward during the last decades of the nineteenth century to settle the Great Plains. After federal troops withdrew from the South in 1877 at the end of the twelve-year period of Reconstruction (1865–1877), civil rights for African Americans began to erode. Southern state legislatures adopted laws, so-called “black codes,” to restrict the movement, prosperity, and freedom of African Americans. A campaign of intimidation led by the Ku Klux Klan was intended to keep former slaves “in their place,” a sentiment that seemed precariously close to the pre-Civil War slave-owner mentality. The system of sharecropping, whereby plantation owners—out of economic necessity—divided up their lands for former slave families to farm, resulted in numerous former slaves being indebted to landowners. State laws, such as poll taxes, literacy tests, and grandfather clauses, were also designed to keep African American citizens from voting, and effectively disenfranchised them. Unable to improve their economic conditions, severely oppressed by the terror of the Ku Klux Klan, and unable to participate in government, southern African Americans became disillusioned—the American Civil War (1861–1865) had seemingly done little to change their quality of life. This situation prompted a mass exodus of blacks from the South during the last two decades of the nineteenth century.

While many southern African Americans migrated to cities in the North, in 1879 a major migration onto the dusty plains of Kansas began a flow westward as

well. By the end of the 1800s, “all-black” towns could be found in Oklahoma and other western states. Some who migrated onto the Great Plains took advantage of the Homestead Act of 1862, which allowed them to settle up to 160 acres (64 hectares) of land, and lay claim to it after a period of five (and later just three) years. These homesteaders braved the harsh climate of the open plains to carve out a living for themselves. The exodusters (“exodus” since they had left the South en masse, and “dusters” since they settled the dry prairie region) helped transform the Great Plains into a prosperous agricultural region.

See also: **Black Codes, Homestead Act, Homesteaders, Westward Expansion**

EXPANSIONISTS

Soon after the colonies won the American Revolution (1775–83) and founded the United States of America, nationalist fervor emerged. Eager to spread “American ideals,” expansionists looked westward, northward, and southward to expand the territory of the Union beyond the original 13 states. They favored the settlement of the frontier—some advocated seizure of the Southwest (from Spain and later from Mexico), Florida (from Spain), the Louisiana Territory (from France), and the Northwestern Territories and even Canada (from Britain). By the 1840s the doctrine of Manifest Destiny took hold. (A doctrine which held that the United States had a God-given right and duty to expand its territory and influence throughout North America).

The fires of expansionism were fueled by population growth during the 1800s. Pioneer settlement of the Plains and the Old Northwest (present-day Ohio, Michigan, Indiana, Illinois, Wisconsin, and part of Minnesota) resulted in an increase in farmland and overall crop production. Inventions such as the cotton gin and the McCormick reaper improved the processing and harvesting of raw materials such as cotton and grain, and a continuous influx of immigrants from Europe supplied labor for the factories that had opened across New England and the Mid-Atlantic. All these factors combined to create a rapid population growth. In the two decades between 1840 and 1860 alone, U.S. population more than doubled, increasing from about 17 million to more than 38 million. Though the eastern seaboard cities grew, a system of new canals, steamboats, roads, and railroads also opened up the interior to increased settlement. By 1850 almost half the population lived outside the original 13 states.

Though Canada remained in the hands of the British, the spirit of expansionism resulted in a rapid

Exports

acquisition by the United States of North American territories that had belonged to Spain, Mexico, France, and England. By 1853 the United States owned all the territory contained in the present-day contiguous states. By the end of the century, the United States owned all the territory of its present-day states—which included Alaska (purchased from Russia in 1867) and Hawaii (annexed in 1898).

See also: Alaska, Hawaii, Manifest Destiny, Old Northwest, James Polk

EXPORTS

Exports are goods and services that are produced in one country but shipped to another country for consumption. Some examples would be lumber grown in the United States but shipped to Japan; U.S. wheat shipped to Russia; Hollywood movies sent around the world; and U.S. jet fighter planes made here but sold to allied nations such as Israel and Saudi Arabia.

The United States exports thousands of types of goods and services. The United States, however, exports a relatively small portion of its total output, generally less than 10 percent, compared to some other nations. Some European nations, for example, export 25 percent or more of their total production. Where there is a difference between the amount that a country imports and the amount it exports, a trade imbalance exists.

The United States, which has the wealth to import a vast array of goods from around the world, typically runs a rather large trade deficit with other nations. This deficit worries many government officials who fear that U.S. citizens are supporting foreign workers with their dollars, but not workers at home. Because of such fears, many governments try to increase the export of their own goods and decrease imports. There are various ways to do this. Nations may give exporting companies tax breaks to encourage them to send their products overseas. Or they may create special banks whose job is to loan money to firms that export goods.

See also: Balance of Trade, Imports, Trade

EXTERNALITIES

Externalities are economic benefits or costs that affect people who are not directly part of an economic activity. In a way externalities can be thought of as economic “black holes” that have economic effects that are hard to determine because so many people are

affected indirectly. For example, if a chemical company has to store all its manufacturing waste in metal drums, it will incur the cost of buying the drums, putting the waste into the drums, and allocating the land to store the drums. Because this will be expensive the company may have to cut back on its production to keep its waste disposal costs under control, thus losing profits. If the company simply dumps its waste into a nearby river, however, its waste disposal costs would be smaller. From the standpoint of the company there is greater economic incentive to pour the waste into the river than to store it in drums, but to the people who live along that river, the company’s waste will become a major environmental hazard. This is a “negative externality”: a collision of the “private benefit” of one party (the company that pollutes) with the “public cost” to society. To prevent the company from polluting the river, the people must force it to do something detrimental to its profits. Since the company has an economic incentive to continue polluting, the people must convince the company to change its policy by boycotting its products or by passing legislation against pollution.

An example of a “beneficial externality” is a company that hires and trains unskilled workers when it would be more efficient and profitable to hire trained workers. The company incurs a “private cost” (the expense of training unskilled people) and provides society with a “public good” (employed people learning new skills). Since society gains more skilled and employed workers at the company’s expense, it is an externality that is beneficial to the economy as a whole, but it is difficult to measure.

EXXON CORPORATION

The Exxon Corporation grew out of another oil company giant, Standard Oil Company, founded by John D. Rockefeller (1839–1937) in 1870. Standard Oil’s monopoly over the oil business in the early twentieth century led to a series of attacks on that company from journalists and politicians. Likewise, Exxon’s reputation in the late twentieth century has been damaged by the environmental havoc created by a massive oil spill in Alaska from the tanker *Exxon Valdez* in 1989. Still, Exxon remains the third largest company in the United States and the seventh largest in the world.

In the 1860s Rockefeller foresaw the potential of refining Pennsylvania crude oil. Though internal combustion engines were not yet developed, kerosene oil could be used, among other things, to fuel lanterns.

When Standard Oil was formed, it integrated all of the docks, railroad cars, warehouses, lumber resources, and other facilities it needed into its operations. Because of its size it was able to make lucrative deals with railroads. The result was to drive smaller refiners out of business.

Standard Oil became the foremost monopoly in the country. It was so big that it more or less dictated to the railroads what it would pay in freight rates. Although this practice was abandoned because of public pressure, by 1878 Rockefeller and partner Henry Flagler (1830–1913) were in control of most of the nation's oil refining business. Rockefeller's business successes had made him one of the five wealthiest men in the country. Those same monopolistic business practices that gave him such monetary success were also a source of criticism from many quarters in industry and government.

In 1882 Rockefeller and his associates established the first trust in the United States, which consolidated all of Standard Oil Company's assets in the states under the New York Company, in which Rockefeller was the major shareholder.

In the 1880s Standard Oil began producing as well as refining and distributing oil. It also began an overseas trade, particularly in kerosene to Great Britain. The trust encountered difficulties with the Sherman Antitrust Act of 1890, followed by an 1892 Ohio Supreme Court decision which forbade the trust to operate Standard of Ohio. The company then moved its base of its operations to New Jersey, which in 1899 became home to Standard Oil of New Jersey, or Jersey Standard, the sole holding company for all of Standard's interests. Jersey Standard later became Exxon Corporation. In the first decades of the twentieth century Jersey Standard was banned from holdings in several states. Instead, it acquired companies in Latin America in the 1920s, particularly in Venezuela, and also expanded its marketing companies abroad.

As the supply of crude oil began shifting from the United States and Latin America to the Middle East in the 1920s, Jersey Standard and other companies effectively used the same monopolistic practices that John D. Rockefeller had used 50 years before to establish a foothold in the region. Middle East production was stepped up following World War II (1939–1945) and Standard Oil exploited its rich resources in Iraq, Iran, and Saudi Arabia. Oil prices stayed low and the United States and Europe became extremely dependent on oil fuels for industry and automobiles.

During the 1960s growing nationalism in the Middle East brought much resentment against the western

companies dominating Middle Eastern oil. The Organization of Petroleum Exporting Countries (OPEC) was formed to protect the interests of the producing countries. As OPEC became more assertive, Jersey Standard sought other sources of crude oil. The company discovered oil fields in Alaska's Prudhoe Bay and in the North Sea. Around the same time, in 1972, Standard Oil of New Jersey officially changed its name to Exxon Corporation.

Financial difficulties beset the company in the 1970s, as the OPEC-induced oil shortage depleted much of Exxon's reserves. Long lines formed at gas stations in 1973 and again in 1979, lights were turned out across the nation (even at the White House), and low and moderate income families struggled to heat their homes in the winter. The oil crisis even helped to derail President Jimmy Carter's (1977–1981) bid for a second term in office in 1980.

In 1989 the company was shaken by the *Exxon Valdez* disaster. A drunk Captain of the oil tanker *Exxon Valdez* ran aground in Alaska's Prince William Sound, doing immeasurable damage to the wildlife and to the company's public image. Eleven million gallons of oil spilled in the Alaskan harbor. The state of Alaska conducted public hearings and Exxon was deemed to have been "reckless" by an Alaskan Grand Jury. Exxon lost a share of the world oil market to its competitor, Royal Dutch/Shell in 1990. Still, teamed up with Pertamina, the Indonesian state oil company, Exxon in the 1990s developed the Natuna gas field. Exxon also agreed to a \$15 billion development of three oil wells in Russia. A large oil discovery in 1996 in the Gulf of Mexico also allowed Exxon to court expansion plans far into the future.

Thus, neither the oil crisis nor the oil spill destroyed the company's profitability. While ordinary people worried, Exxon continued to reap major profits, reaching the \$800 billion mark by 1980. Two hundred sixty thousand barrels of crude oil were spilled in Alaskan waters by the *Exxon-Valdez* ship, costing Exxon billions of dollars to clean up Prince William Sound and spawning hundreds of lawsuits from individuals and state and local governments. But, although the spill caused a public relations debacle, Exxon actually improved its financial status in the early 1990s, when other oil companies were losing money. To enhance profitability, the company engaged in cost-cutting, eliminating thousands of jobs and cutting spending for exploration. In 1997 the company's gross profit was \$43 billion. By 1998, when oil prices had again sunk to record low levels, Exxon reported a resource base of 1.2 billion barrels of newly discovered resources.

Exxon Corporation

Since the *Exxon Valdez* incident, Exxon has attempted to improve its image by emphasizing its efforts to produce environmentally sound products and contribute to environmental causes. Still, the outcries from the residents of Prince William Sound continued to be heard through the end of the 1990s. The 1994 federal jury verdict held Exxon liable for \$5.2 billion in punitive damages—a verdict Exxon is still working to overturn.

Though Exxon began as an American company, it participates in a worldwide market. As a result, the company also has a successful European affiliate, Esso. Operating from its base in Germany, where it is the third largest oil and gas company, Esso manages over 1,500 gas stations in Germany. It also has interests in the Czech Republic, Hungary, Poland, and Slovakia. Esso, like Exxon, explores, produces, and manufactures gasoline, other fuels, chemicals, and lubricants.

See also: Kerosene, Monopoly, OPEC Oil Embargo, Petroleum Industry, John D. Rockefeller, Sherman Anti-Trust Act, Standard Oil Company

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FAIR EMPLOYMENT PRACTICES

Beginning in the 1960s Congress passed a series of laws prohibiting employment discrimination based on a variety of factors. These laws are the underpinnings of fair employment practices in the United States. Title VII of the Civil Rights Act of 1964, besides prohibiting employment discrimination on the basis of race, color, religion, sex, or national origin, also established is the U.S. Equal Employment Opportunity Commission (EEOC). Congress charged the EEOC with enforcing fair employment practices.

Additional laws the EEOC enforces are: (1) the Equal Pay Act of 1963 (EPA), an amendment to the Fair Labor Standards Act of 1938 that prohibits discrimination on the basis of gender in compensation for similar jobs under similar conditions; (2) Age Discrimination in Employment Act of 1967 (ADEA) prohibiting job discrimination against persons 40 years of age and older; (3) Section 501 of the Rehabilitation Act of 1973 prohibiting employment discrimination against federal employees with disabilities; (4) Title I of the Americans with Disabilities Act of 1990 (ADA) prohibiting employment discrimination on the basis of disability in both public and private sectors, excluding the federal government; and (5) the Civil Rights Act of 1991 that includes provisions for monetary damages in cases of intentional discrimination.

The EEOC has 50 field offices throughout the United States. It investigates complaints of job discrimination filed by individuals or groups such as labor unions and employment agencies. If the EEOC finds “reasonable cause” that discrimination occurred and it seeks voluntary resolution of the dispute. If voluntary resolution is unsuccessful the EEOC may bring suit in federal court.

The EEOC issues guidance in interpreting the laws it enforces, administers the federal sector employment discrimination program, and provides extensive

education and outreach with seminars and with information on the Internet. It provides funding and lends support to approximately 90 state and local fair employment practices agencies that process discrimination claims under federal laws as well as state and local employment discrimination charges.

See also: **Americans with Disabilities Act, Fair Labor Standards Act**

FAIR LABOR STANDARDS ACT OF 1938

The Fair Labor Standards Act of 1938 (FLSA) originated in President Franklin Roosevelt’s (1933–1945) New Deal. It was a landmark piece of legislation that had a significant impact on the labor movement in the United States. The FLSA set nationwide standards for employees of organizations engaged in interstate commerce, operations of a certain size, and public agencies. Still active today, it affects millions of full and part time workers in the private sector and the federal, state, and local governments.

Under the Fair Labor Standards Act, the first minimum wage (25 cents per hour) was established. The work week was limited to 44 hours per week, which was revised in 1940 to 40 hours per week. Standards were developed to keep records of hours worked and wages paid. These same standards allowed employers to keep track of overtime owed to employees who exceeded the standard work week.

Perhaps most significantly, the Fair Labor Standards Act banned child labor. Children under age fourteen were no longer legally allowed to work. Exceptions were made for the agricultural industry and some family businesses. Children under age eighteen were restricted from “hazardous” jobs, including mining and some factory jobs. The ban on child labor



In 1938, the Fair Labor Standards Act was passed, addressing the need to cease childhood exploitation in the workforce. This landmark piece of legislation is still in effect today.

greatly decreased the number of children harmed by bad working conditions.

A 1963 amendment to the FLSA called the Equal Pay Act prohibited differences in pay based on sex. Under this provision women who were often paid wages lower than a man in the same position could now demand equal pay. The Equal Pay Act was an important step in leveling the often uneven work field in which women competed with men for the same jobs but had to settle for making less money.

Over twenty amendments have been made to the Fair Labor Standards Act. Most of these were made to increase the minimum wage, which has gone from 25 cents in 1938 to \$5.25 in 1998.

Enforcement of FLSA standards is handled by the U.S. Department of Labor's Employment Standards Administration, Wage-Hour Division. The Equal Pay Act is an exception; its enforcement was transferred to the Equal Employment Opportunity Commission in 1979.

See also: Child Labor, Interstate Commerce, Minimum Wage, Franklin Delano Roosevelt

FALLEN TIMBERS, BATTLE OF

The battle of Fallen Timbers (1794) and the Treaty of Greenville (1795) that followed it marked the successful conclusion of a long struggle for control over the Ohio country—the region between Lake Erie and the Ohio River. Since the 1740s, the territory had been the site of numerous battles between Native Americans, French Canadians, and British and Colonial troops. Although the Treaty of Paris (1783) ended the fighting between England and the United States in the American Revolution (1775–1783), the struggle between the new country and its Native American neighbors continued. Despite the provisions of the Treaty of Paris and the Treaty of Ft. Stanwix (in which the Iroquois Confederacy relinquished its claim on the Ohio country to the United States), Great Britain still wanted the area. Great Britain had excluded its Indian allies from the treaty negotiations that ended the American Revolution. Some British politicians believed the Indians might continue the war on the frontier and bring the area back under British influence. The British built Fort Miami, near modern Toledo, Ohio, to help support the Native American effort in the Ohio country.

Matters came to a head in the early 1790s, in the conflict known as Little Turtle's War (1790–1794). As more white settlers flooded into the area following its partition under the Land Ordinance of 1785, the Native Americans were forced westward. The Miami commander, Michikinikwa (Little Turtle), led a confederation of tribes against U.S. expeditions led by General Josiah Harmar in 1790 and General Arthur St. Clair in 1791, defeating them both. Both Harmar's and St. Clair's armies consisted largely of untrained militia, frontiersmen with guns but little discipline, who often broke ranks and fled when confronted by Native American warriors.

In late August 1794, Little Turtle and his Shawnee ally, Weyapiersenwah (Blue Jacket), faced a new U.S. Army, including a core of nearly 5,000 professionals trained and led by General "Mad" Anthony Wayne. Wayne had spent the better part of two years training and disciplining his troops. On June 30, 1794, Wayne's army drove off a Native American attack from Fort Recovery, the site of St. Clair's defeat three years before. By August 20, his force confronted the Native Americans outside modern Maumee, Ohio. A tornado had recently knocked down many of the trees in the area, and about 2,000 Native Americans used them as cover to attack Wayne's group of 900 (thus the name Fallen Timbers). Within a few hours, however, Wayne's army rallied and drove the Indians from their cover, killing about 200 and forcing the others to seek refuge at Fort Miami. Official American casualties numbered 107 dead.

The battle of Fallen Timbers had ramifications that stretched all the way to Europe. News of the American victory helped negotiator John Jay secure a treaty with the British that promised British withdrawal from the frontier forts—securing the area for the Americans. The Treaty of Greenville, negotiated between Wayne and Little Turtle the following year, secured most of what is now Ohio for American settlement. The victory calmed the fears of frontiersmen about Indian raids and secured the area's allegiance to the United States. From a long-term perspective, the battle of Fallen Timbers secured American access to the western Great Lakes and the western Ohio River valley, giving farmers in the area access to international markets for their produce.

See also: Land Ordinance of 1785, Ohio

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FAMILY AND MEDICAL LEAVE ACT

President Bill Clinton's (1993–) first legislative action after taking office was the Family and Medical Leave Act (FMLA), which went into effect August 5, 1993. According to the Commission on Family and Medical Leave, the act was developed to "support families in their efforts to strike a workable balance between the competing demands of the workplace and the home." This action was significant because previously, the United States was the only industrialized country that did not guarantee job protection when employees needed work leave that exceeded company vacation or sick-leave allowances.

The FMLA, which applies to all school, public agency and private sector employers with 50 or more employees, allows up to 12 weeks of unpaid leave in a 12-month period for certain family and medical reasons. The law also requires employers to maintain the employees' health benefits during leave and to restore the employee's job after the leave. Under FMLA guidelines the 12-week leave is allowed for the birth of a child; adoption or foster care of a child; care for a spouse, child or parent with a serious health condition; or for employees who cannot work due to a serious health condition.

After legislation was passed in 1993 conflicting reports emerged about the effectiveness of FMLA. In 1996 a government-sponsored Report to Congress, called "A Workable Balance," concluded that "the FMLA has not been the burden to business that some feared. For most employers compliance is easy, the costs are non-existent or small, and the effects are minimal." As a result of this report, an amendment

Far Western Indians

was introduced in 1997 to expand the FMLA. The amendment extended coverage to 13 million more employees by requiring employers with 25 or more employees to provide FMLA benefits in addition to those with 50 or more employees already covered by existing legislation. In 1997, a second independent survey contradicted the Report to Congress with evidence that the FMLA was fraught with compliance and implementation problems. This study resulted in action by a bipartisan group in 1998 to introduce the Family and Medical Leave Clarification Act, an amendment that would make the FMLA easier for employers to understand and use.

What could account for the difference in opinion between the two surveys? According to some experts it may have been a matter of timing. The Report to Congress survey was conducted between January 1994 and June 1995, before the Department of Labor implemented final regulations. These regulations included several changes, such as the definition of a serious health condition, which made the mandate more difficult to manage. Indeed, when Human Resources professionals were asked in the 1997 independent survey about changes that would make the FMLA more user-friendly, respondents cited tightening the definition of a serious health condition. Some stated that FMLA actually cost companies money because it was costly and time-consuming to contest poorly documented medical claims. Also, some employers noted an increase in absence rates as a result of FMLA.

While the controversy continued regarding the FMLA, both sides agreed that the legislation was well-intentioned. Though most members of the Labor Policy Association (LPA), a Washington, DC-based employer association that focused on employment policy issues, considered the law an inconvenience rather than a threat to business, they would have liked the problems with FMLA corrected before it was expanded.

See also: Women in the Workplace

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FAR WESTERN INDIANS

Far Western Indians were those tribes living west of the Sierra Nevada Mountain range before European incursion. This group is also called the California Indians. It included the Pomo, Hoopa (or Hupa), and Serrano tribes. These Indians lived in an area that stretched from the southern part of Oregon and extended south to northern reaches of Mexico's Baja Peninsula. At least five language groups were represented in this region. The tribes hunted deer, elk, bighorn sheep, and rabbits. They also fished for salmon and collected clams and other shellfish, and they gathered acorns (which were pounded to make flour for bread), pine nuts, grass seeds, fruits, and berries. The Pomo were known for their watertight baskets. In the north, people lived in wooden plank houses. To the south, the Pomo lived in cone-shaped shelters constructed of rush mats, brush, and bark covering pole frames. Some lived in pit houses (semi-subterranean, circular shelters).

The Spaniards, arriving in the 1500s, were the first Europeans in the region. By the 1700s they had established missions. In addition to converting many Indians to Christianity (these people became known as Mission Indians), the Spaniards also taught them to farm and raise livestock. Diseases devastated the Indian population, and U.S. settlers arriving in the early 1840s pushed Indians off their lands. The California gold rush (1848) caused further displacement.

See also: Gold Rush of 1849

FARM CREDIT ADMINISTRATION

In 1933 the United States was mired in the Great Depression. President Franklin Roosevelt (1933–1945) instructed Congress to create the Farm Credit Administration (FCA) to assist agricultural workers who found loans and credit increasingly hard to come by during the difficult economic times.

Still functioning to this day, the FCA supervises the institutions that grant credit to farmers and ranchers and also coordinates the Farm Credit System. The Farm Credit System is a centralized banking system

designed to serve U.S. agricultural interests by granting short- and long-term credit through regional banks and local associations.

The Farm Credit System was established in 1916. Its purpose is to provide dependable credit to agricultural workers. When the Great Depression arrived in the 1930s, farmers were hit hard. Farm property values dropped sharply and debt delinquencies grew quickly. Many of the loan companies involved with agricultural workers failed. Thus, when the Farm Credit Administration was created, the banks and associations comprising the Farm Credit System were supported completely by the federal government in an attempt to give the agricultural economy more stability in the uncertain day of the Depression. Today, these organizations are financed entirely by the sale of stock.

Franklin Roosevelt developed the Farm Credit Administration to unify all government farm credit programs under one agency. In addition to overseeing the Farm Credit System, the FCA also sets regulations, ensures compliance with established procedures, and has the authority to intervene when an institution violates those regulations.

See also: Great Depression, Franklin Delano Roosevelt

FARMERS' ALLIANCES

National organizations of U.S. farmers, the farmers' alliances were founded in the 1870s. The alliances grew out of the increasing unrest in rural areas due to a depressed economy, falling farm prices, and increasing farming costs. Most growers experienced a decline in their standard of living; many were debt-laden while others teetered on the brink of foreclosure. Farmers began meeting to discuss their problems. As the groups became more organized, they established cooperative programs to help bring down costs and secure the highest possible price for farm products. Alliances ran cooperative stores and grain elevators, purchased machinery directly from manufacturers, collectively marketed crops, and eventually (after 1890) offered members reduced-rate insurance plans. But such efforts only managed the impending agricultural crisis; alliance members realized that to effect change they would need to work inside government.

The 1880s began a period of political activism for the alliances. Members protested against banks (for charging high interest rates) and against railroads (for charging high freight rates). Others lobbied politicians or ran for office themselves. In the mid-term elections

of 1890, the Farmers' Alliance managed to elect several governors and 30 U.S. Congressmen (all members of the Democratic and Republican parties) to office. In Kansas, "America's breadbasket," the Alliances won control of the state legislature. The following year, 1891, the People's (or Populist) Party was formed, absorbing many of the agrarian interests of the Farmers' Alliances in its platform. The third party supported its own political candidate, the former Greenback candidate James B. Weaver (1833–1912), for president in the election of 1892. Though Weaver lost, the Populists remained a strong force. In the next presidential election, of 1896, Populists backed Democratic candidate William Jennings Bryan (1860–1925), a self-proclaimed commoner, who was sympathetic to the causes of the Farmers' Alliances and the National Grange (another reform-minded agricultural organization). Bryan lost to William McKinley (1897–1901), and soon after the Populist Party began to fall apart, disappearing altogether by 1908. Nevertheless, the party's initiatives continued to figure in the nation's political life for the next two decades. (These included free coinage of silver, the government issue of more paper money, a graduated income tax, direct popular election of U.S. Senators, passage of anti-trust laws, and implementation of the eight-hour workday.) Many Populist ideas were eventually made into laws.

See also: William Jennings Bryan, Cross of Gold Speech, Free Silver, Greenback, Populist Movement, National Grange

FARMERS' PROTEST MOVEMENTS, 1870–1900 (ISSUE)

After the American Civil War (1861–1865) agricultural prices began a long decline that lasted for a generation. Between 1870 and 1897 wheat fell from \$106 per bushel to \$63; corn fell from \$43 to \$29; and cotton fell from 15 cents a pound to five cents. At the same time farmers' costs of operation remained constant or increased. These costs included freight rates, interest on loans, and the cost of machinery and other needed commodities.

The cause of the farmers' troubles was overproduction occasioned by the expansion of the agricultural domain—it doubled during the same period—coupled with more efficient methods. Increased production overseas also contributed. However, U.S. farmers did not recognize the complexities of the matter. They believed they were the victims of a conspiracy generated by the railroad companies, the bankers, the grain

elevator operators, and conservative politicians who favored a money system based on the gold standard. The latter was an outgrowth of the specie theory of money which held that precious metals must stand behind the circulating medium (money) to give it value. This system tended to keep money scarce and prices low. The farmers and their political leaders, on the other hand, adhered to the quantity theory of money which held that the amount of currency in circulation should be flexible (based on production) in order to meet the needs of all producers and debtors as well as creditors. A system based on this theory would tend to enlarge the money supply and make credit more easily available. It would also tend to drive prices up.

Farmers sought redress of their grievances through organization. There were three major efforts: the Grange, the Farmers' Alliance, and the Populist Party. Each had a platform consisting of several demands, but two demands received more emphasis than others: government regulation of the railroads and currency and banking reform.

U.S. FARMERS . . . BELIEVED THEY WERE THE VICTIMS OF A CONSPIRACY GENERATED BY THE RAILROAD COMPANIES, THE BANKERS, THE GRAIN ELEVATOR OPERATORS, AND CONSERVATIVE POLITICIANS WHO FAVORED A MONEY SYSTEM BASED ON THE GOLD STANDARD.

The first farmers' organization of the post-war period was the National Grange of Patrons of Husbandry, better known as the Grange. Founded in 1867 by Oliver H. Kelley, it was established as a social club that allowed farmers and their families to improve their lives through mutual aid. By 1875 the Grange claimed a membership of 800,000, mostly in the Midwest and South. By this time also, the organization had shifted its focus from social to political and financial matters and had become a lobby. The Grangers advocated railroad regulation by the states and they wanted the federal government to leave in circulation large amounts of paper money that had been issued during the Civil War.

On the latter issue, the Grange and other groups that wanted to inflate the currency had no success because the government brought paper money to a par with gold in 1875 through the Specie Resumption Act. However, their efforts aimed at railroad regulation were more promising. Beginning in 1871, several states led by Illinois passed laws controlling railroad freight rates and grain elevator charges. The railroads fought these measures, which they called "Granger

Laws," in federal court, where they were ruled unconstitutional. Though the Granger Laws were declared unconstitutional, they marked the beginning of a new era in which government would assume more responsibility for regulating the actions of common carriers and their associated businesses.

In addition to their political ventures the Grangers went into business. They set up cooperative creameries, elevators, and warehouses; they also organized insurance companies and attempted the manufacture and sale of farm machinery. Eventually, most of these ventures failed because of intense competition or mismanagement. By the late 1870s the Grange was declining; its business activities disappeared and it ceased to be an aggressive political and financial lobby. Nevertheless, Grange social activities continued and it remains in existence.

The Grange was replaced at the forefront of the agrarian revolt by the Farmers' Alliance. Between the mid 1870s and 1880 two Alliances emerged: the Northwestern, or Northern Alliance, and the Farmers' Alliance and Industrial Union, better known as the Southern Alliance.

The Northern Alliance was founded in Illinois in 1880, and soon spread to other Midwestern states, especially Nebraska, Kansas, and Iowa. By 1882 the Alliance claimed to have 100,000 members. After that it declined for a while, but hard times in the late 1880s spurred further growth. By 1890 the Northern Alliance had become a force to be reckoned with.

The Southern Alliance began in Texas in 1875. Originally a cattlemen's association in Lampasas County, it soon grew into a statewide organization with both a social and political agenda. By 1886 it seemed on the verge of dissolution because of disagreements about whether or not to enter into politics, but then Charles William Macune became president. His leadership not only averted the split, but launched the Alliance on a course of expansion. By the end of 1887 the Alliance had spread to every southern state. It appealed to farmers because it was portrayed as a cooperative business venture. With cotton prices collapsing this idea seemed to offer a ray of hope.

By the end of the 1880s both national Alliances had identical platforms. They called for government regulation or ownership of the railroads, currency reform, abolition of the national banks, and abolition of alien land ownership. As their goals were similar there was talk of union, but it never occurred. This was because of the race issue—the Northern Alliance allowed black farmers to join—and because the Southern

Alliance was larger. Northern leaders feared they would lose their positions in a combined Alliance.

Like the Grange, the Alliances had a social program designed to improve the lives of farmers and their families. It consisted of meetings, picnics, debates, musical performances, and the like. There was an educational program carried on through lectures and publications, and the Alliances also entered business, usually by forming cooperatives to buy and sell products and insurance. These efforts were temporarily successful but eventually most of them failed.

More important was the Alliances' entry into politics. They wanted reforms and pursued them by attempting to influence politicians in the major parties to adopt their platforms. In 1890 numerous Alliance men were elected to office in states like Kansas, Nebraska, South Dakota, South Carolina, and Georgia. However, there were not enough of them to achieve all their goals and this led many to consider the creation of a national third party.

The Peoples' party—better known as the Populist party—was born at a meeting in St. Louis in 1891. It held its first national convention in Omaha the following year and nominated James B. Weaver of Iowa for president. The party platform reflected the demands of the Farmers' Alliances but there was a major change in the money plank. It now called for the remonetization of silver in order to expand the money supply. Silver had been demonetized in 1873, restored in 1878, and demonetized again in 1893. Demonetization means that silver was dropped as a basis for the value of currency.

In the election of 1892 Weaver polled nearly a million votes, mostly in the Midwest. During the next four years the party flourished. It elected numerous members to state legislatures and several governors. Free and unlimited coinage of silver at 16 to one became the party's battle cry. This meant the Populists wanted the United States' Treasury to buy all the silver produced by U.S. mines, peg its value at 1/16th that of gold, and mint as much silver coinage as possible. They believed that this formula would create a financial system that would meet their needs by producing a controlled inflation.

In 1896 the Democrats, led by William Jennings Bryan (1860–1925) of Nebraska, adopted the Populist platform for the presidential campaign. The Republicans, led by William McKinley (1843–1901), supported the gold standard. McKinley won and after his victory farm prices began to improve. This was because new discoveries of gold increased the supply and

because the Treasury put more banknotes into circulation. The Populist party collapsed and the farmers' revolt was over.

The early years of the twentieth century and the years of World War I (1914–18) were fairly prosperous for U.S. farmers but the twenties were not. Once again overproduction and falling prices combined to wreak havoc in the agrarian community, but this did not lead to the rise of national protest movements like the ones in the late nineteenth century.

During the Great Depression (1929–39) conditions worsened and before President Roosevelt's (1933–45) New Deal there were some efforts to organize. The best known of these was the Farm Holiday Association (FHA) in Iowa in early 1933. Led by Milo Reno, the FHA wanted to persuade farmers to withhold their produce from the market until prices went up. In some cases there were efforts to force farmers to comply, and in March 1933, the FHA threatened a nationwide farmers strike. They also sought to intimidate sheriffs and judges from exercising foreclosure sales. When President Roosevelt made it clear that he intended to assist farmers as soon and as much as possible, the movement quickly declined.

See also: Farmers' Alliance, National Grange

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FEDERAL DEBT

The federal debt is the amount of money that the federal government has borrowed and not yet paid back. The government pays for most of its operations by raising money through taxes, but when tax revenues are not enough to cover everything the government wants to do, it borrows the rest. In that sense, it is like a family borrowing something extra each month to pay its bills. The government borrows by selling bonds, notes, and Treasury bills to investors. These debts pay a rate of interest to the lender. As may be expected, the federal debt rises in times of war and other calamities, when the government is borrowing heavily to accomplish its ends. The debt then tends to shrink back down after the crisis passes as the government gradually pays off what it borrowed. Intense public debate has raged in recent decades over how large the federal debt should be. Economists who favor an expansive government role argue that some federal debt is no problem. For example, in times of unemployment the government should borrow more and then spend the money on job-producing programs. On the other hand, fiscal conservatives maintain that too high a federal debt is bad for the economy. When the government competes for dollars with all other borrowers, interest rates tend to rise dampening economic activity. In the recent history of the United States, the federal debt was very high during World War II (1939–1945); it fell in the years after that and rose again in the 1980s during the military build-up during the final stages of the Cold War; then it began to fall again during the economic boom of the 1990s.

See also: Keynesian Economic Theory

FEDERAL DEPOSIT INSURANCE CORPORATION

“Deposits insured by the FDIC.” Many banks today promote the insurability of customer deposits with this simple slogan, but this wasn’t always the case. Prior to 1933, people depositing their money into a bank had no guarantee that their money was safe. From the stock market crash of 1929 to the first years of President Franklin Roosevelt’s (1933–1945) administration, nine thousand banks collapsed, and depositors lost \$1.3 billion.

Public confidence in the banking system collapsed along with the banks. In the hard times of the Great Depression, the government needed to bolster public confidence and maintain financial stability in the nation. The Federal Deposit Insurance Corporation (FDIC)

was an effort to do just that. When the Glass-Steagall Act became law in 1933, it provided for the creation of the FDIC, which provides insurance coverage for bank deposits.

The FDIC insures deposits in national banks, Federal Reserve member state banks, and state banks that have applied for federal deposit insurance and meet FDIC qualifications. After its inception, the FDIC tried to repay all deposits, regardless of whether they occurred at an insured bank or were over \$100,000. This method was felt to be the best way to keep public confidence in the banking system high.

In the 1980s, however, the country experienced a savings and loan crisis. Between 1980 and 1990, 1,110 banks failed. Their failure was caused in part by bad loans in a weak real estate market and also by risky loans to developing countries. Until this time the Federal Savings and Loan Insurance Corporation handled insured deposits at savings and loan associations. With the FDIC Improvement Act of 1991, the FDIC was given authority to insure deposits at savings and loan associations and new restrictions were made on how the organization repaid lost deposits.

The FDIC now operates by a “least-cost” method. If an insured bank collapses, the FDIC pays up to \$100,000 of a depositor’s claim. It is not allowed to cover uninsured depositors unless the president, the secretary of the treasury, and the FDIC jointly agree that failing to do so would seriously effect the economic conditions of the nation or the community.

See also: Federal Reserve System, Glass-Steagall Banking Act

FEDERAL RAILROAD ADMINISTRATION

For many years the economic practices of the transportation system in the U.S. were unregulated. In 1887, railroads came under federal regulation to curtail abuse of railroad monopolies. The U.S. railroads were the first large monopolies in the U.S., and society was not certain how to protect itself from them. Regulation of the railroads, first enforced by the Interstate Commerce Commission, controlled rates, and provided that railroads could not charge more for a short haul than for a long haul over the same route. Regulators tried to make railroads set rates that were “fair” to all users, communities, and industries served by the railroads. After World War II (1939–1945), it was clear that federal regulation of railroads was not working well.

Trucking and airline industries took much business away from the railroads. Most of the railroads in the Northeast were bankrupt. One of those bankruptcies, Penn Central, was the nation's largest bankruptcy to date. Circa 1970, many of the regulatory shackles were removed from the nation's carriers, including the railroads. In 1966, the Department of Transportation created the Federal Railroad Administration (FRA). The FRA, operating within the U.S. Dept. of Transportation, sets train regulations, including transportation safety, and movements of hazardous materials. The FRA has also moved in the direction of creating partnerships among rail labor, rail management, rail suppliers, passenger and freight railroads, and state and local governments, and the federal government.

See also: Free Trade, Monopolies, Railroad Industry

FEDERAL RESERVE ACT OF 1913

On December 23, 1913, President Woodrow Wilson (1913–1921) signed the Federal Reserve Act, and thereby created the Federal Reserve System. The Federal Reserve Act was intended to prevent a national financial crises and promote economic stability. The legislation established a national system for governmental regulation of currency supply and federal distribution of currency to banks. The Act also relocated supervision of the banking system from the private sector to the federal government. After years of popular national opposition to the federal government's involvement in the banking system, the passage of the Federal Reserve Act was a turning point. The Act represented a recognition that banking and currency would remain unstable without a unifying regulatory system at the national level.

Opposition to a federal banking system dated back to the United States' beginnings. The newly formed United States was largely agrarian, with little banking experience and a deep distrust of any central government activity. Nevertheless, many congressional members believed that a banking system was crucial to the fledgling nation's economic development. Under leadership of the first Secretary of the Treasury, Alexander Hamilton (1755–1804), Congress established the First Bank of the United States in 1791. However the First Bank (and its successor the Second Bank, established in 1816) fell prey to fears that the federal government's power was excessive at the states' expense. As the nation expanded a stampede ensued to establish state

banks under numerous state laws. These banks wildly vacillated between freely issuing bank notes and lending money, to tightening down on the money supply. Bank failures and loss of depositors' savings were widespread.

Not until the nation was faced with the financial demands of the American Civil War (1861–1865) did the government attempt to intervene in the financial sector again. Congress passed National Bank Acts in 1863 and 1864. The acts created a system of privately owned banks called "national" banks because they were chartered and regulated by the federal government. The national banks issued a uniform currency nationwide, but the national bank system was not equipped to meet the money supply needs of a rapidly expanding economy.

[THE STRUGGLE THAT PRODUCED THE FEDERAL RESERVE ACT] IS NOT MERELY A CHAPTER IN FINANCIAL HISTORY; IT IS ALSO AN ACCOUNT OF THE FIRST BATTLE IN A CAMPAIGN FOR SAFE AND SCIENTIFIC BANKING.

H. Parker Willis, first Secretary of the Federal Reserve Board, 1923

A series of devastating cash panics between 1873 and 1907 focused public attention on the need for more extensive banking and monetary reform. The Aldrich Vreeland Act of 1908 provided temporary issues of emergency currency. In 1910 the National Monetary Commission began extensive investigations of the banking system, laying the groundwork for the system's reform. After much Congressional debate and compromise, the Glass-Owen bill—the Federal Reserve Act—was passed and signed into law in 1913.

Careful to avoid the label "central bank," the Federal Reserve Act diffused bank supervision by creating 12 Federal Reserve Districts. Each district had a Federal Reserve Bank and a Federal Reserve Board to oversee and coordinate operation for the entire system. To ensure that commercial bankers throughout the country would have a voice, the Federal Advisory Council was established and composed of twelve members, one from each Federal Reserve district and elected by member banks of that District.

All national banks had to belong to the entire system. Member banks also included a small number of state-chartered banks that were willing and qualified to join. The required investment of each member bank was six percent of its capital. Each member bank received an annual dividend of six percent of the amount it invested in the Reserve Bank.

Federal Reserve System

Passage of the Federal Reserve Act began a long organizing process. Section 10 of the act charged the Federal Reserve Board with establishing a centralized banking system to meet the challenging and changing needs of the U.S. economy. The board, based in Washington, D.C., consisted of seven members serving 10-year terms. The board members were: the Secretary of the Treasury, the Comptroller of the Currency, and five members appointed by the President of the United States with consent of the Senate. In order to avoid potential domination by any region, the act specified that no more than one of the five appointed members could be from any one Federal Reserve District. To eliminate partisan pressures the framers of the act intended that the appointees be public figures who could not financially benefit from board decisions. The act also required that at least two board members be knowledgeable in banking and finance so that the commercial and financial needs of the nation were addressed according to scientific principles. To insulate the board from the legislative branch, all expenses were paid from Reserve Bank earnings rather than congressional appropriations. Once they were appointed, board members were neither directly responsible to the president nor to any other branch of the federal government.

The Federal Reserve Board was charged with establishing and overseeing the twelve Reserve Banks. In addition, the board would examine the accounts, books, and affairs of reserve and member banks, and review discount rates (the rate charged to member banks for loans from Reserve Banks) set by each Reserve Bank. The Federal Reserve Board was also charged with oversight of currency circulation. This included regulating the amount of gold reserves held against Federal Reserve notes (paper money), supervising the issue and retirement of notes, serving as a central clearinghouse for checks, and executing various supervisory and regulatory functions pertaining to Reserve Banks.

Conflicts arose between the Federal Reserve System and U.S. Treasury. The Banking Act of 1935 diffused the discord by removing the Treasury Secretary and Comptroller of the Currency from the Federal Reserve Board. All seven board positions became presidential appointees. The 1935 act also established the Federal Open Market Committee (FOMC), a group consisting of the seven board members and five of the twelve Reserve bank presidents. For over fifty years the powerful FOMC held complete control over the country's money supply.

By the end of the twentieth century the Federal Reserve System remained largely an independent agency

of the government. At that time the system controlled the flow of money and credit in three ways. First the Federal Reserve System conducted open-market sales or purchases of government securities; second, the system raised or lowered the discount rate. Finally the Federal Reserve System changed reserve requirements—the percentages of deposits that a member bank must hold as currency in their vaults or as deposits in their district Federal Reserve Bank. The Federal Reserve System continued to grow and undergo adjustments, assuring economic stability in the United States.

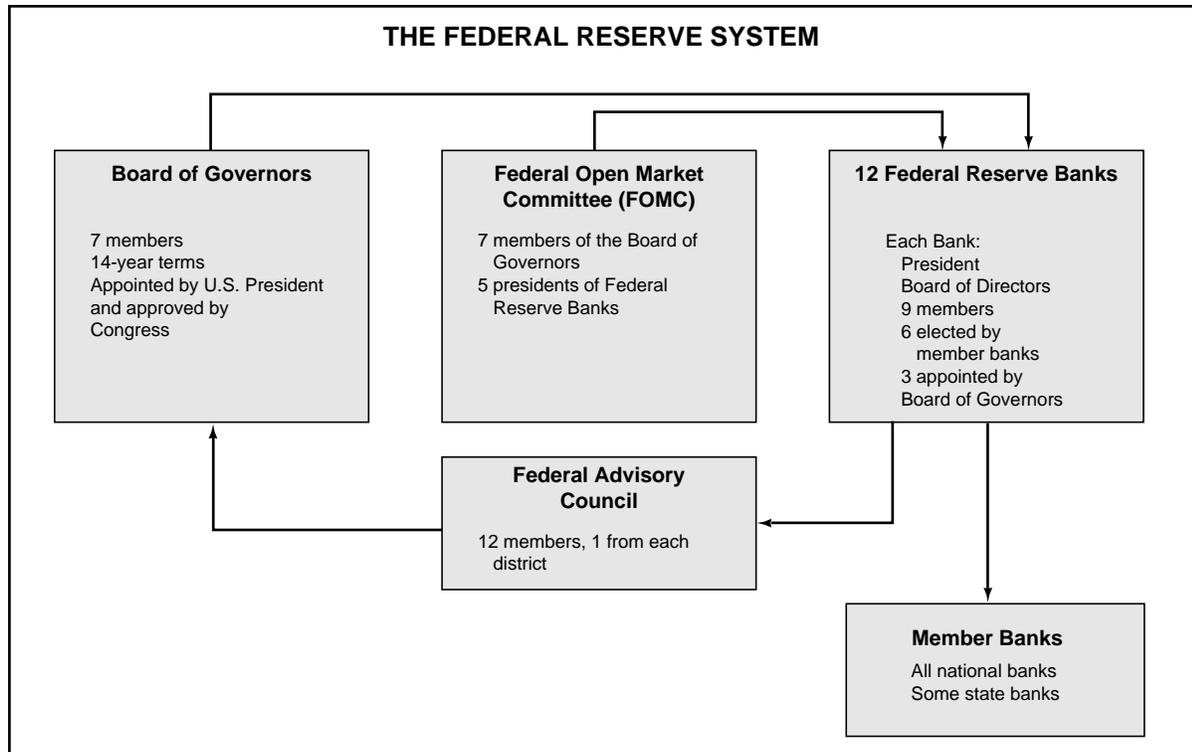
See also: *Bank of the United States (first), Bank of the United States (second), Woodrow Wilson*

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FEDERAL RESERVE SYSTEM

The Federal Reserve System, also known simply as “the Fed,” is a U.S. central bank. Its primary role is to influence the amount of money and credit circulating in the economy in order to promote full employment, stable prices, and economic growth. It also regulates and supervises the U.S. banking industry, distributes currency and coins, clears checks, and handles some electronic funds transfers. Unlike traditional banks, the Fed's purpose is not to make a profit but to serve the national interest. Moreover, its customers are not individual citizens but the roughly 4,300 banks that make up its members. The Fed is governed by a seven-member Board of Governors appointed by the President of the United States and it is led by the Board's chairperson, who since 1987 has been Alan Greenspan



The Federal Reserve System is the central bank of the United States. This non-profit, semi-public organization is run by presidential appointees. Its main function is to influence the amount of money and credit circulating in the economy to insure economic stability.

(1926—). Although the Board determines the Fed's policies, the twelve district Federal Reserve banks, located in major cities across the United States, perform its day-to-day operations.

The Federal Reserve System came into being after four financial panics destabilized the U.S. economy between 1873 and 1907. Congress established the National Monetary Commission to determine what made the U.S. banking system so susceptible to these periodic crashes. The commission's report led directly to the Federal Reserve Act of 1913, which created the Federal Reserve System. Initially, the Fed performed only the narrow functions of lending money to banks when they could not get loans elsewhere, supervising the banking industry, and increasing or decreasing the money and credit supply in response to changing economic conditions. However, many believed that the Great Depression of the 1930s occurred in part because the Fed did not provide banks with enough reserves to make loans that would have increased the money supply and kept the economy from contracting. In response, Congress passed the Banking Act of 1935 to give the Fed greater controls over the minimum amount of reserves each member bank needed to make loans. The Full Employment Act of 1946 empowered the Fed to make full employment and stable prices explicit

goals of its policy, and the Full Employment and Balanced Growth Act of 1978 required that the Fed publicly state what the objectives of its monetary and credit policies are. In the 1980s, under President Ronald Reagan (1981–1989), the Fed adopted a monetary policy of maintaining specific rates of growth in the money supply.

See also: Central Bank, Federal Reserve Act of 1913, Financial Panic, Alan Greenspan

FEDERALISM (ISSUE)

Federalism is the division of powers and duties among various levels of government. In the U.S. context federalism refers to the division of powers and duties among the state governments and the federal, or national, government.

Ever since the founding of the British North American colonies in 1607, the United States struggled with federalism in five distinct phases. During the colonial era, federalism's first phase, colonial governments controlled local affairs but deferred to Britain to set policies for the whole British Empire. The question on where to draw the lines of power between a central government and the colonial/state governments arose

beginning with the Stamp Act crisis in 1765, when colonists first started to question the imperial relationship with the United Kingdom, through to the era of the American Revolution (1775–1783). At that time, a first response was to keep governmental power as close to the people as possible, which meant leaving governmental power in the localities and transforming colonial government into state governments.

Still some central government proved necessary to carry on the war effort against Great Britain during the Revolution, and also to conduct foreign relations and to secure foreign aid. To meet this need the Second Continental Congress (an *ad hoc* national body) drafted the Articles of Confederation which took effect in 1781. In this second manifestation of federalism, power remained in the states which confederated themselves for limited national purposes stated in the Articles of Confederation.

A flaw developed in this scheme: the states acted in their own interests often at the expense of other states and any national interests. As a result, the Articles of Confederation seemed inadequate which led to the drafting and ratification of the Constitution in 1787–1788. When the first Congress met under the new Constitution in 1789, Americans experienced a new form of federalism. States retained large powers over their populations and some concurrent powers with the federal government, while the central government possessed enumerated powers to both defend itself against the states *and* check any excess of power in the states. Scholars describe this phase of federalism as dual federalism.

Over time, defenders of minority interests began to claim that not only did states have rights, but they were also sovereign. Southerners, in particular, argued in favor of this state sovereignty position to defend their declining numbers in the country, their lifestyle, and their form of property (slaves). Was the United States a national Union or a mere confederation of the states? Southerners answered this question by claiming to secede to form their own confederation in 1861, while Northerners and Midwesterners believed that secession from a national Union was impossible; the result was the American Civil War (1861–1865) and Reconstruction (1865–1877).

With the end of the war and the process of Reconstruction under way, the nation adopted the Fourteenth Amendment to the Constitution on July 9, 1868. This amendment, which marks the beginning of federalism's fourth phase, rearranged the division of powers and duties among the levels of U.S. government. With the Fourteenth Amendment national power prevailed

over state power. An understanding of this form of federalism can be seen in a key U.S. Supreme Court decision that defined federalism after the Civil War, *Texas v. White* (1869). For a unanimous Court, Chief Justice Salmon P. Chase stated that “the Constitution in all its provisions looks to an indestructible Union composed of indestructible states.” While the states would not disappear or be absorbed by the central government, neither would they be as free to set policies as prior to the war.

States played an important role in the lives of U.S. citizens up to the Great Depression (1929–1939). With the Depression and President Franklin Roosevelt's (1933–1945) New Deal to overcome the economic catastrophe of the Depression, federalism shifted into its fifth phase. National power came to dominate American lives in ways never before imagined because bureaucratic federalism emerged. In this form of federalism, Congress, federal agencies, and federal bureaus set national policies and mandates, and the states complied. The states deferred to national authority as more power shifted to the national government. This trend slowed during the 1980s and 1990s when public concern grew that the central government was too powerful and the states too weak. As a result, in the late 1990s federalism might be shifting back towards a more balanced national picture of federal power co-existing with viable and responsible state governments.

See also: Constitution (Economic Benefits of), Stamp Act, States' Rights

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FIELD, MARSHALL

Marshall Field (1834–1906), the founder of one of the world's largest department stores, represented for many U.S. citizens of his generation an example of the

**Marshall Field.**

classic rags-to-riches success story. Field, the tenth richest man in U.S. history, originated the “customer is always right” policy and introduced many other now-standard retail practices including liberal credit, openly displayed prices, an in-store restaurant, and acceptance of returned merchandise.

Field was born in 1834 and raised on a farm near Pittsfield in western Massachusetts. He left school at age 17 to work in a local dry goods store. After five years his employer offered him the opportunity of an eventual partnership in the store, but Field declined, deciding that opportunities for an ambitious young man lay further west. In 1856, at age 22, armed with a reference from his boss describing him as “a young man of unusual business talent,” Field left New England for Chicago, then a rude, muddy, and vibrant city that had just produced its first generation of millionaires. Field’s older brother, Joseph, helped secure him a job with Cooley, Wadsworth and Co., the city’s largest dry goods store. The small, serious, and polite Marshall Field arranged to live and sleep in the store, and thus he managed to save half of his small income. Field, who came to be known as “silent Marsh” because of his retiring social manner, was determined to make a success of himself. In less than four years, he had become a full partner in the store.

When Cooley retired in 1864, the store became known as Farwell, Field, and Company. Field soon left the store to join with a partner, Levi Leiter, in a new and expanded dry goods business, which they called Field, Leiter. The firm grossed \$9 million in its first year (1867). Field worked day and night to build his business and make it a success.

The firm’s first major building, a grandiose edifice at the corner of Washington and State Streets in downtown Chicago was only three years old when it went up in smoke in the Chicago Fire of 1871. Field was back in business in a new building by the following year. In 1877 Field, Leiter was again devastated by fire. The building was a total loss, but Field, more than adequately insured, was again able to immediately rebuild.

THE CUSTOMER IS ALWAYS RIGHT.

Marshall Field

At a relatively young age, Field had become well known for his hard work, shrewdness in business, honesty, merchandising skills, and penny-pinching personal habits. In 1881 he bought out his partner, Leiter, for \$2.5 million. By 1888 he was an extremely rich man and a director of at least 28 major corporations. His store continued to thrive during Field’s lifetime and throughout the twentieth century. At his death in 1906, Field left an estate valued at \$125 million, the equivalent of \$40.7 billion in 1998, according to *American Heritage*. Among his bequests were substantial gifts to the University of Chicago and the museum that later became the Field Museum of Natural History.

See also: **Chicago Fire of 1871, Department Store**

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FIFTEENTH AMENDMENT

The Fifteenth Amendment to the U.S. Constitution (1789) guarantees that an American citizen cannot be discriminated against in exercising the right to vote. The amendment was proposed in Congress on February 26, 1869, and ratified by the required number of states on February 3, 1870. The amendment states that the “right of citizens of the United States to vote shall not be denied or abridged by the United States or by any state on account of race, color, or previous condition of servitude.” Though the language applied to people of all races, it was sometimes called the Black Suffrage (right to vote) Amendment because, during the period in which it was passed, legislators intended to prevent southern states from denying African American citizens the right to vote.

After ratification of the Thirteenth Amendment (1865), which outlawed slavery throughout the Union, the U.S. Congress made approval of the Fourteenth and Fifteenth amendments a prerequisite for reentry to the Union. Before a southern state could be readmitted, its legislature had to approve both amendments. Congress thus assured that former slaves would be made citizens of both the United States and the state where they lived, that equal rights would be granted to all citizens, and that suffrage (the right to vote) was extended to African American men. Under these conditions all southern states were readmitted to the Union by July 15, 1870.

By the end of the 1800s, however, state legislatures in the South had devised ways to prevent their African American citizens from voting. Methods included instituting a poll tax (requiring a voter to pay a fee in order to cast his vote) and literacy tests, which had to be passed as a prerequisite for voting. Most states also adopted legislation by which voting rights were extended only to those citizens who had been able to vote in 1867—a date when few if any African Americans would have had the right. Because these laws also established high voting requirements for the descendants of men who could not vote in that year, they were called “grandfather clauses.”

Attempts to deny citizens the right to vote were made unlawful in 1964 by the Twenty-Fourth Amendment to the U.S. Constitution. (One of the features of that Amendment outlawed the poll tax in federal elections and primaries.) Moreover, in 1966, poll taxes at state and local levels were also declared illegal. Literacy tests and grandfather clauses were also struck down as unconstitutional.

See also: Poll Tax, Thirteenth Amendment

FINANCIAL PANIC

A financial panic is a sudden, drastic, widespread economic collapse. All at once, many people become convinced their money or investments are at risk and rush to the institutions holding their assets. Unable to pay back all their customers at once, the institutions go bankrupt, starting a domino effect that brings down the whole economy. Typical “symptoms” of a panic are many bankruptcies, loan defaults, or bank failures at the same time; It also includes a period of intense stock market or real estate speculation followed by a steep decline in prices; and/or a sudden run on banks by large numbers of people trying to withdraw their deposits.

Between 1790 and 1907 there were 21 financial panics in the United States. The first major panic occurred in 1819, when the Bank of the United States, the nation’s central bank, tried to reduce the number of new speculative banks being founded in the United States. The bank called in its loans to the new speculative banks and required them to redeem their paper bank notes for hard gold and silver. Many of these banks had printed far more notes than they had real reserves and quickly failed. The Panic of 1837 was also the result of the government’s attempt to control the rapid spread of bank notes not backed up by hard currency. The Panic of 1857 came about when U.S. banks overextended themselves loaning money to railroads, and railroads defaulted on their bonds. Several hundred U.S. banks failed.

Other painful panics followed in 1893 and 1907, but it was the anxiety brought on by the stock market speculation of the 1920s that caused the most destructive panic in U.S. history—the stock market crash of 1929. By October 1929, the stock market had climbed to new heights in part because anyone could buy a stock by putting down only a fraction of its face value. Many investors became wealthy on paper but there were few real assets behind the speculative frenzy. When millions of investors simultaneously began selling their shares, the prices of stocks plummeted and many paper fortunes were wiped out sparking the Great Depression (1929–1939). Because of the severity of the panic of 1929, the U.S. government implemented fundamental reforms that have prevented the recurrence of a major financial panic through the end of the twentieth century.

See also: Currency, Money, Panic of 1919, Panic of 1837, Panic of 1907, Panics of the Late Nineteenth Century, Stock Market Crash of 1929

FIRESTONE, HARVEY SAMUEL

Harvey Samuel Firestone (1868–1938) was an inventor and innovator, as well as a shrewd businessman. The company he founded in 1900 has been one of the largest in its industry, surviving two world wars and the Great Depression. Firestone personally pushed many of the industry's innovations, including vertical integration of rubber production in tire manufacturing and product retailing strategies.

Harvey Firestone was born December 20, 1838, in Columbiana, Ohio. His parents, Benjamin Firestone and Catharine Flickinger, were farmers from an Alsatian family residing in Ohio since 1807. Young Firestone was educated in a one-room schoolhouse. Uncommon in pioneer families, Firestone graduated from high school and completed a business college course in Cleveland before working as a bookkeeper and a salesman. His lifetime career in transportation and tires began with a job at the Columbiana Buggy Company, where he worked for his uncle, Clinton Firestone.

Firestone's salesmanship abilities earned him district responsibilities, and by 1892, he was in charge of the Michigan district. The buggy company went bankrupt in 1896, and Firestone decided the future was in wheels rather than carriages. With a friend's help and investment, Firestone established a rubber wheels company in Chicago in 1896. He sold the company in 1899 and pocketed \$40,000. Taking this cash and a patent for attaching rubber tires to wheels, Firestone moved to Akron, Ohio, then the center of rubber tire manufacturing. With \$10,000 of his own cash and his patent, he established the Firestone Tire and Rubber Company, retaining 50 percent ownership of the company.

For the first few years, Firestone had others manufacture his tires, and the company did not do well. In 1903 the company began to manufacture its own product and improved its performance. Firestone decided to cater to the needs of the fledgling automobile industry, and he began to produce a pneumatic tire for autos. In 1906 Henry Ford (1863–1947) placed a large order for tires for his new automobiles, and Ford and Firestone established a sound personal and business relationship that would last for many years.

Firestone's innovations included the 1907 "dismountable rim," which allowed the wheel and tire to be removed together. The spare tire was born. Firestone promoted his tires through support of the racing industry, piggy backing his product with the rising popularity of the new sport. By 1913 the Firestone Tire and Rubber Company's sales topped \$15 million, and it joined the ranks of the "Big Five" of the tire

industry, along with Goodyear, Goodrich, U.S. Rubber, and Fisk.

After World War I (1914–1918), the depression of 1920–1921 hit Firestone Tire and Rubber hard. The company had a debt of \$43 million, and Firestone's answer was to cut prices to increase sales, while cutting wages to decrease costs. Decreasing wages was, of course, unpopular, but Firestone was still able to forestall unionization until the 1930s. By 1924 the debt was paid off, and Firestone's company was again in good financial shape.

Firestone promoted the use of motor driven trucks, the building of the American highway system, and the elimination of railroad grade crossings. In 1923 he introduced the balloon tire, which shortly became the standard for motor vehicles. From 1922 to 1924 the price of rubber became a critical problem for the tire and automobile industries. Great Britain controlled a majority of the world's rubber supply via the Crown Colonies, and it tried to restrict rubber production to drive up prices. To combat the problem, Firestone and Henry Ford worked together to develop rubber plantations in the African nation of Liberia.

Firestone's efforts in Liberia helped break the rubber cartel. It also made him a major player in the economy of the African nation. Firestone made improvements to the harbor in Monrovia, loaning the Liberian government millions of dollars, and built quarters for his workers that included sanitation. Despite his efforts there, allegations of slave traffic and worker exploitation were made against Firestone and his operation in Liberia. At the end of the controversy, a 1930 League of Nations inquiry exonerated Firestone and his labor policy.

Another of the innovations Firestone brought to the tire and rubber industry was that of the "one-stop master service store," which he designed to provide tires, gasoline, oil, batteries, and brake service through a single outlet. Firestone's plan, which was first put in place in 1928, was to build these establishments throughout the country. Eventually, the stores included auto parts and provided even more services.

Through sound business management, the Firestone Tire and Rubber Company made it through the Great Depression (1929–1939) without suspending dividend payments. Firestone even managed to expand his operations through the 1930s, and by 1937, his firm had one-quarter of the tire market in the United States and showed over \$9 million in profits on sales of over \$156.8 million. Firestone Tire and Rubber Company had twelve factories in the United States and five plants abroad making rubber, steel, and textile products.

Fiscal Policy

Firestone stepped down as president of his company in 1932, but remained chairman of the board until his death in 1938.

Harvey Firestone was active in Republican politics and the Episcopal Church. He served as president of the Ohio Federation of Churches. He married Idabelle Smith in 1895, and they had five sons: Harvey S. Jr., Russell Allen, Leonard Kimball, Raymond Christian, and Roger Stanley. All of Firestone's sons were active in his business. Harvey Firestone died February 7, 1938, in Miami Beach, Florida.

See also: **Tire and Rubber Industry**

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FISCAL POLICY

Fiscal policy concerns the federal government's use of taxation and public spending to affect the general flow of the economy. If, for example, the government wanted to stimulate consumer spending it might cut taxes and spend more on government programs, which would have the effect of giving consumers more cash. If, however, the government wished to cool off an economy that was in danger of inflation, it might raise tax rates and cut government spending to dampen economic activity. During the 1950s and 1960s many economists, especially followers of the British economist John Maynard Keynes (1883–1946), believed that fiscal policy could be used to fine-tune the economy. Some believed, for example, that the government might achieve a certain level of unemployment or gross domestic output through fiscal policy.

However, later economists came to discredit this notion. They believed that government attempts to fine-tune the economy through fiscal policy were more likely to create problems than solve them.

See also: **Keynesian Economic Theory**

FISHING INDUSTRY (COMMERCIAL)

Although the U.S. commercial fishing industry had seen many changes since its earliest days, it has remained an important part of the economy for many communities, states, and countries. Throughout the twentieth century, an ever-increasing population fueled many changes in the industry, including technological advances in fishermen's ability to catch, successfully transport, and sell products. It also caused a constant increase of the number of fishing fleets around the world. These changes were a mixed blessing for the industry. A widespread demand in the use of ocean products (ranging from the use of fish protein as an additive in livestock feed to fish burgers at the local drive-through window) made the industry extremely profitable. On the other hand, this increase in demand also meant an increase in the number of fleets, industry investors, and fisherman, which eventually ended in the world's oceans becoming over-fished.

The first fishing vessels were powered by sail, and they were developed to fill the needs of the particular fishing region. This meant that the design of boats from different regions varied according to a particular environment or fishery. In the nineteenth century larger steam-driven winches replaced sailboats, allowing for heavier fishing gear and larger crews. By the end of the nineteenth century the internal combustion engine supplanted steam, and in the early twentieth century the inboard diesel engine had become accepted worldwide as the propulsion of choice.

These improvements in the overall size, speed, and range of fishing vessels led to advances in the methods used by fisherman to increase fish hauls. Larger catches, translating into larger profits, could now be obtained by increasing the number of hooks per line from one to over one thousand. Single traps were networked into a system of hundreds of connected traps. Nets became much larger, and their development even initiated a sub-industry in support of commercial fishing. Net-making is an industry that evolved from the making of nets from linen and hemp to the making



Fishing trawlers harvest many of the ocean products that are in demand in the U.S. as well as abroad.

of nets from cotton and hard fibers woven by rapidly moving machines. Small family fishing boats and cast netters were finding it tough to compete with the volume and subsequent lower price produced by the larger commercial fishing fleets.

Several developments during the 1940s and 1950s had a very significant impact on the profitability and stability of the commercial fishing industry. Mechanization made significant advances in netting methods when the power block was invented, which made it easier for fishermen to haul and store gear while purse seining (a method of fishing using a net that is weighted at the bottom and has floats along the top). Also important was the introduction of devices such as the power-driven drum designed to carry and store seine nets, gill nets, purse seines, and even the large trawl nets. Perhaps the most important development of the decade came with the invention of stern trawlers that processed their catch on board. Developed by the British, this idea was eagerly copied by many countries, including the Soviet Union, Japan, Poland, and Spain. The importance of this technology went beyond the vast quantities of ocean products that could now be processed at sea and sold more quickly back on land. The new technology brought about the collapse of some resources harvested by these highly efficient seiners and with it the realization that these resources were not limitless and needed to be protected.

In 1972 Iceland became the first country to claim an extended fisheries limit of 50 miles. In 1975 it extended this limit to 200 miles. Several countries followed Iceland's lead and soon the Law of the Sea was passed. This allowed for an exclusive economic zone of 200 miles off the coast of each country.

Many coastal communities in the United States are today supported by the commercial fishing industry, which became the largest private employer in states such as Alaska. According to government statistics printed in *U.S. Industry Profiles* in 1995, 364,000 people were employed in fishing industries in 1988. Of that number, 274,000 were fishermen and 90,000 were shore workers.

Although the industry is quite large in certain areas, pay levels are low. Compensation of fishermen is usually based on the percentage of the catch brought in by their captain's boat. Based on the earnings information of 1988, published in *U.S. Industry Profiles*, an inshore fisherman working within three miles of shore received an average salary of between \$15,000 and \$20,000, while an off-shore fisherman working outside the three mile limit earned an average of \$30,000.

Not all of the profits generated from the commercial fishing industry come from the sale of ocean products. Freshwater fishing, carried out in lakes, rivers, or streams, does contribute a small percentage of the fish consumed globally. Fresh water fisheries tend to be more specialized depending on the species of fish they are producing. Fish such as the salmon and sturgeon that live in the sea but spawn in fresh water, and the eel that lives in fresh water but spawns in the sea, have forced these fisheries to become as specialized as they are. Other contributions to the specialty of fresh water fishing are the variations in the physical and chemical properties of fresh water in different areas and the overall size of the body of water itself.

Fish farming in aquatic hatcheries is another form of revenue supporting the fishing industry. Fish farming is the practice of raising generations of fish in controlled environments free from predators and maintained in optimal conditions. These fish farms supply plants and animals for a variety of purposes, including the production of animals for live bait, stocking purposes for sport fisheries, as well as the needs of the pharmaceutical industry. Many of the products of fish farms are the high-priced species that are sold as fresh products. Among these are shrimp, salmon, and oysters. The depletion of natural sources has helped provide more demand to support these hatcheries and it has allowed them to expand their production to other

Five Civilized Tribes

species, some of which are fresh water varieties, like catfish and trout.

Although fish farms offered the fishing industry several alternative methods of production, industry experts maintained concern with the depletion of resources in the world's oceans. Traditional techniques for managing fishery resources remain under close scrutiny, and calls for greater regulation of the industry have grown in number. According to Amos Eno, spokesperson for the National Fish and Wildlife Association, marine fisheries were the single most threatened resource in the United States in the late 1990s.

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FIVE CIVILIZED TRIBES

Five Civilized Tribes is a name white settlers gave to the Chickasaw, Choctaw, Cherokee, Creek, and Seminoles in the 1800s after these Native American tribes adopted Christianity and European customs. When the colonists arrived on the North American mainland, these native peoples were living in the southeastern United States. They had settled there in small villages and farmed and hunted for subsistence.

The Indians were not immune to many illnesses the settlers brought to the new world. Smallpox, measles, pneumonia, and other sicknesses claimed many lives and reduced the populations of these tribes by an estimated 75 percent in less than two hundred years. Thus, by the time colonists won the American Revolution (1775–1783), relatively small numbers of Chickasaw, Choctaw, Cherokee, Creek, and Seminoles survived; of necessity they began to adapt to the

growing culture around them. They attended church services, sent their children to school, and even bought plantations. Nevertheless, under the Indian Removal Act of 1830 the U.S. government claimed the lands of the five tribes in Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, and Mississippi.

The government moved the tribes westward to “Indian Territory” in Oklahoma. The forced migration along the Trail of Tears, which claimed four thousand lives, was completed by 1842.

Installed in their new lands, each of the Five Civilized Tribes was given the status of a nation. While they lived on communally held land, each tribe drew up its own constitution, formed its own government, and set up schools. They successfully farmed the rich soil of their new lands in peace, but their independence was again threatened by the further encroachment of white settlers, who moved ever westward in what finally became the Land Rush (of 1889). Eventually the Oklahoma lands were opened to white settlers; the Five Civilized Tribes became increasingly assimilated into the culture around them. In 1907 the state of Oklahoma (which is a Choctaw word meaning “red people”) was created by merging Indian Territory with the Oklahoma Territory.

See also: Native American Policy, Oklahoma, Trail of Tears

FIXED INCOME

A fixed income is one in which earnings remain constant and do not fluctuate in relation to the current price levels in the economy. When the gain or yield of an investment has a more or less uniform rate of income or return every year, it is said to have a fixed income. Bonds, money market instruments, annuities, and preferred stocks all pay a specific interest rate or dividend and are examples of fixed income investments. People living on a fixed income have a difficult time when prices rise; an example is a retired person living off of a pension in a period of inflation.

FLAT TAX PROVISION (ISSUE)

A flat tax taxes everybody at the same tax rate. A graduated tax taxes at different tax rates. In the late-1990s flat tax proposition generated heated discussions not only about the legitimacy of the flat tax but also

I think that we are seeing Americans becoming better educated about the flat tax, about its pluses and minuses. I mean, even the Democrats have suggested various versions of a flat tax. I'm thinking of Congressman Gephardt's tax proposal. . . . So, whether you agree with the details of Steve Forbes's plan or not, he's certainly forced that issue in the American political agenda. I think we'll be hearing a lot more about it in the next couple of years.

David Yepsen, *Des Moines Register*, on C-SPAN, January 15, 1996

about the income tax itself and the Internal Revenue Service (IRS) that administers, regulates, and enforces it. That the system needed reforming was clear to almost every U.S. citizen. It was riddled with exemptions for everything under the sun. Most economists acknowledged that it stifled investment and entrepreneurship and that it was difficult to understand. But the pressing question was what should be done.

The Founding Fathers were opposed to any politics based on income differences because they feared it would lead to class distinctions in the law. They believed that comity and tolerance among the states and classes were the preconditions for a unified country. They forbade direct taxes unless apportioned among the states in order to prevent states from ganging up and placing the tax burden on outvoted regional interests. They preferred taxes, such as import tariffs and excise taxes, that are reflected in the price of a good and paid indirectly by consumers.

The revulsion that people felt toward direct taxation prevented the enactment of a federal income tax until the American Civil War (1861–1865). As the Union broke apart, so did constitutional scruples about income taxation. In 1861 Congress enacted the first federal income tax, at a rate of three percent on net incomes over \$800 and 1.5 percent on income from government bonds. The next year Congress passed another income-tax law. This one strengthened enforcement powers. The Revenue Act of 1862 also included explicit progressive taxation, applying higher rates to higher incomes. The rate schedule taxed incomes between \$600 and \$10,000 at three percent, between \$10,000 and \$50,000 at five percent, and over \$50,000 at 7.5 percent. Although the income tax provided almost \$350 million in war financing, the public never liked it. Several anti-income-tax leagues were

formed and public discomfort led Congress to repeal the first federal income tax in 1870.

Agitation in the West in reaction to hard economic times was the impetus for the second federal income tax. In the generation after the Civil War, the West was pitted against the Northeast over the money supply and tariffs. Westerners resented having to make mortgage payments for their farms and ranches to Wall Street financiers and having to buy goods from New England industries protected by high import tariffs, while they had to sell their commodities in the competitive market and absorb high railroad shipping rates. The anger swelled when economic downturns caused commodity prices to fall, especially in the late 1880s, culminating in the formation of the Populist Party in Omaha, Nebraska in 1892. Populists advocated ending the gold standard, reducing tariffs, and implementing a graduated income tax.

The Populists represented a threat to the Democrats, who had captured the White House and both houses of Congress in 1892 on a platform of lower tariffs. Although the Populist Party won only nine percent of the presidential vote, Populist ferment did not subside. Were it not for Democratic support for segregation, party strategists knew, many Southern votes would have gone Populist. The income tax became the instrument to keep Populist-inclined voters in the Democratic camp.

The income tax reappeared in 1909, when President William Howard Taft (1909–1913) wanted an increase in tariffs. To get the tariff through, Taft and Senate Finance Committee Chairman Nelson W. Aldrich agreed to accept the income-tax amendment to the Constitution because they did not think it would be ratified by the state legislatures, of which Republicans controlled a majority. But they underestimated the progressive swing in the country and the split in the Republican Party between Taft and Theodore Roosevelt (1858–1919). On February 3, 1913, Delaware, New Jersey, New Mexico, and Wyoming put the amendment over the top.

The states followed the federal example and by 1970 almost all of them had their own income tax. In the late 1990s, although the rich paid a disproportionate share, the bulk of the income-tax revenues came from the middle class. In the beginning the income tax was explicitly directed at the rich, and even at the end of the twentieth century any across-the-board reduction in marginal income-tax rates was denounced by some as “trickle-down” economics. But the income tax ceased to be an elite tax during World War II (1939–1945), when the need for revenues caused the

Florida

rich man's tax to be applied to 64 percent of the population. Since then, middle-class U.S. citizens have found themselves taxed at rates once thought excessive even for millionaires.

With countless loopholes, an army of income tax bureaucrats in the IRS, complex instructions, increased taxation year by year, and the poor and middle-classes forming the bulk of the tax burden, U.S. citizens agreed that something had to be done. The only real question was what to do about it. Modeled on a tax blueprint first developed in the mid-1980s by Stanford University economists Robert Hall and Alvin Rabushka, the flat tax provision gained considerable momentum in the late 1990s. According to proponents, it would abolish virtually all deductions and loopholes, terminate tax withholding, end the double taxation of savings and investment, shorten the income-tax form to the size of a postcard, and eliminate the capital-gains and estate taxes.

Flat taxes combine a consumer-income scheme tax which taxes at the household level and a value-added tax (VAT) that taxes at the business level. Income from employment is taxed at its destination (households); income from capital, net of investment, is taxed at its source (businesses). The business part of the tax is similar to a VAT. But besides subtracting its input costs and investment from total sales, each company deducts its labor costs as well. Labor income is then taxed at the same rate as at the household level. In effect, a flat tax of this kind is just another variant of a consumption tax. Proponents claimed that it was easy to implement and that it offered the best of both worlds (VAT and consumer-income tax).

Supporters argued that, like a VAT, a flat tax made the tax on capital income easier. Businesses do not have to worry about how their decisions affect the taxes of their myriad shareholders, each with different incomes and personal circumstances. Proponents claimed that there was no need to file countless forms certifying the amount of dividends that companies had paid out to each shareholder and they also claimed that the IRS was spared the chore of verifying how much people saved. Moreover, supporters claimed that a flat tax, like a consumed-income tax, was also easy to make progressive. Since labor income was taxed at the household level, the government could offer generous personal exemptions on a big chunk of each taxpayer's wages. It was estimated that a flat tax raising as much revenue as the existent system could combine a rate of 19 percent with an exemption of about \$28,000 for each family of four (with other families getting bigger or smaller exemptions depending on their size). This would allow a family's average tax rate (i.e. its total taxes as a share of its total income) to increase with its

income. Whereas the current graduated-income-tax system has multiple tax rates, the flat tax has only two: zero and, whatever the decided rate, say 19 percent. Although the flat-tax curve is not as steep as that for the current system, the tax burden still rises fairly sharply with income.

Supporters claimed that the flat tax may be the United States' best bet politically as well. They said that it would no longer be possible for politicians to confuse voters with mind-numbing details and competing forecasts. Voters would need to ask only two questions. How much income is excluded? And what is the tax rate? Political debate might then have a better chance of focusing on political issues.

Even with such optimism, the flat tax provision was in for a bumpy ride at the end of the last decade of the twentieth century. No matter how simple the scheme, arguments about taxes tended to become complicated. Opponents of the flat tax reform raised numerous flags. They claimed that it would benefit the rich at everyone else's expense. They claimed that because it fell on consumption, a flat tax bore heavily on the elderly and people in retirement. Unlike younger people, the retired tend to consume all their income. Indeed, most consume more than their income by running down their stock of savings. Any consumption-based tax therefore hits them especially hard. Opponents also argued that the flat tax did not sufficiently address investment income. At the very end of the century the fate of the flat tax provision was uncertain.

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FLORIDA

The state of Florida still has a certain exotic reputation. With its balmy climate, Spanish influences, citrus groves, and miles of beaches and tourist attractions, Florida continues to draw both visitors and new



State of Florida.

Florida

residents. Florida is a very modern state, however, with a manufacturing and commercial base to match its tourist attractions and, at the same time, environmental problems brought on by its rapid growth.

In 1513, Ponce de Leon (1460–1521) was the first European to sight Florida, claiming it for Spain. Hernando de Soto (c1500–1542) later tried to establish a colony in Florida but abandoned hope for finding wealth there. In 1565 the Spanish successfully defended French claims in Florida and made St. Augustine a military outpost to protect Spain's interests. In 1763 Spain ceded Florida to the British in exchange for Cuba.

The Spanish who came to Florida found nearly 100,000 Native Americans living there. Franciscans soon began to establish missions up and down the coast. In addition to attempts to convert the native population, the Spanish used the Indians to assist the Spanish in growing food, supplying labor, and defending the province. As in other areas where Europeans came to dominate, the Indian population was gradually decimated by disease or by wars with whites or other Indians. The Seminole War of 1835–1842 finally eliminated most of the Indians in Florida.

When the British took over the area, Florida's territory spanned from the Atlantic Ocean to the Mississippi River and eventually split into two colonies, East and West Florida. Settlers established farms and began to be self-sufficient. During the American Revolution (1775–1783), Florida became home to thousands of Loyalists to the British crown. In 1781 Spain successfully attacked and captured Pensacola; in 1783 Great Britain returned Florida to Spain.

Though the Spanish were formally in control of the region, several cultures clashed in the territory during this time. In addition to the Native Americans, runaway slaves, renegade whites, pirates, and other adventurers roamed the land. British influence was strong, and the United States continued to penetrate into the territory. By terms of the Louisiana Purchase (1803), all of Florida west of the Perdido River was taken over by the United States in 1810. What later became the state of Florida was finally ceded to the United States in 1821. The first military territorial governor was Andrew Jackson (1767–1845), who had led a successful expedition against the Seminoles and their British allies. Tallahassee was set up as the first capital, and soon the middle region of Florida became known for its slave-owning cotton plantations. Settlement was hindered for a time by the war to remove the Seminoles and by the Panic of 1837, but in 1845 Florida entered the Union as a pro-slavery state.

Florida did not remain part of the Union for long. In 1861, at the start of the American Civil War (1861–1865), the state seceded and became part of the Confederacy. Florida at that time had only around 140,000 people—40 percent of them slaves—no manufacturing, and only a few hundred miles of railroad. After Reconstruction (1865–1877), conservative Democrats governed Florida for the remainder of the century. These politicians were pro-business, promoted the expansion of railroads, and kept taxes low. Although cotton production did not return to its prewar levels, Florida became known for its citrus and vegetable farms, cattle raising, forestry, and phosphate mining, as well as for a growing tourist industry.

Both tourists and developers were helped by the railroad builders who appeared in the late nineteenth century. By far the best known of these entrepreneurs was Henry M. Flagler (1830–1913), who completed an East coast railroad line that ended in Daytona, Florida, in 1890. Despite numerous construction difficulties, a line was completed to West Palm Beach in 1894, and later to Miami. Flagler's most ambitious project was a railroad all the way to Key West.

Flagler and other railroad magnates built magnificent hotels in Florida, which attracted many of the tourists who began to trek to the state to enjoy the sun. More important, the railroads brought in more settlers, who soon began to transform the swamps and sand dunes of southern Florida into an important agricultural and commercial area. Key West cigar makers transferred many of their operations into mainland factories in Tampa. The Spanish-American War (1898) stimulated the economy, since Tampa was the point of embarkation to Cuba. Many soldiers returning from the war also eventually settled in the state.

The cities of St. Petersburg, Clearwater, Sarasota, Palm Beach, Fort Lauderdale, and Miami soon began to thrive. Orlando became the largest city in south central Florida. When parts of the Everglades were drained, towns sprouted up in the Lake Okeechobee area. Governor Napoleon B. Broward, who took office in 1905, emphasized drainage projects. Thousands of acres were drained and made available for agriculture over the next 20 years. By 1920 the farms of the state were producing more than \$80 million in income, with oranges as the single largest crop. Other agricultural products included grapefruit, potatoes, cotton, tobacco, domestic animals, and meat. The fact that no one crop was dominant made the risk of economic disaster less likely.

During the 1920s Florida's population soared by almost 50 percent, starting a land boom. The 1930s saw

alternate periods of depression and recovery. Despite the difficulties of the nationwide Great Depression (1929–1939), Florida created some new sources of income in paper mills and a type of betting known as pari-mutuel. During World War II (1939–1945), several Army and Navy bases in the state also stimulated growth.

Though agriculture, especially citrus farming, was basic to the postwar economy, during the period between 1947 and 1963, Florida manufacturing also grew considerably. The most important manufacturing sectors were foods, chemicals, paper, publishing, and electrical machinery. By 1963, moreover, the value of retail trade had increased 225 percent since 1948. Adequate power and water, as well as the convenience of Florida ports to fuel supplies, was beneficial to commerce in the state during this time.

Tourism continued to thrive in Florida, bringing in an era of expansion in spectator sports and amusements. In addition, the increasing demand for government services brought a 37 percent increase in government employees between 1960 and 1965. Federal facilities expanded as well, the most famous of which became the Air Force Missile Test Center on Cape Canaveral, home base for future space exploration.

In 1971 the Disney World theme park opened its doors, becoming one of the biggest economic booms to Orange and Osceola counties. It is estimated that nearly 60 percent of the millions of tourists who visit Florida come specifically to visit Disney World. In 1986 the number of people visiting the park equaled the number who visited the entire state 14 years earlier.

Environmentalists continued to be concerned about the rapid development of Florida. Thousands of acres of former forests, agricultural fields, and orange groves have been destroyed to make way for commercial development. Natural water drainage patterns have been altered, often creating problems for both human consumption and animal habitats. Of particular concern has been the disruption of the wetlands known as the Everglades. Contamination of the groundwater that supplies nearly all of Florida's water has also been aggravated in recent decades. After the settlement of a federal lawsuit, the Florida Department of Environmental Protection and other agencies have undertaken a program for restoration of several watersheds.

Some natural upheavals beyond human control are the hurricanes that periodically wreak havoc on the Florida coast. A hurricane in 1926 brought a land boom to an early halt; in the late 1930s, another destroyed most of the Florida East Coast Railroad line to Key West, leading to the building of a modern highway

along the old railroad lines. In 1960 Hurricane Donna caused extensive damage to the Tampa and Orlando areas, as well as along the southwest coast and in mid-Florida. In 1992 Hurricane Andrew caused more than \$10 billion in damage to southern Florida, and Hurricane Opal caused \$2.1 billion in losses in the Pensacola area in 1995.

Contemporary Florida is rather vulnerable to recession because of its many visitors and part-time dwellers, who bring many dollars to the state but do not create a permanent tax base. The economic downturn of the early 1980s hit Florida especially hard, especially in the housing industry. The aerospace and electronics industries, however, were aided by the defense buildup during the administrations of President Ronald Reagan (1981–1989). The Miami area has also benefited from an influx of Latin American investment funds. Floridians are less proud, however, of the state's so-called "underground economy," which provides unreported low-wage income to many illegal immigrants and also funnels large amounts of cash into the state from the illegal drug trade.

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FOOD PROCESSING INDUSTRY

Food processing techniques have been evolving since the Stone Age. But it was not until these procedures met with the machinery, scientific discoveries, mass production, and population changes of the nineteenth century that the activity of food processing surged ahead and became the basis for a sophisticated and far reaching industry. By the middle of the twentieth century, this industry included everything from the most basic preparation of foods to canning, freezing, otherwise preserving, and packaging of finished products for distribution throughout the world.

Food Processing Industry

In the nineteenth century the United States experienced an expansion of industrial cities, similar to the pattern that Great Britain had experienced in its industrial revolution. But the United States had an additional factor: westward expansion and settlement. The geographic relationship between the western plains and eastern urban centers was crucial for the beginnings of the food processing industry. This relationship led to inventions, discoveries, and manufacturing systems that would determine the industry's evolution. In the United States the need for food was driven by the concentration of population on the eastern seaboard. Westward expansion into the plains opened a vast area where farmland was abundant and livestock breeding was inexpensive. Transportation and communication systems connected the urban centers with the developing west. Such connections ultimately provided the industry with the means of getting food that was produced in the west to the areas of need in the east. Also, manufacturing centers in the east provided the food processing industry with the labor, machinery, and the manufacturing systems necessary to mass-produce food.

Transportation links between the regions and advanced production techniques were possible because of the on-going revolution in technology and scientific discovery. The invention, in 1850, of the horse-drawn reaping machine made large-scale farming in the vast plains possible because it simplified the ages-old task of cutting wheat by hand. It would soon be followed by the steam-powered reaper and, later, the tractor and the combine. The transport of slaughtered meat across significant distances was possible because of the emergence of refrigerated railway cars after 1869 when George Hammond improvised refrigerated transport. Finally, in 1940, the self-propelled combine machine reduced harvesting time for one acre of wheat from 14 hours to 30 minutes. This sequence of inventions shaped the emergence of the mass-production and movement of huge amounts of food.

Other inventions and discoveries were more specific to the processing of food. In the early 1800s Nicolas Appert, a French chef, started the process of canning. That technique would be patented in the United States in 1815, and in 1847 the mass production of tin-plated steel cans would emerge. These canned goods were consumed by soldiers during the American Civil War (1861–1865), and the Union commissaries were freed from concerns about storage and safe supplies of food. In 1861 Louis Pasteur's discovery of the process of "pasteurization" was an important contribution to reliable food preservation. Food was heated to kill dangerous microbes and then sealed in an

airtight container. In 1906 modern freeze-drying techniques were being used in France. Home refrigerators emerged in the United States in 1913, and in 1920 American Clarence Birdseye invented the process of deep-freezing foods. The Swiss invented instant coffee in 1937, which led to the future production of powdered food products. In 1973 the era of biotechnology began, when scientists demonstrated how genes could be split and merged to engineer superior products. The scientific contributions to the processing of food escalated as the industry evolved and helped raise the standard of safe food preservation to the point that food could be processed and even manufactured on a mass scale.

Also important to large-scale production of food intended for mass consumption was the evolution of the factory. As the site of bringing into play the efficient combination of labor and capital, factories emerged in the 1820s. They were substantially enhanced in the 1880s with the discovery of electricity. They refined the processes of production and instituted brand names for various foods that would enhance consumer demand. Food processing factories enjoyed a very high ratio of capital to labor. Companies opted to build plants of the greatest possible size in order to benefit from economies of scale and to minimize overhead costs. They created national and international advertising apparatus and retailing centers for the sale and distribution of groceries. This was especially important with meat processors, who required slaughterhouses and warehouses for the fast and efficient processing and sale of their perishable goods. These factories made use of the principles of mass production of the time: the division and specialization of labor and the use of standardized parts and processes. (In fact, the process also worked in reverse as Henry Ford is said to have been inspired to develop the automobile assembly line after visiting a Chicago exposition which featured the "disassembly line" of modern meatpacking.)

Other developments were necessary for the food processing industry to fit into mass production systems. Before the advent of large-scale factory processing and transport of food (which were both made possible by food preservation technology), individual growers and processors sold their products in local stores. In the early 1800s small manufacturers had appeared, but they were often without the capital to start larger factories which would yield greater profits. As the merger movement of the nineteenth and early twentieth century brought together the factors of production, many small-scale processors merged with

others, forming the big conglomerates that would push the food processing industry into the powerful position it maintained throughout the twentieth century. Companies such as Quaker Oats (the result of a merger of three producers in 1901), General Mills (a 1928 merger), and Del Monte (a series of mergers beginning in 1899) built strong and long-lasting businesses out of small but reputable beginnings.

From its beginnings the industry was a concern for the U.S. government—not only in terms of safety regulations, but also in the area of research and development. The U.S. Department of Agriculture (USDA) was established under the Organic Act of 1862, which charged the commissioner “to collect new and valuable seeds and plants . . . and to distribute them among agriculturalists (sic).” The USDA would soon take on far broader authority such as meat inspection and the approval of certain chemical processes used in growing and producing foods. Food safety anxieties were first addressed in the Pure Foods Act and Meat Inspection Act of 1906. Those laws were the result of the exposé of the unsanitary practices in the Chicago meatpacking industry depicted in Upton Sinclair’s novel, *The Jungle*. This issue of food safety and the public demand for government regulation of processed food became more pronounced throughout the twentieth century.

At the end of the century of boom for the food processing industry, consumers, governments, and consumer advocates also called for more accountability on the part of the industry. Food-borne disease reached an all-time worldwide high as people became increasingly concerned about the chemicals and processes used in food production. The United Kingdom, the European Union, and the United States called for higher measures of food inspection and safety. Nutritionists, wary of the industry’s use of health trends to promote products, called for a definition of food terms in 1997. Under a decidedly skeptical eye, the industry would increasingly face the challenge of giving consumers more convenient and inexpensive food, while gaining public trust in a globally competitive market by ensuring real food safety and honest sales.

See also: Agricultural Equipment, Assembly Line, Merger, Economies of Scale, Upton Sinclair

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FOOD STAMPS

Food stamps are vouchers issued to low-income households that are redeemable only for food at retail stores. The Food Stamp Program in the United States is administered by the Food and Nutrition Service unit of the Department of Agriculture and financed through the Social Security Administration. The program is operated by state and local welfare offices and is available in all 50 states, the District of Columbia, Guam, and the U.S. Virgin Islands. The objective of the Food Stamp Program is to end hunger and improve nutrition and health by assisting low-income households in obtaining a nutritionally adequate diet. Participants in the program use food stamps to supplement what they would normally spend on food. Both low-income families with dependent children and households without children can be eligible for food stamps. The quantity of Food Stamps an eligible household is entitled to depends on the amount of income the household has available and the number of people in the household.

See also: Social Security Act, Welfare Policy

FORBES, MALCOLM STEVENSON

Millionaire Malcolm Forbes (1919–1990), the publisher of *Forbes* magazine from 1957 to 1990, converted a business publication his father started into one of the most influential in the United States. The younger



The Food Stamp Program is one of the government's tools to end hunger and improve nutrition and health in low-income households.

Forbes' exuberant lifestyle, combining business and pleasure, and his unabashed enjoyment of his wealth, made him a singular personality in the normally staid business community.

Forbes inherited his wealth from his father, who established his son as owner and publisher at the *Fairfield Times*, a weekly newspaper in Lancaster, Ohio, only days after his graduation from Princeton University. In later life he was fond of saying that he had been loaded with "sheer ability (spelled i-n-h-e-r-i-t-a-n-c-e)." That quip belied his real talent and ability. At Princeton he was awarded the Class of 1901 Medal as a member of the class of 1941 who "contributed the most to Princeton as an undergraduate."

Forbes was also a genuine war hero of World War II (1939–1945) who was wounded in combat and received both the Bronze Star and a Purple Heart for his service as an infantry staff sergeant of a heavy machine gun section serving in France, Belgium, Holland, and Germany. Following his discharge from the Army in 1945 he joined *Forbes* magazine. He successively held positions as associate publisher, publisher, editor, editor-in-chief, vice president, and president.

During the 1950s Forbes was also active in politics. In 1951 he was elected to the New Jersey State Senate; in 1957—the year he became editor-in-chief and publisher of *Forbes*—he made an unsuccessful run

for the New Jersey governorship. In 1964 he took over the family business as president of Forbes, Inc.

According to *Advertising Age*, Forbes "expanded the magazine his father created in 1917 into a publishing powerhouse—whether measured in circulation, advertising revenue, or the trepidation with which CEOs awaited stories about their companies." With a circulation of 750,000 copies (of which 250,000 were reported as sold to millionaires), *Forbes* became one of the most influential and successful business magazines in the United States. In the early 1960s the publication's advertising revenues stood at nearly \$2 million; at the time of Forbes's death this expense was well beyond \$150 million. Forbes's own net worth, which he never included in his magazine's annual list of the nation's four hundred richest citizens, was estimated between \$400 million and \$1 billion.

Forbes's lavish lifestyle and charismatic personality were central to the success of his company. His well-publicized hobbies and interests included his notable collection of Faberge eggs, expensive motorcycles, and opulent retreats in France, Tangiers, and Fiji, as well as a Colorado ranch and a New Jersey estate. He used his lavish parties, ballooning adventures, and trips on his luxurious yacht *Highlander* to woo advertisers and top executives. "On the *Highlander*, we entertain anywhere from thirty to fifty CEOs and their wives," he said in a 1989 interview in *Forbes*. "The event is the

medium's message bearer. Nobody makes a direct pitch. It's a group sell, but the real selling is done one-on-one when the salesman with the account calls on the agency media buyers, and the account executives and the higher men in the hierarchy call on the directors."

All the publicity about Forbes' lifestyle masked his hard work and dedication to the magazine. He was usually in his office by six a.m. "It's fun to be at your desk when you're the boss," he said in the same *Forbes* interview. "You can't be successful if you don't love what you're doing. Whatever really turns you on does it. Psychic income is what real income is used for anyway." Malcolm Forbes died in 1990.

See also: Publishing Industry

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FORD, HENRY

Henry Ford (1863–1947) launched the era of the mass-produced automobile. He provided tools such as the moving assembly line to enable the fast mass-production of cars and other consumer goods. Ford founded the Ford Motor Car Company, which remained the second largest car and truck manufacturer in the world through the 1990s. He is regarded as one of the great industrialists and automobile innovators of the twentieth century. Ford was also a generous philanthropist.

Henry Ford was born in Dearborn, Michigan, into a farming family. The first child of William and Mary Ford, he was taught largely by his mother, who instilled in him a strong sense of responsibility, duty, and self-reliance. As a young man he became an excellent self-taught mechanic and machinist. At age 16 he left

the farm and went to nearby Detroit, a city that was in process of becoming an industrial giant. There he worked as an apprentice at a machine shop. Months later he began to work with steam engines at the Detroit Dry Dock Co., where he first saw the internal combustion engine, the kind of engine he would later use to make his automobiles.

When he was 28 Ford took a job with Thomas Edison's (1847–1931) Detroit Illuminating Company, where he became chief engineer. In his spare time he began to build his first car, the Quadricycle. It resembled 2 bicycles positioned side by side with spindly bicycle-like wheels, a bicycle seat, and a barely visible engine frame. Some said it bore a resemblance to a baby carriage with a two-cylinder engine. In June 1896, Ford took an historic ride in his first automobile that was observed by many curious Detroit on-lookers. The Quadricycle broke down in a humiliating scene.

By 1899 Ford created a more proper-looking motorcar with the help of wealthy businessman William Murphy. It had high wheels, a padded double bench, brass lamps, mud guards, and a "racy" look. In the same year Ford founded the Detroit Automobile Company. Within 3 years Ford had built an improved, more reliable Quadricycle, using a four-cylinder, 36-horsepower racing engine. In 1901 his car beat what was then the world's fastest automobile in a race before a crowd of eight-thousand people in Grosse Pointe, Michigan.

The publicity he received for this victory allowed Ford to finance a practical laboratory for refining his auto ideas. In 1903 Ford launched his own car company, The Ford Motor Car Company, and by January 1904 he had sold 658 vehicles. By 1908 he built the famous Model T, a car that was affordable to the middle class. The automobile was no longer the toy of the rich. Sales of the Model T increased to 720,000 by 1916.

Ford was able to make a reliable and inexpensive automobile primarily because of his introduction of the innovative moving assembly line into the process of industrial manufacturing. The assembly line is a system for carrying an item that is being manufactured past a series of stationary workers who each assemble a particular portion of the finished product. The assembly line was undoubtedly Ford's greatest contribution to industry. It revolutionized manufacturing and made it possible to make uniform products quickly and affordably.

Ford personally controlled most aspects of his company operations. He shocked the industrial world



Henry Ford in his first car, the Model A.

in 1914 by paying his workers the very high wage of \$5 a day. In exchange for this high wage Ford demanded of his employees regular attendance at work, as well as a serious and sober private life. He required all immigrant laborers learn English and become citizens of the United States.

Ford was intrigued by the ideas of Frederick Taylor (1856–1915), the founder of Scientific Management. It was a philosophy of standardizing the behavior of workers to increase efficiency and production. Ford designed his factories to fit human performance, but then demanded his workers perform according to the factory design. He was one of the first to introduce time clocks into his business operations to monitor the exact minute a worker arrived at his job, took his lunch, and when he left his job. Ford began treating the worker like a living machine, and he attracted heavy criticism for this. The most enduring indictment of Ford's totalitarian business style was created by Aldous Huxley (1894–1963) in his classic novel *Brave New World*.

Ford was criticized for more than his totalitarian business practices. It was shocking for most people in the United States to read of Henry Ford's anti-Semitism,

which he published weekly for 2 years in unsigned articles in his own newspaper, *The Dearborn Independent*. Oddly, many of his best friends were Jewish. An example is Albert Kahn (1869–1942), the great architect who designed Ford's factory in Highland Park, Michigan. Despite his controversial and at times publicly unpleasant views, some people thought enough of Ford to encourage him to run for president in 1922. They quickly retracted their support when they discovered Adolph Hitler (1889–1945) had a picture of Ford on his wall and often cited Ford as an inspiration. Ford was the only U.S. citizen mentioned in Hitler's *Mein Kampf*.

Driven by his childhood sense of duty and obligation, Ford was also an active philanthropist throughout his life. He built a hospital for his employees in Detroit, and in 1936 established the Ford Foundation for the purposes of "advancing human welfare." Since its founding the Ford Foundation has issued more than \$8 billion in grants worldwide.

This complex farmer's son from Michigan, who made automobiles affordable to the masses, died at his estate, Fairlane, in Dearborn, Michigan in 1947 at the age of 84.

See also: Assembly Line, Automobile, Automobile Industry, Ford Motor Company, Frederick Winslow Taylor

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FORD MOTOR COMPANY

Ford Motor Company is the largest manufacturer of trucks in the world and the second largest manufacturer of automobiles, behind only General Motors Corporation (GM). Headquartered in Dearborn, Michigan, Ford has plants in 19 countries and facilities in more than 100 others. The company markets vehicles under the brand names of Ford, Lincoln, Mercury, Jaguar, and Aston Martin. Ford owns a controlling interest in Japanese automaker Mazda Motor Corporation and in the Hertz Corporation, the world's number one rental-car company. Ford Credit, one of the company's subsidiaries, is the world's leading provider of automotive financing.

Henry Ford (1863–1947) founded the Ford Motor Company on June 16, 1903. The company was launched from a small converted wagon factory in Detroit, and its assets initially consisted of tools, appliances, machinery, blueprints, patents, and a few models. Henry Ford experimented with a number of early automobile designs during the 1890s, developing a reputation as a pioneer in the area. This reputation grew with Ford's release of the Model A, a two-cylinder, eight-horsepower design that sold 1,708 models in the company's first year of operation. Over the next five years Ford engineers feverishly developed 19 different models, designating each by a letter between *B* and *S*. Some models succeeded, some failed, and some never left the

plant. The most successful of the group was the Model N, a small four-cylinder car that sold for \$500. The biggest failure was the Model K. At \$2,500 it priced most consumers out of the market.

The Model K's failure fueled Ford's desire to design an inexpensive and reliable car that could be mass produced. The 1908 Model T was the answer. Affectionately dubbed the "Lizzy" by U.S. car buyers, Ford's Model T came to symbolize low-cost, and durable transportation. The four-cylinder vehicle, which could travel at a top speed of 45 miles per hour, sold 10,660 units in its first year. As demand climbed, Ford invented the world's first moving automobile assembly line in 1913. Henry Ford believed that automobile production would become more efficient if all employees were assigned one place to work, where they could focus on a specific task to accomplish in a diligent manner.

Within 12 months of the invention, Ford workers had reduced the time during which a chassis could be assembled from 12 hours and eight minutes to one hour and 33 minutes. Ford manufactured 308,162 cars in 1914, more than all 299 other car manufacturers combined. The Model T's success and the use of the assembly line allowed Ford Motor Company to drop its price from the original sticker of \$850 to \$350. It could also double its employees' minimum wage to five dollars and open new factories in the United States, Canada, Europe, Australia, South America, and Japan. It also provided Ford with revenue to purchase luxury carmaker Lincoln Motor Company in 1922.

FORD MOTOR COMPANY IS THE LARGEST MANUFACTURER OF TRUCKS IN THE WORLD AND THE SECOND LARGEST MANUFACTURER OF AUTOMOBILES.

Consumer interests gradually shifted in the 1920s. Competitors began rolling out more powerful and stylish cars. To stem dwindling profits Ford discontinued production of the Model T in 1927 and closed plants around the country so the company could retool. When Ford opened its doors six months later it unveiled a vastly improved Model A. Featuring hydraulic shock absorbers, automatic windshield wipers, a gas gauge, and a speedometer, the Model A sold more than 4.5 million units in four years. Now refusing to sit idle in face of increasing competition, Ford pushed aside the Model A in 1932, introducing the world's first V-8 engine block that was cast in a single piece. Six years later Ford introduced the Lincoln Continental and a new line of Mercury automobiles.

Ford Motor Company

The 1930s and 1940s also marked a time of transition for the automaker. Ford's market share slipped behind those of GM and the Chrysler Corporation. An avowed opponent of labor unions, Ford was forced to recognize the United Automobile Workers of America (UAW) as the collective bargaining representative for all of the company's workers. In 1941 Ford shut down its civilian automobile production to manufacture B-24 bombers, aircraft engines, tanks, jeeps, trucks, munitions, and equipment for the Allies during the balance of World War II (1939–1945). When the war ended, most of Ford's contracts with the government terminated, and the car company soon started suffering losses of \$10 million per month. In 1947 founder Henry Ford died, four years after the premature death of his 49-year-old son Edsel, who had succeeded his father as the company's president in 1918.

Henry Ford II, Edsel's eldest son, took over as president in 1945. For the next three decades he helped modernize Ford and return it to profitability. In 1955 Ford introduced the Thunderbird. The sleek and sporty two-seat roadster sold more than 16,000 units in its first year, while Chevrolet sold comparatively meager 657 Corvettes. In 1956 Ford Motor Company went public. In the largest stock sale ever at the time, Ford sold 10.2 million shares to 250,000 investors for \$657 million, or 20 percent of the family's business. In 1956 Ford created an aerospace division, and two years later the company announced its entry into the heavy and extra-heavy truck market. In 1963 Ford debuted the highly successful Mustang sports coupe, which remains one of the company's most popular muscle cars.

The reign of Henry Ford II as president was not one of uninterrupted success. In 1958 the company released the Edsel, a 410-horsepower, 17-foot sedan that generated losses of \$250 million in just two years. During the 1960s Ford's management fought bitterly over the company's direction, changing executives throughout the decade. In the 1970s Ford Motor Co. was named as a defendant in a series of wrongful death lawsuits stemming from numerous incidents when the gas tanks on its subcompact Bobcat and Pinto models exploded during rear-collisions. The OPEC oil embargo of the 1970s also made Ford's bigger, gas-guzzling vehicles a liability, and many U.S. citizens started turning to smaller, more fuel-efficient Japanese vehicles.

The 1980s brought downsizing to Ford. After losing \$3.2 billion from 1980 to 1982, the company reduced its workforce by one-third and closed 15 plants. Ford diversified during this period as well. Its 1986 purchase of the Sperry Corporation's New Holland tractor division helped Ford become the world's

third largest maker of agricultural equipment. Ford also purchased First Nationwide Financial Corporation and U.S. Leasing in the mid-1980s. On December 26, 1985, Ford introduced the Taurus, an affordable mid-size vehicle that was named car of the year in 1986. By 1987 the Taurus was outselling every other car in the United States. The Ford F-Series pickup truck and subcompact Escort were also gaining in popularity as the decade ended, when Ford was reporting record profits.

Ford continued restructuring in 1990s. It gradually dropped out of the heavy-truck business during this period and consolidated its operations in North America and Europe. In 1994 Ford introduced its year 2000 initiative, under which the entire Ford family of enterprises would be organized into a single operation by the beginning of the next millennium. Ford also announced a plan to make all of its vehicles more environmentally safe before the twenty-first century. Emissions for sport utility vehicles (SUVs) would be reduced to levels required for new cars, while new car emissions would be decreased by 70 percent. In 1999 Ford teamed with DaimlerChrysler AG and the state of California to test zero emission cars powered by fuel cells that produce electricity through the chemical reaction of hydrogen and oxygen. At the same time Ford announced its plan to purchase auto junkyards over the Internet and to recycle undamaged car parts to mechanics.

These announcements, however, were tempered by Ford's plans to roll out the industry's biggest SUV to date. A 3.5-ton, six-door, 19-foot long colossus was scheduled to go on sale for about \$50,000 in the fall of 2000. The environmental group, the Sierra Club, described the SUV as a "tanker" that will "guzzle enough gas to make Saddam Hussein smile." Such criticism has concerned the Ford family, which still owns a controlling interest in the company. But the family also recognize that the company's success has always been linked to meeting consumer demands.

See also: **Assembly Line, Automobile Industry, Automobile (origin of), Henry Ford, Model T**

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FORDNEY-MCCUMBER TARIFF

After President Warren Harding’s (1921–1923) inauguration in 1921 he asked Congress for emergency tariff legislation, stating “I believe in the protection of American industry, and it is our purpose to prosper America first.” By the following year Congress completed a comprehensive tariff revision, The Fordney-McCumber Tariff Act. The law represented a return to pre-World War I (1914–1918) protectionism of the United States amid fear that European producers could undersell U.S. manufacturers. The Fordney-McCumber Tariff raised average duties (import taxes) on all imported goods 15.2 percent in 1922, and up to 36.3 percent in 1923. The tariff effectively raised the average import tax on goods 138 percent in two years. All data collected about the impact of the Fordney-McCumber Tariff suggests it did not have the desired effect on the U.S. economy. In fact the quantity of imports continued to rise. Analysis suggests that global economic conditions in the world after World War I exerted a greater negative impact on trade than did the high Fordney-McCumber “protective” tariff. This measure is perhaps the most blatant example of the Harding administration’s efforts to make the United States “The Unconditional Most Favored Nation” in the world, seeking both to reduce the profitability of foreign imports and to pursue retaliation against other countries that sought to limit U.S. exports.

See also: Protectionism, Tariff

FOREIGN INVESTMENT IN THE UNITED STATES (ISSUE)

Since World War II (1939–1945), and especially in the 1950s and 1960s, the United States dominated world-wide foreign investment. But with the advent of the energy crisis and the oil shortages in the early 1970s the situation was reversed. The United States became the recipient of large investments from Great

Britain, the Netherlands, and especially Japan. Although the 1980s witnessed unusually rapid growth in worldwide foreign direct investment, from approximately \$55 billion in 1980 to \$137 billion in 1987, world output rose by only 20 percent and the volume of world trade by 28 percent. During the 1980s the United States became the largest recipient of foreign direct investment and Japan became the leader in direct investment abroad. Since 1985 foreigners, especially the Japanese, have increased their acquisitions in the United States or have expanded or established businesses in the United States.

The reasons for this surge in investments were varied and complex. Some foreign companies felt they must have a position in the U.S. market, which was still the richest and largest consumer market in the world. U.S. political stability and the appreciation of foreign assets made U.S. assets relatively attractive and cheap. For example, Mitsubwashii purchased Rockefeller Center in downtown Manhattan (New York) for approximately \$850 million, a fraction of what a similar piece of real estate in downtown Tokyo would have cost. In addition the lure of overseas profits pushed many multinational companies into staking out international claims. Exporting countries could frequently work around other countries’ protective legislation by establishing factories within that country’s borders. Honda, a case in point, now produces more cars in the United States than it does in Japan.

Another attractive feature for foreign investment was that the new global economy emphasized consolidation and bigness. Mergers and acquisitions occurred six times more frequently in the United States than in foreign countries. Mammoth deals in pharmaceuticals, media, and food industries helped set a new record of \$144 billion for the combined value of the fifty largest annual acquisitions and mergers in 1989. Moreover the scientific, industrial, managerial, marketing, financing, advertising, insurance, and especially research and development systems in the United States had all developed and matured to make the United States very attractive for investors.

Foreign investment in research and development experienced especially explosive growth. From 1987 to 1995 investment in research and development rose from \$700 million to more than \$17 billion. In addition to investment foreign companies by the end of the 1990s employed more than 150,000 U.S. citizens in research and development activities at hundreds of research laboratories and manufacturing facilities across the country. The growing presence of foreign companies conducting research and development in the U.S. reflected a fundamental trend in the world economy,

the globalization of innovation. Multinational enterprises had long operated international networks of manufacturing plants, but during the 1990s these multinational companies added a new dimension to their activities—an increasing capacity for research and development and innovation in various locations outside their home countries.

In addition to the debate over foreign investment in general, the relatively new phenomenon of foreign-owned, U.S.-based research and development programs also provoked controversy. Proponents believed foreign-owned laboratories contributed to the U.S. science and technology base, and that the government should encourage their development. Critics however argued that the facilities were merely skeleton research operations designed to monitor the U.S. research scene, or even pirate ideas developed within U.S. borders. Part of the controversy stemmed from the startlingly rapid growth of foreign research and development programs. Until recently most multinational companies conducted virtually all of their research and development at home. The 1990s however saw an explosion of international research and development activities by large multinational firms. The magnet that drew research and development to the United States was talent. Companies opened labs in the United States to gain access to world-class researchers. (Thus, the proximity of many labs to major research universities, which were regarded as a key source of commercial innovation.) The NEC Research Institute, for example, was able to recruit renowned computer scientists partly because it was adjacent to Princeton University. When Canon established a research center for work on optical character recognition, image compression, and network systems, the company chose Palo Alto to be close to Stanford University and Xerox's famed Palo Alto Research Center. Mitsubishi Electric Research Laboratory, which conducted research and development on a range of information technology including computer vision, was next door to MIT.

In the automotive industry foreign laboratories geared their work to supporting U.S. manufacturing plants and customizing products for the U.S. market. Nissan Design International's close ties to the U.S. market enabled them to realize that Nissan could attract U.S. car buyers by adding a stylish body to a pickup truck platform. The result, the Pathfinder, launched the sport utility craze and transformed the entire automotive market.

While the funding for these research labs came from abroad, the style of work in them was very U.S.-oriented. Offshore companies generally recognized that to recruit and retain U.S. researchers required

adoption of a U.S. style of management. In this respect these labs differed markedly from foreign-owned manufacturing facilities. Japanese companies that ran U.S. factories, for example, typically sought to transfer and transplant to their U.S. facilities manufacturing practices honed at home. On the other hand foreign laboratories in the United States were organized much like leading research centers of U.S. universities. These labs encouraged scientific and technical staff to work autonomously and publish widely. They sponsored visiting scholars and hosted seminars and symposia.

But critics saw a threat to U.S. technological leadership by giving international companies easy access to U.S. technology. For them foreign research and development facilities were skeleton operations designed to monitor and pirate U.S. ideas. They believed that federal policymakers should tilt the rules of innovation to benefit U.S. companies over foreign competitors, or develop rules and regulations that reward "good" U.S. companies (those that invest in the United States) over "bad" ones (those that invest abroad). Proponents of foreign investment counter this argument and believe that although such policy proposals were well-intentioned and sought to protect U.S. investments, they were completely out of touch with the reality of a global system of innovation. According to proponents of foreign investment, financing of U.S. research and development by foreign corporations strengthened U.S. science and technology, especially when government and private sponsorship of U.S. research was being cut back. Proponents also pointed out that these labs churned out patents at rates that exceeded those of U.S. industrial research and development. They also argued that foreign laboratories also added considerably to the stock of new scientific and technical knowledge by reporting their findings in scientific and technical journals. They claimed that they published an average of 10 journal articles per 100 scientists and engineers per year, better than the rate for industrial research and development by U.S.-owned companies.

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FOREIGN INVESTMENT OF U.S. COMPANIES ABROAD (ISSUE)

Foreign investment of U.S. companies abroad has changed drastically in the last half of the twentieth century. Since World War II (1939–1945) and especially in the 1950s and 1960s, the United States dominated world wide foreign investment. But with the advent of the energy crisis and the oil shortages in the early 1970s, that situation reversed. The United States became the recipient of large investments from Great Britain, the Netherlands, and especially Japan. Yet recently American “indirect” investment abroad has begun to rise dramatically and in 1998 foreign “indirect” investment hit a record of more than \$250 billion, climbing sharply during the entire decade. Europe was the prime destination, with the pharmaceutical and telecommunications industries dominating, along with banking and electricity, gas and water utilities. In 1998 U.S. investment abroad doubled to \$97 billion—higher than the world direct investment total less than a decade ago. During the 1980s the United States became the largest recipient of foreign direct investment and Japan became the leader in direct investment abroad. Since 1985 foreigners, especially the Japanese, have increased their acquisitions in the United States or have expanded or established businesses there. That kind of investment from Japan and other countries has “trickled” down to include foreign investment of U.S. companies abroad.

Many economists argued that foreign investment, both inward and outward, has been fundamental to the prosperity of the United States. In 1996 flows of foreign direct investment (FDI) into the United States reached \$78.1 billion, while FDI outflows reached \$85.6 billion; economists argued that in a globalizing world economy U.S. firms need a global presence in order to sell effectively. Service industries especially, which accounted for \$236.8 billion in exports in 1996, almost always needed a physical presence on the ground. These economists contended that a foreign presence is necessary to effectively market exports of goods, arguing that approximately 26 percent of U.S. exports are channeled through foreign-based affiliates of U.S. companies. They also argued that over the past several years developing countries have become more

interested in and more receptive to foreign investment. They said that foreign countries recognize the benefits of foreign investment to their economies and people and that private foreign investment flows have substantially outpaced foreign assistance funds. They also contended that the interest of developing countries in attracting foreign investment can be seen in the explosion of bilateral investment treaties globally since the beginning of the 1990s—from 435 in 1990 to some 1,300 in 1999. But others disagree. Those in other countries argued that the Multilateral Agreement on Investment (MAI) would legalize and dramatically increase the capabilities of multinational companies to place every small business in participating countries under the real threat of closure, take-over, or bankruptcy. They maintained that foreign small businesses were the backbone of their respective economies and were one of the few remaining reliable sources of tax revenue because multinational companies paid little or taxes under the International Tax Agreement Act of 1953. And finally they declared that the consequence of the MIA and the continued non-payment of tax by multinationals, the reduced tax revenue from small business as a result of corporate take-over or decimation, and the reduction in the number of “pay-as-you-earn” or PAYE taxpayers through unemployment would threaten foreign tax bases with total collapse.

Opponents in the United States argued that the MAI, NAFTA-GATT, and other trade deals had sold out U.S. workers, ravaged the manufacturing base, provoked serious “protectionists” issues including software piracy and national security, and caused disruption in small towns and farming communities. They held that “trading partners” continued to impose 40 percent tariffs on U.S. agricultural goods and that since 1992 the United States had run a trillion-dollar trade deficit—\$200 billion with Communist China, which used U.S. currency to expand its military, steal U.S. technology, and buy weapons to target U.S. military establishments.

In the late 1990s countries included in the Organization for Economic Cooperation and Development (OECD) included Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. Proponents argued that additional members could enhance the agreement’s attractiveness as the sound investment policies and the commitments to other policy objectives encompassed in the MAI were embraced by a wider group of countries.

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FOURTEENTH AMENDMENT

The Fourteenth Amendment to the U.S. Constitution is a product of the post-Civil War Reconstruction (1865–1877) effort to protect the rights of the former slaves. It is best known for its definition of citizen, which it defined as a person born in the United States or “naturalized” (granted citizenship). It also bestowed on U.S. citizens equal rights under the law. The result was to limit drastically the power of states to define citizenship or to treat their citizens in a discriminatory fashion. Thus, the states were prohibited from denying a person equal protection under the law. The meaning of this development in the long-term debate over federalism versus states’ rights was that henceforth the federal government would assume the ultimate responsibility for protecting the civil rights of citizens. As part of this ruling, the Fourteenth Amendment also declared that states must respect every person’s right to due process of law.

The Fourteenth Amendment touched on several other matters that had great relevance at the time of the amendment’s enactment, although they are less well-known at the close of the twentieth century. One was the provision that reduced the number of representatives and presidential electors apportioned to a state if that state refused to allow any of its male citizens over the age of 21 the right to vote. This language was intended to prevent the former states of the Confederacy from gaining political power as a result of the freeing of the slaves if those states prevented their former slaves from voting. (Under the “three-fifths compromise” in the Constitution, each slave had been

All persons born or naturalized in the United States are subject to the jurisdiction thereof, are citizens of the United States and the State wherein they reside. 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.

Fourteenth Amendment, U.S. Constitution

counted as three-fifths of a citizen for the purpose of determining the number of congressmen and presidential electors that the states could claim. Now that the slaves were declared free under the Emancipation Proclamation and the Thirteenth Amendment, they each counted as a full citizen. This had the unintended effect (from the standpoint of most of the northern members of Congress) of increasing the political power of the former Confederate states. The Fourteenth Amendment attempted to redress the balance by ruling that if a state were guilty of denying the voting rights of any of its citizens, its entire population of former slaves would now not be counted for the purposes of figuring out the number of presidential electors or representatives that the state could have.

The Fourteenth Amendment also denied former Confederates the right to hold office in federal or state governments. In addition, this amendment established the validity of the country’s public debt. It also stated that the United States would not assume responsibility for the debts of the former Confederate government or of the states that had participated on the South’s side in the American Civil War (1861–1865). The amendment also stated that the federal government would not compensate former slave owners who had been deprived of their slaves as a result of the war or in accordance with the Thirteenth Amendment.

The Fourteenth Amendment had several unforeseen consequences. Whereas the Constitution and the Bill of Rights had tried to protect the individual from the power of the federal government, the Fourteenth Amendment sought to protect the individual from the power of the state. Yet it was purposely vague on some crucial matters. One was the question of African Americans in the North. There were enough congressmen who thought that something should be done to protect

the ex-slaves in the South, but who feared to offend white supremacy in the North. They spoke in generalities about reducing the total apportionment of representatives and presidential electors if the state violated the voting right of male citizens. The result was that several northern states still denied the right to vote to their African American residents because there were so few African Americans in the North that the penalty was negligible. The language was, however, gender-specific and implicitly denied the vote to women, a fact that attracted the attention of feminist activists.

The most ironic consequence of the Fourteenth Amendment was that throughout the later years of the nineteenth century it was invoked more often in defense of corporate America than in defense of black America. The railroad companies' trial lawyers, for instance, convinced the courts that the Fourteenth Amendment's clause that no state "shall deprive any person of life, liberty, or property, without due process of law. . . ." could be invoked to protect the corporations, which, they argued, were legally "persons," against the regulation of the industry on the state level.

Just as the language banning "restraint of trade" in the Sherman Anti-Trust Act of 1890 was most frequently used against picket lines and strikes rather than against monopolies, the Fourteenth Amendment's language was often used by corporate lawyers to protect the emerging post-Civil War concentrations of economic power.

See also: Sherman Anti-Trust Act, Thirteenth Amendment

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FRACTIONAL RESERVE BANKING

In the United States banks operate under the fractional reserve system. This means that the law requires banks to keep a percentage of their deposits as reserves in the form of vault cash or as deposits with the nearest Federal Reserve Bank. They loaned out the rest of their deposits to earn interest. Such banking practices formed the basis for the banking system's ability to "create" money.

To illustrate the creation of money, suppose an individual deposited one thousand dollars in a bank and the reserve requirement is 20 percent. The bank was required to keep \$200 on reserve but could loan out \$800. The \$800 loan paid for a television and was deposited in another bank, which, in turn, kept 20 percent but loaned out \$640 to someone else. At that point, \$1440 had been created and used for purchases.

The Federal Reserve System affects the nation's money supply directly by adjusting the amount of reserves it requires member banks to keep. If a 15 percent reserve requirement was lowered to 10 percent, more money was available to businesses and individuals for loans. The money supply could increase. In contrast, if the reserve requirement was raised to 30 percent, less money could be loaned, and the money supply shrank.

The first banks in the United States were chartered by the states and were not required to keep reserves. By 1820 a few New York and New England banks entered into redemption arrangements provided that a sufficient deposit of gold was maintained in their respective vaults to guarantee their paper money. In essence these gold deposits represented the first required reserves. Most states still had no reserve requirement when the American Civil War (1861–1865) began in 1861. In 1863 the National Bank Act established reserve requirements to ensure liquidity, the ability to satisfy a customer's cash demands, especially during times of financial panic. A series of bank runs in the late nineteenth and early twentieth centuries demonstrated that reserve requirements helped little in providing liquidity. The Federal Reserve System created in 1913 became the lender of last resort, capable of meeting cash needs. The notion of reserves meeting liquidity demands all but vanished. Instead reserve requirements evolved into a monetary policy tool of the Federal Reserve System for controlling the nation's money supply and credit conditions.

See also: Federal Reserve System, Federal Reserve Banking Act

FRANCHISE

A franchise is the business resulting when permission or authorization is given to someone to sell or distribute a company's products in a given location. Sometimes the geographic territory itself is called a franchise. A franchisee is a person who operates under such authorization.

Franchises are extremely common in the economy of the latter-half of the twentieth century. Most fast-food restaurants, retail shops, and other common businesses operate as franchises. Typically, the parent company that authorizes the franchise also develops the concept, designs the store, markets the product nationally, and trains the local franchisee, all in exchange for a fee and perhaps a percentage of profits. The parent company may also insist that certain standards of product quality be met, and that employee uniforms and the like be similar to those in the company's other franchises. In the largest such companies, a single parent corporation operates through thousands of franchise outlets.

Critics complain that franchises lead to a loss of distinctive regional identities because all businesses tend to look the same all over the country. Defenders, however, contend that society benefits because a parent company can demand a level of quality higher than might be found in most small, local operations.

FRANKLIN, BENJAMIN

Benjamin Franklin (1706–1790) was an American Renaissance man, knowledgeable on a variety of subjects and active in many careers throughout his lifetime. Famous for his involvement in writing of the Declaration of Independence and the U.S. Constitution, as well as for his experiments with lightning, Franklin's lesser known accomplishments include work as a writer, a publisher, and a businessman.

Benjamin Franklin was born January 17, 1706, in Boston, Massachusetts, the fifteenth child and youngest son in a family of seventeen children. Because his family was not wealthy, young Franklin was only afforded two years of formal schooling. At age ten he was apprenticed to his father's business, a tallow shop, where he was to learn the craft of candle and soap making. Franklin disliked the work and sought an apprenticeship as a printer with his older brother, James. Franklin spent five years working and learning under James and became an expert printer.



Benjamin Franklin.

Franklin described himself as a printer for the rest of his life. In the eighteenth century printers were more like today's publishers than simple typesetters. A successful printer needed to be a researcher, writer, and editor as well as the technician who set the type and printed the page. Franklin excelled at this craft and learned to write well on many subjects. He published at age twelve his first of many works and continued to write until his death.

At age seventeen Franklin left his work with brother James and moved to Philadelphia. His brother had spent time in prison for criticizing the government and Franklin learned to love the freedom he found running the paper in James' absence. Franklin found employment as a printer in Pennsylvania, but left for England in 1724. He lived there for five years, writing and improving his skills as a printer. Franklin was a supporter of the English crown in his early years and appreciated the lifestyle of London and the European continent.

But Franklin did not make his life in Europe. He returned to Philadelphia in 1729 and purchased the *Pennsylvania Gazette*, a bankrupt newspaper that he turned into the principle publishing house in the state. Franklin's printing business extended to partnerships with printers from Nova Scotia to the West Indies. He

began a famous publication, *Poor Richard's Almanack*, which was very popular with the public. Franklin also operated a bookstore, became clerk of the Pennsylvania Assembly, and served as postmaster for Philadelphia.

During his business career and later in life Franklin maintained an avid interest in science. His curiosity and inventiveness produced the Franklin Stove, a practical device that allowed the more efficient heating of larger rooms during winter. His study of electricity included the famous kite experiment by which he proved that lightning was electricity. This discovery led to his invention of the lightning rod, which soon appeared on buildings all over the world. His scientific efforts also included works in ship design and meteorology, and a theory of heat. In addition, he invented bifocal vision lenses and even a harmonica.

The child of humble origins and with only two years of formal schooling, Franklin achieved much of success. He was awarded multiple honorary degrees from institutions of higher learning. He took great pride in these awards, which included Masters of Arts from Harvard (1753), Yale (1753), and The College of William and Mary (1756), and doctorates from St. Andrews (1759) and Oxford (1762). As a result of his scientific labors, he was elected to the Royal Society in 1756.

Franklin became involved in civic affairs in 1727. He formed a club of tradesmen called "Junto" to work on civic improvements. Under Franklin's leadership, Junto sponsored a library, a fire company, an insurance company, a hospital, and a college to help bring about improvements within the community. In addition, the streets were paved, cleaned, and lighted because of Franklin's efforts.

Deborah Read became Ben Franklin's common-law wife on September 1, 1730. In a practical manner typical of Franklin, he refused to formally marry her in order to avoid responsibility for Read's debts from her first marriage. Franklin and Read had two children together: Francis Folger, who died of smallpox in 1736 at age four, and Sarah, born in 1743. Read and Franklin also raised an illegitimate son, William, fathered by Franklin around 1729 or 1730.

Franklin's business interests were so successful that he was able to sell them at age 42 and live comfortably on the proceeds for the next twenty years. From this retirement Franklin pursued civic and governmental affairs for the remainder of his life. He represented Pennsylvania interests in the English parliament and served as the colonial agent for Georgia, New Jersey, and Massachusetts. After serving in the

Second Continental Congress and assisting in the drafting of the *Declaration of Independence*, Franklin was sent to Paris to negotiate a treaty of alliance with France at the start of the American Revolution (1775–1783). He served as a liaison in France for nine years before returning to Philadelphia, where he assisted in the drafting of the *U.S. Constitution* in 1787.

Benjamin Franklin spent his final days living with his daughter and her family on Market Street in Philadelphia. He died on April 17, 1790. Twenty thousand people honored him in attendance at his funeral.

See also: American Revolution, Continental Congress (Second)

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FREE ENTERPRISE

Free enterprise refers to an economy that allows private businesses the freedom to organize and operate competitively for a profit without government interference, regulation, or subsidy. The main characteristics of a free enterprise economy are market competition, generation of profit, and the law of supply and demand. Competition forces businesses to manufacture goods with available raw materials and means of production at the lowest cost possible. In order to generate a profit, businesses must then be able to sell their products at a price higher than the cost of production. Pricing of goods in a free enterprise economy is based on both the supply of goods available in the marketplace and the demand for those goods from consumers. If the supply is greater than the demand, the resulting surplus causes prices to decrease. If the demand is greater than the

supply, the resulting shortage causes prices to increase. Eventually, an equilibrium price is reached when supply meets demand.

See also: Capitalism, Supply and Demand

FREE SILVER

A U.S. political movement of the late 1800s, “Free Silver” advocates argued for unlimited government coinage of silver. Like members of the Greenback Party, Free Silver supporters included many farmers who, in the 1870s, found themselves in debt from the effects of a drop in farm prices and an increase in costs. The agrarians were joined in their fight by silver mining interests in the West and members of the People’s (Populist) and Democratic parties. “Silverites” believed the government purchase and coinage of silver would have an inflationary effect which would raise prices and put more money in circulation thereby allowing debts to be paid. In 1878 Congress passed a compromise to appease the Free Silver alliance: The Bland-Allison Act required the U.S. Treasury to buy silver bullion and coin in the amount of two to four-million dollars worth each month. Nonetheless the Free Silver forces continued lobbying for an unlimited coinage of silver.

Though they were opposed by gold-standard interests, mostly creditors who were opposed to any silver coinage, silver supporters got another boost. In 1890 Congress passed the Sherman Silver Purchase Act which doubled government purchase of silver to increase the money in circulation. The legislation backfired: The resumption of silver as a monetary standard increased the overproduction in western silver mines; thus, prices collapsed. Americans responded by trading their silver for gold dollars thereby draining federal reserves. In 1893 the Sherman Silver Purchase Act was repealed and the United States returned to the gold standard. The presidential election of 1896, which pitted Republican candidate William McKinley (1897–1901) against Democrat William Jennings Bryan (1860–1925) was dominated by the debate over Free Silver. The silverite candidate, Bryan, lost. An increase in the world supply of gold and a return to prosperity made the silver issue moot for the next three decades: Gold remained the monetary standard until 1933.

See also: Bland-Allison Act, Gold Standard, Gold Standard Act, Greenback Party, Sherman Silver Purchase Act

FREE TRADE (ISSUE)

Free trade was arguably one of the founding principles of the United States. The colonies grew up under the Mercantilist system of international commercial competition between the great trading nations of the time: the Dutch, the French, and the English. (By the eighteenth century Spain was already in decline as a trading nation.) The role of the colonies in a Mercantilist economy was to provide staple goods—agricultural commodities or raw materials like cotton—for the mother country; a market for finished goods produced by the mother country; and a tax base to help pay for the administrative and military costs of imperialism. Mercantilism, as practiced by the main commercial nations of Europe, required government granting of monopolies, government checking for “quality control” in the colonies’ commercial products, government stipulation of trade routes, and government imposition of tariffs (import taxes).

Mercantilism was the opposite of the free trade system advocated by economist Adam Smith in the late eighteenth century. Adam Smith, in his brilliant summary of the free trade system, *The Wealth of Nations* (1776), argued that the government only got in the way of wealth creation under a capitalist economy. Much of what Smith said was true, but the inertia of government policy steered the colonial policy of the British Parliament in the direction of greater government intervention and regulation of the economy. The Navigation Acts of the late seventeenth century had already required the American merchant marine to channel its trade with Europe through English ports, where the goods were taxed.

After the exhausting Seven Years War (1754–1763), the Board of Trade in victorious England attempted to spread the costs the conflict among the colonies by taxing everything from sugar to stamps. It was this internal system of taxation that rankled the American commercial and consuming classes and moved the country in the direction of Revolution. But after the colonists won the revolution one of the first pieces of legislation to be passed by the first Congress in 1789 was a tariff act whose purpose was to raise revenue.

The debate between free trade or protectionism became one of the most contentious and long-standing issues in the politics in the new republic. It was central to the argument between the Federalists and the Republicans over economic policy. Alexander Hamilton (1755–1804) held an American mercantilist position—promoting, in his *Report on Manufactures* (1791), a policy of protective tariffs and federal subsidies to

foster a domestic manufacturing base for the U.S. economy. James Madison (1751–1836) and Thomas Jefferson (1743–1826), who represented the dominant agricultural side of the economy, attacked Hamilton's farsighted reforms, arguing that any measure which increased the power of the central government would not be in the national interest.

Over the next century the leaders in the U.S. government espoused global free trade in principle, but in practice they raised trade barriers to protect import-sensitive sectors of the economy. Tariffs became an integral part of the conflict between the North and South that led to the American Civil War (1861–1865). In 1828 the Tariff of Abominations placed tariffs on almost every imaginable manufactured good. Southern politicians feared and resented the tariffs because they raised prices for goods that the South needed, and displayed the growing political power of the North—a development the South feared because it seemed to indicate a more powerful might impose further restrictions on slavery.

As the U.S. economy became more productive it encountered the problem of over-production. This meant that the domestic market could not absorb the goods that industry and agriculture were producing. The obvious solution was to encourage trade with the markets of other countries. But this could not be accomplished if the United States was maintaining high tariffs keeping other countries from penetrating the its market. Potential trading partners would simply raise their own tariff walls and foreign trade would wither. This became clear in 1930, early in the Great Depression (1929–1939). The agricultural sector of the U.S. economy had been in a depression for the better part of a decade when President Herbert Hoover (1929–1933) attempted to protect U.S. farmers from international competition through the Smoot-Hawley Tariff. Passed in 1930, the Smoot-Hawley Tariff raised the protective barrier to an average of 53 percent of the commodity price—an unheard of level. Hoover had hoped the bill would convince the commodity exchanges to buy domestic agricultural products. Instead, foreign governments retaliated with higher tariffs and quotas of their own. Foreign governments saw Smoot-Hawley as a hostile act, yet another symbol of U.S. isolationism. It provoked a global trade war, which led to a fall in the volume of international trade and resulted in national economies plummeting into a worldwide depression. Scholars estimate that, largely as a result of Smoot-Hawley, the value of world trade in 1933 was one-third what it was in 1929. This demonstrated the perils of protectionism and the virtue of free trade.

Hoover's successor to the presidency, Franklin D. Roosevelt (1933–1945), marked a turning point in U.S. trade policy. With the encouragement of the Secretary of State, Cordell Hull, Roosevelt pushed the Reciprocal Trade Agreements Act of 1934. For the first time in history the executive branch was given authority to reduce tariffs up to fifty percent if the other country reciprocated. Also for the first time, as a step in the direction of expanding global production and employment, the government engaged in continual bilateral negotiations to reduce trade barriers. U.S. trade negotiators signed about twenty-five bilateral trade agreements by the early 1940s. Despite the disruption of trade relations by World War II (1939–1945) the Roosevelt administration had begun the process of trade liberalization that continued with the United States serving as the dominant postwar global economic power.

[T]HE U.S. GOVERNMENT ESPOUSED GLOBAL FREE TRADE IN PRINCIPLE, BUT IN PRACTICE THEY RAISED TRADE BARRIERS TO PROTECT IMPORT-SENSITIVE SECTORS OF THE ECONOMY

By 1950 the United States had implemented a trade policy which favored Western Europe and Japan, with massive financial assistance to rebuild their war-torn economies. In the hope of integrating industrialized democracies into a stable and peaceful international economic order the United States gave Western Europe and Japan permission to protect their rebuilt industries with high tariffs against U.S. goods. The United States supported regional economic cooperation among Western European countries even though they maintained protective tariffs against U.S. exports. This free trade umbrella evolved into the European Economic Community and, eventually, in the 1990s, into the European Union. Meanwhile, successive U.S. administrations used trade policy as a foreign policy tool to contain the expansion of communism. Communist countries were excluded from the "free world's" trading system.

In the 1960s the John F. Kennedy (1961–1963) administration developed a plan to create a more integrated Atlantic Community. Using the concept of "trade or fade," the Kennedy administration pushed for the passage of the Trade Expansion Act of 1962, which authorized reciprocal across-the-board tariff cuts of up to fifty percent. It also authorized negotiations of total tariff elimination on a reciprocal basis when the United States and European Economic Community (EEC) made up at least eighty percent of world trade

for a product. As a result, the Europeans and the United States signed an agreement that was the largest round of tariff cuts in history, about thirty-five percent globally.

The 1970s brought a new phase of international economic relations, with U.S. competitiveness decreasing despite the nation's continued political and military world hegemony. Observers expressed doubts about the soundness of a liberal trade policy as the nation's trade surplus continued to diminish. In 1971 the most powerful labor organizations in the United States, the American Federation of Labor-Congress of Industrial Organization (AFL-CIO), adopted a protectionist stance. The labor movement was losing members in droves as early as the 1960s due to de-industrialization, which business analysts attributed to the unwillingness of government policymakers to protect American industry from rising imports and increased overseas investments by U.S. corporations.

The pendulum swung back towards protectionism under President Richard M. Nixon (1969–1974). The Nixon administration brought protectionism back in full swing with the announcement of the New Economic Policy in 1971, which imposed a ten percent surcharge on all import duties and terminated the U.S. obligation to convert dollars held by foreign banks into gold at a fixed price. But the free-trade forces in Congress passed the Trade Act of 1974, which authorized the president to reduce tariffs.

The Trade Act of 1974 had two important and seemingly contradictory legacies. One was the completion of a Tokyo round of multilateral trade negotiations. Marking the decline of unilateral U.S. economic dominance, the industrialized nations indicated their intention to help the economies of less developed countries by authorizing “more favorable treatment” to these economies. Among other things, this meant facilitating increased investment in low wage economies.

Second, the Trade Act of 1974 gave more protection to U.S. interests desiring import relief, mostly from Japan and the newly industrializing nations of Korea, Singapore, Taiwan, and Hong Kong. The United States and the EEC practiced “the new protectionism,” reaching a compromise between the protectionism of the 1930s and the internationalist trade liberalization of the 1960s.

During the 1980s Reaganomics had a substantive impact on U.S. trade policy. The Ronald Reagan (1981–1989) administration reduced taxes, brought about a rising budget deficit, and allowed the largest trade deficit in the nation's history. With the continued appreciation of the U.S. dollar many sectors of U.S.

industry and agriculture were unable to compete in the international market.

In response, the Reagan administration attempted to increase exports rather than reduce imports. The United States introduced the policy of “reciprocity,” a rejection of the U.S. postwar policy of ignoring what the administration considered other countries' unfair trade barriers. Reagan announced in 1985 that he would not “stand by and watch U.S. businesses fail because of unfair trading practices abroad.” When other nations were unwilling to “voluntarily” reduce their trade barriers the United States threatened retaliation as it did with Japan and China in 1995.

In the 1990s the successive George Bush (1989–1993) and William Clinton (1993—) administrations concluded negotiations for the North American Free Trade Agreement, an historic accord establishing a free trade block between the United States, Canada, and Mexico. Even though the United States carved out a free trade system on the North American continent, it applied selective import restrictions for the rest of the world. While proclaiming its adherence to free trade policies the United States more often than not instituted protections against selected imports that undermined domestic industrial development. Thus, the United States has continually maintained a complicated and contradictory relationship between protectionism and free trade internationalism throughout its history.

See also: De-industrialization, Foreign Investment in the United States, Foreign Investment of U.S. Companies Abroad, Mercantilism, Protectionism, Report on Manufactures, Smoot-Hawley Tariff, Tariff

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Depicted in this drawing is Gen. Oliver O. Howard, the first commissioner of the Freedmen's Bureau. He is shown protecting the gap between angry southern white men and the newly freed black men.

FREEDMEN'S BUREAU

After the end of the American Civil War (1861–1865) in April 1865, the newly reunited United States faced a humanitarian disaster on a scale not before seen. In the battle-torn South, cities, plantations, and crops had been burned, railroads were destroyed, and hundreds of thousands of whites and newly freed blacks suffered from disease and hunger. Also, most of the four million newly freed slaves were illiterate and largely incapable of succeeding in the postwar economy. In response to the suffering and the need to reintegrate the rebel states back into the Union, the U.S. government introduced an unprecedented bureaucracy of relief effort. The most important arm of this bureaucracy was the Freedmen's Bureau.

The Freedmen's Bureau was established by Congress as the Bureau of Refugees, Freedmen, and Abandoned Lands on March 3, 1865, to aid and protect former slaves after the end of the war. Its original charter was for one year. On July 16, 1866, the Bureau was reorganized under the U.S. War Department, which gave it the backing of military force. The 200,000 federal troops occupying the southern states helped

establish military law and order. As a result of its military ties, the Freedmen's Bureau became one of the most powerful tools wielded by the federal government during Reconstruction (1865–1877).

The first commissioner of the Freedmen's Bureau was General Oliver O. Howard, who had the power to organize the former slave regions into a structure that the Bureau could oversee. Howard created ten districts out of the slave-holding states, including those slave-holding states that had remained in the Union during the war. The work of the Freedmen's Bureau was concentrated to five areas: relief work for all citizens in war-torn areas; regulation of black labor; management of abandoned and confiscated property; administration of justice for blacks; and the education of former slaves. The Bureau compiled an impressive record in the first and last of these areas, but it had little success in setting up former slaves as landowners. During the summer of 1865 alone, the Freedmen's Bureau distributed 150,000 food rations daily—50,000 of those to white refugees. During the life of the Bureau, more than 22 million rations were given out.

The lack of success in setting up former slaves as landowners came as a result of President Andrew

Johnson's (1865–1869) May 29, 1865 Proclamation of Pardon and Amnesty to all southern citizens who would take an oath of allegiance. It applied to everyone except military officers and government officials. The amnesty restored property rights, excluding slaves, to all those owning property worth less than \$20,000 and, thus, reduced the land pool preserved for distribution to freed slaves. General Howard at first refused to give back property to whites, but on August 16, 1865, President Johnson ordered him specifically to do so. Regardless of the Radical Republicans' intentions, which were to transfer massive amounts of land from former slave owners to freedmen, their efforts were largely a failure.

Finally, the Bureau operated as a patronage machine for the Republican Party. They traded favors to freedmen in the South in exchange for votes. This, along with the fact that the Bureau was instrumental in helping former slaves get elected to political office, helped to create political hatreds that lasted well into the twentieth century. The Freedmen's Bureau was also the focus of political troubles in places outside the South. Congress passed a bill in 1866 to increase the powers of the Bureau and extend its life indefinitely. President Johnson vetoed the bill on February 19, 1866, on the grounds that it was an unconstitutional continuation of the war and that it was too soon to extend the full rights of citizenship to blacks. The veto escalated Johnson's long and ultimately futile battle with the Republican Congress over Reconstruction policy. Congress passed another bill extending the Freedmen's Bureau for three years, overriding Johnson's veto on July 16, 1866. The majority of the work of the Freedmen's Bureau was discontinued on July 1, 1869, though the educational activities continued until 1872, when Ulysses S. Grant (1869–1877) was elected president.

See also: Civil War (Economic Impact of), Reconstruction, Slavery

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FRÉMONT, JOHN CHARLES

John Charles Frémont (1895–1983) not only explored the American West, he played an important role in popularizing it. The tales of his exploits made the very idea of settling the West an exciting and popular idea, and those tales made him a national hero. Frémont made scientific contributions that were recognized nationally and internationally, and won him gold medals from the Royal Geographical Society of London and the Prussian government.

Frémont was born in Savannah, Georgia, on January 21, 1813. He was the illegitimate son of Charles Fremont, a Frenchman, and Anne Beverley Whiting Pryor, who had left her elderly husband to run away with Fremont. The union of Fremont and Pryor produced another son and daughter, and the family was a scandal in Richmond, Virginia. The Fremonts were poor and moved frequently. When Charles Fremont died in 1818, Pryor took the family to Charleston, South Carolina. No one knows when John Frémont added the acute accent to the "e" and the "t" to his name.

The lawyer for whom Frémont had been a clerk sent him to private school at age fourteen. Afterwards, Frémont enrolled in the Scientific Department at the College of Charleston, but in 1831 was dismissed for "habitual irregularity and incorrigible negligence," just three months from graduating. Five years later, Frémont petitioned the college for his degree, and it was granted. The family was still poor, however, and despite frequent moving and determined efforts, John Frémont was unable to break out of poverty until he got his first big break. Joel Poinsett, an influential South Carolina politician, helped Fremont obtain an appointment as a teacher of mathematics to the midshipmen on the U.S.S. *Natchez*. Poinsett then helped Frémont gain employment, surveying land for the Charleston, Louisville, and Cincinnati Railroad, and for the Cherokee Indian lands in Georgia, Tennessee, and North Carolina. The survey work concerned mountainous country and forests, and Frémont was to later write he had "found the path which I was 'destined to walk.'"

Again due to the influence of Poinsett, Frémont was commissioned a second lieutenant in the U.S. Corps of Topographical Engineers in 1838. His first assignment was to accompany French scientist Joseph Nicolas Nicollet on a reconnaissance of the region between the upper Mississippi and Missouri rivers. Frémont learned sophisticated methods of geodetic surveying, the use of the barometer in measuring altitude, and how to take astronomical observations

from the French scientist. He also learned how to manage an expedition and to construct a map.

Back in Washington, D.C., Frémont met Jessie Benton and the two eloped on October 19, 1841. Jessie was the daughter of Senator Thomas Hart Benton of Missouri, and only 17 years of age when the couple eloped. Senator Benton's support was important to Frémont's career, and his wife became his collaborator in chronicling his journeys. Frémont took command of an expedition to survey the Platte River in 1842. In 1843, he again led a survey mission into the West, linking up with the Pacific Coast survey headed by Charles Wilkes (1798–1877). Christopher (Kit) Carson was Frémont's guide for these trips, and he was accompanied by German cartographer Charles Preuss.

Reunited with his wife in St. Louis, the couple wrote captivating accounts of his adventures—accounts that had much to do with glamorizing the exploration of the West and encouraging settlement of the area. Frémont laced his accounts with an enthusiasm for nature, as well as the pure adventure of shooting river rapids, traversing the Great Salt Lake in a rubber boat, and fighting snow to cross the Sierra Nevada mountains in mid-January. His stories were detailed and fun, but they also provided very useful information concerning terrain, campsites, water, vegetation, wildlife, and weather. Countless settlers used this information after Congress ordered Frémont's maps and reports published. As a result, Frémont became a national hero.

While on his third expedition to the West and California, Frémont was commissioned a lieutenant colonel in the Mounted Rifles. During that third expedition, American settlers in California mounted the Bear Flag Rebellion against Mexico, and Frémont became involved with a battalion of volunteers. Frémont and his California Battalion served under Robert F. Stockton during the Mexican War (1848), and Stockton rewarded Frémont with the governorship of California. Caught in a power struggle between Stockton and Brigadier General Stephen Watts Kearny, however, Frémont came out on the wrong side and was court-martialed and convicted on charges of mutiny, disobedience, and conduct prejudiced to military discipline. President James K. Polk (1845–1849) remitted the penalty and ordered Frémont to duty, but unable to deal with the original decision, Frémont resigned from the army.

Frémont's major life accomplishments occurred prior to the age of forty, with his explorations and writings on the West. He mined gold on his 44,000-acre estate in California. Though he reportedly made millions, he lost control of the property in 1864, along

with his money. In the interim, he did serve a brief term in the United State Senate, representing California from 1853 to 1854. In 1856, he was the first nominee of the Republican Party for president and did nearly well enough to win the election. During the American Civil War (1861–1865), he served a brief term as a major general in command of the Western Department, headquartered in St. Louis. President Abraham Lincoln (1861–1865) fired him for a declaration Frémont made on August 31, 1861, freeing the slaves of Missouri rebels. Frémont also served as commander of the Mountain Division at Wheeling, West Virginia, during the Civil War, but Frémont again chose wrongly in his political affiliations and resigned.

After the war, Frémont bought a home on the Hudson River and became involved in railroad promotion. He lost everything in a failed attempt to finance and build a railroad from Norfolk, Virginia, to San Diego, California. In 1878, friend and President Rutherford B. Hayes (1877–1881) appointed him territorial governor of Arizona. Extended absences from the territory, along with conflicts of interest, prompted President Chester A. Arthur (1881–1885) to ask for his resignation, which Frémont submitted on October 11, 1881. Frémont wrote an autobiographical account, *Memoirs*, but the book did not address the more recent events in his life, and did not sell well.

In 1887, John and Jessie Frémont moved to Los Angeles, hoping to profit from a real estate boom. Their spinster daughter, Elizabeth, accompanied them, while sons John Charles, Jr., and Frank Preston, served in the Navy and the Army respectively. Frémont died July 13, 1890, in a New York boarding house while on a business trip. He and his wife are buried in a Rockland Cemetery overlooking the Hudson River.

See also: Westward Expansion

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FRENCH AND INDIAN WAR (1754–1763)

The French and Indian War (1754–1763) was the last of a series of great colonial wars that stretched for almost a hundred years and disrupted settlements throughout North America. It marked the end of the French empire in North America and the beginning of English domination of the continent. It also emphasized the differences between Englishmen and colonists and laid the groundwork for the drive toward independence, culminating in the American Revolution (1775–1783).

The events that sparked the French and Indian War had their origin in the trade with Native Americans. The French had claimed the territory surrounding the Great Lakes and had established Christian missions and trading posts throughout the area. They hoped to profit from the trade in furs that they maintained with the Indians. By the 1740s, British traders were entering the nearby same area of what became the state of Ohio, crossing over the Appalachian and Allegheny mountains and competing with the French. Because British trade goods were cheaper and better made than those the French offered, many Native Americans—including the Wyandot chief Memeskia, the Shawnee, and the Delaware, chose to break with the French and establish links with the English instead. The Six Nations, also known as the Iroquois League, retained their alliance with the English, which was formed almost a century earlier. The French responded by beginning the construction of a network of forts stretching from Lake Erie to the Ohio River. They also warned the Native Americans that the English were more interested in their lands than they were in the items the Indians had to trade.

The French were telling the truth about the British desire for land. In 1749, King George II authorized the charter of the Ohio Company, a coalition of British and Virginian traders and speculators, and gave the new company title to enormous territories in the Ohio valley. King George required the company to establish a settlement in the area and to build a fort for its protection within seven years. From 1750 to 1752, Ohio Company agent Christopher Gist traveled the area, looking for suitable areas to place such a settlement. Between May and July 1752, Gist concluded the Logstown Treaty at Ambridge, Pennsylvania, between

the colony of Virginia and the Six Nations of the Iroquois, Wyandot, Delaware, and Shawnee, which opened the Ohio country to English trade and settlement.

The negotiations at Logtown were disrupted by news that a coalition of French-allied tribes, led by a French Indian agent named Charles Langlade, had attacked the town of Pickawillany (modern Piqua, Ohio), which was the major center of English trade in Ohio. Memeskia, a long-time British friend and collaborator, was killed by Langlade and ritually eaten. As a result of the news the Seneca asked the Virginians to build a fort at the junction of the Monongahela and Allegheny rivers—known as the Forks of the Ohio—to protect them from the French and their Indian allies and to give them access to English goods.

Partly because of this request and partly because of the forts the French were building in the area and political pressure in the British Cabinet, in 1753 Virginia governor Robert Dinwiddie sent George Washington (1732–1799)—the brother of an Ohio Company investor, who had trained as a surveyor—on a mission to the French at Fort LeBoeuf (modern Waterford, Pennsylvania). Washington demanded the French evacuate the fort, which (the English claimed) was built on Virginian territory. The French commander, Captain Legardeur de Saint-Pierre, refused and Washington, unable to force his compliance, returned to Dinwiddie. The governor then commanded Captain William Trent to begin work on the fort requested by the Seneca. On April 17, 1754, a French force of 600 captured the fort and its 41-man English garrison. On May 28 Washington, who had been sent by Dinwiddie with 150 reinforcements for the fort, surprised a French reconnaissance party and killed several of its members, including Ensign Joseph Coulon de Villiers de Jumonville, an officer the French regarded as an ambassador.

Washington’s fight marked the opening of the French and Indian War, even though it would be another two years before the English and the French governments formally declared war in 1756. In the meantime, the brother of Ensign Coulon de Villiers forced the surrender of Washington’s party and the makeshift fort Washington built at Great Meadows. Washington’s defeat and the fall of the fort effectively ejected the English from the Ohio country. It also helped alienate many Native Americans who had been English allies. Most of the Ohio Indians, won over by military successes, returned to their traditional relationships with the French.

By the time the Albany Congress was convened in mid-summer of 1754, the Iroquois were the only Native American allies left to the English. Although the



British General James Wolfe was killed during a victorious battle with the French at Quebec in 1759. This event led to the end of the French and Indian War.

Congress was intended to promote unity among colonies and to conclude a treaty with the Iroquois, it had almost the opposite effect. Although a treaty was signed, Conrad Weiser of Pennsylvania and Joseph Lydius of Connecticut bribed and cheated Iroquois chiefs into ceding thousands of square miles of land in western Pennsylvania and southern New York. The Oneida sachem Concochquiesie complained to Indian agent William Johnson that Lydius “is a Devil and has stole [sic] our Lands. He takes Indians slyly by the Blanket one at a time, and when they are drunk, puts some money in their bosoms, and perswades [sic] them to sign deeds for our lands.” The Iroquois Confederacy declared itself officially neutral in the war, but many of their tributary tribes allied themselves with the French.

English policies in the early years of the war met with resistance from white settlers as well. Merchants in the north, especially in New York, had created a close (and illegal) trade with Canada based on smuggling. These businessmen took exception to the difficulties the war created and opposed British efforts to deal with the risks the French posed. Colonists who served in the armed forces resented the strict discipline, harsh punishments, and contempt in which British officers held them, despite the fact that provincial forces and their Indian allies won British victories while regular commanders were defeated. Major General Edward Braddock, for instance, lost the Battle of

the Wilderness (July 9, 1755) and drove the Delaware into a French alliance in part due to his refusal to pay attention to his colonial advisors. Provincial forces also played important roles at the Battle of Lake George (September 7–8, 1755), and the relief of Fort Oswego (July 3, 1756).

The fortunes of the English began to shift with a change in government. When William Pitt became Prime Minister of Great Britain in December of 1756, he promised a much more aggressive promotion of the war. Despite the victories of the talented French commander the Marquis de Montcalm, most notably at Fort William Henry (August 1757), Pitt increased financial and military support for the British forces in the colonies. By the summer of 1757 Pitt’s efforts had begun to be felt, and in October, 1758, a new Indian treaty signed at Easton, Pennsylvania, brought many French Indian allies into the British camp. In September, 1759, the town of Quebec fell to an assault by General James Wolfe, and in 1760 Montreal fell. The war in the American colonies was essentially over.

The aftermath of the French and Indian War had a great economic effect on the colonies. With battlefields spreading over much of the Pennsylvania, New York and New England frontier districts, the war left colonial economies in ruins. Many backwoods families had been forced to abandon their homes and, according to

Friedman, Milton

the terms negotiated between the British and the Indians, they would never be allowed to return west of the Appalachians. Although England had won great territories by forcing the French out of Canada, they had also created a huge national debt in fighting the war. The means of financing and repaying this debt—and for paying the salaries of the thousands of soldiers needed to keep peace between frontiersmen and Indians on the Appalachian borders as well as in Canada—brought Great Britain and her American colonies to the brink of war a little more than a decade later.

See also: George Washington

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FRIEDMAN, MILTON

Born July 31, 1912, in Brooklyn, New York, Milton Friedman (1912–) was raised in Brooklyn and Rahway, New Jersey. He was educated at Rutgers University, where he received his Bachelor's in Economics in 1932. In 1933, he received a Masters of Arts from the University of Chicago, where he worked as a research assistant for two years. Friedman then took a series of positions in government service which shaped his economic theories.

Friedman worked from 1935 to 1943 as an economist for the National Resources Committee, the National Bureau of Economic Research, and the Department of the Treasury. For the 1940–1941 school year, he took a break from his government jobs in Washington, D.C., to serve as visiting professor of economics at the University of Wisconsin. In 1943 he resumed his work on a doctorate degree at Columbia University, where he received his degree in 1946. He spent one

year on the faculty of the University of Minnesota before joining the University of Chicago as associate professor of economics. Friedman became a full professor at the school in 1948.

Milton Friedman began writing shortly after completing his first two degrees, publishing many articles and books. Through his writing, Friedman became an advocate of the monetarist school of economics. In this economic theory, the business cycle is influenced more by the supply of money and interest rates than the fiscal policy of the government. As such, Friedman was opposed to the prevailing thoughts of his day, which were guided by the theories of John Maynard Keynes (1883–1946), the British economist who championed the role of government expenditures and taxes in influencing economic cycles.

Friedman married Rose D. Friedman, also an economist, who collaborated on some of his works. He was on the editorial boards of the *American Economic Review* from 1951 to 1953 and the *Econometrica* from 1957 to 1968. He was named the Paul Snowden Russell Distinguished Service Professor at the University of Chicago in 1962. In 1967 he began a ten year run as a regular columnist in *Newsweek* magazine. In 1976 Friedman was awarded the Nobel Prize for Economics.

Senator Barry Goldwater (1909–) used Friedman as an economic policy advisor in his unsuccessful 1964 presidential campaign. President Richard Nixon (1969–1974) sought Friedman's advice frequently. But perhaps Friedman's greatest influence with presidential politics occurred during the administration of President Ronald Reagan (1981–1989), when monetary policy and "supply side" economics gained influence with Washington policymakers. Friedman retired from his position at the University of Chicago in 1979 to become a senior research fellow at a conservative think tank, the Hoover Institution, at Stanford, California.

Friedman's published works include *Capitalism and Freedom*, written in 1962 with his wife. This book advocates a "negative" income tax or guaranteed income to replace welfare, which Friedman accused of destroying traditional values of individualism and work. In addition, Friedman published *A Monetary History of the United States, 1867–1960* (1963), and *Monetary Trends of the United States and the United Kingdom* (1981). Other works include *The Great Contraction*, with A. J. Schwartz (1965), *The Balance of Payments* with R. V. Roosa (1967), *Dollars and Deficits* (1968), *The Optimum Quantity of Money and Other Essays* (1969), *Bright Promises, Dismal Performance: An Economist's Protest* (1983), and *Money Mischief: Episodes in Monetary History* in (1992).

See also: Keynesian Economic Theory, Monetary Theory

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FRINGE BENEFIT

Next to wages, fringe benefits are the most important method businesses use to entice workers to accept or stay in jobs. Fringe benefits, also known as "employee benefits," can be provided voluntarily by employers, required by law, or won through collective bargaining negotiations between companies and employees. Fringe benefits can be generally divided into those offered individually, such as 401(k) retirement plans, and those offered to employees as a group, such as daycare facilities or free lunch. Most employee benefit plans traditionally offered three basic benefits: health insurance, a retirement plan or pension, and additional benefits, such as stock option plans or life insurance. A crucial advantage of fringe benefits to businesses was that the Internal Revenue Service (IRS) allowed firms to deduct benefits as an employee compensation expense from the taxes they owe. Similarly while employees had to pay taxes on any increases in their salaries, their benefits were not taxed.

In the late 1990s, medical benefits and flex-time—allowing workers to choose their daily work schedules—were the two most important fringe benefits for U.S. job seekers. Medical benefits comprised the single most costly benefit for employers. A special class of fringe benefits were "perks" (short for *perquisites*), which were usually offered only to senior-level employees. Perks included mobile car phones, executive parking, company cars, and even chauffeured limousines or a company jet.

In the United States, fringe benefits became much more common after collective bargaining became common in the 1930s and 1940s, giving workers the power to persuade businesses to improve working conditions. During World War II (1939–1945), government-mandated wage and price controls prevented companies from giving raises, so they relied on fringe benefits to recruit and reward employees. Fringe benefits accounted for 17 percent of the total compensation of blue-collar workers by 1951, and 30 percent by 1981. In the 1980s employee benefit reforms introduced by President Ronald Reagan (1981–1989) had the unintended effect of complicating the national fringe benefits system, and in the 1990s innovations like customizable "cafeteria" health, insurance, vacation plans, and SIMPLE (Savings Incentive Match Plan for Employees) benefits simplified benefits choices. During the tight job market of the 1990s, employers began offering a more creative mix of fringe benefits, including club memberships, legal services, home offices, and errand services. Among the most sought-after benefits were stock options, or shares in an employer's stock. During the stock market boom of the 1990s some fast-growing companies boasted that their stock options had turned secretaries and other non-management workers into millionaires.

FUGITIVE SLAVE ACT OF 1850

The roots of the American Civil War (1861–1865) were complex, but the conflict-ridden issue of slavery is rightly given prominence by most scholars. At its base, the Civil War pitted fundamentally different regional and socio-economic forces against each other. Although agriculture had dominated the economy of the early American republic, its importance varied by region. Farming defined the economy of the South, which evolved into an agricultural aristocracy based on slavery. The states of New England, however, were shaped by very different natural forces. Deprived of fertile soil, society in New England developed an energetic mercantile culture in sharp contrast with the lifestyle of the South. The Northern region gave birth to influential merchant and business classes, whose wealth had little or no connection to the land. Although the middle colonies enjoyed a more mixed economy, they were inevitably influenced by the great trading and business centers of New York and Philadelphia.

Understandably, both the Northern and Southern cultures viewed its rival as a significant, if not mortal, threat to its way of life. As the first half of the nineteenth century drew to a close, many Southerners

Fugitive Slave Act of 1850

tightly embraced safeguards to their way of life as they felt increasingly threatened by the dynamic and often turbulent urban culture of the North. One such safeguard was the cluster of constitutional and legal provisions that mandated the return of runaway slaves to their legal owners.

As part of the sectional compromise that ensured the ratification of the *Constitution*, Article IV, section 2 of the document directed that “no person held to service or labor in one state, under the laws thereof, escaping into another, shall, in consequence of any laws or regulation therein, be discharged from such service or labor, but shall be delivered up, on claim of the party to whom such service or labor may be due.” Congress subsequently enacted the Fugitive Slave Act of 1793 to specify procedures to aid in the recovery of runaway slaves.

Although slaveholders possessed formal legal remedies to recover runaway slaves, these measures, including the Fugitive Slave Act of 1793, were routinely scorned in the North, where anti-slavery sentiment was generally strong. Ironically, Southern slaveholders, who routinely invoked the doctrine of states’ rights to help protect the institution of slavery, were often frustrated in the recovery of runaway slaves by personal liberty laws enacted by the legislatures of several northern states. In one variant, personal liberty laws forbade state officials from participation in efforts to return fugitive slaves.

The question of runaway slaves was again placed before Congress in the famous Compromise of 1850. The compromise attempted to solve growing North-South tensions over the extension of slavery, specifically into newly annexed Texas and the territory gained by the United States in the Mexican War (1850–1853). The compromise measures originated largely from Stephen A. Douglas (1813–1861) and were sponsored in the Senate by Henry Clay (1777–1852). The compromise called for the admission of California as a free state, the use of popular sovereignty to decide free or slave status for New Mexico and Utah, the prohibition of the slave trade in the District of Columbia, and the passage of a stricter fugitive slave law. The prospects for the acceptance of these proposals were reinforced by the powerful speeches of statesman Daniel Webster (1782–1852), and the presidency of Millard Fillmore (1850–1853), a supporter of the compromise who stepped into office after the death of President Zachary Taylor (1784–1850). The proposals were passed as separate bills in September 1850.

The Fugitive Slave Law was arguably the most controversial part of the Compromise of 1850. The law

carried a number of provisions that strengthened slaveholders in their pursuit of runaways. Federal commissioners were to be appointed with the power to issue warrants and mobilize posses. Suspected runaways were denied due process of law, and could be sent to the South on the basis of an owner’s affidavit.

Southern opinion had been inflamed by a long record of Northern obstruction of the recovery of runaways. The so-called Georgia Platform adopted in late 1850 held that the fate of the union itself now depended on the North’s faithful observance of the new fugitive slave act. Such cooperation was not forthcoming. Popular opposition to the recovery of slaves received frequent coverage in northern and southern newspapers. At the same time, a number of northern states passed stronger personal liberty laws. In Wisconsin, a reporter was arrested for encouraging a mob to free a captured runaway. The state court released him on a writ of *habeas corpus* (a court order determining an individual was confined illegally) and held the Fugitive Slave Act unconstitutional. Although the Supreme Court upheld the law in *Abelman v. Booth* (1859), the effort provided Southerners little comfort.

The single greatest blow to the Fugitive Slave Act and to the Southern cause came from northern printing presses. The passage of the Fugitive Slave Act prompted Harriet Beecher Stowe (1811–1896) to write her famous novel, *Uncle Tom’s Cabin*, published in 1852. The novel was a powerful and convincing indictment against slavery, and over 300,000 copies of the novel were sold in a year, an astronomical amount for that time. Although the injustices of the Fugitive Slave Act and the emotions stirred by Stowe’s novel did not likely convince most Americans that the abolition of slavery would justify a civil war or the dissolution of the Union, the outcomes of the Fugitive Slave Act did lead many Americans to reject any future efforts at political compromise over differences between the North and South.

See also: Civil War (Economic Causes of), Slavery, States’ Rights

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FULL EMPLOYMENT ACT OF 1946

The Full Employment Act of 1946 sought to strengthen the economic gains to the U.S. economy that had resulted from massive government spending during World War II (1939–1945). Applying the theory of British economist John Maynard Keynes, who argued that intensive government spending was necessary to end economic depression, President Harry S. Truman (1945–1953) proposed a 21-point program in 1945 to boost the U.S. economy. The plan called for full employment legislation, an increased minimum wage, and better unemployment and social security benefits as well as housing assistance. Truman believed the bill would ensure that the country would not slip back into depression because it allowed the initiation of remedial action, such as tax cuts and spending programs if economic indicators shifted downward.

The Full Employment Act as initially proposed won the strong support of labor as well as liberal politicians, but was fiercely opposed by industry. The National Association of Manufacturers condemned the bill as a socialist measure and argued that government intervention would threaten free enterprise. To placate the business community, Congress cut several key elements of the bill before finally passing a severely truncated version of Truman's proposed legislation. The Full Employment Act passed by Congress in 1946 created a Council of Economic Advisers to report to the president, but failed to authorize governmental intervention to maintain full employment when economic indicators signaled a recession. Instead of giving government the strong role that Truman wanted, the act allowed it only a modest role in economic planning.

See also: Keynesian Economic Theory, Harry S. Truman

FULLER, RICHARD BUCKMINSTER, JR.

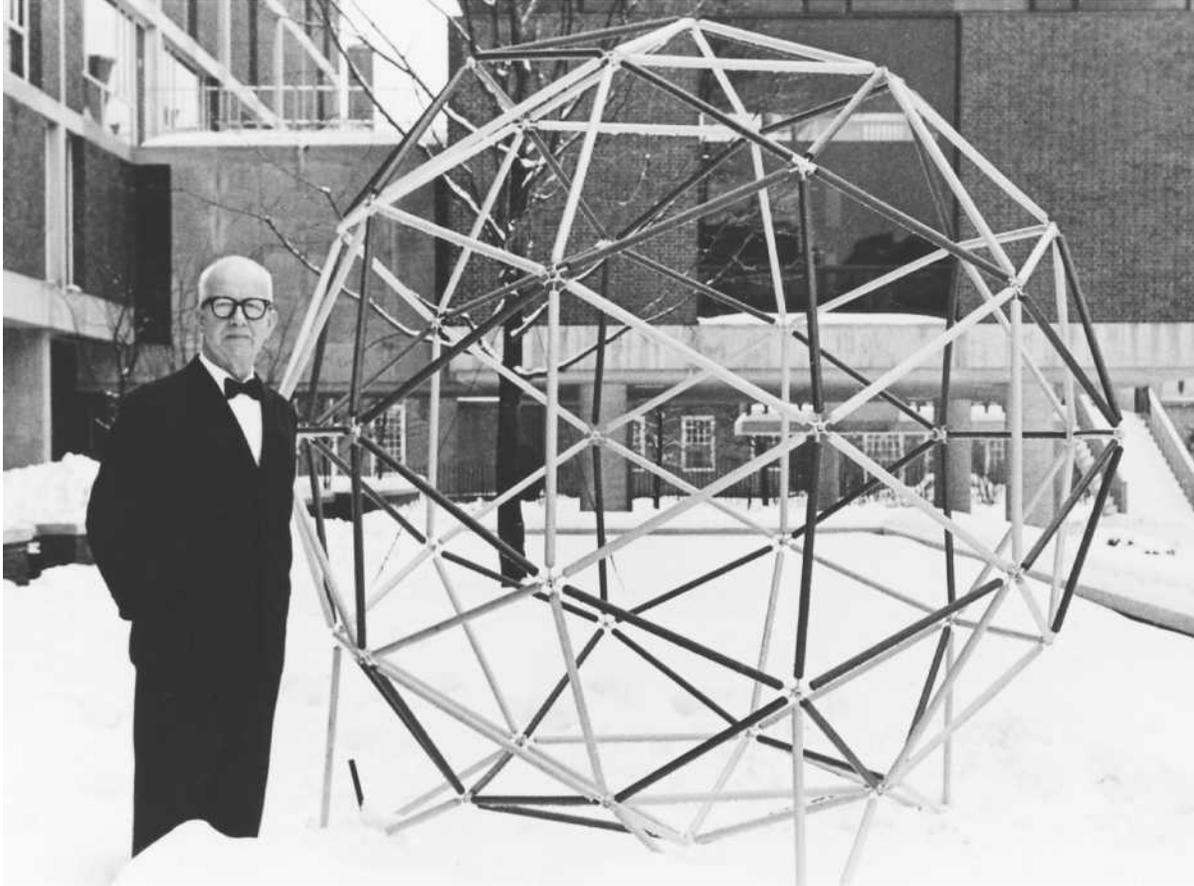
Poet, philosopher, writer, designer, engineer, teacher, futurist, cartographer, geometrician, inventor, and businessman were all terms applied to Richard Buckminster Fuller, Jr., (1895–1983) a nonconformist known for unorthodox ideas about the world. Fuller was an original thinker. He was an environmentalist decades before it became popular.

Richard Buckminster Fuller, Jr. was born July 12, 1895, in Milton, Massachusetts. He was well educated as a young man and entered Harvard University, where he was twice expelled. Fuller never finished college. His family were well-known Nonconformists, and his great aunt Margaret was cofounder of *The Dial*, a publication of the Transcendentalist movement.

Fuller served in the U.S. Navy during World War I (1914–1918), commanding a crash-boat flotilla. He invented special lifesaving equipment while in the Navy, and, as a reward, was granted an appointment to the U.S. Naval Academy at Annapolis. Buckminster “Bucky” Fuller married Anne Hewlett in 1917. The daughter of a well-known architect and muralist, Anne was herself an inventor who created a modular construction system using compressed fiber block. After the war Fuller was employed briefly at Armour and Company, then went to work for his father-in-law in 1922. This venture involved the formation of Stockade Building System, which utilized the building material invented by his wife. The experience of building and dealing with building tradesmen convinced Fuller there were better ways to use Earth's resources.

In 1922 tragedy came to the Fuller family when their first daughter, Alexandra, died at the age of four from successive bouts with influenza, polio, and spinal meningitis. Fuller concluded that his daughter's death was the fault of inadequacies in the environment in which she lived. He believed that this environment could be controlled through comprehensive anticipatory design. Fuller set out to devote his life to understanding this holistic approach to designing and building strategies that would maximize the efficient use of the planet's resources.

Fuller's comprehensive design theory blended mathematics, engineering, and philosophy. He invented a series of products, which he labeled “Dymaxion” for *dynamic* and *maximum* inventions. He built a house in 1927 that was spacious, comfortable, and portable. It was financially inexpensive and was physically supported by a single column at the center of the home. In 1933 Fuller's Dymaxion automobile was developed to



Richard Buckminster Fuller shown here with a playsphere made with two of his geodesic domes.

achieve a speed of 120 miles per hour and a gas mileage of 30 to 40 miles-per-gallon. It was able to traverse rough terrain and could turn 180 degrees and park within the length of the vehicle itself. The Dymaxion Corporation, founded by Fuller, was unable to achieve commercial success with his inventions, and after two false starts, it was finally disbanded at the beginning of World War II (1939–1945).

Fuller's most famous invention, however, was the geodesic dome. The dome was constructed using what Fuller called "Energetic-Synergetic geometry." In this structure, the dome is constructed by many series of tetrahedrons (a pyramid shaped cube) interlocked with octahedrons (eight-sided shapes). This building scheme provided for the most economical means of enclosing a space, and it also served to disperse architectural stresses in the most efficient way ever conceived. Geodesic domes were built all over the world for many purposes, from commercial applications to remote military enclosures in hostile environments. The largest geodesic dome was built in 1958 in Baton Rouge, Louisiana, 384 feet in diameter and 116 feet (about 10 stories) in height.

In addition, Fuller developed a system of cartography that allowed for the printing of land masses without distortion, die-stamped prefabricated bathrooms, underwater farms enclosed within geodesic domes, and floating cities. Fuller never saw himself as an inventor, however, and as he grew older, he spent more time philosophizing, writing, and teaching. What Fuller saw was a world of limited resources in materials and energy, but with unlimited potential for knowledge to make use of those resources. He believed in making comprehensive, long range technological and economic plans for man's place in the universe. Fuller lectured and wrote extensively on this subject. He coined the phrase "a passenger on spaceship Earth" to describe our place on this planet and in the universe.

Fuller was never particularly successful in business, although he tried several times to succeed with his building companies and Dymaxion. He did flourish in the academic environment, teaching at various times at Yale, Cornell, and Princeton Universities, and at the Massachusetts Institute of Technology. He also gained a lifetime appointment to a professorship at Southern Illinois University in 1968. Fuller was a prolific writer.

In *Nine Chains to the Moon* (1938), Fuller proposed a general strategy for maximizing the social applications of Earth's energy resources. He continued to refine these ideas in *No More Secondhand God* (1962), *Utopia or Oblivion* (1969), *Operating Manual for Spaceship Earth* (1969), *Earth, Inc.* (1973), and *Critical Path* (1981).

Fuller was internationally recognized for his work. Queen Elizabeth II awarded Fuller the Royal Gold Medal for Architecture, and he also received the 1968 Gold Medal Award of the National Institute of Arts and Letters. In 1979 he was granted membership in the American Academy and Institute of Arts and Letters.

Richard Buckminster Fuller was the darling of the youth culture, the environmentalists, and the futurists of the 1960s and 1970s. His nonconformist views were provocative to those who were looking for different answers to old problems. Fuller died in Los Angeles on July 1, 1983.

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FULTON, ROBERT

Robert Fulton (1765–1815) was not the first inventor to turn his attention to the concept of the steam boat. He was the first, however, to successfully couple steam engines with a boat that could be commercially

viable. Robert Fulton was a multitalented individual who began his adult career as an artist, but he showed inventive talent for most of his life.

Robert Fulton was born on November 14, 1765, on a farm in Lancaster County, Pennsylvania, near the town of Little Britain. He grew up in Lancaster, and was a clever child, showing an inventive trait by fashioning lead pencils, household utensils, and sky-rockets. For his rowboat, he put together a hand-operated paddle wheel. He also designed and built a rifle with an original bore and sight. Moving to Philadelphia at age 17, Fulton apprenticed to a jeweler and did well painting miniatures and portraits—well enough to buy a farm for his mother just outside of Philadelphia.

Fulton moved to England in 1786 to study painting with Benjamin West. He made a moderate living in England as an artist. But his true interest was in science and engineering. After 1793 he devoted his efforts to science and engineering, and relegated his painting to that of a hobby. Water transport was his main interest, and Fulton studied the problems of canals and shipping. He worked on the design of canal boats, and a system of inclined planes to replace canal locks. At the same time, Fulton invented machines for rope making and spinning flax. He made a device that cut marble, and he invented a dredging machine for cutting canal channels. In 1796, he published a work on his canal investigations, *A Treatise on the Improvement of Canal Navigation*.

Next Fulton turned his attention to the development of underwater warfare devices and equipment. He worked on the submarine and explosive torpedoes. Like many idealists, Fulton believed the development of efficient warfare appliances would make warfare so terrible it would no longer be pursued. This rather naive idea has been held by many who dabbled in instruments of war. Fulton was successful in some torpedo development, and built a semi-functional submarine. In 1801 his *Nautilus* diving boat could descend 25 feet underwater and return to the surface. Fulton attempted to enlist the patronage of the French government for his research, but was unable to demonstrate success in sinking British ships. He then attempted the same deal with the British, but failed for the same reason.

The problem of underwater propulsion frustrated Fulton and many others who came before him. For centuries sail or oar had propelled ships along the water's surface. Several men had experimented with placing steam engines on ships for propulsion, but unsuccessfully. In 1802 Fulton partnered with Robert

Furniture Industry

R. Livingston (1746–1813) to work towards a practical and commercial application of steam engines on boats. Livingston was to be a key supporter and benefactor. Fulton's experimental boat sank in Paris in 1803 because of problems with the weight of the engine. But he was more successful with a second attempt.

Finally, in 1806 Fulton ordered a quality steam engine from the British firm of Boulton & Watt. Previous attempts at coupling steam engines with boats had failed, Fulton believed, because of the lack of a well-designed engine. Previous inventors had attempted to build the steam engine as well as the boat. Fulton decided to purchase a quality engine from a reputable firm and couple it with a decent boat. The result of this effort was the construction of the first successful steamboat in New York in 1807.

The ship was registered as the *North River Steam Boat* but it was popularly called the *Claremont* after Robert Livingston's home. On August 17, 1807, the paddle wheel driven steamboat made its maiden voyage up the Hudson River to Albany at an average speed of five miles per hour. The *Claremont* was a technical success, but more importantly, a commercial success. Fulton insisted that the ship be well attended and that the needs of its passengers be tended to.

Fulton set about expanding the steamboat business. He obtained monopolies from state legislatures. His steamboat *New Orleans* was the first steamboat on the Mississippi River. He erected a large shipyard in New Jersey, which built 17 steamboats as well as a ferryboat and a torpedo boat. Fulton had designed and was building a steam powered warship, *Fulton the First* when he died on February 24, 1815.

See also: Steamboats

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FURNITURE INDUSTRY

The furniture industry has a long history. From the ancient Greeks, Romans, and Egyptians through the Middle Ages, the craft of furniture making has evolved with technology. Where once furniture was necessarily crafted by hand, the twentieth century has seen technological advancements that allow all manner of furniture items to be automated and mass-produced. In the United States, the furniture industry began with the traditional methods of hand crafting. As the division of labor (task specialization) method was applied in the nineteenth century, furniture production began to increase, and the division between furniture manufacturing and sales developed.

Furniture sellers developed the practice of buying furniture at wholesale prices from manufacturers and selling them in showrooms, which gained popularity in the mid-1800s. Large stores kept their own workshops for specialty items. With the rapid development of retail trade the direct link between the customer and the furniture maker began to disappear. By the early 1900s mass production of furniture was well established in the United States, with principal manufacturing centers at Jamestown, New York; High Point, North Carolina; and Grand Rapids, Michigan.

Grand Rapids initially developed a reputation for high-quality, high-end living room and dining room furniture. In the 1920s the city became well known for inexpensive but reliable furniture. Due to the continued need for hand-crafted items, furniture factories never became very large, and usually employed about 100 people.

Before and after World War II (1939–1945) there was a shortage of wood products, and hard times hit the furniture industry. The industry recovered slowly in the 1950s with the introduction of new wood materials, woodworking machinery, adhesives, and wood finishes. It became increasingly difficult to discern whether a piece of furniture was made commercially or crafted by hand. Larger furniture factories were laid out with conveyor belts to enable the high-volume mass production needed to fill a constant supply of orders.

In attempts to generate more sales many manufacturers entered agreements with retailers to showcase



Showroom at a furniture store.

their products. The concept proved successful as the manufacturer had access to a dedicated retail outlet, and the retailer received proprietary rights on the goods. A vendor-ship program was also created, allowing consumers to choose the furniture in a showroom and then having the manufacturer ship these items directly to their household; this allowed the showroom to carry less inventory. Wholesale distribution of furniture became divided into two categories: household/garden and office/business.

History has shown that interest rates and housing sales affect the furniture industry. When economic indicators are strong, the furniture industry has higher retail sales. Between 1992 and 1993 a five to six percent growth occurred in upholstered wood furniture, expanding the market for manufacturers. Statistics compiled by the U.S. Department of Commerce in 1987, listed 6,819 wholesale furniture distribution establishments with combined sales totaling \$18.63 billion. By 1996 sales had increased to \$28.78 billion with an estimated 7,194 establishments. Employment in the furniture industry increased from about 69,000 in 1992

to about 81,000 in 1996. By the late 1990s much of the industry growth came from sales to offices, hotels, and restaurants.

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GADSDEN PURCHASE

The Gadsden Purchase of 1853 was the last territory acquired by the United States within the boundaries of the lower 48 states. In 1853, President Franklin Pierce (1853–1857) instructed James Gadsden, his minister to Mexico, to buy as much of the northern Mexico territory as possible, with the idea of using it as a southern route for a transcontinental railroad. Gadsden, a former railroad administrator from South Carolina who had long supported a southern railroad linking the Gulf Coast with California, was given instructions to offer Mexican leader Antonio Lopez de Santa Anna (1794–1876) up to \$50 million for some 250,000 square miles—including the Gila River basin in modern Arizona, parts of Baja California, and the bits of northern Mexico that had not been annexed in the Mexican War (1846–1848).

THE ONLY EXPANSIONIST ACHIEVEMENT OF THE PIERCE ADMINISTRATION WAS THE GADSDEN PURCHASE. AND EVEN THAT CAME TO LESS THAN SOUTHERNERS HAD HOPED.

James M. McPherson, *Battle Cry of Freedom: The Civil War Era*, 1988

The purchase was part of Pierce's plan to unite a divided country by expanding American interests aggressively into foreign territories, a plan known as "Young America." The Gadsden Purchase was opposed by Northern antislavery senators, who suspected Pierce's long-range plan was to obtain land for the expansion of slavery—an explosive political issue in the early 1850s. It was also opposed by some southern senators who wanted even more land. Unable to stop the deal, these senators managed to limit Pierce's purchase to 55,000 square miles for \$15 million.

The Gadsden Purchase added to U.S. territory, but it also emphasized the gulf that separated North and South. Some northern senators who opposed the Purchase were under pressure to do so from northern

railroad interests. By December 1853, a rail route that ran through the Gadsden Purchase had already been completed, and the northern interests were campaigning hard for territory north of the Missouri Compromise line to be organized. This led to the Kansas-Nebraska Act of 1854, which broke the Compromise and allowed expansion of slavery into areas from which it had legally been excluded 34 years earlier. The northern railroad was finally established in the Pacific Railway Act (1862), which set aside public land for the building of the first transcontinental railroad, completed in 1869.

See also: **Transcontinental Railroad**

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GALBRAITH, JOHN KENNETH

John Kenneth Galbraith (1908–) was one of the more influential economists of the post–World War II era. Galbraith was an economic advisor to many Democratic party candidates and officeholders, with his influence peaking as advisor to President John F. Kennedy (1961–1963). Kennedy rewarded Galbraith with an ambassadorship to India, a country in which he had a personal interest.

There must be, most of all an effective safety net [of] individual and family support for those who live on the lower edges of the system. This is humanely essential. It is also necessary for human freedom. Nothing sets such stern limits on the liberty of the citizen as the total absence of money.

John Kenneth Galbraith

John Kenneth Galbraith was born in southern Ontario, Canada, on October 15, 1908 to a Scottish farming family. He attended the Ontario Agricultural College, which at the time was part of the University of Toronto but is now the University of Guelph. He graduated with distinction in 1931, having studied agricultural economics. He then moved to Berkeley and studied agricultural economics at the University of California, where he received his Ph.D. in 1934. His dissertation was on public expenditures in California counties, a subject that presaged his career in public service.

As soon as he graduated, Galbraith began his career teaching at Harvard University, where he remained, albeit with interruptions, until he retired in 1975. Galbraith became a citizen of the United States in 1937. He worked in the Department of Agriculture for President Franklin Roosevelt (1933–1945) and was a proponent of the New Deal. During World War II, he served in the Office of Price Administration and Civilian Supply. John S. Gamba said Galbraith was “virtually the economic czar of the United States” until he left the position in 1943. As a result of his experience during the war, Galbraith published *The Theory of Price Control* in 1953.

Galbraith worked for the Office of Strategic Services after the war ended, studying the effectiveness of the strategic bombing of Germany. He was one of the founders of Americans for Democratic Action, a liberal interest group, in 1947. He worked as a speech writer for Senator Adlai Stevenson (1835–1914) during his presidential campaigns, then chaired the Democratic Advisory Council during the presidency of Dwight D. Eisenhower (1953–1961). In 1960, he campaigned for the successful presidential candidacy of John F. Kennedy.

Having visited India in 1956 and finding the country fascinating, Galbraith was rewarded for his efforts in the Kennedy campaign by an appointment as U.S. Ambassador to India. He held the post from 1961

to 1963. Galbraith’s political leanings were decidedly toward liberal causes and candidates of the Democratic Party. He was an outspoken critic of the U.S. involvement in Vietnam, and campaigned for anti-war candidates Eugene McCarthy (1916–) in 1968 and George McGovern (1922–) in 1972. In 1976, he worked for the presidential campaign of Congressman Morris Udall and in 1980, for the presidential campaign of Senator Edward Kennedy.

Galbraith was a thoughtful educator and an observant writer. He published over twenty books, two novels, coauthored a book on Indian painting, and wrote memoirs, travelogues, and political tracts. In 1977 he collaborated on the writing and narrated a Public Broadcasting System television series, “The Age of Uncertainty.” His first major book, *American Capitalism: The Concept of Countervailing Power* was published in 1952. In it Galbraith argued that the growth of economic power in one area breeds countervailing power from those who must bargain with the powerful. For example, powerful manufacturers are counterbalanced by the rising power of organized labor. Galbraith’s view was that the government had a role in supporting the countervailing powers for the good of the economy.

Of all his writings and publications, three stand out as major works of economic thought. *The Affluent Society* was published in 1958, and put forth the proposition that economic progress is impeded by the more-is-better mentality. Galbraith further postulated that progress could be extended by putting affluence to better use than purchasing goods propped up by artificial techniques such as advertising and salesmanship. He also argued in support of the view that culture and history have a significant role in economic life. *The Affluent Society* was a best seller, and served to place Galbraith in the forefront of economic thought.

The second of Galbraith’s three important works was *The New Industrial State*, published in 1967. In it he argued for a concept, which he called *revised sequence*. Revised sequence simply means that the order of control and economic power is reversed in certain situations. Normally price competition is the dominant force controlling the economy. In instances where businesses control consumers through advertising and salesmanship, the forces controlling the economy are reversed. It is this revised sequence that is at the core of Galbraith’s economic thinking, explaining distortions in the economy, which he saw as stemming from this reversal of control. *The New Industrial State* was also a best seller and proposed a plausible explanation of the power structure in the American economy.

The third book in Galbraith's trilogy of economic thought was *Economics and the Public Purpose*, and it continued the thinking from his earlier works. In this book, however, Galbraith goes on to argue the conventional economic model produces an "imagery of choice" that obscures the true sources of power within the economy. This situation prevents policymakers and citizens from understanding the true sources of decisions and the true seats of power, making the establishment of sound economic policy problematic. Galbraith believed any economic model should pass the "test of anxiety," or the ability of the economic system to allay fears and anxiety within the populace. It was Galbraith's contention that conventional economic systems did not meet that test.

Following his years in public service, Galbraith returned to Harvard University. He continued even in semi-retirement to critique conventional economic thought. He continued to propose "there must be, most of all an effective safety net [of] individual and family support for those who live on the lower edges of the system. This is humanely essential. It is also necessary for human freedom. Nothing sets such stern limits on the liberty of the citizen as the total absence of money."

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GALLUP, GEORGE HORACE

George Gallup (1901–1984) invented a reliable statistical technique from which he could discover the

views of his fellow citizens on everything from corn flakes to religious convictions by sampling the opinions of only a limited number of typical respondents.

Gallup financed his college education at the University of Iowa with scholarships and a variety of jobs. During one summer vacation he worked for the St. Louis *Post-Dispatch*, going door-to-door surveying readers about their feelings toward the newspaper. After a few days Gallup asked himself whether or not there wasn't an easier, more efficient way to get the responses the paper needed. His answer to that question would become his life's work.

After graduating from the University of Iowa in 1923 with a Bachelor of Arts in journalism, Gallup went on to earn a Master's in psychology and, in 1928, a doctorate in journalism. His doctoral dissertation, "A New Technique for Objective Methods for Measuring Reader Interest in Newspapers," forecast his future career interests.

IF GOVERNMENT IS SUPPOSED TO BE BASED ON THE WILL OF THE PEOPLE, THEN SOMEBODY OUGHT TO GO OUT AND FIND OUT WHAT THE WILL IS.

George Gallup, in an interview with historian Richard Reeves

Gallup taught for brief periods on the faculties of Drake, Northwestern, and Columbia universities. Meanwhile, he was conducting reader-interest evaluation surveys for a number of major Midwestern newspapers. In 1932, at the age of 31, he accepted a position as director of research at a rising New York advertising firm, Young and Rubicam. The firm's clients were eager for data concerning public reaction to various products. Gallup, who became vice president of the firm in 1937, remained with Young and Rubicam for more than a decade.

In 1935 while he was still associated with Young and Rubicam, Gallup founded the independent American Institute of Public Opinion in Princeton, New Jersey, to gather information about public attitudes regarding a variety of topics. That year he also published the first random-sample opinion poll in a newspaper column, "America Speaks." The column was eventually distributed to 200 subscribing newspapers. Audience Research, Inc., was formed in 1937 and was an organization devoted primarily to assessing public reaction to movie titles, casts, and stories. It is said that Walt Disney (1901–1966) decided to go forward with producing "Alice in Wonderland" on the strength of Gallup's research.

Convinced that his sampling methods were as valid for politics as they were for marketing choices Gallup boldly and correctly predicted that Franklin Roosevelt (1933–1945) would win the 1936 presidential election over Alf Landon. Although in 1948 Gallup, like other pollsters, incorrectly picked Governor Thomas Dewey to win over incumbent President Harry Truman (1945–1953), his polling techniques changed the political landscape forever. By the turn of the century it would be unthinkable that any political campaign would be undertaken without extensive polling.

Toward the end of his life, in an interview with historian Richard Reeves about the effect that polling had on a democracy, Gallup said, “If government is supposed to be based on the will of the people, then somebody ought to go out and find out what the will is. More and more people will be voting on more and more things, officially, and unofficially in polls, on issues as well as candidates. And that’s a pretty good thing. Anything’s good that makes us realize that government is not ‘them.’ We are the government. You either believe in democracy or you don’t.”

Although Gallup’s fame rested on his political predictions, his personal fortune was built on his ability to accurately assess middle America’s reaction to new products and entertainment vehicles. That work continued after his death in 1984. In addition the Gallup Organization’s periodic opinion surveys on cultural attitudes provided a running historical commentary on how U.S. views on such topics as religion, education, and the role of women both changed and remained the same over the last half of the twentieth century.

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GATES, WILLIAM HENRY III

William “Bill” Henry Gates III (1955–) started his first company at age 14; he later dropped out of college to launch Microsoft Corporation, which was to become the largest computer software company in the world. Labeled the richest man in the America in 1997, Gates’ estimated net worth was more than \$37 billion.

The second child of William Henry Gates Jr. and Mary Maxwell, Gates was born on October 28, 1955, in Seattle, Washington. Though he would later be known as Bill, his family called him Trey after the “III” in his name. His older sister, Kristi, would become his tax accountant. The elder Gates, a prominent Seattle attorney, and Gates’ mother, a former school teacher, enrolled their son in the private Lakeside School in an attempt to stimulate and challenge him, as he displayed an uncommon curiosity and intelligence at an early age.

At Lakeside Gates befriended Paul Allen (1953–), who would later become his business partner. While in school Gates developed an interest in computers; he eventually worked to debug programs for the Computer Center Corporation’s PDP-10. He also helped computerize electric power grids for the Bonneville Power Administrations and, with Allen, founded a company called Traf-O-Data to analyze local traffic patterns. Traf-O-Data earned \$20,000 in fees while the boys were still in high school, but their contract was cancelled when the clients learned that Gates was only 14 years old.

I CAN DO ANYTHING IF I PUT MY MIND TO IT.

Bill Gates, quoted in *Hard Drive*, 1993

Among the more dubious of Gates’ early accomplishments was the first computer virus. Gates used Computer Center Corporation’s PDP-10 to install a program that copied itself to other computers via the Cybernet national network, ruining data and making computers crash. Gates was caught, reprimanded, and banned from computers through his junior year at Lakeside. During his senior year, however, he was back at the computers with Allen, programming class scheduling for the school. In a typically impish manner Gates used the program to ensure his class schedule included all the right girls.

Gates entered Harvard University in 1973, but left after a year and a half. Meanwhile, Allen had driven to Harvard and shown Gates a January 1975 issue of *Popular Mechanics* that focused on an inexpensive



Bill Gates.

microcomputer. Gates and Allen wrote a BASIC interpreter for the Altair computer and, in typical fashion, sold it to Altair manufacturer MITS before the program was even finished. Fortunately for Gates, the demonstration worked. Gates then dropped out of Harvard, and he and Allen formed Microsoft Corporation. Their first work was writing programs for the early Apple and Commodore machines and expanding BASIC to run on microcomputers.

The most significant break in Gates' career occurred in 1980, when he approached IBM to offer help on Project Chess, an IBM effort to build a personal computer (PC). Gates developed the Microsoft Disk Operating System (MS-DOS) to be the programming platform upon which the computer would run. But more importantly, he convinced IBM to open the specifications for the computer and its operating system to everyone. This move opened the market for software developers to work on IBM machines; in turn, the proliferation of software development established the IBM PC as the prevailing model in the computer industry. By the early 1990s Microsoft had sold more than 100 million copies of MS-DOS, becoming the all-time leader in software sales.

Gates took Microsoft into multimedia in 1987, promoting the CD-ROM—an optical storage medium easily connected to the PC. A boon to the computer industry, CD-ROM technology greatly expanded the capacity to store information on disks, enabling encyclopedias, feature films, and complex interactive games to be brought more easily to the PC.

Gates has always been well known as a fiery competitor who does not like to lose. His drive incorporates a belief that "I can do anything if I put my mind to it," as he has been quoted as saying in James Wallace and Jim Erikson's book, *Hard Drive* (1993). He has a temper, although he encourages dissent in his company in the quest for the best solution to problems. Allen, who also made a fortune with Microsoft, left the company to enter the world of venture capital. He did, however, maintain a seat on the Microsoft's board of directors.

Microsoft hiring practices encourage brilliant minds and creative thinking. Gates does not mind being told he is wrong by his subordinates, and he thinks nothing of engaging in shouting matches during meetings. His business competitors are critical of his ethics and accuse him of using Microsoft's position as maker of

General Agreement on Tariffs and Trade (GATT)

the PC operating systems to an unfair advantage. To many outsiders and detractors, Gates is cold, ruthless, and relentless; to his friends, he is humorous and loyal. Several lawsuits came up against Microsoft in the 1990s, but Gates and his company were largely successful in the results.

Gates married Melinda French, a Microsoft manager, on New Year's Day in 1994. Many say that the tycoon relaxed after his marriage to French and the birth of their first child in April 1996; a second child was born in May 1999. Gates has stated that he will continue to run Microsoft until approximately 2010, when he will retire and turn his efforts to philanthropy—an effort he has already begun, giving millions of dollars to educational institutions such as schools and libraries.

See also: Paul Allen, Computer Industry, Microsoft Corporation

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GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT)

Prior to World War I (1914–18), world trade flourished and international monetary relations were healthy. After 1860 a network of bilateral treaties based on most-favored-nation principals (MFN) governed trade relationships. Nations had flexibility to set and revise tariffs as long as they (tariffs) were consistent with MFN ideals. (A tariff is a special tax applied to imports to protect a domestic market from a competing foreign products or sometimes simply to raise

revenue for the government.) Tariffs increase the costs of imports by foreign competitors or by a company domiciled in the U.S. but which exports from another country, thus making it more difficult for the company to be competitive. Besides tariffs, few other trade barriers existed during this early period.

World War I severely undermined existing trade networks as countries charged higher tariffs and introduced import quotas and other controls. These trade barriers persisted after the war, because there was no central authority to reestablish prior order to world trade. Trade reform was an international focus until the Great Depression (1929–1939) struck in 1929. The 1930s witnessed greater protectionism measures, discriminatory trade practices, and other trade actions that impeded international commerce. As a result, during the 1930s world trade stagnated, not keeping pace with increased economic production. Another complicating factor was that the Peace Treaty of Versailles that ended the First World War allowed the Allies (especially France and Great Britain) to receive huge payments of war reparations from Germany. The final amount of reparations, established in 1921, was \$56 billion. These reparations cut into the financial resources of central Europe. In addition, the erection of protective tariffs, hobbled Europe's economic recovery, perpetuated poverty, and probably contributed to the rise of fascist nationalistic movements in Italy and Germany during the 1920s and 1930s.

To insure that the World War I precedent of war reparations and protectionism was not renewed at the end of World War II (1939–1945), the United States and Great Britain immediately took steps to arrive at international cooperation among the non-socialist economies of post-war Europe. Rather than further drain Europe's devastated economies, the United States injected much needed economic assistance in the form of the Marshall Plan, which was an attempt to help reconstruct Europe in order to neutralize the considerable political appeal of socialist and communist parties after the war. As part of the economic program for the Western Allies after World War II, trade barriers were reduced and discriminatory tariff preferences were eliminated wherever possible.

It was in this political and economic climate that the General Agreement on Tariffs and Trade (GATT) resulted from a 1947 meeting of 22 nations (representing 80 percent of world trade) in Geneva, Switzerland. GATT, a specialized agency of the United Nations, comprised a system of international obligations to limit tariffs on particular items consistent with a set schedule. GATT's primary goal was to raise living standards and seek full employment by establishing mutually

beneficial trade arrangements. GATT sought to reduce or eliminate tariffs and prohibit other trade controls such as import quotas.

Thus, unlike post–World War I experiences, the world economy following World War II witnessed expanding international commerce with lowered trade barriers. The extent to which GATT contributed to the economic success was a subject of debate. Many believed the organization’s successes at periodically reducing trade barriers had greater influence on the post–World War II economic boom than other institutions including the World Bank and the International Monetary Fund. With the United States taking the lead, tariffs of industrialized countries fell from approximately 40 percent immediately following World War II to about five percent in the mid-1990s.

The history of GATT was marked by a series of eight negotiating rounds aimed at steadily reducing trade barriers. Some rounds took years to reach signed agreement. The first five rounds, occurring in 1947–1962, expanded membership but they did little to further tariff reduction or eliminate import quotas. Trade reform and, correspondingly, post-war economic recovery were slow through the 1950s. The sixth round, known as the Kennedy Round, lasted from 1962–1967, producing the most substantial tariff reductions of the post-war period. The following Tokyo Round of 1973–1979 added more reductions, and it also developed a code of conduct and made progress on other barrier restrictions.

The eighth series of negotiations, the Uruguay Round, led to more than 20 separate agreements in 1994. The 124 participating nations made substantial progress in several areas. Notably, the 47-year-old GATT organization was replaced by the newly created World Trade Organization (WTO). Unlike GATT, WTO was provided international dispute resolution authority. The participants established more stringent rules on investment and trade in service industries. (Service includes engineering, tourism, accounting, and construction industries.)

The WTO recognized intellectual property rights: trademarks received seven years of protection, patents 20 years, and copyrights 50 years. Inclusion of such property rights was a major benefit to U.S. software industry. It protected books, computer software, film, and pharmaceutical products from piracy. The agreements further reduced tariffs overall by a third. While industrialized nations agreed to completely eliminate some tariffs by 2005, developing countries agreed to hold tariff rates to set levels. This reduction was the largest at that time. Tariffs eliminated by developed

countries included a range of products such as construction, agricultural, medical equipment, steel, alcoholic beverages, paper products, and pharmaceuticals. Provisions were made to allow nations to withdraw from agreements based on environmental protection concerns.

Occasionally the hardship of structural relocation of industries in order to arrive at a global division of labor produced political backlash that impeded the implementation of GATT goals. For instance, the U.S. textile industry, which had helped to define the regional economies of the Northeast and Southeast and the West, resisted being phased out to developing nations. The result was the continued protection of U.S. textiles, with tariffs in place as social factors outweighed economics. However, prior protectionist agreements, such as the Multi-Fiber Agreement, established that U.S. import quotas would eventually be phased out. Officials continued to expect that developing countries would eventually take over textile and apparel production.

GATT/WTO supporters estimated U.S. income would be boosted by \$122 billion by 2005 and exports would double to one trillion dollars by 2010. U.S. manufacturers thought to benefit most from the Uruguay round were producers of food and chemical products, industrial machinery, computer and telecommunications equipment, and scientific instruments.

Many U.S. jobs in industries previously protected by tariffs migrated to the cheap labor markets of developing countries and Eastern Europe. The U.S. workers who used to fill those jobs could only hope that the promise of new business opportunities and new jobs through expanded international trade would be fulfilled.

See also: Foreign Investment in the United States, Foreign Investment of U.S. Companies Abroad, North American Free Trade Agreement

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GENERAL ELECTRIC COMPANY

The General Electric Company (GE) is the fifth largest business in the United States. Headquartered in Fairfield, Connecticut, GE was valued at more than \$350 billion in the late 1990s. The company's operations span many different areas, including manufacturing, technology, network and cable television, financial services, leasing, loan and information services, electricity distribution hardware, plastics and silicone production, medical diagnostic equipment, and utility, industrial, and marine power systems. GE does business in over 100 countries and maintains approximately 250 plants worldwide.

Established in 1892, GE was the result of a merger between the Thomson-Houston Company and the Edison General Electric Company. Charles Coffin was GE's first president, and inventor Thomas Edison (1847–1931) served as a director until 1894. Lightbulbs, elevators, trolleys, electric motors, generators, and locomotives were among GE's earliest products. In 1900 GE built a research laboratory in New York. The laboratory contributed to a number of breakthroughs, including X-ray tubes, high-speed steam public utilities, photoelectric relay (to control the flow of electricity), gas-filled incandescent lamps, and electrically propelled ships.

GE soon began diversifying its business. In 1918 the company purchased Hughes Electric Heating Company, the maker of an electric cooking range, and Pacific Electric Heating Company, the manufacturer of America's then most widely used appliance, the iron. The following year it teamed with Westinghouse Electric and American Telegraph and Telephone (AT&T) to found the Radio Corporation of America (RCA). In 1922 it debuted one of the country's first radio stations, WGY, in Schenectady, New York. Over the next 20 years GE introduced a series of appliances that quickly became fixtures in the American home. Refrigerators,

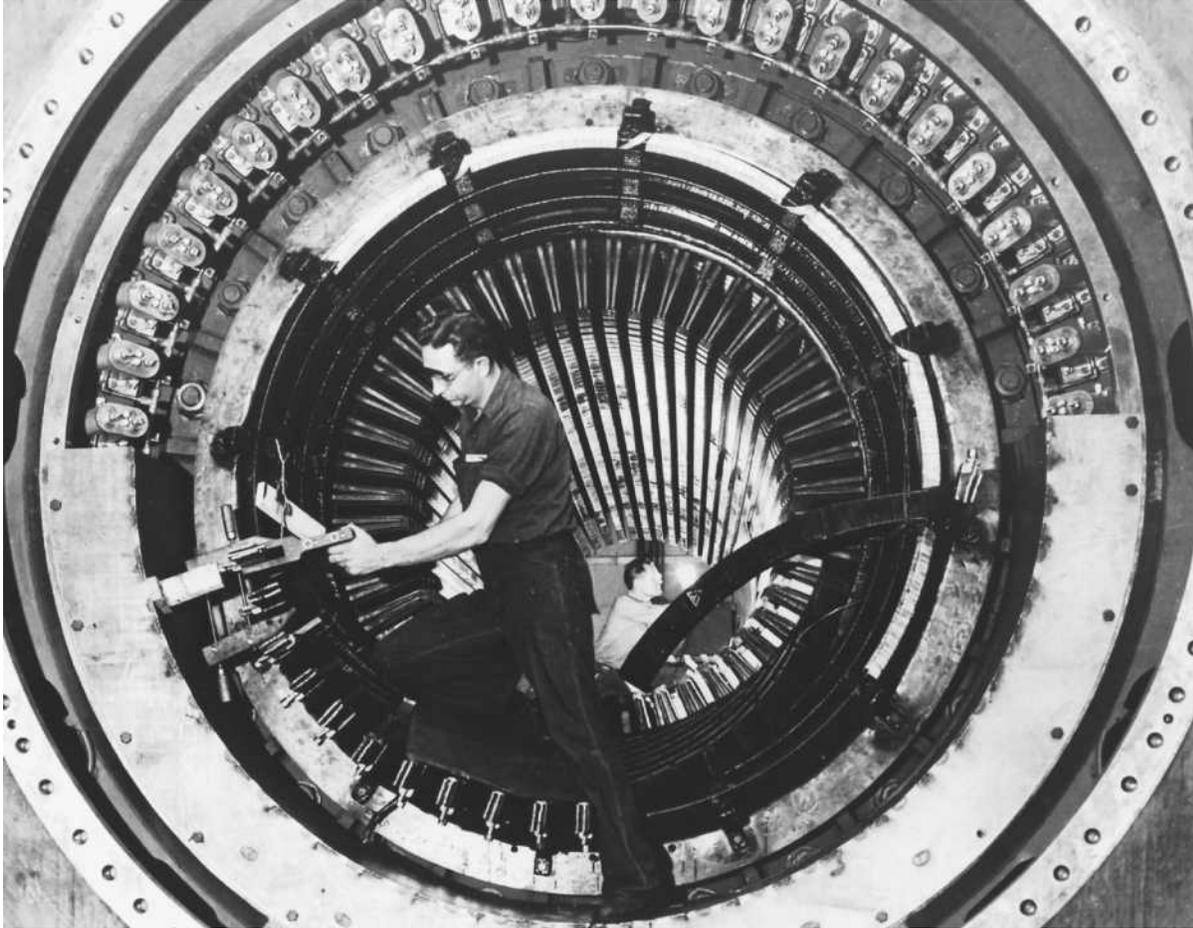
toasters, food mixers, fans, air conditioners, vacuum cleaners, and washing machines were perennial money makers for the company.

Other advances included GE's 1940 development of frequency modulation (FM) radio transmission, considered a vast improvement over the existing amplitude modulation (AM) mode. GE's innovation proved to be an asset to Allied forces during World War II (1939–1945). The company produced more than 50 different types of radar for the armed services, and more than 1,500 marine power plants for the Navy. America's first jet airplane, the Bell XP-59, and its largest battleship, the *North Carolina*, were both powered by GE parts and ingenuity. In the late 1940s GE initiated a project to harness nuclear power for civilian and military use. This project bore fruit in 1955, when the Navy unveiled its first nuclear submarine powered by a GE reactor. Two years later the Atomic Energy Commission granted GE a license to operate the first privately owned nuclear reactor. By the end of the 1950s GE was boasting record profits.

GE's dominance in so many areas raised a number of anti-trust concerns. Both competitors and the federal government made efforts to ensure that GE did not hold a monopoly in any one industry. Between 1911 and 1967 GE was named as a defendant in 65 anti-trust lawsuits and formal complaints. Some of the legal actions resolved themselves without great cost, as when GE sold its interest in RCA in 1930 to loosen its grip on the fledgling recording industry. Other lawsuits were more injurious to the company. For example, in 1961 the U.S. Department of Justice indicted GE for fixing prices of electrical equipment. GE was fined nearly \$500,000 and required to pay damages of approximately \$50 million. Three GE managers faced jail sentences and other executives were forced to quit.

Despite its recurring anti-trust problems, GE continued to enjoy success, tripling its earnings during the 1970s. In 1976 GE made what was then the largest corporate purchase in U.S. history, paying \$2.2 billion for Utah International, a major mining company and producer of natural gas and oil. The 1980s marked a period of transition for the company. In 1981 John (Jack) Welch took over as president with the goal of making GE number one or number two in every field of operation. He decentralized operations and sold \$10 billion worth of the company's less profitable business, including its air-conditioning, housewares, and semiconductor sectors.

GE used the proceeds from these sales to purchase Employers Reinsurance, a financial services group, in 1984; RCA and the National Broadcast Company



General Electric workers are shown completing construction of the world's first large generator with liquid-cooled stator in 1955.

(NBC) in 1986; CGR medical equipment in 1987; and investment bankers Kidder, Peabody in 1990. The Employers Reinsurance acquisition made the company's financial services division, known as GE Capital, enormously profitable. The NBC acquisition paid dividends in the 1990s, when it aired a number of critically acclaimed and popular primetime programs on network television and debuted CNBC and MSNBC on cable.

GE's fortune and profitability continued to climb in the late 1990s. In 1997 the company reported revenues of \$90.8 billion. That same year GE became the first company in the world with a market value exceeding \$200 billion. Since surpassed by the Microsoft Corporation's \$479 billion market value, GE held on to second place with a market value of approximately \$375 billion as of April 1999.

Regardless of its profit margin in any particular year, GE has a strong reputation for community involvement. In 1994 GE received the President's Volunteer Action Award for its charitable work. A year

later its College Bound program for underprivileged youth received national recognition. In 1996 the company and its employees donated \$75 million to philanthropic organizations around the world. At the end of the twentieth century GE announced that during 1998 its employees had logged 1.3 million volunteer hours doing various acts of good will in communities where the company is present.

See also: Thomas Edison

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GENERAL MOTORS CORPORATION

Founded in 1908, General Motors Corporation (GM) is the largest industrial company in the United States. Known primarily as a manufacturer of American cars and trucks—including such standard nameplates as Buick, Chevrolet, Oldsmobile, Pontiac, GMC, and Saturn—GM also takes part in the manufacturing and marketing of Isuzu, Saab, and other foreign and domestic vehicles. In addition to its vast interests in the automobile industry, GM produces locomotive components, products and services for telecommunications and space, consumer electronics, and financial and insurance services.

The history of GM begins in 1892, when Ransom E. Olds raised enough capital to start a business building horseless carriages, working in a converted factory that belonged to his father. Within two years Olds' facility had become the first American factory in Detroit, Michigan, involved exclusively in the manufacturing of automobiles. It was not until 1901, however, that this business, the Olds Motor Vehicle Company, introduced its first model: the curved-dash Oldsmobile buggy. Meanwhile, other car manufacturers were cropping up in Detroit around the turn of the century; David Buick formed the Buick Motor Company in 1897, while Henry Leland founded the Cadillac Automobile Company in 1901.

A new market, the automobile industry was financially unstable, and before long these Detroit companies had no choice but to consolidate to stay afloat. Henry Ford (1863–1947) was winning American consumers' hearts with his Model T, and competition was beginning to intensify. The man responsible for bringing together the individual companies was William Durant (1861–1947), the son of a Michigan governor and a director at Buick. In 1908 Durant combined Oldsmobile and Buick, calling the new business General Motors; he introduced Cadillac and Oakland (later known as Pontiac) to the consortium in the following year. The mergers attracted little media attention at the time. Quick to turn a profit nonetheless, GM was off to a strong start.

Durant established a corporate base in Flint, Michigan, where he aimed to produce a variety of models based on those developed by the original companies. Within a few years, he put together a core staff of specialists to oversee and coordinate production throughout the company's various units and factories. Charles Kettering's 1911 breakthrough, an electric self-starter that would replace the arduous hand-crank mechanism, brought technological innovation to GM, which would later install the device in its Cadillacs. GM promptly invited Kettering to join its ranks, and he eventually took charge of the company's research and engineering programs. By 1920 GM had acquired more than 30 automotive businesses, including Chevrolet, which it procured in 1918.

When the United States entered World War I (1914–1918), GM stepped up to wartime levels of production. During the last two years of the war, 90 percent of GM's trucks went to the armed forces. Cadillac manufactured war materials like the V-8 engine and the mortar shell, while Buick built tanks, ambulances, and airplane motors. With the Ford Motor Company swelling to mammoth proportions, GM emerged from the 1910s as a potential competitor.

The Great Depression (1929–1939) hit the country in the late 1920s, threatening to ravage the automotive industry. GM responded to the crisis by recruiting the corporate management talents of Alfred Sloan Jr., who at his previous position at Hyatt Roller Bearing Company had transformed a \$50,000 investment into a \$3.5 million enterprise. Sloan helped to steer GM through the country's crisis, developing a strong management structure that other companies sought to replicate. Under the new system, GM's market share rose from 12 percent in 1921 to 44 percent in 1941.

With the United States entering World War II (1939–1945), GM again increased production. War materials from GM factories included 1,300 airplanes and one-fourth of all U.S. aircraft engines. In total, the company's contribution to the war effort was worth approximately \$12 billion. After the war the automotive industry benefited from the rejuvenated national economy. But while many American families looked to buy a second car, market trends indicated a growing consumer preference for smaller European models. GM responded by developing more compact cars, but these did not gain the favor of American buyers. In 1959 the company's market share remained high, however, at 42 percent.

The 1960s brought turbulence in Detroit: Riots and other expressions of civil unrest compelled GM to

recognize urban poverty and to revise its hiring practices to include minority workers. The expansionist policies of Presidents John F. Kennedy (1961–1963) and Lyndon B. Johnson (1963–1969) fostered such efforts toward diversity in businesses nationwide. Finding that change helped the company to grow and prosper, and GM developed new interests in home appliances, electronics, locomotives, insurance, banking, and financing at this time. But the 1970s brought costly changes to the company as it rose to meet national demands to control pollution and conserve resources. By 1977 GM had spent \$4.5 billion meeting local, state, and federal requirements regarding pollution control.

Consumer demand for fuel-efficient cars led GM to spend billions more redesigning many of its once-popular models. Two significant purchases in the 1980s—the acquisitions of Hughes Aircraft and Electronic Data Systems—further depleted the company’s financial resources. As a result of this period of heavy spending, GM reported a decrease in earnings between 1985 and 1992. And from 1990 to 1992 GM reported losses totaling \$30 million.

The time was ripe for change at GM, and a new CEO, Jack Smith Jr., ushered in reformed policies. In 1993 Smith moved toward downsizing the company, paring down operations and slimming the corporate staff. Unveiling a plan to close 24 plants by 1996, Smith promised \$3.9 billion in benefits to those made jobless and raised the salaries of blue-collar workers. Smith negotiated with the United Auto Workers as he made these changes, but the group remained disgruntled. A 54-day strike ensued in June 1998.

Meanwhile, GM rallied to retain its market share. When vans, trucks, and sports-utility vehicles came into vogue in the 1990s, GM followed the trend. Japanese manufacturers went after the same market, but a weakened dollar made imported cars more expensive than their domestic equivalents. GM benefited from the financial trend, pulling in hefty earnings from 1993 to 1995. Introducing the first electric car built for consumers in 1996, GM went on to announce more plans for change within the corporation and for innovation in the automotive field. As the slimmed-down company entered a new century, it showed no signs of giving up its role as an industry leader.

See also: **Automobile Industry, Automobile (Origin of), William C. Durant, Alfred Sloan**

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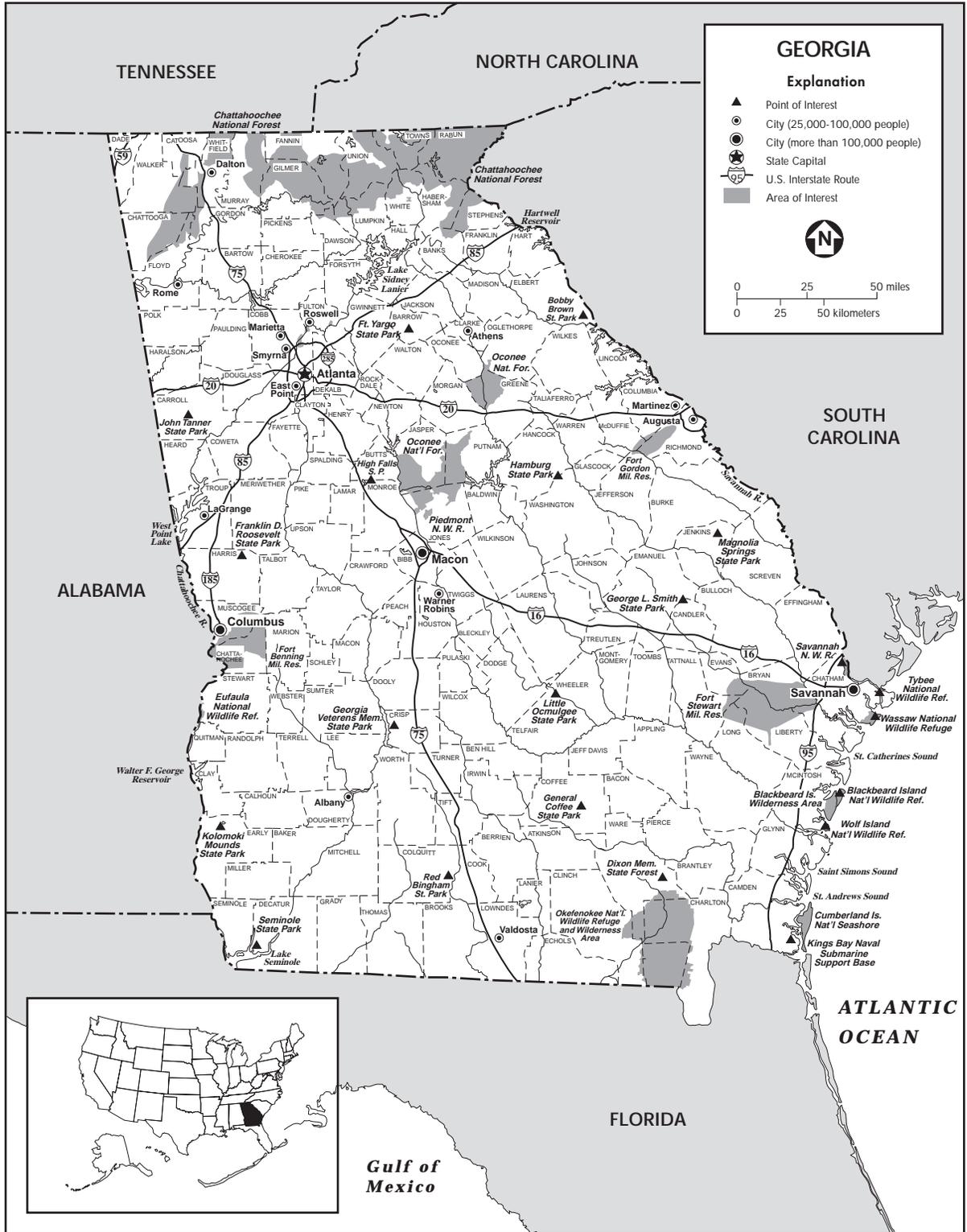
GEORGIA

Georgia is located in the southeastern United States, where it is bordered in the north by Tennessee and North Carolina, in the south by Florida, in the west by Alabama, and in the east by South Carolina and the Atlantic Ocean. The country’s twenty-first largest state, Georgia has a total area of 58,910 square miles. In the 1990s Georgia’s estimated population of 7.64 million ranked it tenth among the fifty states. During the nineteenth century the state boasted a thriving agricultural economy, but by the end of the twentieth century Georgia’s manufacturing and service industries were its most successful and buoyant. The state’s economic center is located in Atlanta, which is both Georgia’s largest city and its capital.

The colony of Georgia was founded in 1733 by James Oglethorpe, a soldier, politician, and philanthropist who had been granted a charter to settle the territory by Great Britain. Named after the English King George II, Georgia was the last of the 13 British colonies established in the United States. Georgians were among the first colonists to sign the *Declaration of Independence*. Following the American Revolution (1775–1783) Georgia was the fourth state overall and the first southern state to ratify the federal *Constitution* in January of 1788.

Georgia’s support for the federal government began to wane during the early 1800s, when Congress proposed legislation to outlaw slavery in the Western territories. Georgia’s rich cotton and rice plantations depended on slavery, and Georgians feared that the abolition movement would eventually reach their state. The Missouri Compromise (1820), which designated the states and territories in question as slave or free states, was passed by Congress largely through the

Georgia



efforts of Georgia Representatives Alexander H. Stephens, Robert Toombs, and Howell Cobb. This legislation helped calm tempers in the South, but it was only a temporary fix. On January 19, 1861 Georgia became one of the eleven Confederate states to secede from the Union. Less than three months later the nation was at war.

The American Civil War (1861–1865) left much of Georgia in ruins. Union General William T. Sherman (1820–1891) captured Atlanta in September of 1864, and began his famous “march to the sea” in November. Before his troops overtook Savannah in December, houses were looted, bridges were burned, and railroads, factories, mills, and warehouses were destroyed. Georgia residents were not the only ones in their state to suffer during the war, almost 50,000 Union soldiers were held prisoner at a camp in Andersonville, Georgia. Approximately one-fourth of those prisoners died from exposure, malnutrition, starvation, and filth. The prison superintendent was later convicted of war crimes before a U.S. military court and hung.

Georgia was readmitted to the Union on July 15, 1870 after it ratified the Thirteenth, Fourteenth, and Fifteenth Amendments to the federal *Constitution*. Those amendments abolished slavery and guaranteed the former slaves equal protection under the law and the right to vote. The amendments did not, however, protect thousands of black Georgia residents from being persecuted by white terrorists. Nor did they prevent the state government from enacting so-called Jim Crow laws that legalized segregation in Georgia. Such laws remained on the books until Congress passed the Civil Rights Act of 1964, which outlawed segregation in all public places. Georgia native Dr. Martin Luther King, Jr. (1929–1968) played an essential role in bringing about the passage of that civil rights law.

Other famous Americans have also hailed from Georgia. Jimmy Carter (1924–) is the only U.S. president who claims Georgia as his birthplace. Supreme Court Justice Clarence Thomas (1948–) is one of four Georgians to have sat on the nation’s high court. Baseball players Raymond “Ty” Cobb (1886–1961) and Jack Roosevelt “Jackie” Robinson (1919–1972) are among the legendary Georgia athletes. Eli Whitney (1765–1825) may be the most famous Georgian from before the twentieth century. Whitney’s invention of the cotton gin in 1793 made cotton so efficient to clean that the crop became the foundation for Georgia’s economy in the nineteenth century.

Cotton would not have the same importance to the Georgia economy of the twentieth century. In the

1920s the boll weevil decimated the state’s cotton industry. The Great Depression (1929–1939) further weakened the cotton farmer and by 1940 the old plantation system was gone. At the same time, World War I (1914–1918) and World War II (1939–1945) hastened the growth of manufacturing in Georgia. Federal dollars poured into state businesses that built and sold airplanes, ships, and munitions for the war effort.

By the end of the twentieth century manufacturing was the state’s leading revenue-generating activity, with the textile industry being its oldest and largest such business. Of the almost four million persons employed in Georgia during the early 1990s, however, about 25 percent worked in the services sector, 23 percent worked in wholesale or retail trade, and only 15 percent worked in manufacturing. Three percent of Georgia residents worked on farms where cotton was only one of several crops grown for a profit. Tobacco, peanuts, peaches, and watermelons have also proven lucrative to grow in the state.

Tourism was another revenue-generating activity for the state in the twentieth century, with visitors to the state spending nearly \$9.2 billion annually. The state’s several national parks and forests, 100-mile oceanic coastline, balmy winter temperatures, and verdant plant life make it a nationwide attraction. In 1996 Atlanta attracted millions of people from around the world for the summer Olympics, which were generally considered a success despite a bombing that killed two people.

Both residents and visitors have contributed to the host of nicknames by which the state of Georgia is known. Unofficially called the Peach State, Georgia has also been affectionately referred to as the Peanut State, the Buzzard State, and the Empire State of the South. Over the past quarter-century Georgia has become known in some parts as the Bulldog State acquiring that moniker in conjunction with the successful academic and athletic programs at the University of Georgia, where the school mascot is a bulldog.

See also: **Boll Weevil Infestation, King Cotton, Sherman’s March on Georgia**

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GERBER PRODUCTS COMPANY

When Gerber’s baby food was first introduced in 1928 the company was still known as the Fremont Canning Company. Based in rural Fremont, Michigan the company was started in 1901 by Frank Gerber and his father. The original idea of manufacturing and selling strained baby foods came from Dorothy Gerber, wife of Frank’s son Daniel, who reasoned that such a product would help end the tedious chore of cooking, mashing, and preparing solid foods for infants.

Before launching the product Frank and Daniel Gerber undertook an extensive marketing research campaign. They tested the product, contacted nutrition experts, distributed samples, and conducted follow-up interviews. The Gerbers’ careful implementation of the “baby food” concept laid a solid foundation for the company that would dominate baby products for the rest of the century.

The company’s first-year sales of the baby food were boosted by an innovative coupon redemption program. The campaign resulted in national distribution of the product within six months, and first-year sales of 590,000 cans generated revenues of \$345,000. The Gerbers created a new industry that had previously been served by pharmacists, and soon there were numerous competitors. By 1935 more than 60 other manufacturers had introduced their own baby food products.

Fremont Canning was able to hold its market lead because it had established the Gerber brand’s reputation for quality and expert-backed research. The product’s logo, the “Gerber Baby,” was already famous and the company’s research and education department flooded the market with useful pamphlets on parenting, feeding, and child psychology. Dorothy Gerber became a model spokesperson through her widely read newspaper column, “Bringing Up Baby.”

The baby-food producer matured in the 1940s and in 1941 the company name was changed to Gerber

Products Company. With the post-World War II baby boom, Gerber went from selling one million cans of baby food a week in 1941 to two million cans a day in 1948. It was during the 1940s that Gerber began packaging baby food in jars instead of in tin cans.

During the 1950s Gerber added three production plants. Frank Gerber died in 1952, and Daniel Gerber assumed leadership of the company. Under Daniel Gerber the company began advertising on television, launched a toy line in 1955, became listed on the New York Stock Exchange in 1956, opened a Mexican subsidiary in 1959, and introduced a line of baby-related products in 1965. In the 1960s Gerber introduced “safety button caps,” the first tamper-evident caps of their kind. When Daniel Gerber died in 1974 the company was the world’s largest baby-food manufacturer with sales of \$278 million and a domestic market share of nearly 70 percent.

In the late 1970s the company successfully defended itself against a hostile takeover. In 1979, with birth rates declining, it launched a major diversification campaign acquiring freight carrier, furniture, toy, and other subsidiaries. By 1989, however, Gerber had divested most of these fringe ventures to refocus on its core business: baby food, baby care, and baby clothing.

Perhaps the biggest threats to Gerber during the 1980s were two public relations crises in 1984 and in 1986, both involving allegations of the presence of glass fragments in jars of baby food. In the first instance Gerber regained public confidence by recalling 550,000 jars in a 15-state region as a cautionary action. In the second instance the company chose the less popular tactic of cooperating with investigators, but otherwise remaining silent. As a result, profits dropped from \$69 million in 1985 to \$54 million in 1987.

During this time the company’s leadership changed hands several times with former Carnation senior vice president Alfred A. Piergallini eventually taking over as chief executive officer (CEO) in 1988. He sustained Gerber’s reorientation through a “superbrand” marketing strategy. A new Tropical line of baby foods was introduced in 1991, and the Gerber Graduates line for children past 15 months of age was introduced in 1992. Gerber also entered international markets in the early 1990s, noting that 98 percent of the world’s births took place outside the United States.

By 1994, after struggling with severe price-cutting by its competitors and unprofitable sidelines, Gerber was ready for a takeover. After seeking a suitable buyer, Gerber announced that it would be purchased by Sandoz Ltd., a Swiss pharmaceutical giant, for \$3.7 billion. Gerber was sold for a high premium, with



In 1928, Dorothy Gerber proposed adding a line of strained infant foods to the inventory of her husband's cannery, the Fremont Canning Company. They made "baby food" into a scientific and nutritious industry, and won the gratitude of many parents.

Sandoz paying more than 50 percent above the going price for the company's stock.

In 1995 Gerber entered the adult nutrition market with a nutritional supplement drink called Resource. The product had originally been marketed by Sandoz to hospitals and nursing homes. In 1996 Gerber's sterling reputation was challenged by the Center for Science in the Public Interest, which disputed some of Gerber's health claims. As a result, Gerber announced it would reformulate its recipes taking out starch and sugar. In 1997 Gerber updated its labels and introduced a new organic line of baby food. A 1998 survey commissioned by the WPP Group concluded that Gerber had the highest consumer loyalty rating in the United States. At the end of 1998 Gerber announced it was moving its corporate headquarters from Fremont to Summit, New Jersey, as part of a reorganization by its parent company, Novartis AS.

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GETTY, J(EAN) PAUL

In 1957 J. Paul Getty (1892-1976), an American expatriate living in England, was named the richest man in America by *Fortune* magazine. His net worth at the time was said to be between \$700 million and \$1 billion. Getty made his fortune by purchasing oil leases cheaply, then drilling and watching his oil wells yield huge profits. He is also remembered for his disastrous family life; his eccentric habits, which included forcing guests to use a pay phone at his baronial English country estate; and his coterie of mistresses.

Born in 1892, Getty began his career as a wildcatter in Oklahoma in 1914, with a stake from his oilman father, George F. Getty. The young Getty bought leases at giveaway prices on land believed to be barren of oil.

Ghetto

His wells struck rich oil beds, however, and Getty made his first million by the time he was 23. During the 1920s, constantly on the hunt for bargains, he bought leases and drilled for oil in the rich fields opening up along the California coast. By the time his father died in 1930, Getty was worth \$3 million—a remarkable fortune in the first year of the Great Depression (1929–1939).

I JUST FLEECED MY MOTHER.

J. Paul Getty, alleged comment to an acquaintance, quoted in *The Great Getty*, 1986

Throughout the Depression, with many businesses desperate for cash, Getty realized that he could buy shares in oil companies for a fraction of what the oil in the ground was worth. He staked everything he owned or could borrow on his determination to acquire oil company stocks. He even persuaded his mother to give him control of her trust fund. (According to biographer Robert Lenzner, he then boasted to an acquaintance, “I just fleeced my mother.”)

In the early 1930s Getty bought the Pacific Western Oil Corporation, a holding company with large oil reserves. In 1932 he began to buy stock in Tide Water Associated Oil, then one of America’s best-known oil companies, which owned more than 1,200 service stations. Within 20 years, he had voting control of the company.

Following World War II (1939–1945), on the basis of good geological information, Getty became interested in the potential of oil fields in the Middle East. In 1949 he obtained a concession to drill for oil in an area then called the neutral zone, between Kuwait and Saudi Arabia. Drillers struck oil in 1953, vaulting Getty into the ranks of the world’s richest oil barons. His Getty Oil Company, which concentrated on oil exploration and production, remained hugely profitable for the rest of his life. In the last full year of his life, Getty made \$25.8 million in company dividends.

In his biography of Getty, Robert Lenzner reports that the oil mogul was a poor company manager whose autocratic and eccentric style attracted only those mediocre managers who could stomach the boss’s mean and vindictive ways. Getty’s personal life was no better: He had five wives and five sons, and was said to have treated them all very badly. He changed his will 21 times, using each revision as a means to punish various family members. He was too busy to attend the funeral of one son who died at age 12; he allegedly drove another to suicide. After his death, the infighting among the remaining three sons left the company,

which Getty had worked so hard to build, vulnerable to a successful takeover by Texaco.

At least partly to escape paying U.S. taxes, Getty moved to Europe permanently in 1952, settling in 1960 on Sutton Place, a historic country estate 23 miles outside of London. Typically, he prized the large and elegant mansion for the bargain price he had paid for it. There, he amassed an important art collection, the cornerstone of what is now the J. Paul Getty Museum in Los Angeles. The museum grew from a small collection of Greek and Roman antiquities, eighteenth-century French furniture, and European paintings that Getty had established at his home in Malibu, California, in 1953. At the same time, he founded a charitable trust to maintain the collection. Following his death in 1976, the trust received \$1.2 billion, which endows the much-expanded museum and funds many other activities that support the arts.

See also: **Petroleum Industry, Robber Barons**

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GHETTO

After World War II (1939–1945), millions of African Americans sought to escape poverty in the rural south by moving to northern cities where they hoped to find better paying jobs. But, they encountered housing discrimination that forced them into racially separate neighborhoods known as ghettos. Ghetto populations soared during the 1950s, when the black population of major cities grew quickly. During that timeframe Detroit’s black population increased from 16 percent to 29 percent, while Chicago’s grew from 14 percent to 23 percent. Boston’s increased from five to 10 percent, and the District of Columbia’s rose from 35 to 55 percent. At one time during this period, more



Low income children playing behind a tenement building in one of the ghetto neighborhoods of New York City.

than 2,200 African Americans moved to Chicago each week. This rapid population shift severely strained housing and urban services and created a set of circumstances that made ghettos, which had first appeared in the early decades of the 1900s during the Great Migration, an entrenched feature of almost every major city in the United States.

One of the most significant factors in the creation of ghettos was the mass movement to the suburbs of middle-class whites. At the same time, expansion of highway construction and the growth of the automobile industry enabled companies to move away from cities to areas where they could operate more cheaply. Thus, just as millions of blacks were moving to cities, jobs there were disappearing, as were tax revenues that could support decent services such as schools and sanitation. Housing in ghettos deteriorated badly, and high unemployment and limited social services combined to create blighted areas where crime rates soared. Yet blacks found it extremely difficult to escape from these areas because they were consistently denied the opportunity to purchase homes in white neighborhoods. Even after passage of the Fair Housing Act in 1968, which prohibited discrimination in the sale, rental, or financing of housing units, most African American families in urban areas had no choice but to

live in ghetto neighborhoods. By the late 1960s ghetto residents were extremely frustrated by the slow pace of change as advocated by civil rights leaders. In 1965, the Los Angeles neighborhood of Watts erupted in violence as thousands of African American residents burned stores and looted the area. The riots, which lasted from August 11 to August 16, caused 34 deaths and injured more than 1,000. Devastating riots also broke out in Detroit. These riots traumatized the nation and brought significant public attention to ghetto conditions. Though ghettos were beset by poverty and other problems, however, they also fostered racial pride and provided an important base for black businesses.

See also: **Discrimination, Suburbs**

GI BILL

The GI Bill has been called the single most significant legislation passed by Congress in the twentieth century. It created benefits for veterans of U.S. military service, including financial assistance for higher education. The GI Bill is composed of two pieces of legislation, the Serviceman's Readjustment Act of 1944 and the Montgomery GI Bill. It is intended to help veterans leaving military service readjust to civilian life and to encourage qualified individuals to volunteer for military duty.

When World War I (1914–1918) ended, millions of veterans returned from fighting overseas and were faced with unemployment and homelessness. The country went into an economic recession. Twice as many veterans returned from World War II (1939–1945), creating a concern that the economy would be even harder hit by economic difficulties. In order to keep the economy strong and to help returning veterans, the American Legion, led by former Illinois governor John Stelle, proposed and drafted the Serviceman's Readjustment Act. The bill unanimously passed both houses of Congress in 1944.

This was the original GI Bill. Among its benefits, veterans were eligible for up to \$500 in educational costs, a monthly allowance, and mortgage subsidies. Despite initial concerns that college campuses would become overcrowded, the bill was a success. Not only did it positively affect education, but it also changed the face of society as well.

Colleges benefited from the high increase in student enrollments, which assured them financial security for years to come. Over 2.2 million of the 7.8 million World War II veterans receiving benefits used the

program for higher education. All eligible veterans could now go to college. As a result, education became more equal, less divided by restrictions of class, race, or religion. The increase in education and skill led to an increase in average taxpayer income, which in turn increased federal income.

The mortgage subsidies provided through the Serviceman's Readjustment Act increased demand for housing and led to development of the suburbs. One fifth of all single-family homes built in the twenty years after World War II were financed with the assistance of the GI Bill's loan guarantee program. All of these factors led to the creation of a new middle class in the United States.

After the Vietnam War (1964–1975) and the end of the draft in 1973, the number of qualified adults willing to serve in the military declined. Representative G.V. "Sonny" Montgomery, chairman of the House Veterans' Affairs Committee, proposed a new GI Bill in 1984 to encourage military service, even in times of peace. That same year, President Ronald Reagan (1981–1989) signed the Montgomery GI Bill into law.

The Montgomery GI Bill is a voluntary plan. Upon entry into military service, a participant may elect to have \$100 deducted from pay each month for the first twelve months of service. In return, the participant is eligible to receive up to \$400 per month, for a period of thirty-six months, toward educational expenses. The federal government does not set standards or administer the plan. The Veterans' Administration determines candidate eligibility and schools handle admission and track expenditures.

See also: Recession, Suburbs, World War II

GIANNINI, AMADEO PETER

Widely recognized as the father of modern banking, A.P. Giannini (1870–1949) built the world's largest privately held bank, the Bank of America, by lending to ordinary citizens solely on "a man's face and signature." He pioneered mortgages for working class homeowners and loaned as much as \$300 or as little as \$10 to anyone with a job. His personality and career were the inspiration for the character George Bailey in the film, *It's a Wonderful Life*.

Born to a poor immigrant Italian family in San Jose, California, in 1870, Giannini left school at age thirteen. His father, a truck farmer, had been murdered in a dispute with a worker over \$2 in wages when

Giannini was seven. Giannini's first job was as a fruit and vegetable broker, working on commission for his stepfather. At age fifteen he was driving through the California valleys and successfully competing with veteran buyers for farm produce. The boy was exceptionally ambitious and hard working. By carrying a loaf of bread and a hunk of cheese with him, for example, Giannini said he saved time that might otherwise have been spent stopping for meals. He became a partner in his stepfather's food brokerage firm when he was only nineteen years old.

At the turn of the twentieth century, Giannini, then thirty-one, decided to retire as a food broker and sold his half-share of the fruit and vegetable business to a group of employees for \$100,000. When his father-in-law died the following year Giannini took his place on the board of directors of the Columbus Savings and Loan Society in San Francisco. In 1904, frustrated by the bank's unwillingness to lend to small borrowers, he and a group of other directors founded a new bank, the Bank of Italy, with a capitalization of \$300,000.

The bank's immediate success was almost entirely due to Giannini's unorthodox focus on the ordinary wage earner. He made loans to small farmers and fishermen, and even went door to door in the North Beach neighborhood, explaining how banking could help immigrant families realize their dreams. When the San Francisco earthquake devastated the city in 1906, Giannini commandeered a wagon and two horses and concealed nearly \$2 million of the bank's gold and securities under a blanket of oranges. Two days later, as more traditional bankers declared a bank holiday for the duration of the emergency, he set up a temporary office on a wharf and began to lend money to anyone who needed it to rebuild.

The Bank of Italy continued to thrive during the first decades of the century. Bankrolling the movie industry at a time when the success of filmmaking was not assured, Giannini funded thousands of films, including *Snow White and the Seven Dwarfs* and *Gone with the Wind*. He was also instrumental in helping the California wine industry get its start and, in the worst years of the Great Depression, financed construction of the Golden Gate Bridge.

In 1909 California adopted a law that allowed banks to open branches throughout the state. In less than ten years the Bank of Italy had opened 24 branches. By 1930, when its name was changed to Bank of America, the bank was one of the largest in the country. When Giannini died in 1949, his bank had \$6 billion in assets, 522 branches, and was the largest commercial bank in the world.

Giannini's personal estate, however, was a modest one. He established two foundations and directed his fortune to them and to other charities. Although he could have been many times a millionaire, he never wanted to be a rich man. He believed that great wealth would force him to lose touch with those he served. "No man actually owns a fortune," he is reported to have said. "It owns him."

See also: Great Depression

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GILLETTE COMPANY

One summer morning in 1895 an ambitious traveling salesman found that the edge of his straight razor had dulled. King Camp Gillette (1855–1932) later said that the idea for an entirely new kind of razor with a disposable blade flashed into his mind as he looked in irritation at his dull blade. Gillette had been searching for the right product, one that had to be used and replaced regularly, around which to build a business. His innovation in shaving technology was just such a product. Another safety razor, the Star, was already on the market at the time, but like the straight razor it was meant to replace, its blade needed to be sharpened with a strop before each use and eventually had to be professionally sharpened. Gillette envisioned an inexpensive, double-edged blade that could be clamped over a handle, used until it was dull, and then discarded.

Gillette spent the next six years trying to perfect his safety razor. The scientists and toolmakers he consulted were pessimistic and thought the idea was impractical. Gillette did not give up—he was 40 years old at the time and a successful salesman, inventor, and writer. In 1901 he joined forces with William Nickerson, a Massachusetts Institute of Technology educated machinist. Nickerson developed production processes to make Gillette's idea a reality while Gillette formed the

American Safety Razor Company to raise the estimated \$5,000 they needed to begin manufacturing the razor. Production of the razor began early in 1903.

The renamed Gillette Safety Razor Company began advertising its product in October 1903, with the first ad appearing in *Systems Magazine*. The company sold 51 razor sets at \$5 each and an additional 168 blades, originally at 20 for \$1, during the first year. In 1904 Gillette received a patent on the safety razor; sales rose to 90,884 razors and 123,648 blades that year. In the following year the company bought a six-story building in South Boston. During the years leading up to World War I (1914–1918) Gillette steadily increased earnings through print advertisements that emphasized how with his razor men could shave themselves under any conditions without cutting or irritation.

During World War I the U.S. government ordered 3.5 million razors and 36 million blades to supply all its troops. In order to meet military supply schedules, shifts worked around the clock and Gillette hired over 500 new employees. Gillette thus introduced a huge pool of potential customers to the still new idea of self-shaving with a safety razor. After the war ex-servicemen needed blades to fit the razors they had been issued in the service.

In 1921 Gillette's patent on the safety razor expired, but the company was ready for the change. It introduced the "new improved" Gillette razor, which sold at the old price, and entered the low-priced end of the market with the old-style razor, renamed the Silver Brownie razor. Gillette also gave away razor handles as premiums with other products, developing customers for the more profitable blades. Expansion and growth continued.

In the early 1930s Gillette made a bold advertising move: the company admitted that the new blade it had brought out in 1930 was of poor quality. The company then announced what became its most recognizable product, the Gillette Blue Blade, promising uniformly high quality. The Blue Blade kept Gillette the leader in the field, but profits remained disappointing throughout the Great Depression (1929–1939), as men increasingly turned to bargain blades.

In 1939 the company began heavy broadcast sports advertising and purchased the radio broadcast rights to the 1939 World Series for \$100,000. Despite a short series in which the Cincinnati Reds lost four straight games to the New York Yankees, sales of Gillette's World Series Special razor sets were more than four times the company's estimates. This success encouraged more sports advertising. By 1942 Gillette-sponsored events were grouped together as the "Gillette

Gillette, King Camp

Cavalcade of Sports.’’ Although it eventually included college football’s Orange Bowl and Sugar Bowl, and horse racing’s Kentucky Derby, in addition to the World Series and baseball’s All-Star Game, the ‘‘Cavalcade of Sports’’ became best known for bringing boxing to U.S. audiences. Sports programs continued to remain an important vehicle for Gillette advertising.

During World War II (1939–1945) foreign production and sales declined, but domestic production more than made up for those losses. Almost the entire production of razors and blades went to the military. In addition Gillette manufactured fuel-control units for military plane carburetors. The backlog of civilian demand after the war led to consecutive record sales until 1957.

The company changed its name to the Gillette Company during the 1950s, at the same time when it began diversifying its product line. By the end of the twentieth century half of the company’s profits were still derived from shaving equipment. Gillette generated the remainder from a variety of consumer product areas, including writing instruments (Paper Mate, Parker, and Waterman brands), correction products (Liquid Paper), toothbrushes and other oral care products (Oral-B), alkaline batteries (Duracell), and toiletries (Right Guard, Dry Idea, White Rain). The company’s products were sold in more than 200 countries and territories, with more than 60 percent of sales occurring outside the United States.

See also: King Camp Gillette

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GILLETTE, KING CAMP

Before the beginning of the 1900s, when the only means of shaving a beard was the straight razor, shaving was a nuisance and even dangerous. That changed, however, in 1903, when the disposable razor made its debut. No one has done more to alter the face of men’s fashions than King Camp Gillette (1855–1932), inventor of the disposable razor.

Gillette was born in Fon du Lac, Wisconsin, on January 5, 1855, and raised in Chicago, Illinois. His family lost everything in the Chicago Fire of 1871, and he was forced to go to work. For the next 20 years Gillette worked in a succession of jobs ranging from traveling salesman to hardware store employee. A turning point came in 1891, when Gillette’s current employer, William Painter, the inventor of the crown bottle cap, encouraged him to begin working on a product that would be thrown away after its use, thereby keeping consumers returning for more. It took Gillette four years to come up with his invention.

Seeing the need for a better way to shave, Gillette took the straight razor and improved upon it. He created a razor that housed a double-edged, thin metallic blade between two metal plates, which were then attached to a T-shaped handle. A crude first version of the razor was ready by 1895, but early proposals for the product met with skepticism. Nevertheless, he pushed on with the manufacturing of the razor, founding the Gillette Safety Razor Company, later renamed the Gillette Company, in Boston, Massachusetts, in 1901. In 1903 the company’s first sale consisted of only 51 razors and 168 blades, but the razor was an instant success. Gillette went on to produce 90,000 razors and 12,400,000 blades by the end of his second year in business. The disposable razor was such a sweeping success that sales quickly grew into the millions. Beards, once common on men, were soon on the decline as it became increasingly fashionable for men to be seen well shaven.

Even though he retired in 1913 and moved to Los Angeles, Gillette remained president of his company until 1931. Although he continued to function as director, he shifted his focus to writing books; in these pages, he publicized his views on utopian socialism. Gillette believed that competition was a waste of time and resources. Instead he proposed that society should be restructured to adopt a system in which engineers

plan out and organize all economic efforts. His views were similar to those expressed by Edward Bellamy, who envisioned a system based on the sharing of domestic functions within huge residential units, the planned utilization of advanced technology, and the organization of labor into efficient production groups. Although such views were never widely popular, Gillette did live to see his once small business expand into an enormous and successful company.

Gillette died in Los Angeles on July 9, 1932.

See also: Chicago Fire of 1871, Gillette Company, Utopian Communities

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GLASS-STEAGALL BANKING ACT

In the early 1900s, commercial banks established security affiliates to underwrite securities, such as stocks and bonds. A commercial bank is an institution that accepts demand deposits, such as a check, and makes commercial loans. Underwriting is the bank's guarantee to furnish a definite sum of money by a certain date to a business or government entity in return for the entity's issue of bond or stock. Commercial banks were heavily involved in securities underwriting until the 1929 stock market crash.

In 1930 the Bank of the United States failed, allegedly because of the activities of its security affiliates. In 1933 all banks nationwide closed for four days because of the Great Depression. Four thousand of

these banks never opened again. This apparent collapse of the U.S. financial structure eroded public confidence that was already shaken from the hard times of the Depression. The failure of so many banks in such a short time frame was a fearful symbol to the public.

Responding to the public's lack of confidence in banks, President Franklin Roosevelt (1933–1945) proposed the Glass-Steagall Act as part of his New Deal program. Also known as the Banking Act of 1933, Glass-Steagall prohibits commercial banks from engaging in the investment business. Initially an emergency measure, the Act became permanent in 1945.

The Glass-Steagall Act established tighter regulation of national banks by the Federal Reserve System and created the Federal Deposit Insurance Corporation, which insures bank deposits with a pool of money supplied by the banks. It also prevented commercial banks from underwriting securities, except for a limited number of asset-backed securities, such as corporate bonds and U.S. Treasury and federal agency securities. The underwriting of securities was now almost strictly left to investment banks, which are unable to accept deposits. Investment banks are also authorized to set up corporate mergers, acquisitions, and restructuring, and provide brokers or dealers in investment transactions.

Succeeding legislation has relaxed the initial tenets of the Act. Commercial banks may now offer advisory services to customers regarding investments and buy and sell securities for them. Any information gathered through advisory services, however, can not be used by the bank when it acts as a lender.

See also: Federal Deposit Insurance Corporation, Great Depression, New Deal, Stock Market Crash of 1929

GLOBAL ECONOMY

Global Economy was a concept associated with the twentieth-century evolution of financial markets and institutions, where traditional geographic boundaries did not restrict economic transactions and consumer activities. The global economy applied to the increasingly international transaction characteristics of banks, industries, businesses, and other economic institutions. A global economy of financial markets was attributed to international deregulation of financial markets; technological advances to provide for the careful monitoring of world markets; and increased institutionalization of worldwide economic institutions. In a global economy investors and lenders viewed

Gold Resumption Act

international loans and securities as comparable to domestic or local transactions. Banks and other financial institutions in a global economy participated in both foreign and domestic markets. A global economy was encouraged by advances in data-processing and telecommunications monitoring, liberalization of worldwide capital funds, deregulation of local capital markets, and increased international competition among markets and economic institutions.

GOLD RESUMPTION ACT

Passed by Congress in 1873, the Gold Resumption Act officially revoked the bimetallic standard that was adopted by the U.S. government in 1792. The legislation was passed in recognition of the fact that by 1873 there were few silver coins in circulation. One hundred years earlier, in adopting the bimetallic standard (by which both gold and silver coins are minted), the legal mint ratio of 15:1 was established—silver coins contained 15 times as much silver as the gold coins contained gold. But, during the nineteenth century, fluctuations in the market prices of the two metals wreaked havoc on the supply of coins in circulation. (Whenever silver's value was higher on the open market than it was at the mint, people would hoard their silver coins for sale on the open silver market, effectively taking them out of circulation.) Even after the ratio was adjusted to 16:1, silver continued to be undervalued by the mint. Due to the under-valuation of silver—and the discovery of gold in California in 1849—gold gradually replaced silver in the nation's money supply. In passing the Gold Resumption Act of 1873, Congress put into law what had long ago been put into practice: silver coins were no longer considered legal tender. But shortly after enacting the law, political factions began agitating for the government to resume issue of silver coins. The Free Silver forces, mostly silver miners in the West, indebted farmers, and poor workers, believed the depressed economy of the 1870s would improve if silver coins were issued. This action, they said, would increase the supply of money to produce a mild inflationary effect, which would raise prices and allow debtors to pay their loans. The silver interests succeeded in influencing government: In 1878, five years after taking silver coins out of circulation, Congress passed the Bland-Allison Act which required the government to purchase and mint between two- and four-million dollars in silver each month. This amount was increased by the Sherman Silver Purchase Act of 1890; an enormous quantity of silver was put into circulation. As a result the value of

silver dropped. Americans exchanged their silver dollars for gold, and the gold reserve in the U.S. Treasury was depleted. After the financial panic of 1893, the Sherman act was revoked that same year. In 1900 the Gold Standard Act reaffirmed gold as the standard unit of value for the nation's currency.

See also: **Bland-Allison Act, Free Silver, Gold Standard Act, Sherman Silver Purchase Act**

GOLD RUSH OF 1849

On January 24, 1848 a New Jersey prospector James Marshall discovered gold on the American River in northern California, while he was working on a sawmill owned by John Sutter. When news of the discovery leaked out, there was a mass migration to California, and in subsequent years a fortune in gold was mined. Historian Malcolm J. Rohrbough called the Gold Rush the most significant event in U.S. history between the Louisiana Purchase and the outbreak of the Civil War. It had important economic, social, and political implications for the United States.

In 1848, when President James K. Polk (1845–49) notified Congress of the discovery in his annual message, gold fever broke out. Thousands of people made arrangements to go to the West Coast either individually or as a member of a group. These associations, which were called companies, helped lessen the cost of the trip, and they often but not always disbanded when they arrived in California. Some Argonauts, as the miners were called, took overland routes; others sailed around Cape Horn or booked passage to Panama, where they crossed the isthmus and took another ship to California. Disease and attacks by hostile natives often made the trip perilous, and many died on route.

MAKE A DOT THERE AND LET ME INTRODUCE A MAN, WELL-KNOWN TO ME WHO HAS WORKED ON THE YUBA RIVER SIXTY-FOUR DAYS AND BROUGHT BACK AS THE RESULT OF HIS INDIVIDUAL LABOR FIVE THOUSAND THREE HUNDRED AND FIFTY-SIX DOLLARS.

Walter Colton, Mayor of Monterey, California,
August 16, 1848

It was the greatest mass migration in American history and completely transformed California. Until the Gold Rush the population of the future state hovered at 13,000, about half of whom were Californios, people of Spanish or Mexican descent. The natives were submerged by the flood of 80,000 people, who



African American gold miner in Auburn Ravine, California, in 1852 during the Gold Rush, which helped to settle much of the western territory.

arrived in 1849, and who swelled to 300,000 by 1854. The immigrants were mostly young and mostly male. Because of the vast wealth that could be made, the Gold Rush cut across social classes. Both professional men and unskilled laborers could be found in the gold fields, working side by side.

The cities grew dramatically. At the beginning of 1849 San Francisco was sleepy little village of 800, but in the summer of that year, one contemporary observed that it had compressed 50 years growth into four months. San Francisco's population reached 20,000 by 1850 and 50,000 by 1860. Other towns, like Marysville, Sacramento, and Stockton, also expanded, becoming supply centers for the miners, and hundreds of smaller mining camps appeared. The large influx of people from the United States probably accelerated the move to statehood. California had been seeded to the United States after the Mexican War (1846-1848), and a constitutional convention was called in September of 1849. It became a state in 1850.

The amount of gold available and the ease with which it could be obtained seemed fanciful to those who first heard the stories in the East. But all one needed was a pick, pan, shovel, and the determination to go to California. Gold was deposited in streambeds,

which could be harvested by poking around with a knife and digging it out with a spoon. Water, which originally deposited the gold, was also used to mine for it. Flowing through a tin pan, the water would carry off the lighter particles of dirt and leave the heavier gold. At a time when farm hands would earn \$1.00 and skilled craftsman about \$1.50 for a 12-hour day, a miner could earn \$16.00 a day by panning an ounce of gold. In 1847 Eddin Lewis, a successful farmer in Sangamon County, Illinois made \$350.00 for the year by selling beef, pork, lard, and corn. In the fall of 1850, C.C. Mobley, a California miner, wrote in his diary that the men in his company made an average of \$350.00 each in a two-week period. From 1849 to 1855 \$300 million was taken from the California gold fields.

The vast amount of wealth inflated prices. A miner from New York and his partner had a large but ordinary breakfast at a boarding house near the mines that cost the \$43.00. Although the men did not complain, the miner noted that the usual price for such a meal was \$5.00. The cost before the Gold Rush was 25 cents. In spite of high prices that could be ruinous, there was a considerable fortune to be made, if one was provident and avoided gambling and "fancy" women. In fact, there was very little for the miners to buy. The men wore shabby clothing that was often patched, lived in tents or lean-tos, and ate the same drab food. Appearances could be deceiving, and clothing ceased to be a mark of distinction. Walter Colton the mayor of Monterey described a man who looked like he had just climbed out of an animal's lair, but who carried a sack containing \$15,000 in gold dust. Since at first there were no banks, miners usually kept their wealth on their person or left it at their campsite. The early miners had a reputation for honesty and generosity.

I SOON SHALL BE IN FRISCO. AND THERE I'LL LOOK AROUND, AND WHEN I SEE THE GOLD LUMPS THERE I'LL PICK THEM OFF THE GROUND

"Oh California," miners' song sung to the tune of "Oh Susanna"

The great wealth attracted many people who hoped to profit indirectly. A New England dentist set up practice in Northern California and returned to New Hampshire four years later after having earned a profit of \$2,800.00. Although only a few women worked in the gold fields, many moved to California in the hope of marrying a miner or providing some domestic service the miners needed. In 1850, women in Sacramento could make \$150.00 a month doing housework, while men were being hired for \$75.00 a month to build levees. In that same year, when the average farm

laborer in the United States earned only \$10.85 a month with board, one enterprising woman made \$100.00 a week by washing clothes. Managing a rooming house in Sacramento for three months brought Emeline Day \$184.00 in addition to her room and board. Lucy Stoddard Wakefield opened a pie shop in the mining town of Placerville, from which she grossed \$240.00 a week.

Within a couple years of the initial strike, the gold that was easy to find had already been mined, and it became more difficult for a miner to realize his dreams of wealth. Gold production reached its peak in 1854, when \$81 million was taken from the gold fields. The amount declined every year until 1857, when it leveled at \$45 million, an average it kept until the end of the Civil War. Large companies that could afford the capital investment began to dominate the industry, and they hired miners for wages. By 1854 miners who could obtain jobs were averaging only \$75.00 a month. More than a few left in bitter disappointment.

The discovery of gold had both a national and an international impact. The United States provided 45 percent of the world's gold production between 1851 and 1855. The nation was thus able to export gold, which helped offset the country's negative balance of payments in the 1850s. This abundance was also important in allowing the government to mint \$40 million in gold coins during that decade. On the other hand, the discovery caused U.S. commodity prices to leap and compelled workers in the east to strike in order to protect their standard of living.

See also: **California**

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GOLD STANDARD (ISSUE)

The gold standard was first put into operation in Great Britain in 1821, but the full international gold standard lasted from about 1870 until World War I (1914–18). Great Britain re-established its gold standard in 1928.

During the colonial period, American commerce was hindered by the absence of an adequate, standard medium of exchange. It was impossible to establish a gold or silver currency because colonists did not have natural supplies of these metals and had to rely on foreign trade to acquire them. Some Spanish and Portuguese coins made their way into the English colonies. These coins were exchanged for goods and paper money, but the value of the coins varied because the colonies competed with one another and overvalued the specie.

After Independence, the Constitution provided for the establishment of a national currency. The Mint Act of 1792 adopted the decimal system as the medium of reckoning, established the dollar as the basic unit of value, and created a bimetallic currency with a mint ratio of 15 to one. Authorized gold coins were the \$10 eagle, the \$5 half-eagle, and the \$2.50 quarter-eagle. Silver coins were the dollar, half-dollar, and quarter. Copper coins were the penny and the halfpenny. This bimetal system would last for the remainder of the nineteenth century until the passing of the Gold Standard Act of 1900.

The bimetallic coin production system met with many early difficulties. From roughly 1792 until 1834 the market ratio of silver to gold rose above the fixed mint ratio. Silver's resulting domination drove gold out of circulation. But merchants found that it was possible to gain a silver premium by exchanging U.S. silver dollars for slightly heavier Spanish silver dollars. This in turn caused a drain on U.S. currency. Accordingly the United States discontinued the minting of the silver dollar from 1806 to 1840 and the half-dollar became the principal coin in use. The resulting shortages of U.S. specie compelled the United States to grant legal tender status for foreign coins. This status lasted a short time since it was assumed that U.S. currency would soon replace the foreign coins.

The Coinage Act of 1834 was intended to bring gold back into circulation. With the mint ratio adjusted to 15.988 to one, silver was undervalued at the mint and forced out of circulation. Discoveries of gold in California and Australia further debased gold and increased the supply of gold coins. In an effort to prevent silver from disappearing altogether, Congress passed the

Subsidiary Coinage Act in 1853 which reduced the weight of subsidiary silver coins. But despite these attempts at keeping the dual system alive, opposition and opinion against bimetallism mounted.

During the 1870s demand for the free coinage of silver increased, especially among Western farmers who had been adversely affected by falling prices and the “demonetization” of silver. After the American Civil War (1861–1865), the worldwide output of gold slowly diminished, silver production greatly increased, and the value of silver—relative to gold—declined. In 1873 the government removed the silver dollar from the list of coins to be minted. A year later the commercial ratio of silver to gold rose to over 16 to one, and many Western farmers (then a growing political force) felt that it would have been profitable to coin silver dollars at the mint ratio. Forming a Populist agenda, farmers called the “demonetization” act the “crime of 73” and pushed for the coinage of free silver to push prices up. With the passing of the Bland-Allison Act, the government agreed to purchase between \$2 and \$4 million worth of silver to be coined into silver dollars.

During the 12 years the Bland-Allison Act was enforced, 378 million silver dollars were coined. Pushed by Populist demands, the Republicans agreed to pass the Sherman Silver Purchase Act in 1890 which required the United States Treasury to buy 4.5 million ounces of silver monthly. During the three-year period of the Purchase Act’s operation, the government bought nearly \$156 million of silver. This endangered the gold standard, and eventually gold was forced out of circulation. During the Panic of 1893, President Grover Cleveland (1885–89) and (1893–97) called a special session of Congress during which the Sherman Silver Purchase Act was repealed. Between 1894 and 1896, the government maintained the gold standard through the purchase of over \$200 million in gold, paid for with four and five percent bonds.

While the agitation surrounding silver coinage continued for a while, it never again became so important an issue as in the election of 1896. During the presidential election of 1896, Democratic candidate William Jennings Bryan (1860–1925) was heavily influenced by the Populist demand to inflate silver’s value in order to raise prices for their crops. Bryan campaigned for the free coinage of silver at the ratio of 16 to one. But Bryan’s opposition, Republican candidate William McKinley (1897–1901), called for the maintenance of the gold standard. After a heated contest between the two candidates, William McKinley was elected president. Reasons for McKinley’s victory were twofold: conditions for farmers began to improve in 1896, and voters distrusted Bryan’s financial policies.

When the U.S. Congress passed the Gold Standard Act in 1900, many of the monetary questions that had plagued the U.S. economy for over a century appeared to be settled. The Gold Standard Act established a full gold standard, and provided the free coinage of gold and full convertibility of currency into gold coin. But the Great Depression caused the collapse of the gold standard and reopened the issue of a currency standard for the United States. In response Congress passed the Gold Reserve Act in 1934 which put the country on a modified gold standard and stipulated that gold could not be used as a medium of domestic exchange. This legislation paved the way for the end of a gold-based monetary system altogether in domestic exchange. Under the Gold Reserve Act, the dollar was legally defined as having a certain, fixed value in gold. Thus, although gold was still considered to be important for the preservation of confidence in the dollar, its connection with the actual use of money remained vague.

After World War II (1939–1945), most exchange rates were pegged either to gold or to the dollar. In 1958 another type of gold standard was established in which major European countries had free convertibility of their currencies into gold and dollars for international payments. But there was no restoration of a pure international gold standard as such and many wanted a more clearly defined relationship between gold and the dollar. Later attempts were made to make the dollar less dependent upon gold for its value. In 1971 President Richard M. Nixon (1969–1974) ended the convertibility of the dollar into gold. Following Nixon’s action, practically all U.S. currency, paper or coin, was essentially fiat money, and gold became no more than a commodity traded on international markets.

A gold standard had both advantages and disadvantages. On one hand, it provided a fixed pattern of exchange rates for international trade. Under normal circumstances, the value of gold did not fluctuate greatly over short periods because of the relative stability of demand and supply. Over longer periods however, the effects of cumulative production in relation to immediate demand resulted in an unstable value, which caused difficulty in gold management in relation to price stability.

Many economists believed that the disadvantages of a gold standard far outweighed the advantages. Because of the limited supply of gold, a gold standard inherently limited flexibility in the money supply; thus, it hampered the growth and expansion of the economy. A gold standard also limited the power to create money, which in turn caused inflation. Moreover, since gold was a commodity, its value increased or decreased according to supply and demand for it which caused

Gold Standard Act

destabilization and consumer uncertainty. And finally, the gold supply benefited some countries at the expense of others. Some countries controlled large supplies of gold and affected the operation of other economies, either through natural supply or acquisition of gold.

See also: William Jennings Bryan, Cross of Gold Speech, Free Silver, Gold Resumption Act, Gold Standard Act, Sherman Silver Purchase Act

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GOLD STANDARD ACT

In 1900, following more than a century of wild fluctuations in the valuation of U.S. currency, Congress adopted gold as the nation's monetary standard. In passing the Gold Standard Act, lawmakers rejected the bimetallic standard originally adopted in 1792: silver was no longer legal tender and paper currency (greenbacks) was now backed up by gold alone. The move to gold was inspired by the tumultuous monetary system of the late-1800s, when Free Silver advocates urged the government to issue an unlimited supply of silver coins to produce a mild (and, they believed, beneficial) inflationary effect.

Gold standard advocates believed the nation's money supply would never be stabilized under the bimetallic standard. They contended that because the open market value of each metal (gold and silver) was constantly fluctuating, the under valuation or over valuation of either metal by the mint would impact the supply of coins in circulation. For example, when the U.S. mint undervalued silver coins, savvy people opted to sell their silver coins on the open market for more than their face value. When silver was over produced

and the government issued too many silver coins (as was the case after the Sherman Silver Purchase Act of 1890), the price of silver dropped and people eagerly traded in their silver coins for gold coins and thereby exhausted federal reserves.

In the election of 1896, the Free Silver forces supported Democratic candidate William Jennings Bryan (1860–1925); Republican candidate William McKinley (1897–1901) ran on a platform that included backing paper money with gold. McKinley was supported by businessmen who believed the adoption of the gold standard would stave off inflation and help the country achieve economic prosperity—McKinley won the election. In 1900 he made good on his campaign promise, signing the Gold Standard Act into law. Gold remained the standard of the U.S. monetary system until April 1933, when, in the midst of the Great Depression (a worldwide economic downturn) Congress abandoned the gold standard because the U.S. could no longer guarantee the value of the dollar in gold. The legislation enabled the Federal Reserve to expand the nation's money supply without regard to gold reserves.

See also: William Jennings Bryan, Cross of Gold Speech, Free Silver, Gold Resumption Act, Gold Standard, Sherman Silver Purchase Act

GOMPERS, SAMUEL

Samuel Gompers (1850–1924), the best known and most influential U.S. labor leader in the late 19th and early 20th century, was the first president of the American Federation of Labor (AFL). In an era when armed physical combat between employers and workers often characterized labor relations, Gompers acted on the principle that unions should instead employ strikes, boycotts and other non-violent strategies to gain their ends.

The eldest of nine children, Gompers was born on January 27, 1850, in London, England, in a working-class tenement area. He attended school for only four years when financial considerations forced him to apprentice with his father, a cigarmaker.

In 1863, when the boy was 13, the family emigrated to New York City. Father and son immediately pursued work as cigarmakers. By 1864, at the age of 14, Samuel had joined the Cigarmakers' Union. In his autobiography written years later, he wrote, “All my life I had been accustomed to the labor movement and accepted as a matter of course that every wage-earner should belong to the union of his trade.”



Samuel Gompers.

Gompers had a great thirst for knowledge and spent his spare time reading and attending public lectures and debates. In the cigar shop where he worked, he was able to test many of his ideas with fellow workers who often discussed issues of the day as they worked together. Gompers later claimed that these workplace discussions were like debating societies and that they honed his reasoning, as well as his persuasive and speaking skills.

Beginning in the 1870s, Gompers became actively involved in reorganizing the largely ineffective Cigarmakers' Union. He joined in a demonstration for the eight-hour day in September 1871, and from then on, became a tireless advocate of the benefits that would accrue to workers from shorter working hours. Taking on leadership of the union, he advocated raising union dues to build a strike fund and to support a benefits program including out-of-work, sickness, and death payments. Strikes were carefully controlled. Gompers believed in building unity based on a common form of skilled work and then binding workers to the union through a strong benefit plan. He veered sharply away from becoming involved with socialism and later became hostile to socialists who attempted, unsuccessfully, to take over leadership of the union movement.

By 1877, Gompers had been able to introduce many of his theories into the Cigarmakers' International Union, which had become a model of militant, principled, persistent unionism. In 1886, under Gompers, the cigarmaker's union, along with other trade unions, formed the American Federation of Labor, (AFL). Except for one year (1895), Gompers remained president of the AFL until his death in 1924.

Gompers gave the growing union movement a moral gravity and a conservative approach. He supported craft as the basis for the organization of workers and argued that the labor movement should look first to organizing skilled workers. Suspicious of easy solutions and ideological answers, he held the union back from radical actions and irresponsible strikes that he believed would tarnish the unionism movement overall. He also distrusted the influence of intellectuals and outside reformers. Gompers was tireless in keeping the national union together through good times and bad and building it into an effective organization. By 1894, the AFL had more than 250,000 members.

Gompers accepted the capitalist system as a practical reality. But he did not trust the government, which he believed to be a tool of the moneyed classes, to look out for the needs of workers; in fact, he believed the state would use its power at the expense of the working class. Because he distrusted government so deeply, he even opposed progressive legislative initiatives concerning hours, wages, and unemployment and health insurance for men. (He did, however, approve of labor legislation to protect children and women, who were not part of organized labor.)

Gompers argued that trade unions were the only dependable working class institution in American society. His theories, called "voluntarism" held that workers should depend on their voluntary membership in trade unions to protect them instead of relying on the government. Many state and local union leaders split with Gompers on the voluntarism issue, choosing instead to seek legislative redress for labor issues.

Gompers also believed in keeping the unions out of partisan politics. In his view, political action had to yield to strikes and boycotts as a bargaining tool. Although, like most labor leaders, he had advocated neutrality in the early days of World War I, he was staunchly supportive of the participation of the United States by the time it entered the war in 1917. In fact, he headed the effort against those in the labor movement, chiefly socialists, who continued to oppose the war.

Gompers spent his final years attempting to shore up the labor movement which was losing influence in the 1920s. In 1924, in a speech to the AFL quoted in the

Goodyear, Charles

July 1989 *Monthly Labor Review*, he summed up his career this way: "I want to live for one thing alone—to leave a better labor movement in the America and in the world than I found it when I entered, as a boy. . . . He died in San Antonio, Texas, a few weeks later.

See also: American Federation of Labor, Capitalism, Labor Movement, Labor Unionism, Socialism, Trade Unions

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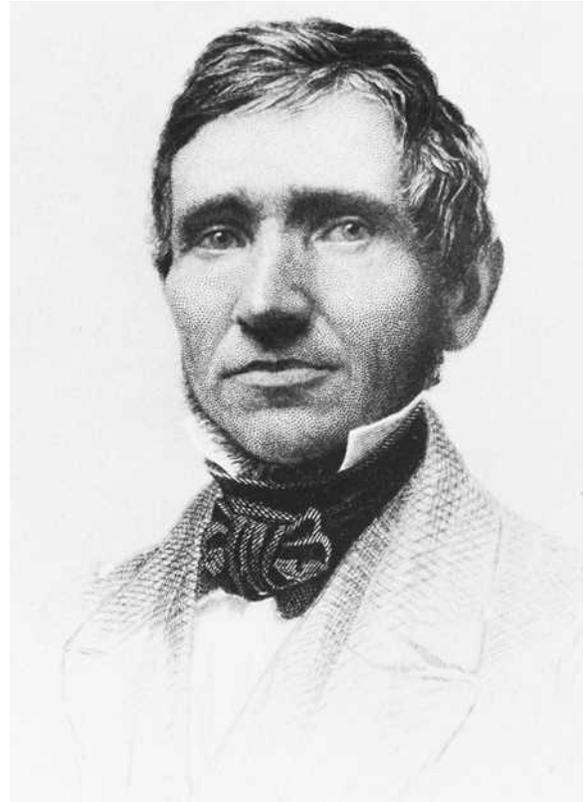
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GOODYEAR, CHARLES

Charles Goodyear (1800–1860) did not prosper in his lifetime, but the industry he helped to found has played a major role in the development of the world's economy. Goodyear failed at business, spent many years in and out of debtor's prison, and left his family destitute, but his persistent work at developing rubber as a commercial product launched an entire industry.

Born in New Haven, Connecticut, on December 29, 1800, Charles Goodyear was son to a father who worked as a manufacturer, an inventor, and a merchant of hardware, particularly of farm tools and implements. Goodyear attended public schools and was sickly as a child—a problem he was never to overcome. At age 17 he moved to Philadelphia, Pennsylvania, to learn the hardware business as a salesman, but ill health forced his return to New Haven in 1822, where



Charles Goodyear.

he became his father's partner. At age 24 he married, and he and his wife Clarissa later had six children.

In 1826 Goodyear and his wife opened the first American hardware store in New Haven. Four years later, two events occurred that would shape Goodyear's life—both he and his father went bankrupt, and, on a trip to New York City, he visited a store that sold goods made of India rubber. Excited by the possibilities of goods made of rubber, Goodyear purchased a rubber life preserver from the Roxbury India Rubber Company. The only problem was that India rubber goods were frail; they became brittle when exposed to cold, and sticky when exposed to heat. Goodyear quickly invented an improved valve for the life preserver, but he was rebuffed by Roxbury and told that if he really wanted to improve the life preserver he would need to work on the rubber, not the valve.

So began a life's work that would consume Goodyear. He spent all of his time and resources working with rubber, trying every imaginable method to improve the quality of the material. He had no money, little knowledge of chemistry, and few resources for experimentation, yet he continued to persevere with his experiments, using trial and error to see what would work. He mixed rubber with anything and

everything, from witch hazel to castor oil, from acids to cream cheese. Throughout his efforts, Goodyear was in poor financial condition. While his family often lived on the charity of friends, he zealously pursued his dream of developing rubber. He worked on his processes even while in debtor's prison.

Goodyear thought that he had secured acceptable results for treating rubber with nitric acid laced with sulfuric acid, but the financial panic of 1837 wiped out his fledgling company. Undaunted, he kept on with his work, wearing a suit of clothes made from rubber as a gimmick to gain attention. Shortly after the panic, Nathaniel Hayward partnered with Goodyear, and it appeared that their venture would be successful: The U.S. Post Office ordered 150 mailbags made of Goodyear's treated rubber. Unfortunately, the bags disintegrated in the summer heat and the venture failed. Goodyear persevered. His breakthrough came quite by accident in 1839, when he spilled a rubber and sulfur mixture onto a hot stove. Expecting the rubber to melt, Goodyear was surprised to see that the rubber had only charred on the edges. The areas that had not burned retained their elastic properties. Exposed to cold, this fragment continued to maintain its flexibility.

Goodyear had discovered the key to the process he called *vulcanization*, which was to cure the rubber-acid mixture with heat. He obtained a patent for the process on June 14, 1844; however, his typically poor business sense led him to license the patent at ridiculously low prices. Moreover, industrial pirates preyed on the patent and used it without authorization. Goodyear eventually retained famed attorney Daniel Webster (1782–1852) to represent him and secure his rights, but Webster's attorney fees exceeded the amount that Goodyear had made from his patent. He also had trouble obtaining a patent abroad, since Thomas Hancock had already patented the process in Great Britain.

Still attempting to make good on his dream of manufacturing rubber products, Goodyear borrowed money for extravagant displays of his products in London in 1851, and in Paris in 1855. He earned nothing from these attempts and spent another round in debtor's prison as a result of the Paris show. Nevertheless, while in debtor's prison he was awarded the Cross of the Legion of Honor for his efforts.

Goodyear returned home sick, feeble, and broke. When his daughter was dying in 1860, Goodyear traveled to New Haven to visit her, but he died en route in New York in 1860, leaving his family more than \$200,000 in debt.

See also: *Tire and Rubber Industry*

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GORMAN, LEON ARTHUR

Leon Gorman (1934–) was president of L.L. Bean, the world's largest supplier of outdoor clothing and active gear. The company's business, founded by Gorman's grandfather, L.L. Bean, in 1912, was built on catalog sales and a reputation for conservative styling, high quality merchandise, and customer satisfaction. L.L.Bean's guarantee was unconditional; no matter how long a customer owned a product it could always be exchanged for a replacement or for a refund.

When Gorman became president of the privately-held family company in 1967, L.L. Bean was in serious trouble. Throughout the last years of his grandfather's life, he had made sure his company retained its old-fashioned business practices, limited growth, and only slowly accommodated to modern technology. According to John Skow, writing in *Sports Illustrated*, the company "had fallen into a prolonged snooze." Sales had dropped to \$3.5 million and profits to a mere \$60,000.

Gorman found that employee performance was poor partly because nearly everyone was of retirement age or older. The products the company sold were outdated; quality had slipped. L.L. Bean's landmark store in Freeport, Maine, had become shabby. Under Gorman, L.L. Bean was completely overhauled as he boosted advertising budgets, conducted marketing research and expanded the company's traditional mail-order sales base. Gorman spent \$12 million in modernization, streamlined the company's operations, and introduced a retirement policy. Along the way he increased benefits and wages to boost morale and attract new workers.

Gould, Jayson "Jay"

For more than two decades, the company's revenues soared. L.L. Bean posted double-digit revenue growth in the 1970s thanks to a boom in outdoor sports. The company followed that up with more growth in the 1980s when the "preppy look" enjoyed widespread popularity. Strong international sales of its products, particularly in Japan, also helped make L.L. Bean an industry giant. By 1985 Gorman had boosted company sales to \$300 million. In 1992 he received the Entrepreneur of the Year award from Ernst and Young.

By 1999 the company had grown into one of the world's leading international mail-order firms with sales of some \$1 billion a year. L.L. Bean was selling more than 16,000 products through catalogs, the Internet, a retail operation in Freeport, eight retail stores in Japan, and nine factory outlet stores. More than 4.5 million customers placed orders from all over the world; as many as 180,000 orders a day were received by phone. Yet growth slowed significantly throughout the 1990s. After dropping in 1996 sales grew by only a sluggish 2.9 percent in 1997. According to *Business Week's* William Symonds, L.L. Bean was "firmly stuck in the past."

Analysts placed the blame partly on the conservative styles of L.L. Bean's khakis, parkas, and sweaters, on Gorman's reluctance to move into children's clothing, and retail outlets that operated outside of Maine and Japan. As L.L. Bean's sales slowed, other retailers in the often-cutthroat mail-order businesses, such as Lands' End and J. Crew, caught up and passed the venerable company in some areas of its business. According to *Business Week*, the overall number of catalogs mailed out each year in the U.S. jumped from 7.8 billion in 1982 to 13.9 billion by 1998 making the Bean catalog easily lost in the pile. In addition, other rivals, such as The Gap, gained a very strong foothold in retail stores.

Gorman vowed to fight back and his goal, he said, was to add \$300 million in sales by 2001 and triple pretax profits. He announced plans to locate a 100,000-square-foot superstore along with several smaller nearby satellite shops in the Mid-Atlantic region. A full fashion update of Bean's standard clothing line was on the books as was a specialty catalog, Freeport Studios, featuring dressier clothes for women of the baby-boom generation. Gorman also pledged to double marketing spending, including its biggest ever television advertising campaign, to \$26 million. He also reorganized L.L. Bean's corporate structure into business units responsible for specific sales areas.

See also: Leon Leonard Bean, Mail-Order House

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GOULD, JAYSON "JAY"

Jayson Gould (1836–1892), known as Jay, was born in Roxbury, New York, on May 27, 1836. A farmer's son, he attended a local academy for schooling and also learned surveying skills. From ages 18 to 21, Gould helped to prepare maps of New York's southern counties; he later worked as a clerk and a blacksmith. When he and a partner were able to put together a stake of \$5,000, he went into the leather-tanning business in northern Pennsylvania.

Gould eventually moved to New York City, where he sold leather goods and, in 1859 and 1860, began speculating in the stock market. Ruthless in his stock market dealings, Gould made great profits from Pennsylvania, New York, and Ohio railroad stocks. Financial markets were unregulated at that time, and Gould became a master at maneuvering stocks for his own gain.

Trading in the securities of his own companies, exploiting banks, and corrupting legislators and judges were all strategies employed by Gould. He became a power on Wall Street as he learned to manipulate the intricacies of corporate management and security trading. Gould was not above savaging companies and driving investors to ruin if it would make him a profit. The first financing he obtained was from a man who committed suicide after being wiped out. Gould himself was to earn and lose millions of dollars several times in his career.

Gould obtained a position on the board of directors of the Erie Railroad in 1867. He planned to control the railroad, and wanted to expand it to Chicago. His opponent in this scheme was famed industrialist Cornelius Vanderbilt (1794–1877). Gould schemed behind the scenes, using front persons in what became known as the Erie War with Vanderbilt. Illegally



Jay Gould.

converting debentures to stock, Gould bribed legislators in Albany to legalize his actions. Eventually, Vanderbilt left the Erie to Gould, who then sought to expand the railroad. At the same time, he increased the company's debt as he traded in Erie stocks, making a fortune before driving the railroad into bankruptcy in 1875.

While working on the expansion of the Erie, Gould bought controlling shares of the Wabash Railroad, which was principally a carrier of wheat. Gould hatched a scheme to increase wheat purchases—and therefore Wabash freight revenues—by manipulating the price of gold to make American wheat more attractive to foreign purchasers. His plan involved pushing the price of gold up by secretly buying the metal on the market. But on September 24, 1869, the date known as Black Friday, the U.S. Treasury dumped gold on the market to bring the price back down, and the sudden drop in gold prices created a panic on Wall Street. Gould lost a fortune in the panic, as all stock prices came tumbling down. However, continued successful speculation brought Gould back to the ranks of the rich by 1872, and he set out on another scheme to manipulate railroad stocks. In the meantime, one of his

partners, James Fisk, was murdered by his mistress's pimp.

Although Gould had lost the Erie, he added the Texas and Pacific, Missouri Pacific, and Union Pacific railroads to his interest in the Wabash. He followed the time-honored practice of buying up large amounts of shares when the prices are low. In another shrewd move, he purchased independent lines and feeder lines that added to the larger railroads' clout. The railroad companies then saw great increases in their stock prices, and Gould sold out his interests during the strong market of the early 1880s, making another fortune. Gould's tenure as the business leader of railroads was not solely self-serving, however: He added 2,500 miles of track to the Missouri Pacific from 1879 to 1882, and he forced shipping rates down by waging relentless war on his competitors. Between 1885 and 1889, he reacquired and reorganized the Wabash and the Texas and Pacific railroads, then merged them with his Missouri Pacific system.

Two more of Gould's interests would eventually add much to his estate. He used the Manhattan Elevated Railroad of New York to establish a monopoly on Manhattan's rapid transit system. He also purchased the American Union Telegraph company in 1879 and consolidated with Western Union in 1881. In 1888 he added the telegraph network of the Baltimore and Ohio Railroad; by the end of the 1880s Western Union had no real competition in railroad telegraphy and the transmission of wire stories to newspapers via the Associated Press.

Biographers have described Gould as somber, joyless, diabolical, and fiendishly clever at making money through stock manipulations; many refer to him as a "robber baron" who liked only money, books, and gardening. In 1863 he married Helen Day Miller and the couple had six children. At his death in New York on December 2, 1892, his estate was worth \$77 million. His children, having inherited great wealth, lost or squandered a good deal of the money, although some philanthropic activities did take place in later years.

See also: Railroad Industry, Robber Barons

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GOVERNMENT FARM POLICY (ISSUE)

Farming has little concrete meaning for many Americans. Society is so urbanized that the ordinary citizen's notions of farm life are highly abstract and usually inaccurate. The farm does have a secure position—perhaps even a mythic status—in the national culture, however. This status has shaped American political rhetoric from President Thomas Jefferson (1801–1809) to the present time. Discussion of the “plight of the farmer” and the “disappearance of the family farm” in modern America are usually coded language for the crisis that besets middle-class urban or suburban families who see their personal freedom diminishing in relation to economic developments over which they have no control—just like the farmer.

Such thinking about the plight of the farmer has a New Deal ring to it. Although the Democratic President Bill Clinton once declared that “the era of big government is over,” many Americans who think about the problems of rural America seem to assume the necessity of an active role for the federal government. This belief that it is the responsibility of the government to take care of the farmer dates back to the early 1920s, when rural parts of the United States went into a depression almost 10 years before the rest of the country followed suit.

During World War I (1914–1918) the federal government encouraged farmers to increase production. When farmers maintained wartime levels of production in the postwar period, the result was a sharp drop in farm prices. Farm income plunged from almost \$1,400 in 1917 to a little over \$500 in 1921. In order to pay their mortgages and costs of production, farmers demanded a government subsidy, which they called “parity.” The Agricultural Credits Act, passed in 1923, was one of several attempts to bolster the farm commodity price levels. However, it failed to deploy enough resources to solve the problem of low farm prices.

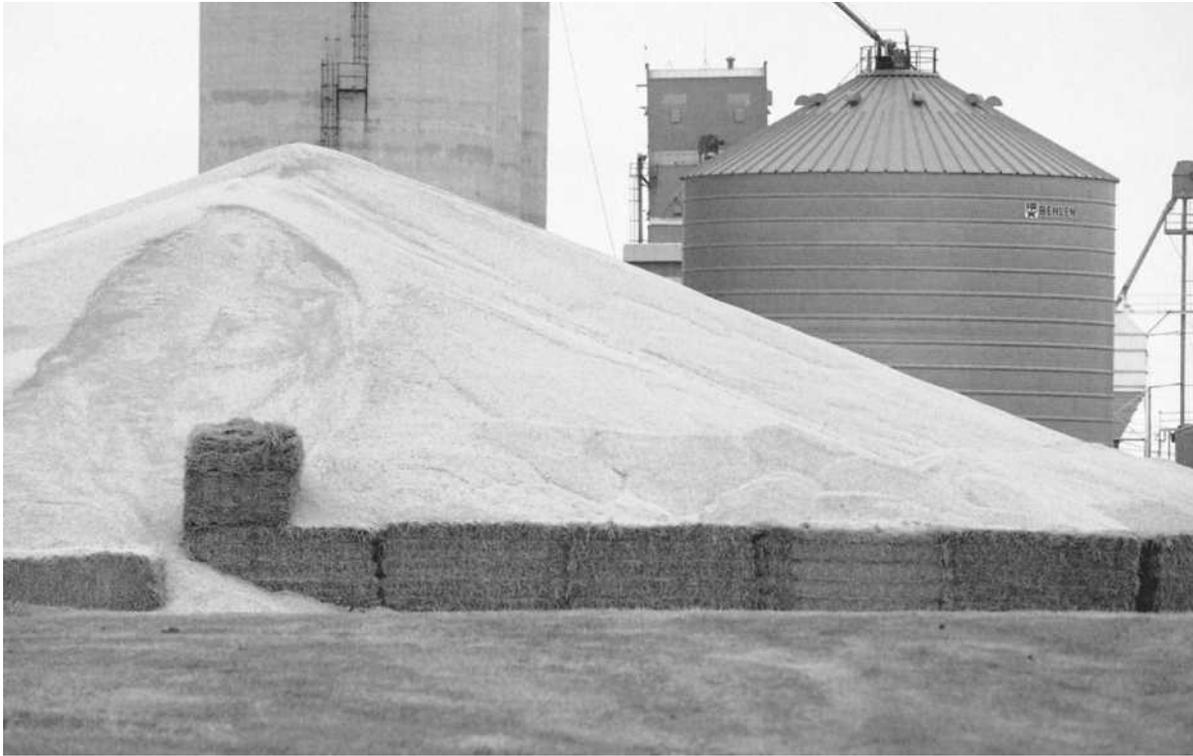
In 1929 President Herbert Hoover (1929–1933) signed the Agricultural Marketing Act, which established the Federal Farm Board with a fund of \$500

million. The Farm Board helped to found farming cooperatives and set up stabilization boards; such boards would regulate the prices of grain and cotton by making purchases on the open market. Such purchases, however, only encouraged farmers to put more land in cultivation in expectation of greater profits. Consequently, the Farm Board failed and had to sell its holdings at a loss of \$200 million.

The Agricultural Adjustment Act (AAA) of 1933, one of the first pieces of legislation passed under President Franklin Delano Roosevelt (1933–1945) in his New Deal program, attempted to control farm prices by reducing and controlling the supply of basic crops. The AAA empowered the Secretary of Agriculture to fix marketing quotas for major farm products, to take surplus production off the market, and to decrease production of staple crops by offering producers payments in return for voluntarily reducing the acreage devoted to raising such crops. The Commodity Credit Corporation (CCC), also created in 1933, began making loans to farmers on agricultural products. The CCC granted loans only to farmers who agreed to sign production-control agreements. Farm prices steadily improved, and between 1932 and 1937 the prices for major farm products increased by almost 85 percent. But in a major setback, the U.S. Supreme Court declared certain production control features of the AAA unconstitutional.

Large crops of wheat and cotton led to passage of the Agricultural Act of 1937. In its amended form, this act provided the framework for the major farm programs that are still in effect today. The act made price-support loans by the CCC mandatory on the designated basic commodities of corn, wheat, and cotton, and it authorized optional support for other commodities. Under this act and subsequent legislation, the CCC supported more than one hundred different commodities, including fruit, vegetables, and various types of seed.

From 1941 to 1948, during and just after World War II (1939–1945), surpluses were rapidly utilized, and price supports became an incentive to stimulate production of agricultural commodities. In 1948 price-support levels were lowered for most of those commodities. By 1949 the agriculture of war-devastated Europe and Asia had recovered to a significant extent, and the demand for American farm products declined considerably. At the same time, however, crop production in the United States had greatly increased; as a result, farm commodity prices dropped and surpluses began to build up again. Rigid support levels were once



Many crops were ruined because they were unprotected outdoors. The lack of proper storage space for new harvests was an important issue during the Farmer's Protest Movement.

again enacted, but when the Korean War (1950–1953) strengthened farm prices, most CCC stocks were sold. Mounting surpluses and increased costs of government programs led to the enactment of a flexible price-support program (1954) and of the Soil Bank program (1956). These programs offered direct payments to farmers only if they agreed to reduce their acreage of major supported crops and to leave fallow the land removed from production. Ultimately, these control programs did not achieve the desired effect, since improved technology made it possible for farmers to greatly increase their yields per acre.

In the early 1960s price supports on major commodities were pegged at or near market-clearing prices, and producers' incomes were protected by direct payments on fixed quantities of products. Direct payments to farmers have greatly increased since the 1960s, with the feed-grain, cotton, and wheat programs accounting for most of this increase. Yet once introduced, federal subsidies to maintain prices have proved extremely difficult to end. In 1989 the U.S. Department of Agriculture paid farmers more than \$10.8 billion in various subsidies. In France, farmers have vigorously protested an imminent decrease in the subsidies (\$34 billion in 1989–90) that have made them the world's second largest food exporter after the United States.

Agricultural subsidies in the United States, Japan, and Europe were issues of contentious debate during Uruguay's round of international trade negotiations under the General Agreement on Tariffs and Trade (GATT) in 1990.

Some economists have argued that U.S. export expansion policies have undermined foreign production capacity, altered consumer preference, and consequently created dependence on imports of wheat and other grains. They argue that domestic U.S. farm policies have aggravated supply and price volatility for wheat and other cereal crops and that developing nations are pressured during trade negotiations to exchange domestic food security policies for access to the world trade market and debt-servicing arrangements. Unable to compete with U.S. production resources and U.S. Treasury-subsidized cereal prices, farmers in many poorer nations find that the prices they receive for their crops don't cover their costs. Economists point out that as early as 1965, food aid to India had driven down the price of domestic wheat and curtailed native production. Similar problems have occurred during the past three decades in nations throughout Africa, Latin America, and Asia.

A growing number of economists claim that small-scale farming must be made economically viable again

Government Land Policy (Issue)

so that established small farmers can survive and new ones can get started. They argue that this can be accomplished either by eliminating the favors the federal government bestows on large farms and corporate farming; or else by enacting labor laws that guarantee a minimum wage to farmworkers that is equal to that of other workers; or finally by writing legislation that makes the willful and acknowledged employment of illegal aliens punishable by imprisonment.

Still others claim that subsidy programs should be revised. They argue that when farm subsidies began during the New Deal, they were intended to help the impoverished small farmer. But because they were pegged to total marketing and total acreage rather than to personal income, they ended up lining the pockets of the wealthy. These same economists argue that if farm subsidies are continued—as the economists think they should be in order to stabilize farm income—they ought to be strongly weighted in favor of small farmers. They contend that no farmer should receive subsidies for crops grown (or not grown) on land in excess of a certain acreage, and that farm subsidies could be completely detached from crops and related to income instead. Farmers could sell on the open market, with federal payments making up the difference, if any, between earnings and a minimum livable income. Aiming to protect the small farmer from the conglomerates, they also support protective legislation that would work like a forceful antitrust policy for agriculture.

There is yet another school of thinking: some claim that the current federal agricultural policy should include a redistribution of land. These critics explain that the guiding principles behind redistribution are that land should belong to those who work and live on it and also that holdings should be of reasonable, not feudal, proportions.

Many economists believe that federal farm programs have been rationalized in the past based on public interest or “market failure” grounds, and that government intervention has been justified because agricultural markets do not conform to an ideal level of competition. But conservatives claim that government failure—rather than market failure—better explains the persistence of wasteful and inconsistent farm programs. Whatever the position, the issue of agribusiness will only get more controversial as e-commerce, the global marketplace, and increases in the world population further complicate the debate.

See also: Agriculture Industry, Farm Credit Administration, General Agreement on Tariffs and Trade, Government Land Policy

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GOVERNMENT LAND POLICY (ISSUE)

The Treaty of Paris of 1783, which brought the Revolutionary War to a close, ceded to the United States an area that became known as the Northwest Territories, and later, the “Old Northwest,” which included all lands south of Canada, east of the Mississippi River, and north of the Ohio River. At the time of the treaty the eastern third of the area east of the Mississippi was occupied. The land west of the Appalachian Mountains remained virtually untouched by European settlement until after 1800, when waves of settlers flooded into the area. The Louisiana Purchase in 1804 nearly doubled the size of the country, and the public domain of the United States tripled. Subsequent treaties and purchases continually added new land faster than the sales of the land could diminish it. By 1850 the federal government of the United States held 1.2 billion acres in the public domain.

For Congress, land represented wealth, and the question to be decided was, who should profit from the public domain? One option was to sell the land at full value and retain the wealth for the benefit of the country. Congress could also choose to give the land away and distribute the wealth to those whom it deemed worthy. Before the American Civil War (1861–1865), Congress tended to follow the first option but failed to implement it fully; as a result, the government received only a portion of the value while the rest went to purchasers. After 1862 Congress tended to follow the second strategy, but it again failed to ensure that the policy achieved its goals.

The Federalists (the party of Washington, Hamilton, and John Marshall, who favored a strong central government) viewed the public land primarily as a

source of revenue that would give the federal government a chance to expand its role in the economy. For Secretary of the Treasury Alexander Hamilton, the sale of public land at high prices and in large lots would secure the maximum advantage for the public treasury. It would also discourage settlement, limit agricultural expansion, and indirectly encourage manufacturing by turning labor and capital away from the frontier and farming.

But Thomas Jefferson, James Madison, and the Republicans disagreed. They saw the sale of public land as an opportunity to create a nation of small landed farmers that would become the bulwark of democracy and a protection against the arbitrary power of the federal government. Jefferson proposed that the land be sold in small lots and on credit at low prices (if not given away) so that it would fall within the financial means of the largest number of people.

According to the Land Ordinance of 1785, all territory west of the Appalachian Mountains was to be settled in an orderly, systematic fashion. The land was to be surveyed prior to its sale and settlement, and was to be established along a rectangular grid and divided into townships six miles square. In turn, each township was to be subdivided into 36 sections one mile square. The initial terms of the ordinance represented a victory for the Federalists. Prices were set high and the minimum acreage was large. Alternating townships were to be sold whole or by sections consisting of 640 acres. All sales were to be held at public auction in order to ensure that the Treasury obtained the land's full market price as well as its reservation price of \$1 per acre.

According to the Northwest Ordinance of 1787, Congress would appoint a governor until a population of five thousand voting-age males could elect its own territorial legislature. When the population reached sixty thousand, the territory could form a state that would be accepted with complete equality among the existing states. The legislation created five states, provided for civil and religious liberties in the respective states, and prohibited slavery within the territory.

Legislators had envisaged an orderly transfer of secure land titles from public to private hands; however, such transfers were often disrupted by eager settlers who already occupied some of the best land in the territory. These "squatters" posed a serious dilemma for government land policy. On the one hand, they contributed to the value of the land by converting it to farmland. On the other hand, they often encroached on the rights of Native Americans, fueling other debates about U.S. policy regarding the Native American population. Moreover, by taking the best properties, squatters

made the land unavailable to those who chose to follow federal guidelines. Finally, a system adopted in 1841 allowed squatters to purchase up to 160 acres of land at the minimum price of \$1.25 an acre.

In 1854 Congress passed the Graduation Act, which addressed the problem of selling government land surrounded by private property and worth less than the reservation price. The Graduation Act provided for a progressive reduction in the price of unsold public lands to a minimum of 12.5 cents per acre for land that remained unsold for more than 30 years.

On May 20, 1862, President Abraham Lincoln (1861–1865) signed the Homestead Act, which gave settlers who had lived on land five years or more the rights to acquire a full title of 160 acres of land from the public domain. Those eligible would pay only a \$10 registration fee. This "free" land for the cultivator seemed to bring America closer to Jefferson's ideal republic—but the reality fell short of the dream. As settlers moved farther west, water became scarce, and the land in general was less suitable for farming. One hundred and sixty acres proved inadequate for family self-sufficiency. Some scholars have argued that the Homestead Act induced many individuals and families to enter farming when they might have found more lucrative employment elsewhere. More liberal homestead acts followed, and between 1863 and 1900 there were close to 1.5 million entries for homesteads. Settlement and agriculture expanded, but western farmers remained disgruntled and eventually soon sought political solutions to their economic problems.

Another aspect of the government land policy was the land subsidies given to the transcontinental railroads that spanned the nation from the 1860s to the end of the nineteenth century. Motivated, as it turned out, by bribes paid by railroad promoters to congressmen as well as by a legitimate appreciation of the potential importance of railroads to the national economy, the Congress not only granted generous loans for construction of the rail lines, it also gave huge grants of land. The government gave the railroad companies not only the right-of-way for the line for free, but for each mile of track, a grant of twenty square miles of land grouped in an alternating checkerboard pattern along the right-of-way. Because of its proximity to the railroad, this land immediately became more valuable. Soon, the state governments were also granting favorable loans and land grants to railroads. By the end of the century, the federal government had given 130 million acres to the railroads, while the states had given an extra 50 million acres. Historians note that in some cases the subsidies exceeded the cost of construction of the rail lines.

Grand Banks

The Land Ordinance of 1785 and the Northwest Ordinance of 1787 provided a foundation for the orderly and systematic expansion of the United States through land acquisition and settlement. After its creation in 1812, the General Land Office transferred vast quantities of land from the public domain to private ownership. Government initiatives such as these had a marked and lasting impact upon the division of land and the size distribution of farms throughout the territories to which it applied. By 1860 in the Northeast, farm sizes varied as a result of sales and subdivisions among heirs. In the Midwest, on the other hand, farms were much more consistent in size. For specific states, the impact of land act provisions is apparent in the size distribution data. For example, in Ohio, Indiana, and Illinois, states where settlement occurred when the minimum purchase was 80 acres, 80-acre farms were the model size. In Michigan and Wisconsin, states where settlement occurred after the 1832 revision had cut the minimum purchase to 40 acres, 40-acre farms were the model size.

The impact of these land sales and transfers has generated exhaustive debates among scholars. These kinds of government land policies have often been criticized for inhibiting growth and for being inefficient. Many scholars have argued that sales of land increased too rapidly, bringing too much labor and capital into agriculture and starving manufacturing of these resources. Some have argued that by establishing minimum rather than maximum acreage, the public land policy promoted speculation, concentration of ownership, and tenancy rather than individual small holdings.

But other scholars argue that the release of western land from the public domain induced westward migration and population growth, increased wage rates, increased the gross national product, and redistributed income regionally and between different socioeconomic groups.

See also: Homestead Act, Land Ordinance of 1785, Louisiana Purchase, Northwest Ordinance, Old Northwest

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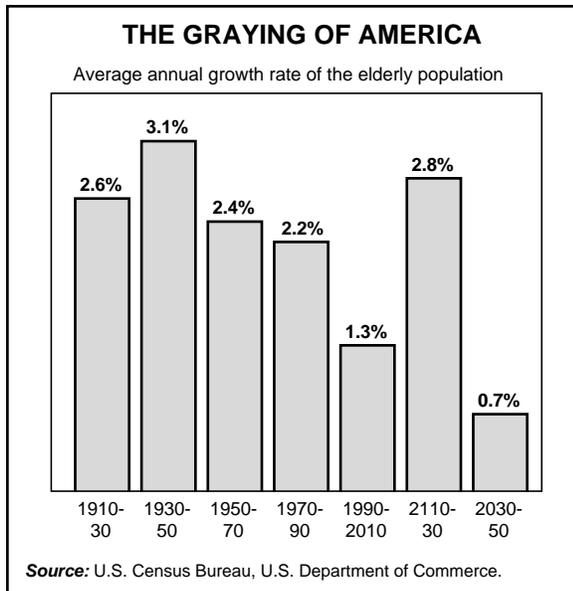
GRAND BANKS

Grand Banks are a shallow section of the northern Atlantic Ocean, lying east and south of Newfoundland, Canada, and extending about 350 miles (563 kilometers) from east to west. The ocean is shallow here because of underwater plateaus, called banks. After the Vikings explored the region around A.D. 1000, fishermen from Basque (northern Spain) also sailed the Grand Banks as they searched for whales. In the late 1300s other European fishermen may have sailed here as well, skimming the coast of Newfoundland and Nova Scotia, and possibly going ashore for food, to make repairs, or to trade with the natives. By the early 1500s more fleets were attracted to the rich fishing grounds. By the end of the century fishing villages were established on Newfoundland. American and Canadian fleets relied on the Grand Banks as a major source of codfish during colonial times. The area is still fished today, but the Canadian government carefully monitors it to avoid depletion of its stock.

See also: Fishing (Commercial), L'Anse aux Meadows

GRAYING OF AMERICA (ISSUE)

At the beginning of the twentieth century retirement was practically unheard of. Pension plans were a rarity and Social Security did not yet exist. People typically "died working." It was only after President Franklin D. Roosevelt's New Deal, especially the Social Security Administration, that the concept of retirement became rooted in the American psyche. Beginning in the 1950s, as a result of government-encouraged corporate pension plans and the Social Security Administration, older workers were rapidly leaving the work force. In fact, they were leaving so rapidly that they threatened to bankrupt the Social Security System. The key statistic here is the ratio of



The historical and projected annual growth rate of the elderly population is depicted in the graying of America. There should be an increase of elderly citizens between 2010–2030 due to the aging of the “Baby Boomers.”

workers paying FICA taxes to retirees. A high ratio leaves the system solvent; a low ratio bankrupts it. At the close of the century the ratio of workers to retirees was decreasing at an alarming rate. In 2010 the ratio was projected to hover around four to one. By 2020 the estimated ratio would decline to three to one. By 2030 the ratio would be nearly two to one; moreover, the trend was not expected to reverse itself for decades to come.

In addition, the retirement system drains the economy of skilled workers. Some economists believed that in order to foster the growth of the labor supply and increase the level of experienced workers the Congress needs to amend the Social Security laws and eliminate income restrictions on recipients. Older workers, they argue, need an incentive to work. But in the late 1990s most post-retirement workers had to sacrifice a significant portion of their Social Security income once they started getting a paycheck again. If the retiree was under age 65 with earnings in excess of \$7,680, one dollar in benefits was deducted for each two dollars earned above \$7,680. From age 65 to 70, one dollar in benefits was deducted for each three dollars earned above \$10,560. Above age 70 the Social Security benefits were not affected.

Other economists disagreed with Social Security reform. They argue that the older worker needs to be able to retire after a life of work. For them the only problem with the retirement system is that the Social

Security program is so popular that it is running out of money and needs to be refunded. The advocates of refunding tend to believe that there should be a tax on the working population to cover the retirees’ Social Security and Medicare.

Proponents of an elderly work force pointed to studies suggesting that aging baby boomers were not looking to spend their twilight years working in high school level jobs at minimum wage, nor were they as concerned with advancement as their younger counterparts. These studies suggest that older workers want to “enjoy” themselves on the job more: they wanted stability, a good rapport with coworkers, and also a liberal amount of discretionary time. In other words, older workers enjoy both the social aspects of working and the challenge of work, in addition to the pay.

Economists believed that this was a motivational characteristic that blended well with the growing popularity in the late twentieth century of mentoring, flex-time, and part-time positions. They argued that many older workers tended to be more focused and conscientious and that they exhibited greater feelings of company loyalty and maintained better job morale. These proponents of fostering an elderly work force discounted various charges: that older workers were less creative, that they were less likely to keep up with new developments in their fields, and that they were more difficult to supervise. These workers seemed to enjoy a working environment consisting of both younger and older workers.

But will there be enough older workers to fill any expansion in the work slots set aside for older workers? A potential problem for the U.S. labor force during the first few decades of the twenty-first century is that the baby-boomer generation, beginning to retire in substantial numbers around the year 2020, would be followed by a much smaller generation of workers who, because of their relatively small number, might not have the skills to pull the economy forward. Some predicted a significant shortage of qualified workers, old or young, as early as 2000.

This touches on the general problem of training. The shift from heavy industry and agriculture to an information and services society will probably increase the need for a more highly skilled, technically adept and “agile” work force, able to fill multiple functions on the job. But the U.S. educational system had not caught up with growing needs. If the schools did not provide new workers with technical skills to fill the wave of future job markets, how can we expect older workers to step in and fill that need? But some economists thought that older workers might help

Great Depression

to staunch the hemorrhaging of skills that will take place when experienced workers leave work for early retirement.

See also: Human Capital, Social Security Act

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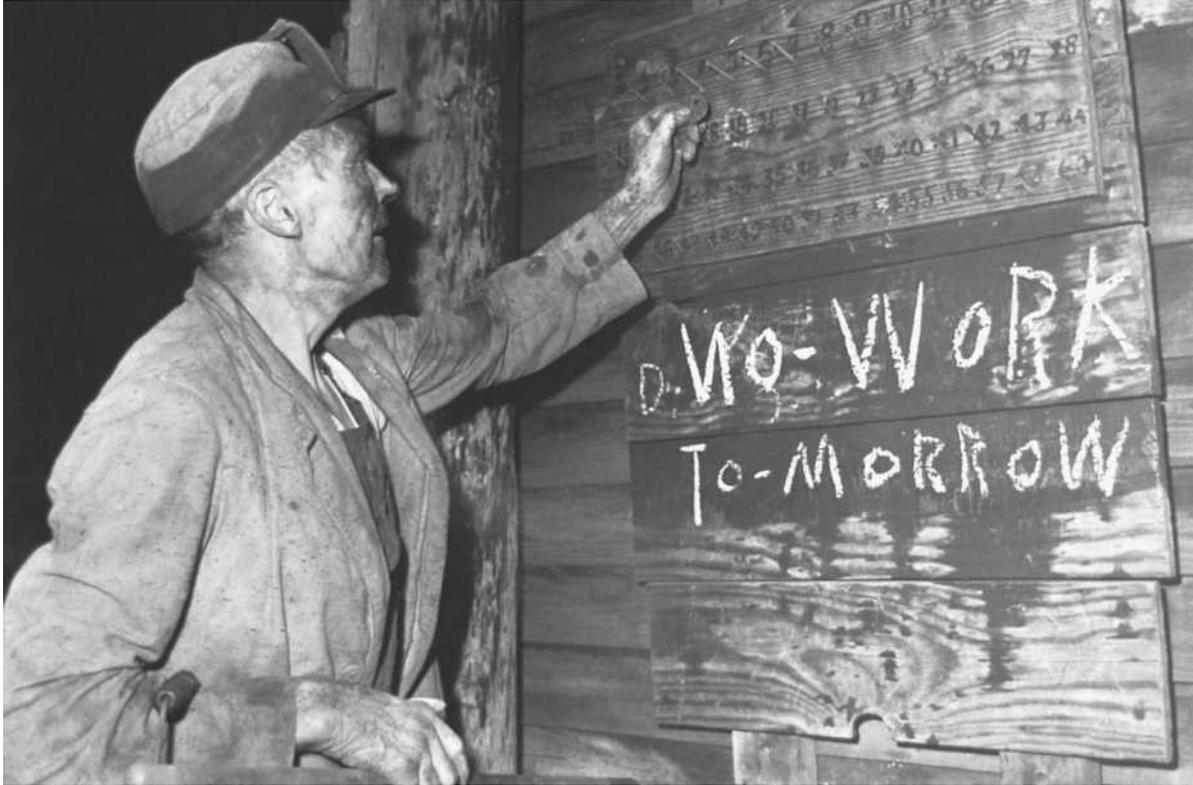
GREAT DEPRESSION

The stock market crash on October 29, 1929, sent the United States careening into the longest and darkest economic depression in American history. Between 1929 and 1933, all major economic indexes told the same story. The gross national product (GNP), the total of all goods and services produced each year, fell from \$104.4 billion in 1929 to \$74.2 billion in 1933, setting back the GNP per capita rate by twenty years. Industrial production declined 51 percent before reviving slightly in 1932. Unemployment statistics revealed the impact of the Depression on Americans. In 1929, the U.S. Labor Department reported that there were nearly 1.5 million persons without jobs in the country. After the crash, the figure soared. At its peak in 1933, unemployment stood at more than 12.6 million without jobs, although some estimates placed unemployment as high as 16 million. By 1933, the annual national combined income had shrunk from \$87.8 billion to \$40.2 billion. Farmers, perhaps the hardest hit economic group, saw their total combined income drop from \$11.9 billion to \$5.3 billion.

For the first two years of the Depression, which spread worldwide, President Herbert Hoover (1929–1933) relied on the voluntary cooperation of business and labor to maintain payrolls and production. When the crisis deepened, he took positive steps to stop the spread of economic collapse. Hoover's most important

achievement was the creation of the Reconstruction Finance Corporation (RFC), a loan agency designed to aid large business concerns, including banks, railroads, and insurance companies. The RFC later became an essential agency of the New Deal. In addition, Hoover obtained new funds from Congress to cut down the number of farm foreclosures. The Home Loan Bank Act helped prevent the foreclosure of home mortgages. On the relief issue, the President and Congress fought an ongoing battle that lasted for months. The Democrats wanted the federal government to assume responsibility for direct relief and to spend heavily on public works. Hoover, however, insisted that unemployment relief was a problem for local, not federal, governments. At first, he did little more than appoint two committees to mobilize public and private agencies against distress. Yet after a partisan fight, Hoover signed a relief bill unmatched in American history. The Emergency Relief and Construction Act provided \$300 million for local relief loans and \$1.5 billion for self-liquidating public works. Tragically, the Depression only worsened. By the time Hoover's term in office expired, the nation's banking system had virtually collapsed and the economic machinery of the nation was grinding to a halt. Hoover left office with the reputation of a do-nothing President. The judgment was rather unfair. He had done much, including establishing many precedents for the New Deal; but it was not enough.

What happened to the economy after the stock market crash of 1929 left most people baffled. The physical structure of business and industry was still intact, undamaged by war or natural disaster, but businesses closed. Men wanted to go to work, but plants stood dark and idle. Prolonged unemployment created a new class of people. The jobless sold apples on street corners. They stood in breadlines and outside soup kitchens. Many lived in "Hoovervilles," shantytowns on the outskirts of large cities. Thousands of unemployed men and boys took to the road in search of work, and the gas station became a meeting place for men "on the bum." In 1932, a crowd of 50 men fought for a barrel of garbage outside the back door of a Chicago restaurant. In northern Alabama, poor families exchanged a dozen eggs, which they sorely needed, for a box of matches. Despite such mass suffering, for the most part there was little violence. The angriest Americans were those in rural areas, where cotton was bringing only five cents a pound and wheat only 35 cents a bushel. In August 1932, Iowa farmers began dumping milk bound for Sioux City. To dramatize their plight, Milo Reno, former president of the Iowa Farmers Union, organized a farm strike on the northern plains and cut off all agricultural products from urban



Work was scarce during the Depression. Workers and families struggled to survive in the uncertain economy.

markets until prices rose. During the same summer, 25,000 World War I (1914–1918) veterans, led by former sergeant Walter W. Waters, staged the Bonus March on Washington, DC, to demand immediate payment of a bonus due to them in 1945. They stood passively on the Capitol steps while Congress voted it down. After a riot with police, Hoover ordered the U.S. Army to clean the veterans out of their shanty-town, for fear they would breed a revolution.

The Great Depression was a crisis of the American mind. Many people believed that the country had reached all its frontiers and faced a future of limited opportunity. The slowdown of marriage and birth rates expressed this pessimism. The Depression smashed the old beliefs of rugged individualism, the sanctity of business, and a limited government. Utopian movements found an eager following. The Townsend Plan, initiated by retired California physician Francis E. Townsend, demanded a monthly pension to people over age 65. Charles E. Coughlin (1891–1979), a radio priest in Royal Oak, Michigan, advocated the nationalization of banks, utilities, and natural resources. Senator Huey P. Long (1893–1935), Governor of Louisiana, led a movement that recommended a redistribution of the wealth. All the programs tapped a broad sense of resentment among those who felt they had been left out

of President Franklin Roosevelt's (1933–1945) New Deal. Americans did gradually regain their sense of optimism. The progress of the New Deal revived the old faith that the nation could meet any challenge and control its own destiny. Even many intellectuals who had "debunked" American life in the 1920s began to revise their opinions for the better.

By early 1937, there were signs of recovery in the American economy. Business indexes were up—some near pre-crash levels. The New Deal had eased much of the acute distress, although unemployment remained around 7.5 million. The economy again went into a sharp recession that was almost as bad as 1929. Although conditions improved by mid-1938, the Depression did not truly end until the government launched massive defense spending in preparation for World War II (1939–1945).

See also: Great Depression (Causes of), Hoovervilles, New Deal, Recession, Reconstruction Finance Corporation, Franklin D. Roosevelt, Stock Market Crash of 1929, Unemployment

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The Great Depression drove millions of Americans out of their homes in search of work. This mother and her children left Oklahoma in search of work picking cotton in California.

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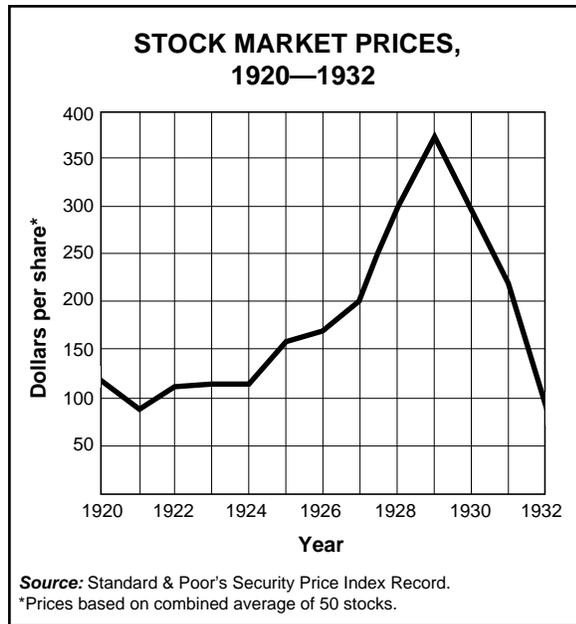
GREAT DEPRESSION, CAUSES OF (ISSUE)

After the presidential election of Herbert C. Hoover, (1929–33) in November, 1928, it seemed that all was well in the United States. The economy was prosperous and the stock market was booming. The President had promised that economic gains would continue and that poverty would disappear. Most people believed Hoover and they looked forward to a

bright future. But already there were signs that the economic system was not as sound as it appeared to be—soon the great collapse began.

The most crucial barrier to U.S. economic health was the unstable character of the international economy following World War I (1914–1918). Before World War I the United States had been a debtor nation, but between 1914 and 1919 there was a major change. The United States had become the world's leading creditor; the war also propelled most of Europe's economies into a state of collapse and they could not pay their debts. By the end of the war the private debt owed by Europeans to the United States equaled nearly \$3 billion, and the public debt owed by foreign governments to the U.S. government was \$10.3 billion.

To deal with this potentially disastrous situation the United States could have forgiven public debts and adopted a trade policy designed to encourage exchange, but the policy that was followed was exactly the opposite. The United States demanded that foreign governments pay their debts in full. At the same time, the United States raised tariff rates, which undermined trade. This resulted in a favorable balance of trade for



Stock market prices from 1920 to 1932, which peaked in 1929 after two years of wild trading, then suddenly fell, causing the market to crash and contribute to a world wide depression.

the United States and an increasing trade deficit for Europe. It was only because of massive investments by U.S. businesses, which amounted to about \$1 billion per year between 1919 and 1930, that Europe was able to make up the deficit. Thus the international financial structure came to be almost entirely dependent upon U.S. businesses and banks. This European reliance on U.S. investments was a system that could operate successfully only as long as the outflow of U.S. capital continued.

The perpetuation of such a system required that the U.S. economy remained healthy and, although it appeared to be robust, there were critical problems. The agricultural sector of the economy had never fully recovered from the recession of 1921–1922 and the industry operated at a net loss throughout the balance of the 1920s. When crops yielded precipitously declining prices in 1929, economic sectors that were linked to farming suffered similar losses.

Another critical problem was a longstanding maldistribution of income. By 1929 a substantial 26 percent of national income went to *only* two percent of income receivers. Moreover businesses tended to plow enormous portions of their profits into expansion and to increase wages at a lower rate than the economy demanded. This led to overproduction and a dangerous rise in consumer credit. (During the twenties, to purchase consumer goods, real estate, and automobiles, people went more deeply into debt than ever before.)

Thus an economic scenario evolved that could only last as long as there was continued growth. Unfortunately, the growth of the period had a fragile base.

The unrealistic and unstable nature of the U.S. economy was evident in the stock market's behavior during the late 1920s. Between 1927 and 1929 trading on the stock market increased sharply and prices soared. Referred to as a "bull market," it was characterized by rigorous buying and selling—not necessarily for long-term investment, but to make a quick profit while prices continued to rise. This type of speculation was very dangerous because it was often accomplished using borrowed money. In 1927 alone, brokers' loans—using the stocks themselves for collateral—increased from \$3 billion to \$4.5 billion, while the volume of shares traded increased from 451 million to 577 million. This behavior drove stock prices up, far beyond any realistic connection to the value of the businesses the stocks represented. By early 1929, for example, many share issues were selling at more than sixteen times their earnings whereas the safe maximum ratio was said to be 10 to one. Between 1925 and 1929 the average price of common stock increased some 300 percent and the volume of trade more than doubled. Bank loans that were used to finance speculation rose during the same period from \$3.5 billion to \$8.5 billion.

Exactly why this irrational boom of borrowing and trading took place is hard to explain. Part of the blame lay with businesses that continued to produce even after there were signs that the market for their products was becoming saturated. Blame also lay with the banking community for making enormous unsound loans, and with the investors themselves who were greedy for profit. Another contributing factor might have been the fact that there were few government regulations over business, the stock trade, and banking in the period preceding the market boom and during the subsequent collapse.

By the summer of 1929 the system was out of control and stock prices had reached levels that could not be maintained. The market collapse began in September 1929, when the Bank of England raised interest rates, pushing bank clients to withdraw several hundred million dollars from New York banks. This caused stock prices to falter slightly and large investors began to unload some of their holdings quietly. Then on October 24, 1929, panic seized the stock market. On that day, known as "Black Thursday," 12 million shares were exchanged and stock prices collapsed. Business and government leaders reassured the public that this catastrophe represented only a "market adjustment" and for a few days conditions stabilized.

Great Migration (1630–1640)

Then on October 29, the bottom fell out again. Following this the market entered a long period of general decline that seemed to represent the virtual collapse of the financial system.

The prosperity of the twenties was dependent upon the smooth inter-working of world trade, domestic capital investment, the construction industry, and manufacturing—especially of automobiles. The key ingredient in this mix was confidence that goods could be sold and that investments would yield profits. The stock market crash severely weakened the confidence of the business community, causing purchases to decline and foreign investments to dwindle. This, in turn, led the already rickety European economy to collapse, putting an even greater strain on U.S. businesses and banks. Thus was generated an irreversible downward economic spiral which enveloped the entire industrialized world. By 1931 the Great Depression (1929–1939) was in full swing—the worst of its kind in recorded history.

See also: Hoovervilles, New Deal, Stock Market Crash of 1929

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GREAT MIGRATION (1630–1640)

Soon after the establishment of the English colonies of Virginia and Massachusetts Bay in the early

seventeenth century, floods of immigrants began arriving in both places. Although some of these immigrants (especially those in New England) arrived seeking freedom from religious persecution, many others in Virginia and New England came for economic reasons—looking for easy money from tobacco planting, or escape from a failing cloth market, inflation, and bad harvests. The immigrants, who came from a variety of social classes and occupations, arrived in relatively large numbers, averaging 4,000 each year. This migration strongly influenced the character of the newly established colonies and contributed to the development of long-lasting English institutions.

“[I]NFINITE NUMBERS MAY BE SET TO WORK” IN AMERICA, “TO THE UNBURDENING OF THE REALM AT HOME.”

Richard Hakluyt, *Discourse of Western Planting*, 1584.

In the early part of the period, most of the English immigrants to the colonies headed for New England. There were several reasons for this: a sizeable number of them were religious non-conformists who objected to the governmentally enforced rites of the Church of England, and who came to Massachusetts Bay in whole congregations, ministers and all. They hoped to join or establish their own religious settlements as the Pilgrims had done before them. These same immigrants, however, faced economic as well as religious discrimination. They were mostly middle-class and well-educated, but were limited in the occupations they could pursue and were taxed more heavily than their Anglican neighbors. In addition, they faced rising prices and a depression in the cloth trade, which they had hoped to escape in the colonies. At the height of New England immigration in the 1630s, an average of 2000 English men, women, and children arrived in Massachusetts Bay colony each year. The Parliamentary victory in the English Civil War (1642–1649) eased pressure on non-conformists, and immigration to New England virtually stopped after 1640.

In the later part of the period, Virginia was the destination of many new settlers to the country. Before the 1640s, many of the Virginian immigrants were adventurers looking for a quick profit from the New World. After the establishment of tobacco as the colony's major product, however, the need for labor brought people to Virginia as indentured servants. Between 1635 and 1705, about 2000 persons arrived from England each year, most of them contractual laborers bound to serve Virginian planters without wages for a period of years, in exchange for their transportation to the colony. They ranged from lower-middle-class to

laborers, but they all arrived with the idea of serving out their contracts and winning land of their own in the colony. Perhaps as much as 75 percent of Virginia's colonists by the end of the seventeenth century had originally arrived as indentured servants. Some of these came unwillingly, practically kidnapped by sea captains and labor contractors.

The other major group of immigrants to the colonies during the seventeenth century were Africans. From 1619—when a Dutch warship brought the first load of African laborers—to 1670, the African population of Virginia grew to more than 2000. At first, Africans were treated about the same as English indentured servants. Some Africans even managed to end their terms of servitude and buy and farm land of their own. But by about 1650 a color bar had risen that kept Blacks from sharing in colonial prosperity. Thus, one of the largest immigrant groups was effectively prevented from sharing the economic benefits of settling in America.

See also: Africans Arrive in Virginia, Indentured Servants

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GREAT MIGRATION, 1910–1920

In 1914, 90 percent of African Americans lived in the states of the former Confederacy, where so-called Jim Crow statutes had legalized the separation of

Americans by race. These statutes were validated by a series of Supreme Court rulings during the 1890s, culminating in the famous 1896 “separate but equal” doctrine of *Plessy v. Ferguson*, which made segregation legal in the United States. But between 1910 and 1920, the percentage of African Americans living in the South began to fall. By 1930, more than 21.2 percent of African Americans lived outside of the South.

Historians continue to debate why African Americans failed to leave the South in large numbers at the end of the American Civil War (1861–1865). Migration itself is a result of both push and pull factors—prejudice, better economic opportunities, discrimination, etc. While the South certainly provided push factors, the North offered strong pull elements for Southern African Americans, appearing to have a more open society and better economic opportunities, though it still had its share of prejudice and discrimination.

Some historians argue that European immigration accounts for the slow start of the Black exodus. The huge demand for labor in the heavily industrialized North was met mostly by massive European immigration. Irish and German laborers first filled many of the urban factory jobs, and the remaining jobs tended to go to southern and eastern Europeans. Had Northern industries not met their demand for labor with European immigration, some historians argue that employers would have more actively recruited Southern Blacks.

World War I (1914–1918) greatly accelerated the migration of African Americans out of the rural South, where agriculture had been plagued by floods and crop failures, including a devastating plague of boll weevils that decimated the cotton crop. With greater demand for the war effort, factory owners in northern cities sent recruiters to draw workers northward with glowing reports of high wages and good living conditions. During the decade between 1910 and 1920, the African American population of the North and West grew by 333,000.

Once in Northern urban areas, however, African Americans were segregated in urban slums, where they continued to be objects of race hatred by their white neighbors, especially unskilled workers who viewed them as competitors for their jobs. A growing number of African Americans during this time began to demand the rights long denied to them, particularly higher wages, equal protection under the law, and the chance to vote and hold political office. Leading the increasingly militant National Association for the Advancement of Colored People (NAACP), W.E.B. DuBois (1868–1963) took on all of these aims as key goals for the group.

Turning to terrorism, lynch mobs in the South murdered more than 70 African Americans in 1919, ten of them World War I veterans in uniform. The new Ku Klux Klan, committed to the intimidation of African Americans, gained more than 100,000 members. In 1919 the country saw the worst outburst of racial riots in American history up until that time. Two of the most tragic occurred in Washington, DC, where a majority of the offenders were white veterans; and in the Chicago slums, where for thirteen days a mob of whites fought African Americans. Before the year ended, twenty-five race riots had resulted in hundreds of deaths and injuries, and millions of dollars worth of property damage.

Most African Americans resisted their attackers, as the NAACP advised them to do, and liberal whites organized to fight intolerance and to lobby for anti-lynching laws, but by and large African Americans were neither hopeful of remedy nor ready to campaign on their own behalf. Instead, by 1923, about half a million African Americans had joined the Universal Negro Improvement Association led by Marcus Garvey (1887–1940), a Jamaican Black nationalist who proposed to create a new empire in Africa with himself on the throne. Though Garvey's plans for an empire collapsed, his movement met the powerful African American need for self-identity, racial pride, and an escape from a society that denied them dignity, opportunity, and personal safety.

See also: Jim Crow Laws, Ku Klux Klan, Plessy v Ferguson, Slum

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GREAT RAILROAD STRIKE OF 1877

In July 1877 West Virginia was the scene of a railroad strike that soon became the first nationwide

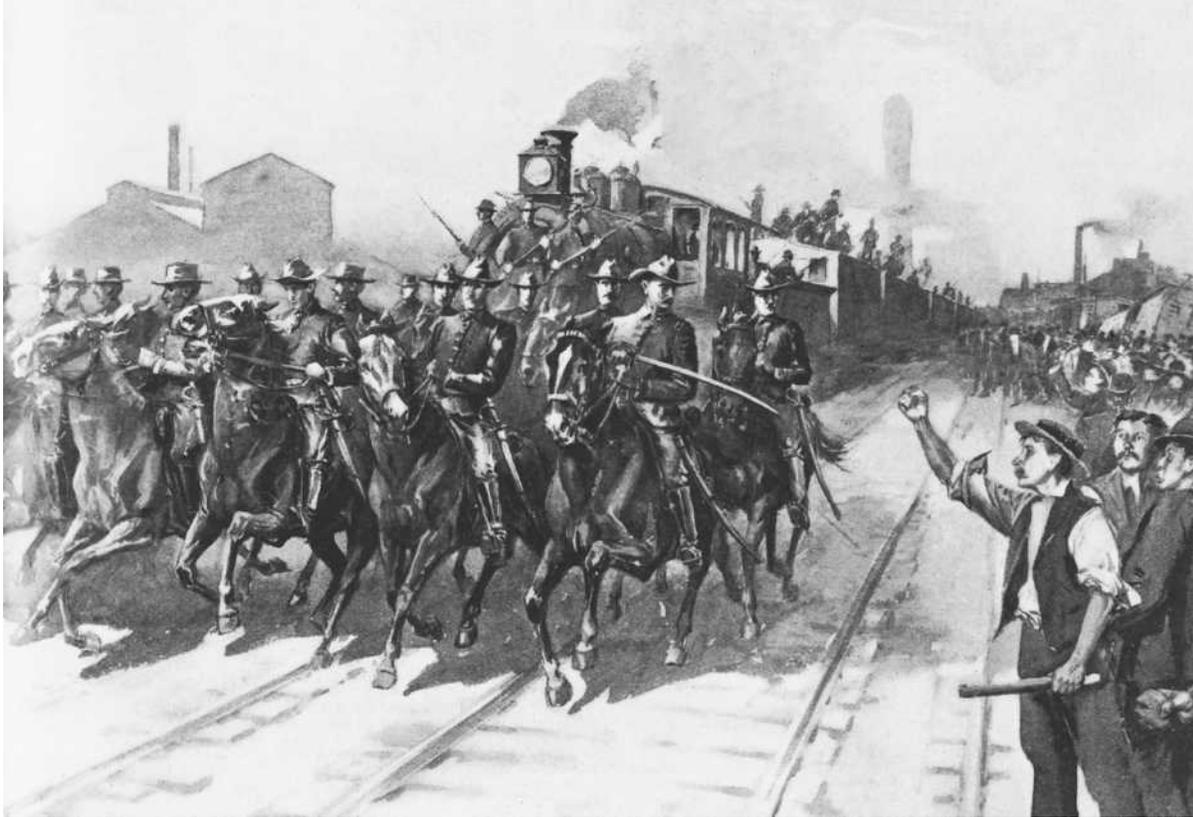
strike in United States history. The trouble began when an economic depression led railroad companies to cut wages. Workers in West Virginia withheld their labor, and paralysis quickly spread to railways in the East and the Midwest in what became known as the Great Railroad Strike of 1877.

In reaction to a business slump, the Baltimore and Ohio Railroad in West Virginia cut wages for all employees by ten percent, including the president of the company. During the nineteenth century wages for unskilled laborers were meager, averaging \$10 per week, although skilled workers could earn \$20 per week. Since a 10 percent cut in pay caused a financial crisis for the families of many railroad workers, a number of train firemen refused to accept the wage cut and went on strike. The Great Railroad Strike of 1877 began.

The Baltimore and Ohio Railroad firemen were soon joined by the employees of other rail lines in a sympathy strike. The railroad network itself insured that sympathizers stretched beyond the state of West Virginia, and strikes later broke out in Illinois, Indiana, Kentucky, and Pennsylvania. It wasn't long before over half of all American railway line were closed.

In Martinsburg, West Virginia, a small number of local volunteer militiamen tried to break strike against the Baltimore and Ohio. Several strike leaders were arrested, but a supportive crowd quickly rescued them. West Virginia's governor Henry Matthew attempted to send in more military support for the beleaguered town. But the militia company called to suppress the strike would not mobilize, since many of its volunteers were railroad workers or had family ties to railroad workers. West Virginia had four organized militia units, but since two of them sympathized with the strikers, the state had need of re-enforcement. Governor Matthews requested federal troops from President Rutherford B. Hayes (1877–1881) to help end the strike. The state's appeal was followed by similar requests from Kentucky and Pennsylvania. President Hayes had the resources and complied. Federal troops were available because the end of Reconstruction saw the withdrawal of many soldiers from the South.

The worst violence took place in Pittsburgh, where local militia ordered to break the strike instead sided with the workers. Federal troops arrived, and ten strikers were killed when violence erupted. Enraged by the deaths of the strikers, a crowd attacked the federal troops, driving them from the city. The mob then turned to destroying railroad property. Additional strikes occurred along the nation's railroad lines, and federal troops continued to provide assistance to beleaguered



The first train containing meat for the marketplace departs the Chicago stockyards with cover from the U.S. Cavalry following a strike by railway workers. This labor protest is believed to be the first nationwide strike in U.S. history.

states unprepared to deal with the strikers and their widespread support.

At the height of the 1877 strikes, eleven states called 45,000 Guardsmen into service. The War Department committed 2,100 regular troops. By August 2, 1877, the strikes were over. Order was restored and the trains were running again. Military force, assisted by managerial restraint, ended the walkout. The wages of railroad workers were restored or at least not cut further.

Newspapers blamed the strike on Communists and Communist sympathizers. President Hayes, however, was just as quick to deny the involvement of Communists. The attacks, he said, were directed against the railroads and not against property in general, as one would expect if the strike was Communist inspired.

Hayes was both praised and criticized for his use of federal troops. Striking workers and their sympathizers, many of whom were Civil War (1861–1865) veterans, deeply resented his employment of federal troops to break the strike. On the other hand, the president's supporters pointed to his cautious use of the troops and his reluctance to cause bloodshed. Critics,

including Pennsylvania Railroad president Thomas Scott, charged that the president waited too long to call in the troops and that the wide scope of the strike was a result of the government's failure to protect the private property of the corporation and its shareholders.

Regardless of blame, the Railroad Strike of 1877 revealed serious labor unrest throughout the nation. The railroad industry targeted unions as a main source of their labor problems, and states re-examined their need for a well-equipped and trained militia. This widespread strike was among the first acts of what was to become a national labor movement.

See also: *Baltimore and Ohio Railroad, Labor Movement, Railroad Industry, Reconstruction*

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Great Serpent Mound



The Great Serpent Mound, a quarter mile long, appears as an uncoiling snake when viewed from above, and was constructed by Indians near Hope Well, Ohio.

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prehistoric Indian group was named), and it is a fortification surrounded by an earth wall, ranging from six to ten feet (two to three meters) in height and it is over 3.5 miles (5.6 kilometers) long.

See also: **Mound Builders, Ohio Valley**

GREAT SERPENT MOUND

Near Hopewell, Ohio, an early group of Indians, called Mound Builders, constructed an earthworks that looks like a huge snake when viewed from the sky. The Great Serpent Mound is one-quarter mile (just under one-half kilometer) long and was built by the Fort Ancient group. These Indians were descendants of the Hopewell, an earlier culture that dominated the Ohio River Valley until about A.D. 500. The ruins of the Fort Ancient people indicate that they were hunters and gatherers like the Mississippian people to their south and west, but they also fished and cultivated some crops including beans, corn, and squash. The Fort Ancient people lived in stockaded villages like that found in southwest Ohio, overlooking the Miami River. The site is called Fort Ancient (after its name the

THE GREAT SOCIETY

The United States mourned when President John F. Kennedy (1960–1963) was assassinated on November 22, 1963. But despite the tragedy, the country was experiencing an era of unprecedented economic health. President Kennedy had already proposed a series of government-funded programs aimed at spreading U.S. prosperity to people still mired in poverty, such as the residents of Appalachia or of the urban ghettos. When Kennedy's Vice President, Lyndon B. Johnson (1963–1968) assumed the presidency, he pushed to make many of Kennedy's proposals into law. Capitalizing on U.S. stability, as well as the emotions of Kennedy's death, Johnson proposed anti-poverty, civil rights, education, and health care laws. In a speech at the University of Michigan in May 1964, Johnson said he hoped these programs would help create a "Great Society."

Great Society programs, as they came to be known, assisted millions, but they were very controversial. In the short run, funding for these costly programs decreased, as the United States spent more and more fighting the Vietnam War (1964–1975). In the long run, many critics have charged that these initiatives resulted in high taxes, “big government,” and that they actually hurt the very people they were designed to help. Nonetheless, Great Society programs such as Medicare, which assists the elderly with medical expenses, remained popular and in the late 1990s they were still a crucial part of many Americans’ lives.

Great Society programs were not the first large scale effort by the federal government to aid the disadvantaged. President Franklin D. Roosevelt (1932–1945) promised a “New Deal” to all Americans when he was elected. This “New Deal” was a long list of employment, income-assistance, and labor legislation, and it also had many critics.

But President Roosevelt’s New Deal came at a time of mass poverty, when the United States and the world were living through the tough economic times of the Great Depression (1929–1939). Having emerged from World War II (1939–1945) as the world’s most powerful nation, the United States experienced astounding economic growth in the 1950s and 1960s. Many Americans who barely had enough to eat during the Depression, now found themselves living in brand new homes and driving automobiles.

THE GREAT SOCIETY RESTS ON ABUNDANCE AND LIBERTY FOR ALL. IT DEMANDS AN END TO POVERTY AND RACIAL INJUSTICE, TO WHICH WE ARE TOTALLY COMMITTED IN OUR TIME. BUT THAT IS JUST THE BEGINNING.

President Lyndon Baines Johnson, 1964

President Kennedy believed this national wealth could be used to uplift those who had not yet shared in the good economic times. Particularly disadvantaged were African Americans, who faced legal segregation in the South and poverty and discrimination in the North. In the tradition of Roosevelt’s New Deal, Kennedy proposed employment, education, and health care legislation.

This was the legacy President Lyndon Johnson (1963–1969) hoped to fulfill with his Great Society. A masterful politician, Johnson may have lacked Kennedy’s public grace, but he made up for it with political savvy. A former leader in the Senate, Johnson would need these skills to enact his ambitious programs which faced serious opposition in Congress.

During the summer of 1964 Johnson challenged Congress to pass the Economic Opportunity Act, the foundation for what came to be known as the “war on poverty.” Johnson also proposed the Civil Rights Act of 1964, which combated racial discrimination. Johnson said enacting these bills would be a fitting tribute to Kennedy.

Johnson’s initiatives seemed to be popular with voters. He won the 1964 election in a landslide. Capitalizing on what appeared to be a mandate from the American people, Johnson quickly proposed a wide range of programs for mass transportation, food stamps, immigration, and legal services for the poor. Bills aiding elementary, secondary, and higher education were also passed. Medicaid and Medicare were established to assist the poor and elderly, respectively, with medical treatment.

Other initiatives created the Department of Housing and Urban Development, aimed at improving housing conditions, particularly in crowded cities, and Project Head Start, which aided poor children in their earliest years of education. The National Endowment for the Humanities and the Corporation for Public Broadcasting were created in an effort to expand access to culture.

These programs cost billions of dollars but Johnson presented them not only as moral and just but also as a way to further expand the U.S. economy using education, job training, and income assistance. Johnson’s party, the Democrats, won big again in the 1966 elections. However, forces were already converging, which would make it difficult to carry out Great Society programs. Across the country cities were exploding with demonstrations and even riots. Some wondered why problems seemed to be getting worse, just as billions of dollars had been committed to solving them.

A more daunting problem lay halfway around the world. The War in Vietnam claimed an increasing amount of Johnson’s attention. And the war became just as controversial as Johnson’s War on Poverty. It was also becoming more and more expensive as troops and supplies poured into the region to combat the “Viet Cong” guerilla fighters and the North Vietnamese Army. Johnson was pressured to hike taxes to cover the soaring costs of the war and his Great Society measures. Johnson’s need for a tax increase gave political opponents leverage to demand domestic spending cuts. By 1968 Johnson’s top economic and political priority was the increasingly unpopular war in Vietnam. This commitment ultimately led to him refusing

Greenback Party

to seek reelection as the Democratic presidential candidate.

That year also saw California Governor Ronald Reagan (1911–) fail in his bid to become the Republican presidential candidate. But twelve years later, when the nation's economy was stagnant, Reagan was elected president on a platform that identified many of Johnson's programs as the source of the nation's economic woes. Republicans like Reagan claimed the burden of Great Society initiatives on taxpayers had become too great while poverty only seemed to worsen. "It was 25 years ago that Lyndon Johnson announced his plans for 'The Great Society,'" the conservative magazine *National Review* wrote in 1989. "Today the phrase refers only to a bundle of welfare programs that have helped make the federal budget a chronic problem."

Republicans stepped up their attack into the 1990s and in 1994 they won majorities in both houses of Congress. They continued to criticize federal spending on programs such as Aid to Families with Dependent Children, more commonly called welfare, which were greatly expanded under the Great Society. Some Democrats said the attacks unfairly singled out society's most vulnerable citizens. Republicans argued that such social programs lead to dependency, which creates problems for both the beneficiary and the nation. Even President Bill Clinton (1993—), a Democrat, declared an "end to welfare as we know it."

Despite the criticism a diverse selection of Great Society programs, from Medicare to public television, remain politically popular. The ultimate legacy of the Great Society will surely be debated for decades to come.

See also: Medicaid, Medicare, Franklin D. Roosevelt, Vietnam War

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GREENBACK PARTY

The Greenback Party was founded in 1874 in Indianapolis, Indiana. Following the panic of 1873, an economic downturn hit the nation's agricultural sector: farm prices dropped but growers' costs (including rail freight rates) remained stationary or rose. The amount of money in circulation decreased and interest rates increased. Farm families were caught in the middle—those unable to pay their mortgages faced bank foreclosure. Rural America was in crisis. The greenback forces, mostly western and southern farmers, reasoned that putting more money into circulation would have an inflationary effect: Farm prices would rise thereby putting more cash in farmers' pockets and allowing them to pay off their debts.

Originally called the Independent National Party, the Greenbackers advocated the government issue of more greenbacks (the paper currency printed to fund the American Civil War 1861–65). When the party assembled its first convention in 1876, it nominated American inventor and industrialist Peter Cooper (1791–1883) as its presidential candidate. Receiving only 81,837 votes, Cooper's run for office was a failure. But in the midterm elections of 1878 the party united with workers to form the Greenback-Labor Party. Capturing more than 1 million votes, the independent political party placed 14 members in Congress. For the presidential election of 1880, the party nominated Congressional leader James B. Weaver (1833–1912) in order to broaden their political platform to support women's suffrage, a graduated income tax, and the eight-hour work day (then a popular initiative among the nation's laborers). The Greenbackers received few votes and lost seats in Congress, in part because the economy had rebounded.

The Greenback-Labor Party dissolved following the 1884 election. Some of its members joined the People's (Populist) Party. But the nation's monetary crisis was far from over. The greenback forces, which consisted largely of debtors, were later replaced by the Free Silver supporters who advocated government coinage of silver to expand the nation's money supply and produce inflationary effects. Until the mid-1890s the Free Silverites struggled against gold standard

forces, (mostly New England creditors who favored a limited money supply).

See also: Bland-Allison Act, Free Silver, Gold Resumption Act, Gold Standard Act, Greenbacks

GREENBACKS

Greenbacks were the paper money printed and issued by the U.S. government during the American Civil War (1861–65). The financial demands of the war quickly depleted the nation's supply of specie (gold and silver). In response the government passed the Legal Tender Act of 1862, which suspended specie payments and provided for the issue of paper money. About \$430 million in notes were issued. The notes were legal tender—money that had to be accepted in payment of any debt. Because the bills were supported only by the government's promise to pay, it was somewhat derisively observed that the bills were backed only by the green ink they were printed with on one side. (Hence the name greenbacks.) The value of the notes depended on the peoples' confidence in the U.S. government and its future ability to convert the currency to coin. As the fighting between the Union and the Confederacy raged, confidence in government fluctuated: When the Union suffered defeat, the value of the greenbacks dropped—one time to as low as 35 cents on the dollar.

Greenbacks remained in circulation after the fighting ended; they finally regained their full value in 1878. After the financial crisis in 1873, many people—particularly western farmers—clamored for the government to issue more. Advocates of the monetary system formed the Greenback Party, which was active in U.S. politics between 1876 and 1884. The party believed that by putting more greenbacks into circulation, the U.S. government would make it easier for debts to be paid and prices would go up—resulting in prosperity. At the end of the twentieth century, the system of paper money remained based on the government's issue of notes (greenbacks), which was made necessary by the Civil War.

See also: Confederate dollars, Free Silver, Gold Standard, Greenback Party

GREENSPAN, ALAN

Alan Greenspan (1926–), chairman of the Federal Reserve Board since 1987, has sometimes been described as the second most powerful person in the



Alan Greenspan.

world. Greenspan's slightest utterance could directly affect the lives of millions of citizens and could alter the monetary policies of governments on six continents. His tenure at the Federal Reserve has been marked by low unemployment, near-zero inflation, a strong dollar, and unprecedented prosperity.

The only child of divorced parents, Greenspan was born and raised in New York City where he attended public schools. He enrolled in the prestigious Juilliard School of Music but, after a year he left to play tenor saxophone and clarinet on the road with Henry Jerome's swing band.

Toward the end of World War II (1939–1945), he entered New York University where he received a Bachelor of Arts in economics in 1948 and a Master's in economics in 1950. He studied for a doctoral degree at Columbia University but left in 1953 before completing work on it. (In 1977, based on his impressive career as an economist, New York University awarded him a Ph.D. in economics without a formal dissertation.) At Columbia he became close friends with economist Arthur Burns, who later became Chairman of the Federal Reserve Board from 1970–1978.

Gross Domestic Product

In the early 1950s he came under the intellectual influence of novelist Ayn Rand, the author of *The Fountainhead*. Gloria Borger in *U.S. News and World Report* reported that Greenspan said of Rand, "What she did was to make me see that capitalism is not only efficient and practical, but also moral." With this view in mind Greenspan virtually invented the business of providing economic analyses specifically for senior business executives. He and William Townsend founded the economic consulting firm of Townsend-Greenspan & Co., Inc. which provided industrial and financial institutions with forecasts and other business-related services. The firm was immediately successful and Greenspan became a wealthy man. He was soon in demand as a forecaster and adviser and was named to the boards of such prestigious companies as Alcoa, Capital Cities/ABC, J.P. Morgan & Co., and Mobil Corporation.

In 1968 Greenspan was recruited to serve as an adviser to then presidential candidate Richard Nixon (1969–1974). In 1974 Greenspan's friend, Arthur Burns, urged him to serve as chairman of the Council of Economic Advisors. Burns felt it was Greenspan's "patriotic duty" to combat the inflation was threatening capitalism. Greenspan accepted the position and began his battle against inflation on September 1, 1974. For the next three years, under his leadership, the rate of inflation dropped from eleven percent to six-and-a-half percent. Ten years later, then Treasury Secretary James Baker (1985–1988) nominated Greenspan to the chairmanship of the Federal Reserve. Little wonder Greenspan was the only nominee for the position.

The Federal Reserve system ("the Fed") is a complex organization of independent parts. It is made up of twelve regional Federal Reserve banks, each with a president, board of directors, officers, and research staff. In Washington DC, a board of governors also maintains a staff of top economists. Chairman Greenspan exercised strong and effective leadership of the Fed. Greenspan's personal charm and his mastery of data helped secure his position as undisputed chief.

Greenspan's steady hand calmed uncertain domestic and global economic markets. From 1989 to 1992 he tightened lending practices but also injected cash into the U.S. economy to ensure recovery from the post-Cold War economic downturn. He also refused to inflate the money supply in reaction to a temporary worldwide price hike for oil; thus price stability remained. By 1992 the economy was on an upward trend. In 1994 Greenspan raised interest rates several times in a successful effort to thwart possible inflation. The ultimate result, despite what critics warned, was a very low 4.7 percent unemployment rate. Over the next few

years the Fed gradually decreased the prime lending rate. As a result, the economy boomed at an historic pace, the federal budget balanced, and the nation's inflation rate fell below two percent.

By the accounts of his contemporaries, Greenspan was considered the best chairman the Federal Reserve Board had ever seen. In 1998 a Louis Harris survey of 400 senior executives gave Greenspan a favorable rating of 97 percent. Economists at all points along the theoretical spectrum awarded him high marks. The 1990s, as a period marked by peace and prosperity in the United States, could easily be called the Age of Greenspan.

See also: Federal Reserve System, Inflation, Ayn Rand

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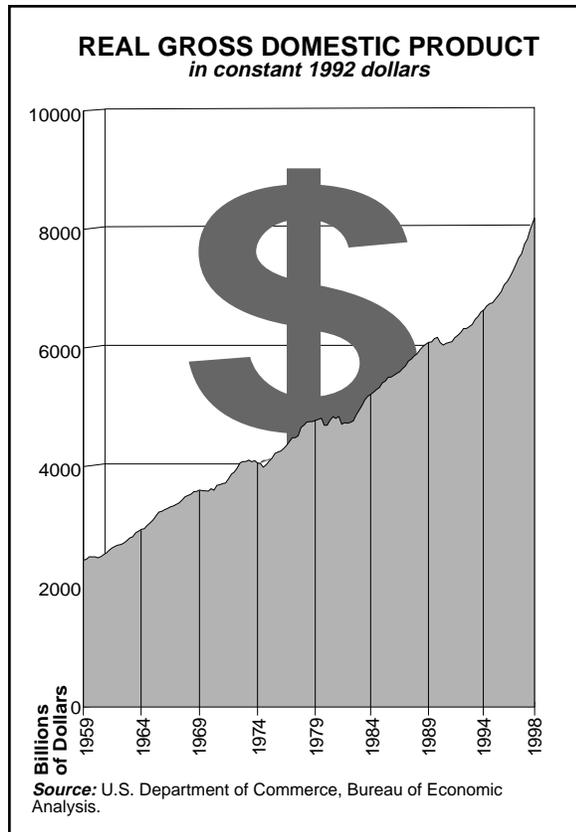
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GROSS DOMESTIC PRODUCT

Gross Domestic Product, or GDP, represents the total output of goods and services produced by a nation. In the United States for example, GDP includes all the corn and wheat grown by farmers, all the movies filmed in Hollywood, all the automobiles built in Detroit, all the meals served in restaurants, all the money spent on school books; in other words, every item produced for sale in the United States is represented by the GDP. Obviously millions of products and services go into the GDP of a modern industrial economy. Government economists keep track of output and release a measure of the GDP four times a year. These



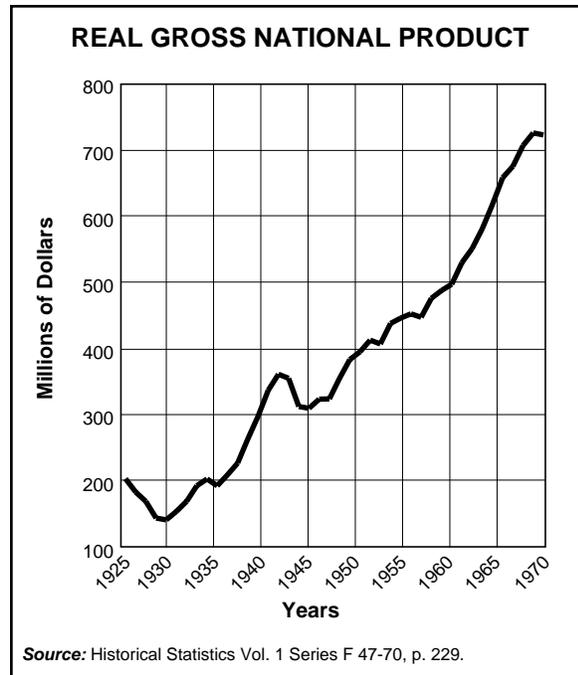
Shown is the relatively steady rise in the Gross Domestic Product (GDP), represents the total annual value of all goods and services produced in the United States.

figures try to capture the amount that the economy is growing or shrinking. For example the government may report that the economy grew three percent in a given year. When the GDP figure is rising, the nation is in a positive economic upswing. In such times, more workers are being hired, and paychecks are getting bigger. But when the GDP begins to shrink, it means the nation is entering a recession. More people lose their jobs, and families have to tighten their belts. In general GDP growth in the range of three to five percent a year in the United States is considered healthy; growth of one or two percent a year is considered slow; and any decline in GDP is considered cause for alarm.

See also: Gross National Product

GROSS NATIONAL PRODUCT

There are many ways to measure the economic health of society. The best available indicator of the



This graph depicts the generally healthy growth of the Gross National Product through 1970. The Gross National Product is an annual measure of all goods and services produced by U.S. industries.

economy's overall health is its annual total output of goods and services. To calculate the output of goods and services, economists use two closely related basic national income accounting measures of the full goods and services output. One is the gross national product (GNP), and the other is called the gross domestic product (GDP). Both of these measure the total market value of all goods and services produced in the economy in one year. The difference between the GNP and the GDP is in how the economy is defined.

The GNP consists of the total output produced by land, labor, capital, and business talent supplied by U.S. industries. Since 1992 the GDP has generally replaced the GNP and comprises the value of the total goods and services produced within the boundaries of the United States, whether by U.S. or foreign-supplied resources. Measuring the overall production performance of the economy as a whole does what accounting does for an individual business enterprise: it tells the government executive how well the business of the country is performing. Whether one uses the GNP or the GDP, such measuring provides national income accounting, so as to keep a finger on the economic pulse of the nation, compare annual figures over time, and help plan for future budgeting and the creation of new public policies to improve economic performance.

See also: Gross Domestic Product

GRUEN, VICTOR DAVID

An architect who first brought the modern shopping mall to the sprawling, growing, and scattering suburbs, Victor Gruen (1903–1980) was both a successful businessman and an influential urban planning theorist. Known as a practical visionary Gruen attempted an alternative to both post–World War II suburban sprawl and dying center cities. In the early 1950s he designed two major Midwest shopping malls: Northland outside Detroit, Michigan; and Southdale near Minneapolis, Minnesota. Both projects strongly influenced countless suburban malls built in the last half of the twentieth century by integrating architecture, art, and landscape which, in turn, had an immeasurable impact on U.S. society and culture of the period.

Born in Vienna, Austria, in 1903, Gruen was the son of a successful lawyer. He grew up in a cultured home, enjoying the excitement of a vibrant, beautiful city and visiting relatives in all the capitals of Europe. He especially loved the theater. His father had many clients in the arts, and the boy loved to watch directors organize stage sets and place actors within pleasing backdrops. David R. Hill, writing in the *Journal of the U.S. Planning Association*, suggested that these early experiences may have influenced Gruen's later insistence on designing architectural spaces in which human beings were integral players.

After studying architecture at the Vienna Master School for Architecture of the Academy of Fine Arts after World War I (1914–1918), Gruen began his career with a German architectural firm, Melcher and Steiner, in Vienna. After nine years with the firm he opened his own architectural offices. It was not an auspicious moment to strike out on his own. Austria was hard hit by the Great Depression (1929–1939) and the family fortune was lost. The young architect's projects were limited to retail storefronts and building rehabilitation. However with two friends he won a competition for the design of a public housing project. And he had just received his largest commission for a store building when Nazi troops arrived in Vienna.

After three terrifying months spent as a Jew in occupied Vienna, Gruen fled to the United States in 1938 with only eight dollars in his pocket. Beginning with design work on stage sets for Broadway shows he was soon designing commercial spaces, progressing from small shops to commissions from Macy's for major new department stores in Kansas City and San Francisco. Moving to Los Angeles he established Victor Gruen Associates, Architects, Planners and Engineers. The firm would soon expand to five partners, 50

professionals, and some 200 employees with offices in Los Angeles and Detroit.

A brilliant, energetic man with a pronounced talent for business, Gruen had amassed 21 state architecture licenses, given 225 speeches and lectures, published 75 articles, coordinated two hundred important projects for his firm, and completed two major books within 20 years after his arrival in the United States. Gruen's first shopping mall, Northland, outside of Detroit, Michigan, was begun in 1952 and opened in 1954. It was the largest mall in the world at the time and has been called "a classic in shopping center design." Northland was soon followed by the 70-store Southdale near Minneapolis, Minnesota, the nation's first completely enclosed mall. Southdale introduced the concepts of a climate-controlled shopping space and the associated development of office buildings, apartment houses, and parks connected to the shopping mall.

Gruen subsequently turned to downtown redevelopment planning. An important breakthrough came with his 1956 plan for Fort Worth, Texas. He envisioned a downtown with a ring freeway and parking just off the freeway ramps. Commuters and shoppers, after parking their cars outside the urban area, would take minibuses to offices and retail establishments in the city center. Trucking and mass transportation would go underground. Pedestrians would be able to walk everywhere. Although his plan was never implemented urban designers around the world took pieces of it and adapted it to local needs. Gruen's firm, meanwhile, took on assignments for additional shopping centers, regional health complexes, major office buildings and parking garages, as well as urban renewal projects. Among these were the cities of Kalamazoo, Michigan; Fresno, California; St. Petersburg, Florida; and Cincinnati, Ohio.

Gruen continued to crusade for a comprehensive metropolitan approach to city planning in which automobiles would not dominate. He believed that the business centers of modern cities should adopt the organizing concepts behind medieval marketplaces. According to this concept, shops should be arranged in logical sequences and shoppers should walk instead of ride between them. In books, articles, and lectures Gruen promoted his theories. At age 65 he returned to Vienna, where he opened a European branch of his firm. He consulted on major European planning projects and continued to write prodigiously until his death in 1980.

See also: City Planning

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GUGGENHEIM, DANIEL

Daniel Guggenheim (1856–1930) dominated the U.S. mining industry in the first half of the twentieth century. One of ten surviving children in an immigrant household, he took over his father's successful mining interests and turned them into one of the great U.S. family fortunes.

Guggenheim's father, Meyer, emigrated with his family to the United States from Switzerland in 1847, and settled in Philadelphia. With his father, Simon, Meyer worked as a peddler, carrying packs of household goods into the coal-mining region of Pennsylvania. Soon realizing that stove polish was the most popular item he sold, he located a chemist who taught him how to make the product. Simon then stayed home to produce stove polish while Meyer sold it at a substantial profit. Within four years Meyer made enough money on his peddling business, stove polish, and a product called "coffee essence" to marry and open a grocery store.

During the American Civil War (1861–1865) Meyer speculated successfully in supplies required by the Union troops and began to accumulate a comfortable nest egg. His subsequent business ventures in spices, lye (needed for the manufacture of soap), railroads, and imported Swiss lace and embroidery were each more successful than the last. By 1880, a little more than thirty years after arriving penniless in the United States, Meyer had put together an \$800,000 bank account.



Daniel Guggenheim.

As a teenager, Daniel Guggenheim, the second son in a family of eleven children, was sent to Switzerland to learn the lace and embroidery business. Like his brothers, he later joined the family embroidery and lace importing firm, M. Guggenheim's Sons. Beginning in the early 1880s Meyer began to invest money in two Leadville, Colorado, lead and silver mines. According to Guggenheim family biographer, John H. Davis, the mining operation hit a great silver lode in 1881. The strike produced nine million ounces of silver and 86,000 tons of lead by 1887, earning Meyer Guggenheim about \$750,000 per year. Meyer closed the embroidery business and invested everything he had in mining and the refining of metals. He acquired a smelter and channeled the efforts of his seven sons into the new family enterprise.

Of all the sons, Daniel Guggenheim was the most energetic and ambitious. Together he and his brothers sought to dominate the Western mining industry. Both their mines and the smelter were immensely profitable. But they took no chances. They beat back the railroads on transportation charges, aggressively evicted miners who squatted on their property, and used armed thugs to force striking mineworkers back to work. The brothers also expanded into Mexico, where Guggenheim had managed to obtain a concession for the family to "undertake the exploration and exploitation of any

Guggenheim, Daniel

mine they may want to lease or buy.” By 1895, due to the great success of the smelters they built in Monterey and Aquascalientes, the Guggenheim family established a strong industrial presence in Mexico.

In 1891 the Guggenheims formed a trust, the Colorado Smelting and Refining Company, to consolidate their various enterprises. They were now faced with competition for control of the U.S. mining industry. A rival trust, the American Smelting and Refining Company (ASARCO), was formed with the financial backing of the Rockefellers. Daniel Guggenheim led his brothers in several battles for power against the new trust. By 1901 he won the struggle. The Guggenheim family assumed control of ASARCO and achieved dominance over the U.S. mining industry, including its largest metal-processing plants, for the next two decades.

Until 1919 Daniel Guggenheim was chairman of the board and president of ASARCO. He convinced financiers J. P. Morgan (1837–1913) and Jacob Schiff (1847–1920) to form a syndicate to mine the great copper deposits at Kennecott Creek in Alaska. By the end of 1912 the Kennecott copper mine had paid dividends of \$3 million to Morgan, Schiff, and the Guggenheim family. Meanwhile the Guggenheims were mining tin in Bolivia, diamonds in Africa, and copper in Utah. Their worldwide domination of the mineral industry gave them great international power. It was said that Daniel Guggenheim could make or break a government with one telegram.

Because the family controlled so many essential natural resources the Guggenheims emerged from World War I (1914–1918) with a fortune estimated between \$250 million to \$300 million, enough to rank them second only to the Rothschilds as the richest Jewish family in the world. In 1923, although the brothers no

longer involved in the day-to-day administration of ASARCO, the family still controlled vast international holdings. They sold a large copper mine in Chile to the Anaconda Copper Corporation for \$70 million in cash, the largest private sale of a mining property in world history at that time. With that sale the surviving Guggenheim brothers retired from active business and turned to philanthropy.

By the last half of the twentieth century the scale of the family’s charitable activities through their various foundations became their greatest legacy. Medicine, education, and the arts all benefited from their largesse. Among them was the Daniel and Florence Guggenheim Foundation, established in 1924 to advance the “well-being of mankind throughout the world.” The Foundation supported Robert Goddard’s work on the development of liquid-propelled rockets and established many research centers and scholarly activities concerned with the aerospace sciences and exploration. Daniel Guggenheim died in 1930, a successful businessman who led his family to success in American industry.

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HALPIN, JAMES

James F. Halpin (1951–) led computer superstore CompUSA, Inc. out of the financial troubles it found itself in at the beginning of the 1990s. After a period of dramatic growth during the 1980s, CompUSA began to lag in the marketplace. The multi-billion dollar retailer known as “America’s Computer Superstore” was lethargic and its bloated bureaucracy brought it to the brink of declaring Chapter 11 bankruptcy. When CompUSA’s chief executive officer (CEO) resigned in the last few weeks of 1993, James Halpin was left with the daunting task of turning the company’s fortunes around. His efforts helped turn CompUSA into a strong competitor that, in the late 1990s, dominated the fast-paced world of computer retailing.

James F. Halpin was born in 1951 in Chicago, Illinois, to Irish Catholic parents with a strong blue-collar background. Because of the family’s lack of money Halpin never attended college; he instead went directly to work after graduating from high school.

At age twenty-one Halpin got a job unloading trucks for the Boston-based retailer Zayre Corporation for \$2.60 an hour. He quickly showed initiative and his hard working style quickly caught the notice of his employers. He did not stay on the loading dock for very long, but began moving up through the ranks of the company. By 1984 Halpin had been promoted to the position of Vice President and senior merchandising manager for the Zayre department store chain. His leadership at Zayre soon attracted the attention of others, and in 1988 Halpin left Zayre to become the president of BJ’s Wholesale Club. Two years later, in 1990, Halpin moved BJ’s Wholesale Club to head Waban Inc. In 1991, he left the presidency at Waban for the same position at Home Base, a home improvement retail chain based in Irvine, California.

Meanwhile CompUSA, the company Halpin would lead out of hardship, was establishing itself as a leader in its industry. Founded as Soft Warehouse in Dallas,

Texas, in 1984, CompUSA was the first to adapt the “superstore” idea to the home computer and peripherals market (the “superstore” idea was pioneered by companies such as Office Depot). In January of 1989 a group of investors acquired CompUSA and placed the company under the leadership of former Home Depot executive Nathan Morton. Under Morton’s control the company grew rapidly. In just two years, from 1988 to 1990, sales increased from \$66 million to \$600 million. In December 1991, the company began selling stock to the public.

But there were signs of stress on the horizon. Despite its strong growth during the 1980s, the first quarter of 1993 reported a loss of nearly \$1 million for the company. Although this was not an enormous amount in proportion to the company’s volume, Morton resigned, paving the way for Halpin to come in and face the challenge of turning CompUSA around.

From his position at Home Base Halpin was recruited to become president of CompUSA in May of 1993. Halpin felt CompUSA was focusing too much of its corporate energy on promotion and advertising and not enough on the bottom line. He immediately made changes.

Like his predecessor Nathan Morton, Halpin came to CompUSA from a hardware superstore company. He decided to apply a different strategy and he got vastly different results. While competitors such as Best Buy, Neostar, Wal-Mart, and the Tandy Corporation experienced shrinking profit margins, CompUSA grew steadily under Halpin’s leadership. Whereas in 1994 CompUSA posted a \$16.8 million loss on \$2.1 billion in sales, by 1996 it had an estimated \$56 million profit from \$3.8 billion in sales.

One of Halpin’s first actions as president of CompUSA was to end the company’s racing car sponsorship and sell its cable television show. He next fired 2000 of the company’s store managers, replacing them with more experienced employees from other successful chain stores. This move raised the average age of a

CompUSA store managers from twenty-six to thirty-seven, an oddity in the young computer industry. Halpin's new managers did well. Halpin also initiated an incentives system that enabled some of his store managers to earn in excess of \$100,000 a year.

By 1994 Halpin had turned over the assembly of CompUSA's Compudyne brand computers to an outside contractor and was promoted to CEO of the company. He replaced seventeen of the twenty top management positions in the company and eliminated some of the sideline businesses, such as software publishing, that the previous CEO had established. Only once these actions were done and the company had stabilized did Halpin consider opening more stores.

He revamped the new CompUSA stores, redesigning the layout and requiring an increase in the level of employees' technical education. His goal was to create an exciting and interactive stores that would appeal to consumers.

In October 1995 Halpin took a seat on the board of directors at Invincible Technologies Corporation with the title of Outside Director. Invincible is a Massachusetts-based computer company specializing in security applications, file servers, and data storage solutions for businesses that use large computer networks. Halpin's knowledge of both business and the computer industry helped Invincible rise to the top quickly as growing numbers of businesses sought to make their computer networks safe, fast and efficient.

Facing pressure from other computer chain stores, such as Dell Computer Corporation, Halpin introduced a system of direct marketing. CompUSA began selling custom-designed computers for a reasonable rate according to customer specifications. Halpin hoped this system would allow CompUSA to tap into the 25 percent of the market then firmly controlled by independent vendors who built customized computers. Halpin called these vendors "the wicked screwdriver guys," and he introduced his company's build-to-order service in late 1997. This service allowed customers to order a computer over the telephone according to their specifications and pick it up or have it delivered to them within a few days.

Halpin's custom-design innovation was a success. Instead of building the computers itself, CompUSA subcontracted the task to independent contractors, who delivered the finished product to a CompUSA store for installation or delivery. This method cut down on CompUSA's costs and increased its profit margin dramatically over companies such as Dell who built custom-made computers itself.

By 1997 CompUSA had 134 stores nationwide and its net income rose 57 percent to \$93.9 million and net sales had topped \$4.6 billion. In the late 1990s every CompUSA store generated sales of \$1,388 per square foot of floor, two or three times more than other consumer electronics and office supply chains. This allowed CompUSA to employ a further 5,000 employees than before Halpin's cuts and restructuring. CompUSA appeared at number 329 on *Fortune* magazine's list of the top 500 companies in the United States for 1998.

By the late 1990s all CompUSA stores contained a computer repair shop and computer training classrooms for customers who had problems learning how to operate their computers. The company also offered a delivery service that included a crew to install computer service. Along with a direct sales force soliciting corporate, government, and educational customers directly, these improvements made CompUSA an industry leader in computer sales and dramatically increased computer literacy rates throughout the nation.

Halpin has become one of corporate America's most powerful people. In 1997 he appeared at number seventeen on *Forbes* magazine's list of the top corporate executives in the retailing industry. His annual salary was over \$2 million. Halpin's efforts to create a focused, consumer-oriented, interactive store were successful. His vision and leadership has led "America's Computer Superstore" through the twentieth century.

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HAMILTON, ALEXANDER

Alexander Hamilton (1755–1804) was the first Secretary of the Treasury of the United States and a primary contributor to *The Federalist Papers*. Among

the founding fathers, he was the man whose vision was largely responsible for the creation of the American nation as it is today. Samuel Eliot Morison wrote in *The Oxford History of the American People* that it was Hamilton's genius that enabled the new government to function successfully.

Born in 1755, Hamilton was an illegitimate child. He had a difficult upbringing in the West Indies. His father, an aristocratic but unsuccessful Scottish trader, abandoned the family when the boy was about 10 years old. At age 11 Hamilton began work in the West Indies office of a New York mercantile firm. When his mother died in 1768, he was taken under the wing of her relatives. They and other sponsors recognized the boy's exceptional intelligence and energy and arranged for him to attend preparatory school in New Jersey; he was then enrolled at King's College (now Columbia University) in 1773.

As a student Hamilton wrote and published three brilliant pamphlets. He defended the colonists' cause in protesting the actions of the British government which brought on the War of Independence and he upheld recent decisions of the Continental Congress. These very influential writings brought the young man to the attention of General George Washington (1732–1799). At only age 22 Hamilton joined the general's military staff as aide-de-camp with the rank of lieutenant colonel. Remaining on the staff for four years, he became indispensable to Washington. Hamilton was entrusted with his general's correspondence, sent on many sensitive missions, and eventually made Washington's liaison with French military commanders who supported the Revolutionary army. At Yorktown, in the final battle of the war, Hamilton led a successful assault on a key British position.

Following the war, Hamilton married Elizabeth Schuyler, a member of one of New York's wealthiest and most distinguished families, and he settled down to practice law in New York City. He was soon, however, caught up in national politics. He recognized almost immediately that the *Articles of Confederation*, which defined the relationships among the states, were weak and unenforceable. As a delegate to the 1787 Philadelphia meeting of the Constitutional Convention, Hamilton argued for a strong national government with almost unlimited power over the states. His views were in the minority and were particularly unpopular in New York, where the prevailing sentiment was in favor of political power remaining with the individual states.

With James Madison (1751–1836), a delegate from Virginia, and John Jay (1745–1829), the secretary for foreign affairs, Hamilton wrote a series of essays

which were published in a New York newspaper between October 1787 and May 1788. These essays, comprising *The Federalist Papers*, effectively argued the case for a strong national government. They were enormously influential among the framers of the Constitution and they remain relevant more than 200 years later. Hamilton is credited with two-thirds of the 85 essays. In his essays he described the proposed powers of the executive, legislative, and judicial branches of government. He also explained how, as a final check on legislative powers, the Supreme Court would be able to declare unconstitutional even those laws passed by Congress and signed by the executive.

Named by President George Washington (1789–1797) to be the first Secretary of the Treasury, Hamilton acted swiftly to establish a strong economy. The country's foreign debt was repaid by the end of 1795; the national domestic debt was paid off by 1835. The Bank of the United States was chartered and funded under Hamilton's watch. By August 1791, U.S. currency was strong on domestic and world markets.

Hamilton's three great reports to Congress (the Report on the Public Credit of 1790, the Report on the Bank of the United States of 1790, and the Report on Manufactures of 1791) laid down the basic economic principles on which the U.S. government has, in general, operated ever since. Hamilton believed that the states should be subordinate to the federal government. The federal government, in turn, should protect the states from foreign intervention and from each other through a single military force.

An important duty of the federal government, Hamilton argued, was to promote a strong capitalist economy through a strong currency and public investment in infrastructure. He encouraged new industry in both the South and the North by protecting infant U.S. industries until they were able to compete on an equal basis with imports.

Hamilton was the opposite of a populist. The government, in his opinion, should not be run by amateurs but by a trained and educated elite. In many of his views he was strongly opposed by Thomas Jefferson (1743–1826), the author of the *Declaration of Independence* and future president, who believed that the American republic rested firmly on an agrarian democracy.

Hamilton's last years were spent in the midst of political turmoil. Through various political intrigues he managed to sow dissension in his own Federalist party and to incur the enmity of several important political leaders in both the Federalist and Republican parties. Along with Jefferson, these included John Adams

Hammer, Armand

(1735–1826), a Federalist and the second president of the United States, and Aaron Burr (1756–1836), a Republican and Jefferson's Vice President. In 1804 Hamilton opposed Burr's unsuccessful bid to be governor of New York. On the grounds of some insulting remarks Hamilton had allegedly made about him, Burr challenged his old rival to a duel following the election. Hamilton died in the duel at Weehawken, New Jersey, on July 11, 1804.

See also: *Bank of the United States (First National Bank)*, *Thomas Jefferson, Report on Manufactures*

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HAMMER, ARMAND

It is the dream of some Americans to become rich and powerful, to live a jetset lifestyle and to brush shoulders with the great leaders of the world. Armand Hammer (1898–1990) lived the American Dream.

Armand Hammer was born on May 21, 1898, in New York. His father Julius Hammer was a Russian immigrant, a doctor, a socialist activist, and the first card carrying member of the U.S. Communist Labor Party.

Armand Hammer was working toward his medical degree at Columbia University when he made his first \$1 million through his father's pharmaceutical company. He received his medical degree from Columbia



Armand Hammer.

University in 1921. After he earned his degree, Hammer took his money and journeyed to the Soviet Union to give medical aid to famine victims.

While there, Russian leader Vladimir Ilyich Lenin (1870–1924) took a personal interest in Hammer and persuaded him to apply his business talents to Russia. In 1925 Hammer, with a concession from the Bolsheviks, began to manufacture pencils for the Soviet Union. Soon thereafter, his firm became the largest supplier of inexpensive and durable pencils in the Soviet Union. By the late 1920s the Soviet's bought out Hammer's businesses, and he returned to the United States in 1930. He returned to the United States with many paintings, jewelry, and other art pieces said to be formerly owned by the Romanov imperial family. During the 1930s Hammer sold most of these items and turned the profits into business ventures that became profitable after the Prohibition era. Among these ventures included cattle raising, the building of whiskey barrels, and the production of whiskey.

In 1956 Hammer retired, having grown tired of his hectic business lifestyle. In the same year, however, he was approached by a friend who persuaded him to

finance two wildcat oil wells being drilled in Bakersfield, California, by Occidental Petroleum Corporation, which was near bankruptcy. With Hammer's financial support, Occidental began drilling the wells. Unexpectedly, the wells struck oil. Hammer immediately increased his interests in Occidental. By 1957 he was the corporation's chief executive officer (CEO) and chairman of the board. Hammer remained chairman of the board and CEO for the next 33 years, turning the once near bankrupt company into a billion-dollar conglomerate.

Hammer, using his long-standing relations with the Soviets, helped to champion U.S.-Soviet relations throughout the Cold War. He was able to promote cultural and commercial exchanges, as well as represent the United States in trade negotiations. He often became an unofficial ambassador during complicated moments between the two superpowers. In 1986 Hammer personally financed the dispatch of a relief team of physicians to the Soviet Union to assist in the wake of the Chernobyl nuclear disaster.

Incredibly rich, Hammer made many donations to Columbia University, the National Gallery, and the Metropolitan Museum of Art. He also supported numerous philanthropies through the Armand Hammer Foundation. In Los Angeles he founded the Armand Hammer Museum of Art and Cultural Center, which housed the bulk of his art collection.

Often praised for his humanitarianism while he was alive, Hammer has been criticized since his death. It is now believed that Hammer may have been a Soviet spy. The Central Intelligence Agency (CIA) and the Federal Bureau of Investigations (FBI) suspected him of being a full-fledged Soviet agent. It is also believed that his ventures in the petroleum market may have found success, due in some part to his ability to bribe officials and leaders in Libya. After bribing his way into a favorable position, Hammer would then offer a humanitarian act to sweeten the deal, such as drilling water wells for the King of Libya's parched ancestral village.

Armand Hammer died in Los Angeles, California, on December 10, 1990.

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HANCOCK, JOHN

Although many saw John Hancock (1737–1793) as nothing but a vain and pompous merchant, he was nonetheless a key figure in securing American independence and creating the republic of the United States. His capacity to sidestep controversy made him an ideal presiding officer. He displayed this skill in the Provincial Conventions, the Continental Congress, and as governor of Massachusetts. Though he was largely an uninspired leader, generally lacking personal style, Hancock became famous for the enormous signature he affixed to the *Declaration of Independence* as one of the nation's founding fathers.

John Hancock was born in Braintree (present-day Quincy), Massachusetts, in 1737, the son of John and Mary Hancock. Hancock's father was a minister who died when his son was only seven. His widowed mother took him and her two other children to live in Lexington, Massachusetts, with her father-in-law. In 1795 Hancock was sent to live with his uncle and aunt, Thomas and Lydia Hancock, in Boston. His uncle was one of Boston's wealthiest businessmen, and so John Hancock grew up in wealth, living in the Beacon Hill area.

Hancock attended Harvard College as part of the class of 1754; after graduating, he returned to Boston and joined his uncle's import-export business. Hancock's return to the family business coincided with the outbreak of the French and Indian War (1754–1763)—for the next six years the House of Hancock, as the business was called, became busy fulfilling government contracts. During this time Hancock learned a great deal about the business. In 1759, to cement business ties and to introduce the young Hancock to a wider world, his uncle sent him to England for a year. On his return in 1761 Hancock found his uncle in poor health and began to take more responsibility in the business and, when his uncle died in 1764, Hancock assumed full responsibility.

Although the young man began life with many advantages, he was not a gifted businessman, and Hancock lost the House of Hancock business eleven years later in 1775. Despite the fact that his uncle had

left him a thriving business which Hancock was unable to adequately manage, the loss was not completely his fault. English rule made it very difficult for anyone to run a profitable import-export business.

It may be said that the business world's loss was a gain for the movement of rebellion in America. Hancock subsequently immersed himself in politics and won election to the General Court of Massachusetts. He blamed British colonial rule for his business disasters and, in 1768, when British troops stationed in Boston Harbor seized his ship (the *Liberty*) for smuggling, Hancock was drawn deeper into the movement for independence. He increasingly adopted the revolutionary perspectives of Samuel Adams (1722–1803) and Thomas Paine (1737–1809).

By 1775 Hancock had become such an irritation to the British that they tried to seize him along with Samuel Adams. Hancock avoided arrest and escaped to Philadelphia as a Massachusetts delegate to the Continental Congress. He was elected president of the Congress and held that position for three years. But in spite of his prominence in that service, Hancock contributed little of note to its efforts. Most of the Congress' work was accomplished through committees, which created a patchwork of enormous inefficiencies.

Hancock's greatest moment as a member of the revolutionary movement came on July 4, 1776, when he was asked with others to sign the *Declaration of Independence*. With his characteristic flair for the grand gesture Hancock signed the document first, with an oversized signature.

Hancock was becoming an annoyance to other members of the Continental Congress, as well as to his constituents back home. In 1777 he announced that, for reasons of health, he was returning to Boston. Still, he delayed his return until the summer of 1778. Back in Massachusetts, Hancock worked in concert with the French navy to command 5,000 Massachusetts militiamen in an attempt to capture Newport, Rhode Island, from the British in 1778. The expedition was a failure.

Hancock was elected as the first governor of the Commonwealth of Massachusetts after the American Revolution (1775–1783). He continued as governor until 1785, when he retired purportedly because of poor health. Insiders knew that Hancock's mismanagement of Massachusetts' finances had put the state in financial peril. Hancock left in time to avoid the uprising of small farmers (including many revolutionary veterans) who, during the post-war depression, were losing their land for non-payment of taxes. Hancock's successor had the unhappy task of suppressing the rebellion.

In spite of his fiscal and governmental misadventures Hancock was elected delegate to the state ratifying convention for the new Constitution, which was written in 1787. He made public speeches in favor of ratifying the new Constitution. Many felt that without his support the Constitution might never have been ratified. Perhaps this was Hancock's finest moment in a life otherwise filled with failures and missteps. With the ratification of the Constitution, George Washington (1789–1797) was elected president. Contrary to his hopes Hancock was not elected as Vice President. John Adams (1735–1826) was instead awarded the post.

Hancock served as governor of Massachusetts from 1780 to 1793 (with the exception of two years, 1785 to 1787). He died in Boston in October of 1793.

See also: American Revolution

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HANNA, MARCUS ALONZO

Marcus Alonzo Hanna (1837–1904), was a wealthy businessman from Ohio and a leading spokesman for enlightened capitalism (the cooperation of business, labor, and government to help improve economic and social conditions.) He appreciated the importance of the relationship between business and politics and lent his organizational skills to the campaigns of Ohio Republicans. He is best known for managing successfully the presidential campaign of William McKinley (1897–1901), and later serving as United States Senator.

Marcus Hanna was born in New Lisbon (now Lisbon), Ohio in 1837. He moved with his family to

Cleveland, where his father ran a wholesale grocery business. Hanna became a partner in this business after his father's death in 1862. In 1864 he married the daughter of Daniel P. Rhodes, a coal and iron magnate. Hanna joined his father-in-law's company and had such success in business dealings that the company reorganized as M. A. Hanna and Company in 1885. He also supported other business interests in Cleveland, such as a bank, a newspaper, the Opera House, lake transportation, oil refining, and the street railway system.

Hanna's ideal of capitalism included the support of large-scale production, tariff protection, and the gold standard. He was an unusual capitalist in that he did not oppose labor organizations. He saw it as a necessary means to settle industrial disputes in a quick and efficient manner. More importantly, Hanna appreciated the inevitable link between business and politics. He assumed that the Republican party would be a valuable ally for his business endeavors and became actively involved in the campaign of the Ohio Republicans who sought the presidency between 1880 and 1890: James A. Garfield (1881), John Sherman, and William McKinley. Hanna applied his business skills, such as corporate assessment and merchandising techniques, to the campaign process.

As the chairman of the Republican National Committee, Hanna successfully organized the campaign to elect William McKinley as president in 1896, and remained one of McKinley's closest advisors during his presidency. In 1897 he was appointed U.S. Senator from Ohio to replace John Sherman, who became McKinley's Secretary of State. Hanna then won full-term Senate elections in 1898 and 1903. When McKinley was assassinated in 1901, Hanna served as an advisor to President Theodore Roosevelt (1901–09), though he disagreed with many of Roosevelt's policies.

A successful businessman and U.S. Senator, Hanna died in 1904.

See also: Gold Standard, Theodore Roosevelt

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HARLEY-DAVIDSON, INC.

Harley-Davidson, Inc. began in 1903 as the Harley-Davidson Motor Company, the brainchild of three young mechanics—William Harley and brothers Walter and Arthur Davidson. The men began by building a three-horsepower motorized bicycle in a backyard shed in Milwaukee, Wisconsin. Demand and production grew, and they began to advertise in 1907. Throughout the course of the company's history, Harley motorcycles have grown to become an industry classic.

The V-twin engine that produced the signature Harley-Davidson sound was introduced in 1909. It enabled riders to reach then unheard of speeds of 60 miles per hour, setting the company apart from its competition. By 1911 there were 150 companies manufacturing motorcycles, which had not yet been replaced by automobiles as an affordable, utilitarian means of transportation.

Police forces throughout the United States adopted Harley-Davidson motorcycles for their use, as did the U.S. military. The company prospered during World War I (1914–1918), making 20,000 machines for the U.S. infantry. Officers also rode Harley-Davidson motorcycles while patrolling the border between the United States and Mexico.

During the 1920s Harley-Davidson took the lead in innovative engineering by introducing such new features as the teardrop gas tank and front brakes. In 1921, for the first time, a Harley-Davidson motorcycle achieved speeds greater than 100 miles per hour. That year, however, the company's production fell to 10,000 machines, its lowest level in ten years. Henry Ford (1863–1947) had perfected assembly line production methods, and inexpensive Model T automobiles were flooding the market, with other automobile manufacturers following suit. In 1924 a basic Model T retailed for \$265, while a comparable Harley-Davidson fetched \$325. As workers and businesspeople opted to buy automobiles for daily use, motorcycles began to acquire the status of recreational vehicles.

The Great Depression (1929–1939) had a profound effect on the motorcycle industry. Among its



Harley-Davidson motorcycle used by the New York Police Department, circa. 1927.

competitors, Harley-Davidson was one of only two manufacturers that survived. The company relied on its strong dealer network; its use by police, the military, and the U.S. Post Office; and strong exports to Canada and Europe. And better days came toward the end of the decade: Like many other manufacturing companies, Harley-Davidson prospered during World War II (1939–1945). Devoting itself entirely to the war effort, the company shipped nearly 100,000 machines overseas. After the war a healthy economy found consumers with enough money to spend on recreation, including motorcycles. In 1947 the company purchased additional manufacturing capacity to keep up with demand.

Harley-Davidson's main competitor, Indian Motorcycle Company, experienced a streak of engineering and production difficulties in the 1940s and 1950s. Indian struggled with debt before breaking up in the early 1950s, allowing Harley-Davidson to become the veritable "king of the road." The second generation of the founding families became managers at the company, which continued to stress design innovations. Introduced in 1957, the Sportster model marked the start of the superbike era. During this period, leather-clad biker gangs became popular, spawning a stereotype that the company has continually attempted to dispel.

In 1965 the two families, Harley and Davidson, decided to raise additional capital by going public and

putting their stock on the open market. However, they effectively maintained a dominant interest in the company by purchasing many of the shares themselves. Sales had dropped for several years, profits were flat, and the company held a mere six percent of the domestic retail market. With proceeds from the sale of stock, the company introduced its first electrically started motorcycle, the Electra Glide. While the Electra Glide became one of the most sought-after full dresser models over time, in the short run its technical problems did not benefit the company.

By 1967 Harley-Davidson was on the brink of ruin: Its Juneau Avenue factory in Milwaukee was small and outdated, and the company had not recently invested in new models. Japanese and British manufacturers filled segments of the market in which there were no Harley-Davidson models to compete. With liquidation a distinct possibility, executives sold the company in 1969 to American Machine and Foundry Company (AMF), a leisure equipment manufacturer headed by Harley-Davidson fan Rodney C. Gott.

AMF used its financial resources to help Harley-Davidson meet the new competitive threat from Japanese manufacturers such as Honda, Kawasaki, and Suzuki. In 1974 a Harley-Davidson assembly plant opened in York, Pennsylvania. Although the company would continue to manufacture its engines in Milwaukee, it would assemble its motorcycles in the York

plant. Vaughn Beals was put in charge of the company, and 36-year-old Jeff Bleustein was named chief engineer.

The late 1970s brought problems for Harley-Davidson. Improvements had added about \$1,000 to the cost of each motorcycle; meanwhile, AMF management began to seek a higher sales volume. Pressure to increase sales resulted in quality-control problems. Production standards dropped, and parts were often in short supply. In some cases manufacturers accidentally shipped incomplete bikes. By 1979 Harley-Davidson's share of the U.S. motorcycle market for super-heavyweight machines (with engines 850 cubic centimeters or larger) fell to 20 percent from 80 percent a decade ago. Compounding Harley-Davidson's problems was the 1981 recession that nearly finished the company.

With financial support from Citicorp, Beals and 13 Harley-Davidson executives effected a leveraged management buyout of the company. On June 16, 1981, they took control of the company at a cost of \$81.5 million. The new owners focused on turning around the company by adopting new management techniques copied from their Japanese competitors. Also influencing their thinking was the success of the new General Motors Saturn plant and the concept of worker empowerment. The company soon found that increased worker involvement resulted in increased productivity. In addition, Harley-Davidson introduced two new developments: a just-in-time inventory control program called MAN, or "Materials As Needed," and a statistical operator control system designed to improve quality control.

In 1982, after Japanese manufacturers had swamped the U.S. market with their surplus inventory of heavy-weight motorcycles, Harley-Davidson won an antidumping judgment from the International Trade Commission. President Ronald Reagan (1981–1989) was then able to impose on these imported models an additional 45 percent tariff, which was designed to decrease gradually over the next five years. Although the Japanese manufacturers often sought to avoid some of the tariffs by building more motorcycles in the United States, by 1986 Harley-Davidson's share of the U.S. super-heavyweight market had risen to 33.3 percent, ahead of Honda for the first time since 1980.

The company gained back some of its market share by investing in marketing programs, establishing the Harley Owners Group (HOG) in 1983. In addition, manufacturers designed new models to appeal to a broader range of customers. In 1984, however, the company faced another crisis when Citicorp withdrew some of its financial support. By October 1985 Harley-Davidson was ready to file for bankruptcy protection,

but at the last minute an interested lender approached the company to offer help. Heller Financial Corporation agreed to buy out Citicorp's stake for \$49 million, forcing Citicorp to take an \$18 million write-down on its original agreement.

With profits topping \$4.3 million on sales of \$295 million in 1986, Harley-Davidson went public, raising \$20 million through the sale of stock and \$70 million through the sale of unsecured subordinate notes. The company used some of the proceeds to diversify its manufacturing efforts and to acquire motor-home maker Holiday Rambler Corporation for \$156 million. Also at this time, Harley-Davidson won a government contract to produce military hardware.

By 1990 sales reached \$864.6 million, and the company had a 62.3 percent share of the U.S. heavy-weight motorcycle market. Harley-Davidson's comeback was complete. Over the next few years the company acquired Eagle Credit, which would provide financing and insurance for its dealers, and a 49 percent stake in Wisconsin-based Buell Motorcycle Company, which specialized in performance bikes. In 1996 the company divested the money-losing Holiday Rambler operation for \$50 million, substantially less than it had paid for it.

Under the leadership of Richard Teerlink and, later, Jeff Bleustein, Harley-Davidson achieved record sales and earnings levels throughout the 1990s. The company's merchandising strategy paid off, as dealers and other retailers began to devote more space to just about anything with the Harley-Davidson logo on it. In 1998 the company celebrated its 95th anniversary with a weeklong gathering of its fans in Milwaukee. Its two assembly plants in York and Kansas City were producing 137,000 motorcycles annually and struggling to keep up with consumer demand.

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HARPERS FERRY ARMORY

In 1796, Harpers Ferry, Virginia (the city is now in West Virginia) became the site of the second of two arsenals selected by President George Washington (1732–1799); the first was established in 1794 at Springfield, Massachusetts. The Virginia town, situated in the Blue Ridge Mountains, at the confluence of the Potomac and Shenandoah rivers, was considered a safe and central place for military stores. Harpers Ferry developed as a center for the manufacture of rifles, but production remained inadequate. In 1798, Congress passed an act appropriating funds to purchase weapons from private armories. By the 1820s, according to *American Machinist Magazine* ("An Industry Evolves," August 1996), private manufacturers such as Remington and Colt's Patent Fire Arms Manufacturing, "managed to develop, through a series of painful stages, an effective combination of machines and gages to provide true interchangeability of parts" to allow for efficient mass production. One important stage of the development process occurred at Harpers Ferry Armory between 1819 and 1826: John Hall, who had established an independent rifle works within the armory, developed milling machines that produced truly interchangeable parts. This technology combined with the factory system to create the American System of Manufactures, which soon spread from Virginia to New England (via Springfield) and then to Europe—giving Harpers Ferry the reputation as the birthplace of the system.

The Harpers Ferry Arsenal became a strategic point for both sides during the American Civil War (1861–1865), changing hands several times before the conflict ended. But the town is also noted for the raid that occurred there just over a year before fighting broke out between Union and Confederate forces.

In fall 1859 American abolitionist John Brown (1800–1859) led a group of twenty-one men, black and white, on a raid of the government armory at Harpers Ferry, Virginia. Brown believed the action would inspire a general insurrection of southern slaves.

On October 16, 1859, the band took control of the village and seized the U.S. arsenal. Ten of Brown's followers, including two of his sons, were killed or injured, and on October 18 the band surrendered to federal troops under Colonel Robert E. Lee (1807–1870). Brown was tried for treason and convicted. He was hanged on December 2, 1859, a martyr for the cause. The raid on Harpers Ferry heightened tensions between the pro-slavery South and the free North, which would only be resolved by further bloodshed.

See also: American System of Manufactures, Harpers Ferry Raid, Springfield Armory

HARPERS FERRY RAID

John Brown (1800–1859) was an American abolitionist and insurrectionist whose violent raid on the federal arsenal at Harpers Ferry, Virginia, in 1859 played a key role in sharpening the regional tensions that led to the American Civil War (1861–1865). John Brown was born at the turn of the nineteenth century in Torrington, Connecticut, and spent his childhood in Ohio, where he encountered and absorbed strong anti-slavery sentiments from the local population. Over the next three decades Brown raised a large family, but failed at a series of businesses. By 1855, Brown's antislavery stance had evolved into the conviction that God had chosen him to free the slaves from bondage. He followed five of his sons to Kansas to join the growing struggle between pro-slavery and Free Soiler forces over the legal status of slavery in the territory. (The Free Soil party was a U.S. political party with a main objective to prevent the extension of slavery to newly acquired U.S. territories.)

Angered by the ravaging of the Free Soiler town of Lawrence, Kansas, by pro-slavery guerrillas in May 1856, Brown and four of his sons launched a brutal retaliatory raid three days later. In a nighttime attack on a pro-slavery settlement on Pottawatomie Creek, Kansas, Brown and his followers killed five settlers. The murders inflamed the conflict in Kansas as hundreds of settlers rushed to arm themselves. By the end of 1856, at least 200 Kansas citizens lay dead. The tragedy in Kansas ignited the national debate over slavery. Animosity hardened, and in Washington, D.C., pro-slavery and anti-slavery congressmen hurled curses and threats at each other in the Capitol over responsibility of the "bleeding Kansas." President Franklin Pierce (1853–1857) made matters much worse. An advocate of Southern interests, he refused to intervene when intimidation and fraud led to the election of a pro-slavery legislature.

For many Northerners, including respected intellectuals such as Ralph Waldo Emerson and Henry David Thoreau, John Brown was considered a hero, praised for his righteous and uncompromising stand against slavery. To Southerners, Brown was a loathed and feared abolitionist who threatened a core institution of Southern society. He personified the horrible fate that awaited if the North was able to dictate its will on the issue of slavery.

Encouraged by his celebrity, but alarmed by the apparent victory of pro-slavery forces in Kansas, Brown next conceived a plot to strike a mortal blow against slavery. With a group of 18 white and black followers, Brown attacked and seized the federal armory at Harpers Ferry, Virginia. Brown hoped the assault would inspire slaves to join his cause. Arming the slaves in his group with weapons from the arsenal, Brown then intended to establish a Negro republic in the woods of Virginia. From this stronghold he planned to wage war against the South, his forces continuously strengthened by slave rebellions and private Northern assistance.

The failure of the raid was inevitable. The local population and militia quickly mobilized against the group, which failed to recruit a single slave to its side, let alone spark a general rebellion. The raid's fate was sealed when a company of United States Marines under the command of Army Colonel Robert E. Lee, ordered to the site by President James Buchanan (1857–1861), charged the engine house in which Brown and his followers had barricaded themselves. Ten of his group were killed and Brown was wounded and captured.

Brown's grand scheme lasted only 36 hours, but the impact of his raid on Harpers Ferry was far reaching. Although Brown was tried, convicted, and ultimately hanged for treason, he conducted his defense with uncharacteristic dignity and muted religious conviction, inspiring a wellspring of sympathy and support in the North. In death, Brown did more to provoke the dispute over slavery than he accomplished alive. Not surprisingly, Brown's raid heightened the sense of threat in the South, where many concluded the North approved his behavior, and that secession was the only viable solution to the great struggle over the future of slavery.

See also: **Bleeding Kansas, Civil War (Economic Causes of), Harpers Ferry Armory**

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HARRINGTON, EDWARD MICHAEL

Michael Harrington (1928–1989) was one of the few writers who could claim to have affected business and economic history. Born at the beginning of the Great Depression, Harrington retained youthful memories of that difficult period, and by the time he was 33, he had written one of his more important works, *The Other America* (1962). His book spoke about the “invisible poor” living in America at a time when most Americans were busy celebrating the country's wealth. In speaking out on behalf of the poor, industrial rejects, migrant workers, minorities, and the aged, Harrington drew the attention of at least two presidents to focus on the legislative issues of poverty in America: President John F. Kennedy (1961–1963), and President Lyndon Johnson (1963–1969).

Harrington was born in St. Louis, Missouri, and grew up in a middle-class Irish-Catholic family whose political affiliations were with the Democratic Party. He was heavily influenced by his Jesuit teachers, who maintained that all people can become successful if they are only given a chance. In college Harrington was drawn to the political left and he became a socialist. Over the 30 years that followed he was one of the most eloquent voices of socialism in America.

Harrington lived his adult life as a self-described agitator and organizer. He worked as a political and social activist who tried to achieve the greatest benefits for the poorest Americans. His goal was to create greater economic justice for those who lived in poverty in America, the richest country in the world. In his first autobiography, *Fragments of the Century*, he expressed

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this view of socialism in capitalist America: “To be a socialist . . . is to make an act of faith, of love even, toward this land. It is to sense the seed beneath the snow; to see, beneath the veneer of corruption and meanness and the commercialization of human relationships, men and women capable of controlling their own destinies. To be a radical is, in the best and only decent sense of the word, patriotic.”

TO BE A SOCIALIST . . . IS TO SENSE THE SEED BENEATH THE SNOW; TO SEE, BENEATH THE VENEER OF CORRUPTION AND MEANNESS AND THE COMMERCIALIZATION OF HUMAN RELATIONSHIPS, MEN AND WOMEN CAPABLE OF CONTROLLING THEIR OWN DESTINIES.

Edward Harrington, *Fragments of the Century*, 1973

Harrington spoke directly to American business, asking for the creation of a truly “good” society. He was a writer of books, a lecturer, and the co-chairman of the largest socialist organization in America, the Democratic Socialists. Harrington advocated working with the Democratic Party to achieve liberal economic and business reform. He felt gradual, liberal reform would bring about social justice in a capitalist economy, which he feared would become susceptible to revolutionary overthrow if economic justice for all was not a part of the American way. As a principled anti-Communist, Harrington sought to help create ongoing reform in the existing system that would lead to full employment, the abolition of poverty, and a national health care system.

A scholar, a man of religious principle, a political and economic socialist, Harrington helped forward the principles of progressivism and equality in the twentieth century. He was an idealist who fought throughout his life for social justice in America, who fought for socialist reforms, but who, in the end, died of cancer in 1989 in the midst of a conservative turn in American politics.

See also: Great Depression, Socialism

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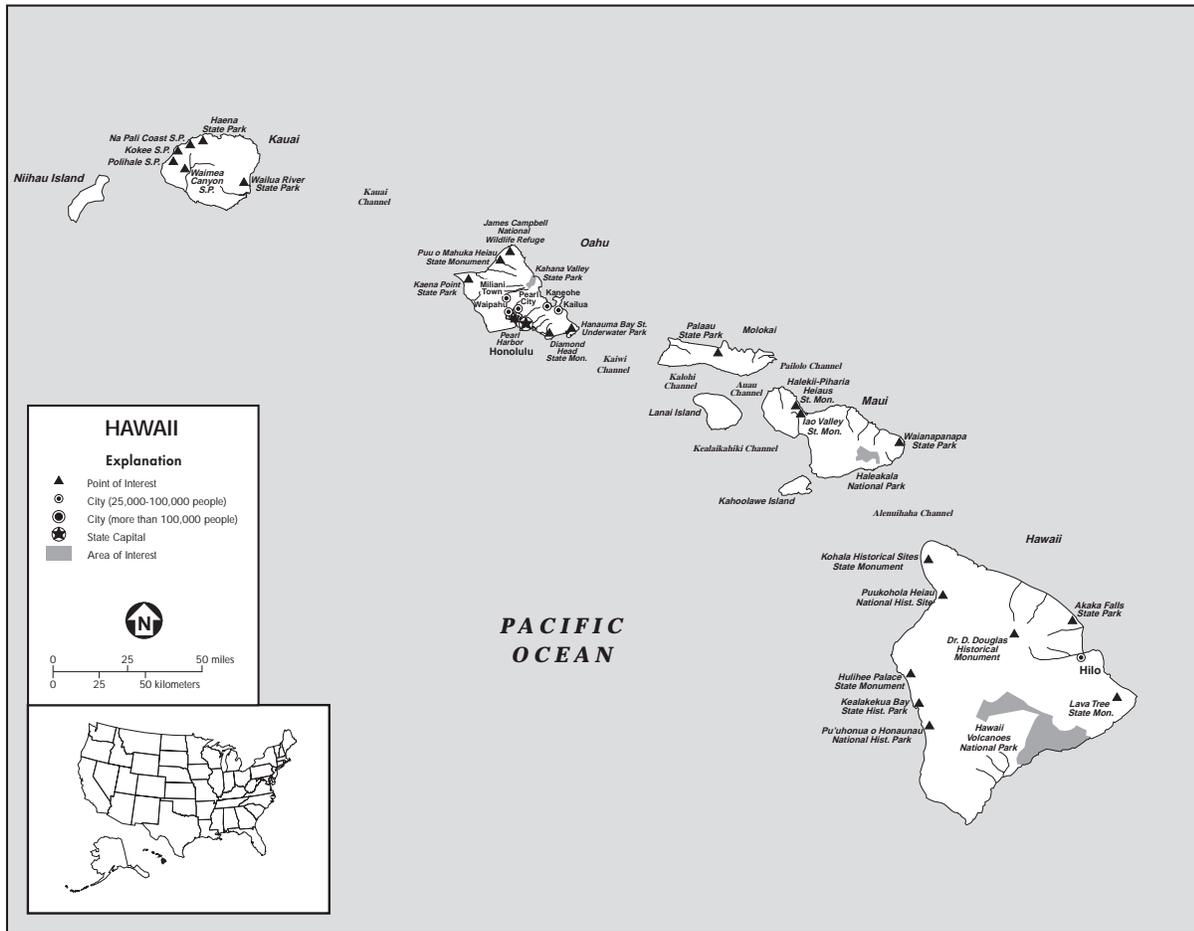
HAWAII

Hawaii’s rich history, tropical climate, and beautiful scenery have made tourism the leading source of revenue in the state. While agricultural products and military bases also contribute to the growth of Hawaii’s economic base, visitors to the islands spend millions annually to enjoy the Hawaiian culture and climate.

Of the 132 Hawaiian Islands located in the northern Pacific Ocean, the eight largest are Hawaii, Maui, Oahu, Kauai, Molokai, Lanai, Niihau, and Kahoolawe. All the islands were formed by volcanic eruptions. Mauna Loa on the island of Hawaii is the largest active volcano in the world. Because of volcanic eruptions, Hawaii’s terrain and vegetation have changed over the years. There are only a few species of trees left that are native to the environment. Most of the unique trees and flowers were brought to the islands from other parts of the world since the 1800s. More than half of the vegetation is considered endangered and is protected by the government.

Polynesians from Southeast Asia or the Marquesa Islands in the South Pacific were the first to arrive in the Hawaiian islands, coming by canoe between 1000 and 1400 years ago. In 1778 Captain James Cook (1728–1779), an English navigator, was the first Westerner to see the Hawaiian Islands. When he saw Oahu and the surrounding islands, he named them the Sandwich Islands, after the fourth Earl of Sandwich, John Montagu (1718–1792). The islands were ruled by chiefs under a class system called *kapu*. But the *kapu* system would eventually be destroyed as European and American influences diluted the native culture.

After Captain Cook’s landing, visitors to the islands were scarce until 1786, when ships from England, France, Russia, Spain, and the United States discovered that Hawaii was a convenient stop for water and supplies on the trade route between Asia and North America. During those first years, natives were able to sell sandalwood, Hawaii’s first marketable natural resource, to foreigners for money and goods. In the



State of Hawaii.

1820s the demand for whale oil grew. Whaling was Hawaii's major source of income until 1860, when there were fewer whales to hunt. Petroleum and coal took the place of whale oil for fuel, and England stopped whaling during the American Civil War (1861–1865). During those years, Protestant missionaries and Roman Catholics arrived on the islands to spread Christianity and help establish public schools, a newspaper, a legislature, and the first sugar plantation.

During the 1850s, Chinese laborers were brought to the islands under five-year contracts to work on Hawaiian sugarcane plantations. Some left Hawaii after their work contracts expired, but others stayed and opened successful small businesses. More laborers were needed as the sugar industry grew, so Polynesians were brought to Hawaii in 1859. In the late 1860s Japanese laborers arrived. In the 1870s German and Portuguese immigrants worked the sugar plantations.

After the Civil War, sugar became the primary source of revenue for Hawaii. As pioneers moved westward in the United States, they provided a market

for almost all the sugar produced in Hawaii. American sugar planters became powerful on the islands, exerting pressure for a trade agreement with the United States. In 1875 the United States lifted a tax on shipments of sugar to the United States. This reduced the price of sugar for Americans and solidified the market for Hawaiian-grown sugar. In return, Hawaii allowed only the United States to use its ports.

Americans enjoyed increasing power and influence in Hawaiian politics and society. In 1891, Queen Liliuokalani took the throne and made efforts to restore Hawaii to its native people. Unfortunately, visitors brought with them diseases that proved deadly to the natives, including smallpox, leprosy, cholera, and measles. In 1778 there were nearly 300,000 natives on the islands, but by the 1890s there were fewer than 60,000. And almost all the land and all the power was held and controlled by foreigners.

Two years later, a European and American led revolution overthrew Queen Liliuokalani, and a temporary government was formed, led by Sanford B.

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Dole. The new leaders immediately asked for annexation by the United States, but were denied by President Grover Cleveland (1885–1889, 1893–1897), an opponent of U.S. expansion. Hawaii's government then drafted its own constitution on July 4, 1894, and proclaimed the Republic of Hawaii, with Dole as president. On August 12, 1898, Hawaii was recognized as an independent territory, and Dole became Hawaii's first governor in June 1900. A few sugar plantation owners made huge fortunes during the territorial years and became the most influential powers in Hawaiian politics, society, and business circles.

In the early 1900s the pineapple industry was started by James D. Dole, Sanford Dole's cousin. The pineapple business generated revenue second only to the sugar crop. New groups of immigrants came from Puerto Rico, Korea, and the Philippines to work the plantations. During this time, the United States expanded its military presence in Hawaii. Fort Shafter was the first built and, in 1908, a naval base was built on Pearl Harbor; others soon followed. By 1990, military bases would cover 25 percent of the land.

Hawaii became more accessible to the rest of the world as communication and transportation further developed during the 1920s and 1930s. Radio stations and telephone systems were brought to the islands and airplanes could transport people and goods. Hawaii became a convenient stop between continents for air travel as well. Like on the mainland, the Great Depression (1929–1939) put many people out of work in Hawaii. People stopped buying pineapples and travelers stopped vacationing in Hawaii, which significantly affected Hawaii's economy.

In the midst of World War II (1939–1945), on December 7, 1941, the Japanese attacked the Hawaiian port of Pearl Harbor. The United States' Pacific fleet was severely damaged, and Hawaii was placed under martial law due to distrust of Hawaiians of Japanese descent. Thousands of citizens who were of Japanese heritage living in western states such as California and Oregon were rounded up and sent to internment camps. In Hawaii, however, where 40 percent of the population was Japanese, the decision was made not to relocate the Japanese because they were integral to Hawaii's economy. Servicemen stationed in Hawaii doubled the territory's population in four years as Hawaii became the central location of the Pacific war operations.

After World War II (1939–1945) efforts resumed to secure statehood for Hawaii. President Dwight D.

Eisenhower (1953–1961) signed the bill to let Hawaii enter the Union on March 18, 1959, and Hawaii became the fiftieth state on August 21, 1959. After the war, Hawaii's tourism industry grew as additional airports, built during the war, allowed for more air traffic. Airfare was less expensive than ocean-liner fare, and enabled more people to travel. As the number of visitors grew, so, too, did the construction business as hotels and shopping centers were built.

By the 1980s, the service industry employed 80 percent of the state's workers. In 1990 tourism was the largest industry in Hawaii, with more than 100,000 visitors to the islands daily, and revenues of more than \$4 billion annually. Government was the second-largest industry in Hawaii, with more than 65,000 Department of Defense employees. Of the manufactured goods that make up about 5 percent of Hawaii's gross state income, sugar production is still most important, with pineapple production second. Additional products manufactured in Hawaii are macadamia nuts, clothing, and stone, clay, and glass products.

The population of Hawaii continued to grow rapidly after it achieved statehood, primarily through migration from Asia and the U.S. mainland. Since the early 1970s, about 40,000 people have moved to Hawaii from the U.S. mainland each year. Nearly half, however, were military personnel stationed there temporarily while in the service. Between 1980 and 1990 the population of Hawaii increased 15 percent, and according to the 1990 U.S. census, nearly four-fifths of the population lived on Oahu in the metropolitan Honolulu area. Honolulu is the state capital.

While the number of inhabitants increased, annual personal income grew at a much lower rate than the national average, although the cost of living in Hawaii is much higher than on the United States mainland. Between 1995 and 1996, Hawaii saw only a 1.7 percent income increase, compared to the national average of 4.5 percent. The average personal income in Hawaii was listed as \$25,159. Hawaii's personal income tax rate is one of the highest in the nation, ranging between two and ten percent. In 1995, 10.3 percent of Hawaii's residents were living below the federal poverty level.

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HAY, JOHN MILTON

John Milton Hay (1838–1905) was born on October 8, 1838, in Salem, Indiana, and raised on a small town on the Mississippi River. He graduated from Brown University and decided to enter law. In 1858 Hay was studying law at his uncle's law firm in Springfield, Illinois, when he made friends with an interesting neighbor, Abraham Lincoln (1809–1865). Already a Republican, Hay became an assistant private secretary to Lincoln and followed the president-elect to Washington, DC. Hay served with Lincoln until the president's assassination in 1865.

Hay was then appointed secretary to the legation in Paris in March 1865; he moved on to Vienna in 1867, then finishing this tour of duty from 1868 to 1870 in Madrid. Returning to the United States in 1870, Hay took a position on the editorial board of the *New York Tribune*. In 1871 he published a book of poems, *Pike County Ballads and Other Pieces*. Soon afterward he published a travel book based upon his days in Spain, *Castilian Days*. In 1875 Hays moved to Cleveland, Ohio, until President Rutherford B. Hayes (1877–1881) appointed him Assistant Secretary of State, an office he held from 1879 to 1881. In 1881 Hay returned to the *New York Tribune* as editor. For the next 15 years he worked at the *Tribune* while concurrently traveling and writing.

John Hay anonymously published an anti-labor novel, *Bread-Winners* in 1884, and his most famous published work, *Abraham Lincoln: A History*, in 1890. Written in collaboration with John G. Nicolay (1832–1901), the ten volume *Abraham Lincoln* was the standard biography on the famous president for many decades. Hay continued to write, but his career took another turn to public service in 1897 when President William McKinley (1897–1901) appointed Hay as U.S. ambassador to Great Britain.

Hay arrived at the Court of St. James sharing expansionist views that were held by another important politician, Theodore Roosevelt (1858–1919). Like Roosevelt, Hay supported the American entry into the

Spanish-American War in 1898. After initially believing the Philippines should not be completely annexed by the United States, he shifted his position to support the full annexation of the islands as a means of balancing the political power in Asia with that of Japan and Russia.

President McKinley appointed John Hay to serve as Secretary of State in 1898, a position Hay maintained when McKinley was assassinated and Theodore Roosevelt became president (1901–1909). He held this position until his death. Hay presided over two extremely important episodes in the history of the United States: the Open Door policy with China and the Panama Canal Treaty. In 1899 and 1900, Hay issued two "open door" notes that called for all foreign powers to respect the territorial rights of China. His goal was to encourage free trade in China without that country being partitioned by European or other powers. The Boxer Rebellion of 1900 presented just such an opportunity to these powers, but Hay's influence was able to keep China open.

Hay was also a firm advocate of a canal that would connect the Atlantic and Pacific Oceans. There were several plans afoot at the time for an inter-oceanic canal in either the Isthmus of Panama or in Nicaragua. Hay negotiated a treaty with Columbia in January 1903 to pay \$10 million and an annual rental of \$250,000 for a ninety-nine year lease on property in Panama. Columbia initially rejected the offer, but in November 1903 Panama, assisted by machinations by Roosevelt and Hay, successfully rose up against Columbia and established itself as a sovereign nation. Hay then signed a treaty with the new Panamanian minister similar to the one made with Columbia.

John Hay was an excellent writer and a cultured man. He preferred the more erudite social scene of the East to the midwestern frontiers of his youth. In 1904 he fell ill, and he died in Newbury, New Hampshire, on July 1, 1905.

See also: Open Door Policy, Panama Canal Treaty

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HAYMARKET BOMBING

As industrialization escalated following the American Civil War (1861–1865) many corporations gained substantial power. Working conditions in many factories became increasingly dismal, leading workers to organize into unions seeking better conditions and higher pay. While the United States wrestled with the slavery issue, socialism influenced by the writings of Karl Marx (1818–1883) and others gained strength in Europe. Immigrants to the United States from Europe brought these political and economic ideals with them, leading to the creation of socialist labor organizations such as the National Labor Union in 1866. Though short-lived, the union gained eight-hour workdays for federal workers and established a tie between socialism and labor in the United States.

The first national influential labor union in the United States was the Knights of Labor, established in 1869 in Philadelphia. Before long the Knights grew into a large diverse membership including skilled and unskilled workers, African Americans, immigrants, and women. Given this diversity of membership, disagreements over labor tactics deepened, especially with respect to the use of strikes. The union leadership preached nonviolence and gradual reform through education. However in the 1870s unrest escalated, highlighted by violent clashes between hostile police and some of the more militant union members. Labor achieved some successes through strikes against railroads, which substantially increased the Knights' membership to 700,000 by 1886. As with other labor organizations key issues for the Knights included eight-hour work days and government restriction of the growing number of powerful business trusts or monopolies. But the organization's effectiveness declined as the Knights' size reached beyond the number that could be effectively controlled.

By the 1880s labor unions were not well respected by the general public and were feared by management. To gain a more effective voice, skilled workers in various occupations organized into the American Federation of Labor (AFL), which was founded in 1886.

Through the mid-1870s both union and radical activity, and the level of rhetorical and physical violence on all sides, rose sharply in response to layoffs and wage reductions. Labor advocates and agitators . . . predicted class uprisings against "arrogant capitalism," while the major dailies, influential periodicals, and business and political leaders became more shrill in throwing immigrants, tramps, union organizers, and communism together as enemies of public order whose activities must be answered with force.

Carl S. Smith, *Urban Disorder and the Shape of Belief: The Great Chicago Fire, the Haymarket Bomb, and the Model Town of Pullman*, 1995

The organization, adopting a conservative policy seeking gradual improvements, pursued issues including shorter hours, improved wages, and safer working conditions. Unskilled laborers had no strong unions representing their interests. Discontent and the struggle for recognition led to radical actions by some labor organizers as thousands of workers were periodically involved in localized strikes across the country.

In 1886 a broad labor movement brought the campaign for eight-hour workdays to the forefront. In Chicago labor leaders and militant anarchists called a strike against the McCormick Harvesting Machine Company. The company hired strikebreakers to replace striking workers. On May 3 Chicago police were brought in to protect the strikebreakers from the strikers. With tensions high, four strikers were killed in the violence that erupted. In reaction to the killings, radicals and union leaders called for a rally the following day at nearby Haymarket Square. The gathering remained peaceful during the speeches, but when police moved in to break up the rally, an unidentified person tossed a dynamite bomb into the crowd, which killed seven policemen and injured 60 others. In the mayhem that ensued police fired their pistols into the crowd—ten people were killed and approximately 50 wounded.

Numerous arrests followed as police targeted hundreds of known radicals. Eight anarchist labor leaders, including August Spies and Albert Parsons, were indicted for the death of one of the policemen killed at the Square. Seven of the eight were foreign born. Their trial began on June 21, 1886. They were found guilty of conspiracy against police authorities despite the fact that authorities never identified the actual bomber or their connection to the unknown person. Seven of the



On May 4, 1886 a rally was called to protest the police actions revolving around the striking McCormick Harvesting Machine Co.

eight were sentenced to death and the eighth to fifteen years in prison. In September 1887, the Illinois Supreme Court upheld their convictions on appeal; two months later authorities hanged Spies, Parsons, and two others. Another committed suicide shortly before his execution date. In 1893 the Illinois governor pardoned the three surviving convicted union members on grounds of insufficient evidence—a decision that was applauded by members of organized labor.

The Haymarket bombing incident increased anti-union sentiments in the United States. Radical elements lost power as more conservative labor strategies were adopted. Much of the blame for the violent incident was inappropriately directed toward the Knights of Labor, which led thousands of workers to resign. Public disdain for unions was compounded in the 1890s by government application of the Sherman Anti-trust Act toward union activities allegedly inhibiting business competition rather than at endemic business consolidations. When the socialists attempted to establish various company unions and the Socialist Labor political party, they met stiff resistance and were largely unsuccessful.

See also: Knights of Labor, Cyrus McCormick, Sherman Anti-Trust Act, American Federation of Labor

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HEALTH MAINTENANCE ORGANIZATIONS (HMOs)

Health Maintenance Organizations (HMOs) in the United States have their roots in the first decades of the twentieth century. In the early 1900s millions of Americans belonged to fraternal orders and mutual benefit

Health Maintenance Organizations (HMOs)

societies which provided prepaid medical care to their members. Many large companies, particularly those where injuries were commonplace such as railroads, created medical departments to care for their workers.

One of the first true HMOs was established by an agreement between the employees of the Los Angeles Department of Water and Power and practice of two doctors, Donald Ross and H. Clifford Loos. This agreement exhibited the basic traits that came to distinguish HMOs. The employees paid the doctors set fees, regardless of the state of their health. In return for these payments, the doctors provided whatever medical care was necessary for the employees or their families. This was as compared to traditional fee-for-service health care, in which a patient pays no money to a doctor unless he goes in to visit, but then has to pay that doctor for the cost of their particular treatment. In essence, the employees who joined the Ross-Loos plan were agreeing to pay smaller fees for health care that they might never need, rather than risk needing to pay a large fee, a fee which conventional health insurance might not cover entirely, if they became seriously ill. In return, Ross and Loos received a solid base of patients and a steady income.

In 1938, Henry J. Kaiser (1882–1967) established an HMO for workers at his shipyard. This plan, originally known simply as Dr. Garfield and Associates, was opened to the general public after World War II (1939–1945). Renamed Kaiser Permanente in 1955, it became the first large, national HMO. At this time, there was a widespread feeling among both doctors and the general public that arrangements such as Ross-Loos and Kaiser Permanente led to inferior care, and fee-for-service care and traditional health insurance continued to dominate the U.S. health care system.

All of this began to change in the 1970s. By this time, the cost of health care had risen to the point that it was becoming difficult for some to afford. It was also placing a strain on the federal government's new Medicare and Medicaid programs. Many began touting systems such as Ross-Loos and Kaiser Permanente as a way to control medical costs and ensure that Americans received adequate care. It was at this time that the term HMO came into use to describe such managed care systems. In 1973 Congress passed the Health Maintenance Organization Act, which removed many legal barriers to the development of HMOs, leading to the formation of more than 200 HMOs by the end of the decade.

HMOs remained a minor part of the U.S. health care system at the beginning of the 1980s. Only four percent of the U.S. population belonged to an HMO,

approximately half of which were in Kaiser Permanente. As the cost of health care in the United States, already the highest in the world, continued to rise during the decade, Americans began joining HMOs in large numbers. By 1995 three-quarters of all doctors were providing service as part of a managed care plan, and nearly three-quarters of all working Americans were members of such a plan.

As HMOs rose to dominate the U.S. health care system, attention turned from their supposed benefits to their perceived flaws. HMOs gave patients little choice over which doctors they could see, a fact that made many uncomfortable. New types of managed care, known as Preferred Provider Organizations (PPOs) and Point of Service (POS) plans became increasingly popular as systems which provided many of the cost-reducing benefits of HMOs while leaving members with some options as to what doctors to see.

Yet other problems, however, remained. HMOs and other forms of managed care generally had guidelines and standards of treatment that they expected participating physicians to follow. Some patients feared, and some doctors complained, that these guidelines were more concerned with keeping HMO costs low than with ensuring patients received the best possible treatment. And while HMOs were undoubtedly less expensive for many Americans than more traditional types of insurance, they remained too expensive for most to join except as part of a plan sponsored by their employer. Smaller businesses, their employees, and the self-employed remained largely unable to join HMOs.

See also: Henry J, Kaiser, Medicare, Medicaid

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HEARST, WILLIAM RANDOLPH

“Yellow journalism” was a phrase coined in the early twentieth century to describe a type of journalism that was principally developed by William Randolph Hearst (1863–1951). The term described a newspaper that focused on sensationalism to sell papers, including frenzied reporting of sports, crime, sex, and scandal. Writer Arthur James Pegler said, “A Hearst Newspaper is like a screaming woman running down the street with her throat cut.” But this legacy does not begin to describe the complex and talented William Randolph Hearst.

George Hearst made a fortune in the California gold rush, bought huge tracts of land, and became a U.S. Senator. His wife Phoebe Apperson Hearst gave birth to their son, William Randolph Hearst, on April 29, 1863, in San Francisco. A schoolteacher, Hearst’s mother ensured her son received the best education his father’s wealth could buy. Young Hearst went to private schools, had private tutors, and was given tours of Europe. Eventually, Hearst entered Harvard University, but he was expelled from the school for misconduct after only two years.

While at Harvard, Hearst was the student editor of the *Lampoon*, spent time at the *Boston Globe*, and afterward served as a cub reporter for Joseph Pulitzer (1841–1911) at the *New York World*. Hearst’s father had purchased the financially ailing *San Francisco Examiner* in 1880. In 1887 the younger Hearst asked his father for ownership of the paper, and it was given to him. This newspaper was William Randolph Hearst’s start as a newspaper mogul. At the *Examiner*, Hearst began his run at faking news and using sensationalism to sell papers. He paid top wages, attracted the best journalism talent, and sold newspapers.

Moving his base of operations to New York City in 1895, Hearst took a \$7.5 million gift from his mother (taken from his father’s estate) and purchased the failing *New York Morning Journal*. Within a year, Hearst’s style of shock news ran the circulation from 77,000 to over one million. In New York he continued his penchant for paying top dollar for talent. Hearst supported the Democratic Party with his newspapers, although he had little in common with either his newspaper’s readers or the party’s candidates and workers. Hearst opposed Democratic candidate William Jennings Bryan (1860–1925) in the presidential campaign of 1896, and backed the Spanish-American War in 1898. During that war, Hearst spent a half million dollars covering the news of military actions.



William Randolph Hearst.

In 1900 Hearst established the *Chicago American* and, in 1902, the *Chicago Examiner*. He added the *Boston American* and *Los Angeles Examiner* in 1904. His media empire was expanding rapidly, but by this time the acquisition of newspapers was more than a business ploy. It was an attempt to control the news to further Hearst’s rising political ambitions. William Randolph Hearst wanted to be president of the United States. Hearst won election to the U.S. House of Representatives in 1902 and 1904 as a Tammany Democrat, but he was not a good congressman. Chronic absenteeism from Congress, which he found necessary to run his newspaper business and campaign for president, cost him his political support. He ran for mayor of New York in 1905 and for governor of New York in 1906 but lost both races. These losses finished him as a candidate in politics. Hearst then went on to use his newspapers and wealth to influence political decisions as best he could behind the scenes.

Hearst married Millicent Willson in 1903. He was 40; she was 21 years old. They had five boys, several of whom followed their father into journalism. But in 1917 Hearst followed his father’s lead of unfaithfulness and took a young mistress, 20-year-old actress Marion Davies. Hearst continued his relationship with Davies until his death, and settled her in the castle he built on his father’s land at San Simeon, California.

H.J. Heinz Company

The \$37 million castle, which he stocked with many pieces of his \$50 million art collection, was an ostentatious display of wealth, even for the flamboyant newspaper publisher. Hearst used the castle for opulent parties, wining and dining the rich, famous, and powerful. (After his death, the Hearst family gave the castle to the State of California, who operates it as a public park, providing guided tours of the castle and its mostly intact art collection.)

At the height of his career in 1935, Hearst owned 26 daily and 11 Sunday newspapers in 19 cities, with nearly 14 percent of the total U.S. daily circulation. He owned the King Features syndication service and the International News Service. He owned a Sunday supplement, the *American Weekly*, and International News Reel. He owned six magazines, including *Cosmopolitan*, *Harper's Bazaar*, and *Good Housekeeping*. He had lesser holdings in radio stations, and had spent millions in Hollywood, much of it to promote the career of Davies. Hearst possessed over \$50 million in New York real estate, the castle at San Simeon, and homes in several locations. His art collection was the largest ever assembled by a single individual.

Hearst turned more conservative in his older years. He fought with progressive Democrats, though he had little to do with Republicans either. He fought against an emerging writers' union, the American Newspaper Guild and opposed U.S. involvement abroad until the Japanese attack on Pearl Harbor, Hawaii, in 1941, changed his mind. Hearst was strongly anticommunist.

Scandal, including a famous 1927 incident where Hearst newspapers printed, unchecked or unverified forged documents alleging Mexican government bribery of U.S. Senators, made no dent in Hearst's empire. But the Great Depression (1929–1939) did have an enormous impact on the Hearst holdings. By 1937 Hearst's two corporations were \$126 million in debt. He had to relinquish control of his empire in order to save it, and he lost much of his personal fortune in the process. He died on August 14, 1951, with his newspaper holdings down to just eight papers. Breaking with their father, his five sons, who continued in the newspaper business, worked to give the remaining papers credibility and shed the yellow journalism label. The Hearst Foundation continues to provide scholarships to journalism students.

See also: James Gordon Bennett, Muckrakers, Joseph Pulitzer

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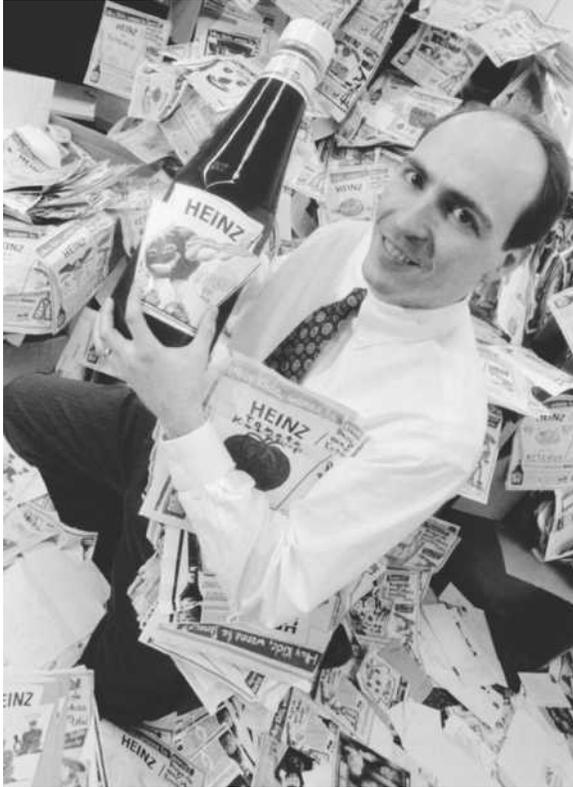
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H.J. HEINZ COMPANY

The Heinz ketchup bottle and the company slogan, "57 Varieties," are familiar to any American who eats in a restaurant or shops for food. The H.J. Heinz Company today manufactures thousands of food products in plants across the world and remains one of the world's leading food companies. Some of the best-known Heinz brands—such as Skippy peanut butter, StarKist tuna, and Ore-Ida Tater Tots—do not carry the Heinz name. Heinz's divisions include food service, infant foods, ketchup and condiments, pet foods, tuna, and weight-control products.

The company's founder, Henry John Heinz, grew up not far from Pittsburgh, Pennsylvania. After working as a bookkeeper in his father's brickyard he and a partner, L.C. Noble, began to sell bottled horseradish, sauerkraut, vinegar, and pickles, naming their business Heinz, Noble & Company. This enterprise ultimately failed after the Panic of 1873, but Heinz and some of his relatives later organized a new business, which became known as the H.J. Heinz Company in 1888. The Pittsburgh business prospered and the nation came to know Heinz as the famed "pickle king." He also produced jams, jellies, and condiments, always packed in clean conditions and made from the freshest ingredients.

Heinz promoted his products skillfully and with great zeal. Noting that the American diet at this time was quite bland, he coined the "57 Varieties" slogan to spark an interest in changing people's eating habits. The slogan logo appeared everywhere—in newspapers and magazines and on streetcars, billboards, and even large concrete figures along highways. At the 1893 World's Fair in Chicago he introduced "pickle pins," a fad which soon swept the country. In 1900 he put up the first electric advertising sign, representing a 40-foot pickle, in New York City. A religious man, Heinz



An executive of the H. J. Heinz Company, presents a bottle of their ketchup with one of the estimated 60,000 entries in a 1997 product label design contest.

never allowed such advertisements to appear on Sundays. His plants were known for their humane treatment of workers and there was never a strike against the company while Heinz was president.

By 1905 Heinz had opened a factory in Great Britain, beginning what would become a global operation. In 1906, unlike many other American food manufacturers, he supported the Pure Food and Drug Act, which regulated the production of processed foods to make them safer to eat. By the time of Heinz's death in 1919, the H.J. Heinz Company employed 6,500 people and ran 25 branch factories. He was succeeded by his son, Howard, who remained president until his death in 1941. Heinz continued to produce its traditional condiment lines, though in 1931 it added a baby food division, which, along with canned soups, helped keep the company afloat during the Great Depression (1929–1939). By 1937 the company's business had doubled.

H.J. Heinz II, known as Jack, took over as president after his father's death, leading the company in once again doubling its sales over the next five years. Jack Heinz was active in food relief efforts during World War II (1939–1945); during this time, many more women took jobs in Heinz plants as men went to

war. Sales abroad increased substantially in the 1940s, ketchup and baked beans were particularly popular in England. Heinz went public after the war and continued to expand during the 1950s and 1960s, opening plants in the Netherlands, Venezuela, Japan, Italy, and Portugal. It also bought Reyumer & Bros., Inc., Hachmeister, Inc., StarKist Foods, and Ore-Ida Foods. Throughout the latter half of the twentieth century, Heinz weathered many changes in the food industry, as distributing and marketing systems adapted themselves to the new supermarket chains.

R. Burt Gookin succeeded Jack Heinz as CEO, and J.F. O'Reilly, president of the company's British subsidiary, took over as president of the parent company in 1973. He changed the company's emphasis by cutting back on traditional business while introducing new products. During O'Reilly's tenure Heinz acquired Weight Watchers International and several other companies, and ceased trying to compete in the soup market with the Campbell Soup Company. O'Reilly, who became CEO in 1979, also instituted a cost-cutting policy, downsizing some product packages and pressuring plants to be more productive. Although the Justice Department prohibited Heinz's bid to purchase Bumble Bee Seafoods in 1988, the company reorganized StarKist Foods and Heinz Pet Products in an effort to increase sales abroad.

Heinz began to expand into Third World countries and also reached into China, Korea, and Thailand. These new strategies succeeded, doubling Heinz's sales from \$2.9 billion in 1980 to \$6.1 billion in 1990. During these years Heinz was investing almost as much overseas as in the domestic economy. It controlled 29 percent of the worldwide infant food market, challenged only by the U.S. leader, Gerber Foods. Heinz also had begun investing in the Asia-Pacific market with the acquisition of Wattie's Limited in New Zealand. A recession in the early 1990s, however, combined with increased competition caused a slowdown which decreased the company's stock value. A number of divestments, staff reductions, and decreases in advertising outlays helped to minimize the losses in the domestic market.

Despite continuing market challenges O'Reilly insisted that Heinz would prosper if it remembered its dedication to niche markets—condiments, tuna, frozen potatoes, and weight-control products—and to what he called "constant rebirth." The company acquired the pet food division of Quaker Oats Company in 1995 and increased its market share of the tuna business to 46 percent by 1997. O'Reilly instituted a major restructuring plan called Project Millennia, which would eliminate 25 plants, cut 2,500 jobs (6 percent of the total

Helms-Burton Act

workforce of 43,000), and take a charge against earnings of \$650 million. O'Reilly said that the move would make Heinz, along with Campbell Soup Company and Sara Lee Corporation, one of the three most important food companies in the world. Indeed, the company came close to its 1997 goal of \$9.5 billion in sales, pulling in actual sales of \$9.3 billion. Although O'Reilly was criticized by some industry observers for raising product prices and reducing advertising support for some of the Heinz brands, he had helped the company to grow from \$1 billion in net worth in 1979 to nearly \$20 billion in 1998.

In 1997 Heinz divested itself of the Ore-Ida food service operations business and scaled down its Weight Watchers division. Under the leadership of William Johnson, the company president who succeeded O'Reilly as chairman, Heinz considerably enhanced its advertising and marketing efforts. After a drop in 1998 sales, in February 1999 the company announced another cost-cutting plan that would eliminate 4,000 jobs and close an additional 20 factories.

See also: **Campbell Soup Co.**

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HELMS-BURTON ACT

Despite vigorous opposition from the main trading partners of the United States, including the European Union and Canada, the Helms-Burton Act was signed into law by Congress on March 12, 1996. The law

extended sanctions to all non-U.S. companies that did any business with Cuba, and allowed U.S. citizens (including naturalized Cuban exiles) to sue foreign companies for dealing in confiscated U.S. property in Cuba. The Helms-Burton Act (also known as the Cuban Liberty and Democratic Solidarity Act) was perhaps the most assertive move of the United States during the 1990s designed to further isolate Cuba, to strengthen the trade embargo against it, and to extend U.S. legislation to punish foreign companies investing simultaneously in the United States and Cuba.

Cuba, the island-Socialist republic, located 90 miles south of the tip of Florida, had made efforts in 1975 to soften its relations with the United States, but these efforts ceased in 1996, following an incident in February of that year in which two aircraft, piloted by Cuban exiles living in Miami, Florida, were shot down in the Caribbean Sea off the northern coast of Cuba, killing four men. The United States maintained that the planes had been shot down over international waters and reacted strongly to the incident. The reaction included the creation of the Helms-Burton Act of 1996, named after the bill's co-authors, Senators Jesse Helms of North Carolina, and Dan Burton of Indiana.

See also: **Embargo**

HEPBURN ACT

Passed by the United States Congress in June 1906, the Hepburn Act gave the Interstate Commerce Commission (ICC), established in 1887, the authority to compel railroads to abide by the regulatory agency's standards and rulings. Rail companies that chose to challenge the ICC in court continued to be subject to all ICC regulations while the legal proceedings were going forward; in other words, the fact that a trial was underway did not exempt any rail company from abiding by all ICC rules. The Hepburn Act gave the ICC the right to fix rail rates, investigate rail trusts, and expanded the agency's purview to include interstate transportation terminals, bridges, rail sleeping cars, express companies, and ferry services. The bill, also called the Railway Rate Regulation Act, was sponsored by representative William Peters Hepburn (1833–1916) of Iowa. The legislation was one of several congressional acts to broaden the jurisdiction and increased the power of the Interstate Commerce Commission, which originally gave the agency control over interstate rail rates and practices.

See also: **Interstate Commerce, Interstate Commerce Commission, Railroad Industry**

HERSHEY FOODS CORPORATION

Milton S. Hershey, the founder of Hershey Foods Corporation, was born in 1857 in central Pennsylvania. As a young boy Hershey was apprenticed to a Lancaster, Pennsylvania, candy-maker for four years. When he finished this apprenticeship in 1876, at age 19, Hershey went to Philadelphia to open his own candy shop. After six years, however, the shop failed, and Hershey moved to Denver, Colorado. There he went to work for a caramel manufacturer, where he discovered that caramel made with fresh milk was a decided improvement on the standard recipe. In 1883 Hershey left Denver for Chicago, Illinois, then New Orleans, Louisiana, and New York, New York, until in 1886 he finally returned to Lancaster. There he established the Lancaster Caramel Company to produce "Hershey's Crystal A" caramels that would "melt in your mouth." Hershey had a successful business at last.

In 1893 Hershey went to the Chicago International Exposition, where he was fascinated by some German chocolate-making machinery on display. He soon installed the chocolate equipment in Lancaster and in 1895 began to sell chocolate-covered caramels and other chocolate novelties. At that time Hershey also began to develop the chocolate bars and other cocoa products that were to make him famous.

In 1900 Hershey decided to concentrate on chocolate, which he felt sure would become a big business. That year he sold his caramel company for \$1 million, retaining the chocolate equipment and the rights to manufacture the chocolate products he had developed. He decided to locate his new company in Derry Church, the central Pennsylvania village where he was born, and where he would have a plentiful milk supply. In 1903 Hershey broke ground for the Hershey chocolate factory, which today is still the largest chocolate-manufacturing plant in the world.

Before this factory was completed in 1905 Hershey produced a variety of fancy chocolates. But with the new factory he decided to mass-produce a limited number of products, which he would sell at a low price. The famous Hershey's Milk Chocolate Bar was born, the first mass-produced chocolate product in the United States.

In 1906 the village of Derry Church was renamed Hershey. The town was not simply named after the man or the company: it was Milton Hershey's creation, the beneficiary of and heir to his energy and his fortune. At the same time he planned his factory, Hershey began planning a whole community that would



These are some of the miniature products manufactured by Hershey Corp.

fulfill all the needs of its inhabitants. A bank, school, recreational park, churches, trolley system, and even a zoo soon followed, and the town was firmly established by its tenth anniversary. One of Hershey's most enduring contributions was the Hershey Industrial School for orphans, which he established in 1909 with his wife Catherine. After Catherine's death in 1915 the childless Hershey gave the school Hershey stock, valued at about \$60 million. Today the school, which became the Milton Hershey School in 1951, still owns 31 percent of Hershey Foods Corporation's stock and controls 76 percent of the company's voting stock.

In 1907 Hershey's Kisses were first produced, and the next year the Hershey Chocolate Company was formally chartered. In 1911 it had sales of \$5 million, more than eight times what it had earned 10 years earlier. The Hershey company continued to prosper, producing its milk chocolate bars (with and without almonds), Kisses, cocoa, and baking chocolate. In 1921 sales reached \$20 million, and in 1925 Hershey introduced the Mr. Goodbar Chocolate Bar, a chocolate bar with peanuts. In 1927 the company listed its stock on the New York Stock Exchange.

By 1931, 30 years after the company was established, Hershey was selling \$30 million worth of chocolate a year. As the Great Depression (1929–1939) cast its shadow on the town of Hershey, Milton Hershey initiated a "grand building campaign" in the

1930s to provide employment in the area. Between 1933 and 1940 Hershey's projects included a 150-room resort hotel, a museum, a cultural center, a sports arena (where the Ice Capades was founded), a stadium, an exotic rose garden, and a modern, windowless, air-conditioned factory and office building. Hershey liked to boast that no one was laid off from the company during the Great Depression.

Though Hershey's intentions seem to have been wholly sincere there was always some suspicion about his "company town." Labor strife came to the company in 1937, when it suffered its first strike. Though bitter, the strike was soon settled, and by 1940 the chocolate plant was unionized.

In 1938 another famous chocolate product was introduced, the Krackel Chocolate Bar, a chocolate bar with crisped rice. The next year Hershey's Miniatures were introduced, bite-sized chocolate bars in several varieties.

During World War II (1939–1945), Hershey helped by creating the Field Ration D for soldiers, to sustain them when no other food was available—a four-ounce bar that provided 600 calories and would not melt easily. The chocolate factory was turned over to the war effort and produced 500,000 bars a day. Hershey received the Army-Navy E award from the quartermaster general at the end of the war. Hershey died soon after, on October 13, 1945.

After Milton Hershey's death, the chocolate company continued to prosper and maintain its strong position in the chocolate market. By the 1960s Hershey was recognized as the number one chocolate producer in the United States. In the middle of that decade the company began expanding beyond candy for the first time, acquiring two pasta manufacturers, San Giorgio Macaroni and Delmonico Foods Inc., in 1966. The company changed its name to Hershey Foods Corporation in 1968. An end of an era was marked in 1969 when the company raised the price of Hershey's candy bars to 10 cents. The bars had been priced at five cents for the past 48 years. Another key change came in 1970, when Hershey launched its first-ever national advertising campaign, having previously relied mainly on word of mouth advertising.

In 1977 Hershey bought Y&S Candies, Inc., the nation's leading manufacturer of licorice. Hershey acquired Peter Paul/Cadbury in 1988, thereby gaining such brands as Peter Paul Mounds, Almond Joy Candy Bars and York Peppermint Patties. Through the 1996 purchase of the North American operations of Leaf, Inc., Hershey gained the Good and Plenty and Jolly Rancher brands. By 1999 the company decided to

concentrate solely on chocolate and candies, and it sold its pasta business that year. At the end of the twentieth century Hershey Foods was the number one candy manufacturer in the United States.

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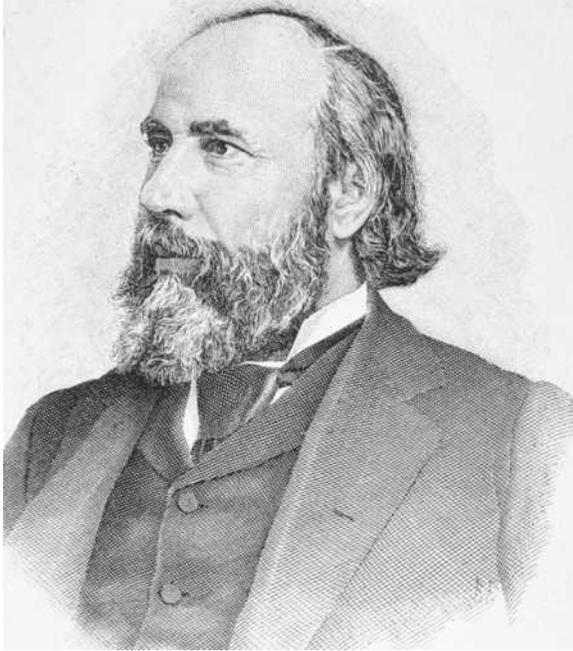
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HILL, JAMES JEROME

James J. Hill (1838–1916) rose above a childhood of poverty in Canada to become one of the great U.S. empire builders and one of the wealthiest men of the nineteenth century. Hill founded the Great Northern Railroad, which by 1893 connected St. Paul, Minnesota, to Washington's Puget Sound. Hill also acquired a reputation as a "robber baron," and the Supreme Court ruled in 1904 that his railroad system was an illegal monopoly.

Hill was born in 1838 and grew up in Ontario, Canada. His father, who had secured only occasional employment as a farmer, died when the boy was only 14. While his mother kept an inn, young Hill worked as an assistant to a grocer and studied with the Rev. William Wetherald, a schoolmaster who taught him algebra, geometry, literature, and grammar.

In 1856 Hill moved to St. Paul, Minnesota, and began work as a clerk for a firm of shipping agents who served a fleet of Mississippi steamboats. In addition to keeping the books, he handled freight and performed other manual tasks. Hill arrived in St. Paul around the same as the Old Northwest, including Minnesota and Wisconsin, was experiencing explosive growth. Over

**James Jerome Hill.**

the next several years Hill worked for a succession of shipping firms. The ambitious young man had exceptional energy and drive, and he developed a reputation for hard work and shrewd judgement.

In partnership with two associates, Hill formed the James J. Hill Company in 1866. He soon negotiated an exclusive arrangement as a forwarding agent for the St. Paul and Pacific Railroad, under which his firm would transfer produce from riverboats to the westward-oriented railroad. He built a large warehouse, and the business began to prosper. Simultaneously, Hill expanded his business to include fuel. With two other partners he formed Hill, Griggs and Co., which first concentrated on firewood but quickly shifted to coal. It was Hill's rise to the top of the local coal business that formed the cornerstone of his fortune.

By 1872 Hill, Griggs and Co. dominated the Twin Cities coal market, selling 5,000 tons of anthracite annually. Four years later, after organizing his company with its chief competitors in a market-sharing consortium, Hill left the independent coal business.

His attention began to focus on railroads. Together with three Canadian capitalists he purchased the financially troubled St. Paul and Pacific Railroad in 1878. The line was subsequently reorganized as the St. Paul, Minneapolis, and Manitoba Railway Company ("the Manitoba"). Hill became the railroad's president in 1882 and began to extend the line north to the Canadian border. After linking up with a Canadian railroad to

Winnipeg, Hill expanded the Manitoba westward, reaching Great Falls, Montana, in 1887, and Everett, Washington, in 1893. The rail system was renamed the Great Northern Railway Company in 1890.

Hill was not content to simply construct a railroad. He recruited thousands of homesteaders to settle and establish small towns in the Dakotas and Montana. To develop markets for goods to be carried on his railroad, Hill found buyers in the Far East for U.S. cotton, flour, and metals; the Great Northern also carried Pacific timber and minerals east to the Midwest and the Mississippi.

Together with financier J.P. Morgan (1837–1913) of the Northern Pacific Railway Company, Hill acquired control of the Chicago, Burlington and Quincy Railroad Company in 1901. Hill's railroads now had complete access to cotton and other commodities grown in the South, as well as to the natural and manufactured products of the Northwest, the Plains, and the Midwest. In that same year Hill formed and became president of the Northern Securities Company, a holding company that consolidated the Great Northern, the Northern Pacific and the Burlington lines. In 1902 Northern Securities was sued at the behest of President Theodore Roosevelt (1901–1909) as a violation of the federal Sherman Anti-Trust Act. The president's attack on the holding company won him popular acclaim as a "trustbuster." In 1904 the Supreme Court ordered that the company be dissolved. Nevertheless the three railroads involved remained under the control of the same group of investors.

According to biographer Michael P. Malone, Hill was "without peer, the preeminent builder of the frontier economy of the Northwest. By controlling the transportation structure of the region. . . he exercised more sweeping economic power than did any other industrialist, even the lumbermen and mining barons." James Hill died in 1916.

See also: Northern Securities Case, Railroad Industry, Robber Baron

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HILTON, WILLIAM BARRON

William Barron Hilton's (1927–) name has become nearly synonymous with the word "hotel." The son of Conrad Hilton (1887–1979), he was arguably one of the founders of the U.S. hotel tradition. Hilton struggled with tough competitors, like Marriott and Hyatt, but with the record and reputation of his own father. For several years Hilton was told that if business was good, it was because of the assets his father put together, and if business was bad, then it was William Hilton's own fault. However, Hilton's assumed control of the family-owned Hilton Corporation in 1979, after his father's death, and the company prospered to the point where, in the late 1990s, it ranked as one of the country's largest holders of real estate.

William Barron Hilton was born in Dallas, Texas, in 1927. His father, Conrad Hilton, was the legendary founder of the Hilton hotel chain. When William was eight, the Hilton family relocated to southern California in the midst of the hotel chain's enormous growth. Before growing into manhood the young Hilton watched his father go through two divorces.

As a young man Hilton showed little interest in taking up the family business. Instead, he joined the Navy and served as a naval photographer during World War II (1939–1945). After the war he started his own business selling orange juice products in California; he was soon the owner/operator of his own citrus distributorship. It wasn't for another five years that Hilton considered joining his father's business. When he did, in 1951, he started in the operations department of the Hilton Hotel Corporation, at the bottom of the corporate ladder. Hilton showed an early talent and initiative for the work in the hospitality business, and in 1954 he assumed the role of vice president of the corporation, with his father in the role of president.

Variety in business ventures seemed important to the younger Hilton. In 1960, while still vice president of the company, he turned his attention to establishing the Los Angeles Chargers football team, a team of the American Football League. The following year he

moved the team to San Diego, California, and served as its president until 1966.

That same year he took on the role of president and chief executive officer (CEO) for the Hilton Hotels. In 1970 he bought two Las Vegas hotels, beginning the company's involvement in the gaming industry. Gaming interests grew rapidly, and within 25 years they accounted for 46 percent of the firm's revenues.

With the death of his father in 1979, Hilton became chairman of the board of the company's operations. The will of the senior Hilton specified that the bulk of his estate go to the Conrad Hilton Foundation, a charity to aid Catholic nuns. William Hilton fought successfully to alter the terms of the will, and he obtained sufficient shares of Hilton Hotel stock to control 25 percent of the company.

Only after a long struggle did William Hilton come to be seen as the company's master strategist. During the 1970s, when other hotel chains plunged ahead with the development of luxury hotels and vacation resorts, Hilton sat back and watched his competitors' successes and failures before making any of his own moves. He was also cautious during the 1980s, when it seemed that everyone else in the business was either buying or selling.

Hilton made the move, finally, to sell off his less profitable hotels and retain choice properties like New York City's famed Waldorf-Astoria. He decided also to manage and franchise the rest of the hotels bearing the Hilton name. His cautious yet strategic maneuvers caused the company stock to rise while other hotel operations were seeing a downturn. William Hilton obtained the reputation of a cautious, prudent, and savvy strategist in real estate dealings.

During the 1990s, however, he became aggressive about the gaming industry and led the pack with construction of new casinos and proposals for gambling complexes. In 1996 Hilton began expanding internationally. His aim was to bring his total hotel room capacity to 100,000 by the year 2000—by 1997 he had already reached his goal. By the late 1990s the Hilton Corporation operated 16 casinos and 240 hotel properties, and in 1996 Hilton bought the Bally Entertainment Corporation for \$43 billion.

At the close of the twentieth century, as owner of more than 25 percent of the company's shares William Barron Hilton was president of a vast hospitality empire employing 62,000 people. His personal wealth was estimated to be over \$600 million, which made him a regular on *Forbes* magazine's list of the "400 Richest People in America" since 1982.

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HIRES, CHARLES ELMER

Charles Elmer Hires (1851–1937) was the first soft drink entrepreneur. Before industry giants like Coca-Cola and Pepsi, there was Charles Hires and his “root beer,” which he created in 1875. An entrepreneur at 24, Hires went on to develop a second successful business in the manufacturing of condensed milk.

Charles Hires was born on August 19, 1851, in Roadstown, New Jersey, the son of a farming couple. At age 12, after a meager early education, Hires moved from his parents’ farm to begin a four year apprenticeship as a pharmacy clerk. He completed the apprenticeship at age 16 and moved to Philadelphia, where he worked for a pharmacist and attended evening classes at Jefferson Medical College and the Philadelphia College of Pharmacy.

At age 18, Hires opened his own pharmacy in Philadelphia. Oddly, his first successful business venture involved the purchase and resale of a kind of clay (fuller’s earth) that Hires recognized as having solvent properties. He renamed the common substance “Hires’ Potter’s Clay” and made several thousand dollars selling it to various wholesale drug houses, to whom he advertised it as a successful grease and spot remover.

Hires first tasted the drink that would bring him fame and fortune while staying at a New Jersey boarding house during his honeymoon. The drink, “root beer,” was served to him by the landlady. It was a beverage made from sassafras bark and herbs. Hires loved the taste and, so the story goes, wanted to produce it himself.

After conversations with chemist friends and his own experiments with sarsaparilla root and other ingredients, Hires finally created what came to be known as root beer. Originally, he intended to call the beverage a tea, hoping to sell it among Pennsylvania miners

as a substitute for an alcoholic drink. A friend told him bluntly that miners would never drink his concoction if it were called tea. His friend further instructed him to call it a beer, root beer, if he expected it to sell to men.

During the Philadelphia Centennial Exposition of 1876 Hires took the opportunity to sell his root beer to the millions of fair visitors. Their response was immediately favorable and it led Hires to begin marketing and packaging his root beer. He first sold it in bulk, dried, for 25 cents. It could be brewed at home by mixing it with water and a few other ingredients and it made about five gallons of the drink. In 1893 he began to produce root beer in liquid form, packaged in three ounce bottles.

Root beer began to sell extremely well at soda fountains which were popular during that era. The drink became popular among industrial workers as an alternative to water, tea, and alcohol, and it also became popular among the middle class as a universal beverage available to children, adolescents, and adults.

Hires advertised his product extensively in newspapers and national magazines. By 1890 he was able to organize all his business efforts into the Charles Elmer Hires Company. Starting with an original capital investment of \$300,000 Hires watched his company’s value rise to more than \$2 million by 1921.

In addition to root beer, Hires made considerable money from the manufacture and distribution of condensed milk. The venture began in 1899 and blossomed into a wholly separate business for Hires. He eventually sold this condensed milk company to the Nestle Company in 1918, after having built more than 20 milk plants in various regions of the United States and Canada.

Hires spent much of his leisure time supporting the work of the Society of Friends, a Quaker organization he joined during the last half of his life.

By the end of the nineteenth century Hires Root Beer was known as a favorite American soft drink. Hires’ success made U.S. business realize there was a large market for an alternative to tea, coffee, alcohol, and fruit drinks. It did not take long for Coca-Cola and other soft drink manufacturers to follow in Hires’ footsteps and create the enormous world market for bottled soft drinks. The founder of root beer died in 1937.

See also: *Coca Cola*

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HOFFA, JAMES RIDDLE

During the mid-twentieth century James Riddle Hoffa (1913–1975) rose to become one of the most powerful figures in the U.S. labor movement. In 1932 Hoffa began his involvement in the unions. He organized for the Teamsters during the Great Depression and by 1935 was president of the local Detroit, Michigan, chapter of the International Brotherhood of Teamsters (IBT). During the ten years that followed he brought many smaller unions into the IBT through his organizing skills, "street smarts," and personal charisma. Hoffa was elected president of the IBT in 1959, becoming the head of the largest, richest, and most powerful labor union in the United States. At the time the IBT represented a membership of two million blue-collar truckers and transportation workers. While historians have disagreed about his contributions to the labor movement, none have questioned his legacy of power and influence, or his status as a legend.

Jimmy Hoffa was born in 1913 in the small town of Brazil, Indiana, one of four children. His father was a coal miner who labored long hours to support his family and died young of a lung disease associated with working conditions in the mines. Hoffa's mother was employed as a domestic worker and a cook, and took in washing to make ends meet. She moved the family to Detroit, Michigan, four years after the death of her husband.

Jimmy Hoffa attended school until the tenth grade, when he dropped out to help his family meet the severe economic conditions of the Great Depression. He took a full-time job as a stock boy at Kroger's, a Detroit grocery store chain. The low pay, poor working conditions, and the impact of the Great Depression all contributed to making the young Hoffa conscious of workers' problems.

Hoffa began to demonstrate his organizing skills as a young man. At age seventeen he led four of his co-workers in a successful strike against the Kroger Company. Hoffa's synchronized the strike with the delivery of a large trailer of fresh strawberries to the Kroger loading docks. Kroger's business managers knew it would not take long for the strawberries to spoil and they desperately needed the loading dockworkers to unload the shipment. Within one hour a new union contract was reached and within one year Jimmy Hoffa's "Strawberry Boys" joined Teamsters Local 674, which later merged with Truck Drivers Local 299. Hoffa transformed the local from a 40-member unit with \$400 in its coffers to a 5000 member unit with \$50,000 in the bank.

The early U.S. labor movement was volatile and Hoffa's involvement with the IBT during the late 1930s resulted in many threats to his life. Hoffa's car was bombed, his office was searched, and he was once arrested eighteen times in a single day. Hoffa once recalled, "When you went out on strike in those days, you got your head broken. The cops would beat your brains out if you even got caught talking about unions." Undeterred, at the age of twenty-eight Hoffa became vice president and chief negotiator for the IBT.

During the 1950s the federal government began promoting strong attacks against organized crime such as the Mafia. Hoffa had never made a secret of his relationship with the Mafia and the federal government's intense focus on organized crime, combined with the resistance of business to his unionizing, squeezed Hoffa at both ends. The government, for criminal reasons, and business, for labor reasons, both sought Hoffa's downfall.

During the 1960s, after numerous charges of corruption in the Teamsters, Hoffa faced several felony trials. He was convicted of jury tampering and fraud in two separate trials in 1964, and was sentenced to a 15-year prison term. President Richard Nixon (1969–1974) commuted Hoffa's sentence in 1971, but banned him from any union activity. Hoffa had remained president of the Teamsters Union throughout the five years he served in jail, but upon his release from prison he stepped down.

Hoffa appealed to the courts to regain his union presidency but the Supreme Court denied his motion. Hoffa continued to be unofficially involved with the Teamsters union, and with organized crime. On a July afternoon in 1975, Hoffa disappeared after a luncheon meeting. He was never seen again. His colorful life and mysterious disappearance have created an enduring historical legend about the man who served at the



James R. Hoffa.

forefront of the U.S. labor movement in the mid-twentieth century.

See also: Labor Movement, Labor Unionism

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HOLLERITH, HERMAN

Herman Hollerith (1860–1929), an American engineer and inventor, made a major breakthrough that paved the way for the invention of the modern digital

computer. He invented a punch-card system in 1890, first used widely by the federal government, that was the beginning of all modern data processing in business. His invention of the punch-card tabulating system, still used in many voting machines in the United States, became the foundation of a company that evolved into the International Business Machines Company (IBM).

Hollerith was born in 1860, and raised in Buffalo, New York. In 1879 he graduated at the age of 19 from Columbia University with a degree in mining engineering. He then went to work for the United States Census Bureau's Division of Vital Statistics, compiling mountains of census information into readable data. At the time, information was processed by hand. It was costly, time consuming, and very slow.

In the late 1880s the Census Department determined that the upcoming 1890 census would include data from over 62 million Americans. The department's traditional census tabulating measures were so time consuming that it had little hope of compiling the information into any useful format until well after the 1900 census. By that time the data would be of little value. Working on a solution, Herman Hollerith designed a machine to tabulate the large amounts of census data in a shorter time period. His automatic

Home Front

machine was based on electrical impulses, which transmitted only when holes in punched cards passed over the electrical contacts. The signals were then fed into electrical-mechanical tabulators to be counted, like those in old-fashioned adding machines. Hollerith's tabulating machine quickened the Census Department's ability to compile data and, for the first time, allowed the census data to record new details, such as the number of doctors working in a particular state who were married with one child and owned their own home.

Hollerith patented later models of his machine, ones that could count, add, sort, and which used automated card-punching to make the right holes in the cards to provide the right electrical signals in the right places. He sold his first machine to the United States Army to help in their compilation of medical statistics. He then obtained a contract from the Census Bureau to provide machines to be used in the census count of 1890.

According to evaluations made of the value of his early tabulating machines, Hollerith's tabulators saved the Census Bureau \$5 million for the 1890 census and did in one year what would have taken eight years of hand-tabulation. Hollerith's invention was the beginning of modern data processing. His humble "press" machine, using paper cards with punched holes in them, became the beginning of an electronic way for all businesses to efficiently keep track of thousands of business transactions.

It did not take long for businesses and industries to find uses for Hollerith's tabulators. Business could keep track, easily and quickly, of the amount of stock they had in different departments and keep more adequate supplies on hand for consumers. The business tabulator was an important advancement in business, especially for large companies that dealt with mass markets where significant amounts of information needed to be processed quickly.

When Hollerith was 36 years old, he had enough demand for his tabulating machines to found the Tabulating Machine Company, where he continued to improve his machines. In 1911 Hollerith sold his share of this company, retiring in his mid-fifties. The company name changed, and by 1924 it merged with others to become the first giant in computer tabulating companies—IBM, the International Business Machine Corporation.

Herman Hollerith's modest punch-card press tabulator changed the face of American business by allowing for the creation of high-speed, efficient ways to keep track of all aspects of business transactions, enabling businesses to grow significantly without losing control

of daily information crucial to the maintenance of business.

Hollerith died in 1929 at the age of 70, having no idea he would later be regarded by many as the grandfather of the modern computer.

See also: Computer Industry, International Business Machines

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HOME FRONT

Home front is a term that describes domestic civilian activity during times of war. During World War II (1939–1945) the U.S. home front was marked by a national purpose that united Americans behind the efforts of the Allied Powers (United States, Great Britain, Russia, and China, among others) to defeat the Axis Powers (Germany, Italy, and Japan). Sacrifice and patriotism of average Americans combined with the dynamism and flexibility of private enterprise to galvanize domestic war production. More than 7 million of America's 8 million unemployed persons in 1940 returned to work by 1944. Nearly 3.5 million of the newly employed were women. The popular image of Rosie the Riveter working on planes, tanks, and ships embodied the contribution made to industrial war production by female laborers. Jobs were paying both sexes 25 percent more at the end of the war than they had at the beginning. However, inflation was spiraling upward so rapidly that the federal government placed a ceiling on prices, wages, and rents. Congress also established the nation's modern tax structure during the war, imposing a steeply graduated income tax that

Americans were patriotic during the war, and more united than ever before. To increase productivity factories stayed open for a second or third shift, and workers added long hours of overtime. Roosevelt's promise in 1940 to build 50,000 aircraft was received with amazement. In the end 300,000 were built. The gross national product doubled from \$101 billion in 1940 to \$214 billion in 1944. Egalitarianism was the rule in the war years, reinforced by rationing, shortages, price controls, and the universalism of the draft.

Oxford Companion to World War II, 1995

for the first time covered most middle-income and lower-income groups. As a result, the number of families paying income tax quadrupled, and the amount of tax they paid increased twenty-fold.

Governmental rationing of scarce and valuable commodities, such as gasoline, rubber, meat, sugar, and leather, also tested the resolve of civilians on the home front. But the ingenuity and entrepreneurial spirit behind America's capitalistic system helped civilians look past the daily inconveniences to see the bigger picture. For example, the Allies had to devise an efficient way to transport personnel, vehicles, and equipment across the oceans in order to invade Europe, Africa, and the South Pacific. Andrew Higgins, a Louisiana boat manufacturer, convinced reluctant Navy officials to turn production of transport vessels over to him. He integrated a workforce of 30,000 blacks, women, and men, and paid top wage without regard to sex or skin color. A huge sign hung over the assembly lines: "The Man Who Relaxes is Helping the Axis." Higgins' factory produced more than 20,000 transport vessels in four years. General Dwight D. Eisenhower (1890–1969) later credited Higgins and his workers with winning the war.

Hundreds of other American industries also converted civilian business to wartime manufacturing, churning out 44 billion rounds of ammunition, 20 million small arms, 2.5 million trucks, 300,000 planes, 100,000 tanks, and 90,000 ships. But single-minded zeal was not always an asset. To minimize domestic sabotage and espionage, President Franklin D. Roosevelt (1882–1945) issued an executive order in February 1942 authorizing the forcible removal of approximately 110,000 Americans of Japanese descent. There were transferred from strategic locations around the country

to inland relocation camps, where they were detained like prisoners without a hearing or trial. Despite their mistreatment many of the detained Japanese Americans maintained their patriotism, raising the Stars and Stripes every morning at camp and singing the national anthem. Some detainees contributed to the war effort, helping develop a synthetic rubber to augment the Allies dwindling supply of natural rubber. More than 17,000 Japanese Americans were released from detention to join the U.S. Army. During one campaign in Italy Japanese-American soldiers earned 3,000 Purple Hearts, 810 Bronze Stars, 342 Silver Stars, and 47 Distinguished Service Crosses in the field of battle. Although the U.S. Supreme Court upheld the constitutionality of the forcible relocation and detention, in 1988 the federal government issued an apology for the episode and offered to pay money damages to the victims and their families.

See also: *Liberty Ships, Rationing, Rosie the Riveter*

HOMESTEAD ACT (1862)

The Homestead Act, passed by the Republican-dominated Congress during the American Civil War (1861–1865), was intended to place public land in the hands of western settlers. It stated that any adult citizen (or a person who declared an intention to become a citizen) who was the head of a family could lay claim to 160 acres of public land. The only payment required was a small registration fee. The claimant was required to live on the land for a five-year period while improving it by building a house measuring at least 12 by 14 feet and farming at least ten acres. The period of residence was reduced to six months if the settler was willing to pay a price of \$1.25 an acre. Within three years of the act's passage, more than 15,000 claims on public lands had been registered with the federal government.

The passage of the Homestead Act represented the culmination of 30 years' work by Republicans and their Whig predecessors. When the United States purchased the Louisiana territory from France in 1803, it acquired a huge tract of federally administered land. President Thomas Jefferson (1801–1809) envisioned this territory divided into small farms, whose owners could follow his rural vision of American democracy. Over the next few decades, Congress was split on the question of what to do with this land. Southern legislators feared that homestead laws, which divided public lands into small farms rather than large plantations,

Homestead Act (1862)



Women working on an assembly line, mass producing planes on the home front during World War II.

would attract immigrants and others who were opposed to slavery. Some of their northern counterparts, especially from the industrialized northeast, feared that the lure of free land would drain cheap immigrant labor from the factories to the frontier. Others, such as Senator Thomas Hart Benton, supported free farms as a means of encouraging democratic growth.

I SOLD MY PENNSYLVANIA FARM WITH ITS STUMPS AND STONES AND STINGY SOIL THAT YIELDED SO GRUDGINGLY TO THE TOIL I HAD GIVEN IT. MY WIFE, SUSIE, AND I DECIDED TO GO TO KANSAS AND TAKE UP A GOVERNMENT CLAIM.

Warren P. Trimm, Kansas homesteader

The problem became especially acute after the Mexican War (1846–1848), when transportation of both people and produce became cheaper because of new canals and railroads. So important was the issue that one party, the Free-Soilers, made distribution of public lands the major plank in their campaign platform during the 1840s. Although bills offering public lands to settlers were passed by the House of Representatives in 1852, 1854, and 1859, they were all defeated by the southern-dominated Senate. When an

1860 homestead bill was finally passed by both houses of Congress, President James Buchanan (1857–1861) vetoed it.

Although the Homestead Act was intended to benefit the homeless immigrants of the east, those who gained the most from it were native-born Americans and land speculators. Immigrants were mostly too poor to afford the stake needed to move west and take up a claim. It was typically second- or third-generation Americans who sold their farms to head west with their families. Most of these farmers, however, were poorly prepared for farming on the Great Plains. The quality of land allotments open to farmers varied considerably, and good claims were quickly taken up. Accustomed to plenty of water and wood for cooking and heating, as well as plentiful grass for their livestock, many were unable to cope with the arid conditions of the West. Many original homesteaders were unable to live on their new land long enough to complete their claims. These farmers often sold their claims to land speculators, who resold them to latecomers at a profit. Some land speculators also bought abandoned land and hired claimants to file false claims.

Those homesteaders who remained on their claims found new opportunities, as well as challenges. Federally

funded railroads spanned the continent by 1869, opening isolated farms to markets and manufactured goods and bringing new settlers to the prairie. These pioneers built schools, churches, and towns, as well as homesteads. Within 40 years of the passage of the Homestead Act, most of the territories opened to settlement had either entered the Union as states or filed for statehood.

See also: Homesteaders, Westward Expansion

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HOMESTEAD STEEL STRIKE

The industrialization of the United States in the second half of the nineteenth century involved a complex and unsettling social and economic transformation of U.S. society. The spread of factory towns, urban living, transportation networks, and new technologies were catalysts for the reorganization of American life. So, too, were the emergence of the American corporation, which concentrated industrial wealth and power in the hands of a new economic elite, and the mass labor union, which sought to protect the burgeoning ranks of factory workers. The Homestead Steel Strike of 1892, which pitted the industrialist Andrew Carnegie (1835–1919) against the Amalgamated Association of Iron and Steel Workers, was one of the most dramatic expressions of the sharpening conflict between the corporation and the union—between capital and labor—on the terrain of industrializing America.

Homestead, Pennsylvania, was the center of Andrew Carnegie’s enormous steel empire, the Carnegie Steel Corporation, which produced fully one-quarter of

the world’s steel by 1892. Its work force was concentrated in Homestead, a town of 12,000. Most of the steelworkers belonged to the Amalgamated Association of Iron and Steel Workers. With 24,000 members, the union was one of the most important members of the American Federation of Labor (AFL).

Carnegie himself, along with most other business leaders of the time, possessed a deep opposition to unions. He viewed the Amalgamated as a dangerous organization that not only weakened his ability to treat labor as a freely disposed commodity, but also resisted his attempts to introduce technological advances. Carnegie was also well aware that the threat of a strike, which was fully endorsed by the AFL, could cripple his steel empire if it was carried out effectively. For their part, the Homestead workers, reflecting the attitudes of other steelworkers of the time, believed Carnegie was generally insensitive to their needs. In particular, they were upset that he refused to share the profits of more efficient production techniques.

In July 1892, as his contract with the AFL was about to expire, Carnegie decided to crush the steel workers union. He instructed his general manager, Henry Clay Frick, to announce that the steel mill would now employ non-union workers and pay lower wages. This started a general strike by the Amalgamated, which set up committees to run the strike and prepare the town. Carnegie, who left on vacation for Europe, transferred operational control to Frick, whose hatred of unions was well known. Frick proceeded to employ 300 company guards hired through Pinkerton’s National Detective Agency to seize the millworks from the strikers. On July 5, the guards used river barges in an attempt to land near the factory under the cover of night. The strikers were waiting for them and a battle lasted for eight hours. When it was over, 35 men lay dead and 60 others were seriously wounded.

Even before the violent clash, public opinion was running against the strikers through no fault of their own. An agitator named Alexander Berkman had earlier attempted to assassinate Frick in his office. The failed attack brought much sympathy for Frick and significant discredit to the strikers. The news of the deadly confrontation between strikers and Pinkertons further turned opinion against the Amalgamated. Pennsylvania sent 4000 militiamen to occupy the factory, which was soon turned over to management. Nonunion workers were hired and the millwork resumed normal operations. Four months later, the Amalgamated voted to end the strike, but the organization was now crushed, effectively ending unionism in the steel industry. More important, the struggle crippled the AFL and weakened efforts to organize labor throughout the United States.

Homesteaders

See also: American Federation of Labor, Andrew Carnegie, Labor Unionism, Pinkerton, Strike

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HOMESTEADERS

Homesteaders, sometimes credited with settling the West, were people who took advantage of the Homestead Act of 1862. The first family to do so was that of Daniel Freeman (1826–1908), who made a land claim on January 1, 1863, the day the law went into effect. Freeman settled near Beatrice, Nebraska.

The Homestead Act of 1862 and its later modifications were collectively known as the Homestead Laws. During the mid-1800s, a debate arose over what the federal government should do with its newly acquired lands in the West. Those supporting the free land movement, led by the Free Soil Party, believed the government should grant lands in the West to whoever settled them. Conservatives believed the government should sell the lands to raise revenue. Southerners opposed free-soil policy, which they felt did not benefit their interests: they not only viewed the spread of agriculture in the West as a threat to their economic prosperity, but they feared that territories settled under a free-soil policy would eventually oppose slavery. Northerners tended to support the free-soil initiative, because the region's growing industrial sector would need new domestic markets for finished goods produced by the (industrialized) North.

Free land legislation that would improve the allowances of the earlier Pre-Emption Act of 1841 were introduced in Congress in 1851, 1852, and 1854;

Southern Democrats succeeded in blocking passage each time. When the Republican Party was formed in 1854; in absorbing the Free Soil Party and its agenda, the Republicans proclaimed they would enact a "complete and satisfactory homestead measure." Soon after Republican presidential candidate Abraham Lincoln (1809–65) won the election in 1860. In response, the Southern states made good on their threat to secede from the Union if the Republican party put its candidate in the White House. With Southern lawmakers out of Congress (with the exception of Tennessee Senator Andrew Johnson (1808–75), who had long supported free-soil initiatives and did not join his fellow Southerners in the act of secession), the Homestead Act was introduced and passed in Congress.

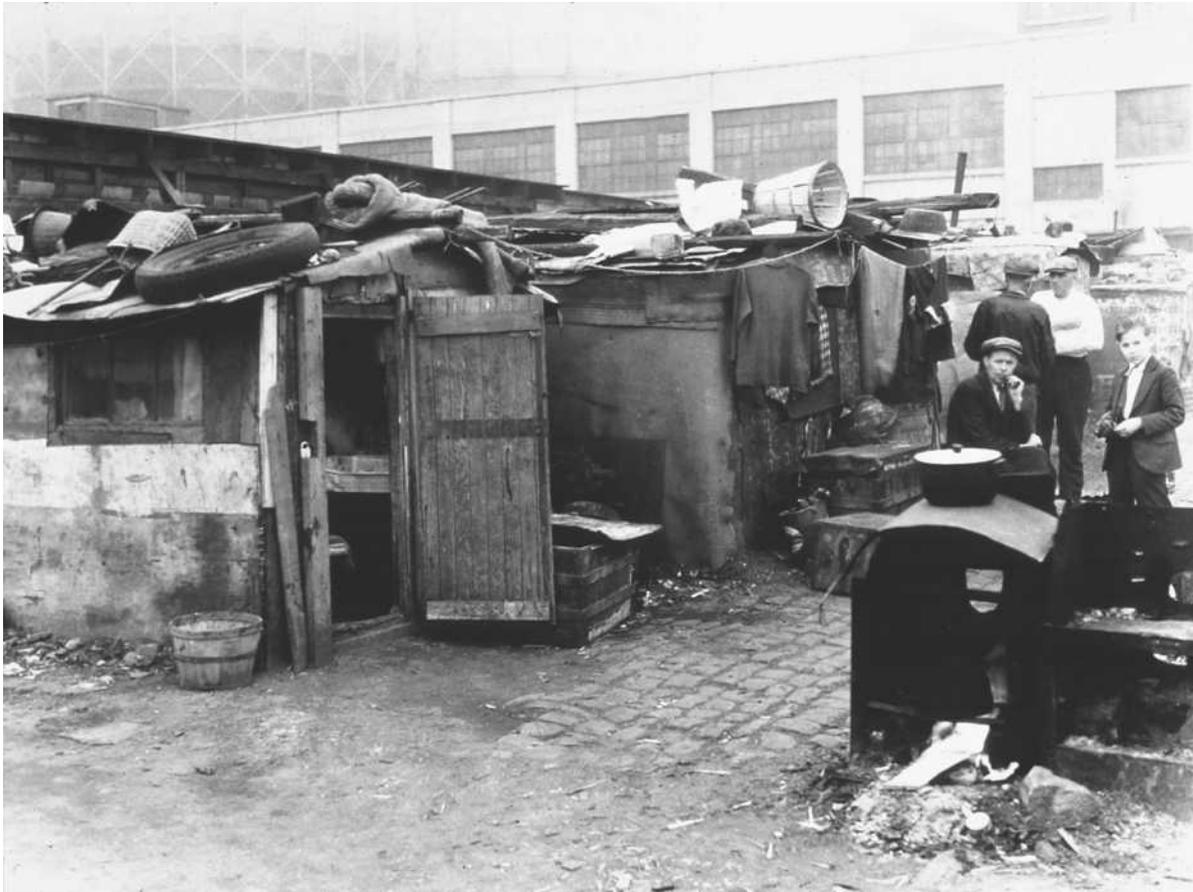
The legislation provided that anyone who was head of a family, or 21 years of age, or a veteran of just 14 days of active service in the U.S. armed forces, and who was a citizen or intended to become a citizen of the United States could receive up to 160 acres (64 hectares) of land. A homesteader was required to build on the land or cultivate it for a period of five years. Having only paid the initial, nominal filing fees, at the end of the five-year period the homesteader received a title to the land. In 1912, the required period of settlement was decreased to three years. Other modifications opened forest and grazing land for settlement and increased the maximum acreage to 640.

The Homestead Laws encouraged the rapid settlement of lands held in the public domain outside of the original 13 states (as well as Maine, Vermont, West Virginia, Kentucky, Tennessee, and Texas.) By 1932 more than one million homesteaders had developed more than 270 million acres (109 million hectares) of formerly public lands. In 1935 the remainder of public domain was withdrawn from homestead settlement. By 1962 all agricultural land that had been set aside for homesteading had been settled. Congress repealed the Homestead Laws in 1976 (except for laws pertaining to Alaska).

See also: Dry Farming, Homestead Act, Land-Grant Colleges, Prairie, Slavery, Sod Houses

HOOVERVILLE

Hooverville was a derogatory term used to describe the ramshackle towns that were built and inhabited by millions of homeless and unemployed people in communities across the United States during the Great Depression. Named after Herbert Hoover (1874–1964),



Trash-laden shacks at a Hooverville, a temporary shantytown outside a factory during the Great Depression.

who was president from 1929–1933, when the Depression began, Hoovervilles typically consisted of makeshift homes made from cardboard, tin, crates, scrap lumber, and other discarded materials. Hoovervilles generally sprang up within the inner cities of the country’s most populated metropolitan areas. For daily subsistence residents depended on the charity of nearby bakeries and produce houses that would make periodic deliveries of stale bread or gristly meat. Soup kitchens were established in several Hooverville communities. Residents cooked their food in cans when they cooked it at all. Newspapers used to keep the residents warm were called “Hoover blankets.”

Health, fire, and law enforcement officials closely regulated many Hoovervilles, enacting requirements that tenements be above ground, have a certain number of windows, and be kept clear of debris and human waste. Some Hoovervilles assembled a rudimentary government of their own, electing a mayor, city council, and police chief. Hooverville tenements were bought and sold like other homes, though prices rarely exceeded \$30. By the onset of World War II (1939–1945) most Hoovervilles had disappeared, as the nation’s

unemployed and homeless began returning to an economy that was mobilizing for military production. A number of Hoovervilles, however, lingered through the early 1950s.

See also: Great Depression, Poverty

HOPKINS, HARRY LLOYD

Harry Hopkins (1890–1946) was one of the major architects and managers of the New Deal during the Great Depression (1929–1939) and he was a major U.S. policymaker during World War II (1939–1945). Brought to Washington, DC, by President Franklin D. Roosevelt (1933–1945) to administer public relief programs during the Depression, Hopkins went on to become one of Roosevelt’s closest advisors during World War II.

Harry Lloyd Hopkins was the younger of two children born to David and Anna Hopkins. He was born in Sioux City, Iowa, in 1890, and grew up largely in Grinnell, Iowa.

Hopkins, Harry Lloyd

His father was a moderately successful traveling salesman who apparently communicated to his son his competitive style, good nature, and early loyalty to the Democratic party. His mother, a deeply religious woman, impressed on Harry the values of strict honesty and moral principles. Hopkins was also exposed to his sister Adah's enthusiasm for social work.

In 1912 Hopkins graduated from Grinnell College, where he studied social work. He then left Iowa for New York City and a career in the same field, rising rapidly to the administrative ranks of his profession. From 1915 to 1930 he held a wide variety of difficult high-level positions in social work, always initiating new, creative, and useful programs.

Hopkins became active in social movements, especially those focused on political action to create pensions for widows with children and relief for the families of servicemen who had fought during World War I (1914–1918). Hopkins was one of the founders of the American Association of Social Workers, the first national professional organization for social workers.

Though Hopkins achieved much in social work, he would achieve a great deal more in the years ahead. His reputation as a fine administrator reached the ear of New York's governor Franklin Delano Roosevelt, who brought Hopkins into his administration. Hopkins' job was to help develop relief programs for New York state residents during the early years of the Great Depression.

After Roosevelt became the president of the United States, Hopkins was invited to join Roosevelt in Washington, DC. He was appointed head of the Federal Emergency Relief Administration (FERA), an agency which granted federal money to individual states for unemployment relief.

Hopkins was never able to resolve any of the large issues of the Great Depression, but he did create many useful programs that eased the pain and suffering of millions of Americans during that time. He demonstrated a consistent genius for creatively dealing with social emergencies.

In 1935 Hopkins began to build the Works Progress Administration (WPA), which became a major effort to combat unemployment during the Depression. Admittedly, it was a temporary "make work" government-supported program, but its focus on getting the average American back to work through socially useful jobs was enormously popular. It gave faith and hope to Americans looking for some relief from the devastation of the Depression.

The results of the WPA enriched U.S. society. Thousands of miles of roads were built during this time, as well as bridges, parks, playgrounds, schools, airports, post offices, and other public buildings. Though the WPA was a federal program Hopkins had the foresight to operate it in a decentralized fashion, with many decisions made at state and local levels. The WPA did not have the "feel" of a huge, faceless, federal bureaucratic program, largely because it was administered by local areas which defined their own needs, projects, and means by which to manage WPA monetary allotments.

Health problems caused Hopkins to resign from government service in 1940. Yet within a year he was back in service because Roosevelt's desperate need for someone with strong administrative and leadership skills during World War II. Despite his weakened health, Hopkins returned to work and supervised Roosevelt's controversial lend-lease program to the British. In this role Hopkins became a kind of unofficial roving ambassador for Roosevelt, providing him with impressions, observations, insights, and advice. Hopkins quickly familiarized himself with most aspects of the war effort and became a close working-partner with Winston Churchill (1874–1965), the Prime Minister of Great Britain. He also conferred with Russian leader and then-U.S. ally Joseph Stalin (1879–1953) and had a well-informed and motivated staff to assist him.

It has been said that as the United States entered the war in December of 1941, Harry Hopkins likely knew more about the details of U.S. war-making capacity than any other American. His actions in the administration of World War II, despite his ongoing poor health, marked the highpoint of Hopkins' career as a public servant.

Although Hopkins was officially behind the scenes in much of what happened during the war, he was praised worldwide by Allied Forces for his always creative and honest approach to the war effort. He also was known for his help in sustaining the confidence of Americans to overcome the crises of war and economic downturns.

His increasingly poor health and the death of his friend President Franklin Roosevelt, in 1945, did not deter Hopkins from playing an important role in winning congressional approval for the establishment of the United Nations, an international cooperative organization. For his service to the United States, President Harry Truman (1945–1953) awarded Hopkins the Distinguished Service Medal, the nation's highest civilian honor. Hopkins died months later, in January 1946, an American hero.

See also: Great Depression, Lend Lease Act, New Deal, Works Progress Administration, World War II

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HORSES

The horse originated in the Western Hemisphere but it became extinct there at the end of the ice age (around 10,000 B.C.). Horses had migrated into Asia before this time, and there the species continued. From Asia horses spread both northward and westward, and they were domesticated by man by 4350 B.C.. Between A.D. 900 and 1000 horses came into widespread use throughout Europe. When Christopher Columbus (1451–1506) landed at Hispaniola (present-day Santo Domingo, Dominican Republic) in 1492, he brought with him horses and cattle. These were the first seen in the New World in 7,500 years; the Native Americans had no beasts of burden prior to the arrival of the Europeans. In 1540 Spanish explorer Hernando de Soto (1500?–42) landed on the Gulf coast of Florida with more than six hundred men and two hundred horses. Also in 1540, Spanish explorer Francisco Vasquez de Coronado (c. 1510–54), who was looking for the Seven Cities of Cibola (mythical cities thought to contain vast treasures), arrived in the American southwest and brought with him the first horses and livestock ever seen in the region.

The introduction of the horse had a profound effect on North and South America. The Spanish conquistadors rode on horseback in battle against the native inhabitants, and they could easily subdue them and claim their lands. (The Spaniards also had guns, which combined with the horse to give them the advantage over the Native American warriors.) The

American Indians that survived European incursion learned how to raise and use horses themselves. This knowledge enabled them to hunt game such as buffalo more effectively. The horse allowed the European settlers to expand westward via stagecoach and covered wagon and to convey messages cross country (by Pony Express).

Until the advent of the train (called the “iron horse”) in the mid-1800s, the horse was the primary means for overland travel in the United States. It also figured prominently in the nation’s military history, including the American Revolution (1775–83) and the American Civil War (1861–65). In 1811 construction began on the first federal road, the Cumberland Road (also called the National Road). Beginning in Cumberland, Maryland, the road continued west to St. Louis, Missouri. As a result, St. Louis received an influx of immigrants and became a vital trade center later that century.

See also: Columbian Exchange, National Road, Mesoamerica

HOWARD JOHNSON INTERNATIONAL, INC.

When 27-year-old Howard Johnson (1896–1972) bought a drugstore-newsstand outside of Boston in Wollaston, Massachusetts in 1924, he added more to his debt than to his assets. The \$28,000 obligation that the new acquisition brought added to Johnson’s already-existing debt of \$10,000, which was left over from a failed joint venture in cigars with his father. Two innovations, however, quickly made Johnson’s new business a success. First, he devised a home delivery service to peddle newsstand products in Wollaston and surrounding communities. His annual profits for the newsstand reached \$30,000 in a few years. Although this money helped Johnson get out of debt, it was his interest in ice cream that had the biggest impact on his business.

An ice cream fanatic, Johnson wanted to use the drugstore’s soda fountain to sell the best ice cream in town, which in his opinion was the ice cream being sold by a local pushcart vendor. Johnson paid the vendor \$300 for the recipe (which yielded an extremely rich ice cream because it called for twice the butterfat of other commercially produced ice creams). Eventually Johnson began to experiment with other flavors, adding each one he liked to the soda fountain’s menu. His 28 flavors were so popular that they became the Howard Johnson trademark.

These relatively small experiments began an early expansion and formed the basis for what would soon become a very big business. Howard Johnson was so pleased with the success of his ice cream that he decided to expand its sale outside of his drugstore. He put up small ice cream stands along the beaches of south Boston suburbs. The stands were a huge success; on one extremely hot August day alone, he sold 14,000 ice cream cones. In 1928 the profits from all Howard Johnson ice cream sales totaled \$240,000.

Emboldened, Howard Johnson decided to open a family restaurant in 1928. The restaurant, in Quincy, Massachusetts, enjoyed only a short-lived popularity and closed in 1929 at a loss of \$45,000 for Johnson. The Quincy restaurant, however, was not an entire loss. In 1929 a family friend, Reginald Sprague, wanted to open a restaurant on a nearby highway. Sprague knew that Howard Johnson's name and ice cream would boost the restaurant's visibility and popularity. The two men entered into an agreement that stipulated the following: Johnson would allow Sprague to use the Howard Johnson name. In return, Sprague agreed to pay Johnson a cash fee, to sell only Howard Johnson brand ice cream, and to allow Howard Johnson to set the standards for all foods served at the restaurant. It all made perfect sense for Johnson who, in light of his earlier debts and failed restaurant, could not obtain bank loans to start new restaurants himself.

This is generally viewed as the birth of the first U.S. franchise restaurant chain. Under this system, independent businessmen called licensees owned and operated the restaurants, not Howard Johnson or his company. The licensees had the right to use the Howard Johnson name, but they paid the start-up costs for their properties, including an initiation fee paid to the company. They also had to purchase their food and other products from the Howard Johnson company, which was the main method by which the Howard Johnson company made money on these ventures.

Johnson had no trouble finding other takers for his franchise system. By 1935 there were seven Howard Johnson restaurants in Massachusetts. In 1940 there were 135 restaurants that extended down along the East Coast as far as Florida. That same year Howard Johnson won a bid to put 24 restaurants along the Pennsylvania Turnpike, where he would maintain a restaurant monopoly until 1979. Howard Johnson favored well-traveled automobile routes for his restaurants, knowing that the increasing popularity of cars would draw people out of population centers onto the roads. He hired 27 architects to design new properties. The trademark buildings each had bright orange roof tiles (orange being the color most likely to be seen by

motorists) and a New England-style cupola in bright blue topped with a weathervane. Howard Johnson maintained high standards—he devoted two days a week to conducting unannounced inspections. He institutionalized novelties like the children's portion to attract families. The company provided the chain restaurants with elements of guaranteed success and it continued to grow.

World War II (1939–1945) brought gasoline rationing, and by 1944 only 12 out of about 200 restaurants were still open. Some restaurants were converted to cafeterias for workers in war plants. After the war Johnson decided to build smaller restaurants, leaving behind the grand roadside mansions of the pre-war years. In the summer of 1947, the company was building 200 of these new restaurants, which would extend into the southeast and Midwest. By 1954 there were 400 Howard Johnsons in 32 states, and the company was also adding a motel business. Some of these were franchises, others were owned directly by the Howard Johnson company.

In 1959 Howard Johnson Senior turned the company's presidency over to his 26-year-old son, Howard Johnson Jr. The company's headquarters remained in Wollaston, but executive offices were moved to Rockefeller Center in New York City. The company continued to expand and in 1961, when its stock went public, there were 605 restaurants, 10 Red Coach Grills, 88 motor lodges, 17 manufacturing and processing plants, net sales of \$95 million from 1960, and a net income of \$2.3 million. Between 1961 and 1967 Howard Johnson Sr., his son, and his daughter sold around two million shares of stock for \$1 billion. When Howard Johnson, Sr. retired as chief executive officer and executive treasurer in 1964, his company was the country's third largest food distributor, behind only the navy and the army.

Although the company continued to grow—becoming a coast-to-coast chain with properties in California in the mid 1960s and adding Ground Round restaurants in 1969, it was now facing new problems and competition. Holiday Inns, Ramada Inns, and Marriott hotels were becoming increasingly popular with people who once stayed at Howard Johnson's motor lodges. Howard Johnson restaurants were increasingly perceived to be out of date in terms of their looks and their frozen food, which compared poorly to McDonalds and Burger King fast food franchises. Management was accused of being too cheap to upgrade the company's image. The company responded by introducing 24 hour service in over 80 percent of company-owned (not licensees') restaurants. Also, soda fountains were replaced with cocktail lounges in

100 company-owned locations. Seating capacity was expanded; special menu promotions were added; and new properties were concentrated in population centers as opposed to major highways. Howard Johnson continued to have record high sales and share earnings.

In 1979 Imperial Group Ltd. of Great Britain bought Howard Johnson for \$630 million. It liberated the past controls over restaurants and motels, allowing them to buy food from a variety of sources and not just from the Howard Johnson company. Imperial also offered new food and lodging packages, entrees, and low cholesterol breakfasts. To attract business travelers, Imperial offered corporate discounts. Licensees were given the choice of refurbishing their existing properties by 1987, with low-interest loans from the company, or losing their franchises. Imperial also started a new Plaza Hotel chain in 1983. It was mid-priced and also geared toward business travelers, with restaurants and lounges, banquet and meeting rooms, and executive accommodations.

Despite its changes, Imperial was unsatisfied with Howard Johnson's performance and it sold the company to Marriott Corporation in 1985 for \$314 million. Marriott divided the company, selling the franchise system and company-owned lodgings to Prime Motor Inns Inc. for \$97 million. Prime assumed the company's \$138 million debt but also took the Howard Johnson trade name and trademark. Both purchasing companies wanted to get rid of the independently owned properties after their franchise agreements expired.

This opened an interesting chapter in the company's history. To protect their interests, the franchisees threatened a class-action lawsuit against Marriott and Prime. In 1986 Franchise Associates, Inc., a company formed by the franchisees, won a perpetual exclusive license to the Howard Johnson name for restaurants in the United States, Panama, and the Bahamas. Franchise Associates, Inc. also obtained exclusive rights to use the trade name for Howard Johnson Signature Food Products and the free use of Howard Johnson recipes. By 1991 Franchise Associates owned and operated 85 of the 110 Howard Johnson restaurants.

The story of the lodging branch of the company took a different turn. In 1990 Prime sold its Howard Johnson lodging properties to an affiliate of Blackstone Group for \$170 million. Blackstone renamed the Howard Johnson Franchise Systems subsidiary to Howard Johnson International Inc. in 1996. By the mid-1990s Howard Johnson lodging was expanding to worldwide locations under the leadership of president and chief

operating officer Eric Pfeffer. Its intent was to fill the gap in international lodging between high-priced hotels and youth hostels. The company was operating over 600 hotels worldwide, with international locations in Columbia, the United Arab Emirates, and India.

See also: Franchise

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HOWE, SAMUEL GRIDLEY

Samuel Gridley Howe (1801–1876) was a key figure during the nineteenth century in helping disabled people lead productive, dignified lives. Howe was a physician by profession and worked primarily with people who were blind or otherwise disabled. His activism spread to broad segments of the population. Through his efforts he demonstrated that people with a variety of physical and emotional disorders could become economically and socially functional. The disabled, he claimed, did not need to be abandoned or shut away in institutions.

Samuel Howe was born in Boston in 1801 to middle class parents. In 1824 he obtained a medical degree from Harvard University at age twenty-three. He then went to Greece and became involved in that country's war against Turkey. He spent five years in Greece as a surgeon and likely developed his ideas about disabilities during this time.

When he returned to Massachusetts Howe opened a new school for the blind. He aggressively pursued a philosophy of "overcoming obstacles" when it came

Hughes, Howard Robard

to teaching the blind. This may have been based on his observations of how the disabled in Greece functioned during a time of war. He inspired educators of his time with the articles and reports he wrote about the disabled. His writing was filled with educational theories, positive principles of human psychology, and a good dose of hope.

Howe soon became the leading spokesperson for the needs of and the possibilities for the disabled in the United States during the nineteenth century. He increasingly asserted through his work and his writings that the disabled should be treated with confidence rather than pity. He developed a system of raised-print writing which was used by the blind to read until the simpler Braille method was invented by Louis Braille (1809–52).

OBSTACLES ARE THINGS TO BE OVERCOME.

Samuel Gridley Howe

Howe joined a variety of reform movements. He advocated better public schools, as well as enlightened treatment of the mentally ill and the developmentally disabled. He worked to reform prisons and end the institution of slavery.

Throughout his life Howe opened and organized schools designed to integrate disabled students into society. At the beginning of the twentieth century the trend in the United States was against isolating the blind and other disabled persons in institutions. A new social tendency arose to provide for the disabled a way to participate fully in everyday life.

At one point in his life Howe ran unsuccessfully for Congress as an antislavery candidate. He was among the most active of the New Englanders who worked to keep the state of Kansas from permitting slavery. He supported John Brown's (1800–1859) raid on Harper's Ferry in 1859. During both the American Civil War (1861–1865) and the Reconstruction era (1865–1877) Howe served on national commissions and agencies concerned with providing aid for freed slaves.

Howe died on January 9, 1876 at the age of seventy-five. His wife carried on his fight for the rights of slaves and the disabled. Julia Ward Howe also wrote the words for the famous "Battle Hymn of the Republic."

Howe is regarded as the father of the modern Disability Rights Movement (DRM). The movement

advocates that people with disabilities be treated with appropriate techniques and education, allowing them to become active in the routine work and business of their communities.

Howe helped create an understanding that the blind, the deaf, and others with disabilities were not mentally or otherwise inferior. Howe's vigorous reform efforts at first focused on the blind, and later expanded to include former convicts, African slaves, the emotionally impaired, and the developmentally disabled. All of his efforts eventually focused on the fundamental humanity of all people. Howe championed the right of all people to be treated equally as their abilities allowed, and not their disabilities. He was among the first to aggressively confront U.S. society with the motto: "Obstacles are things to be overcome."

See also: **Americans with Disabilities Act**

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HUGHES, HOWARD ROBARD

Howard Robard Hughes (1905–1976) was born into great family wealth, and despite his flamboyant lifestyle as a playboy, tycoon, and eccentric, he nevertheless enjoyed a remarkable business career that made him a billionaire. He was successful in many endeavors. He was a test pilot, the majority owner for years of TWA airlines, a movie producer, and a real estate developer. Oddly, Hughes is perhaps best remembered not for his successful business enterprises but for his bizarre and reclusive behavior. In his later years, his paranoid concern for privacy became legendary.



Howard Hughes stands on the flight deck of his enormous eight engine flying boat, the *Spruce Goose*, observing a pilot at the control panel.

Howard Hughes, Jr. was born in Houston, Texas, the only child of Howard and Alene Hughes. His parents had grown wealthy because of his father's invention of a drill bit used in most gas and oil drilling. This invention brought vast revenues to the family's Hughes Tool Company, which manufactured the drilling bit. Howard attended private schools in California and Massachusetts, and later, Rice Institute in Houston, and the California Institute of Technology.

His mother died when Hughes was sixteen. Two years later, his father also died. At age eighteen Hughes inherited an estate of \$871,000 and a patent for the revolutionary drill bit, which continued to bring large revenues to the Hughes Tool Company. Hughes left school to take control of the company after his father's death, using its profits to finance a variety of projects.

At the age of twenty, in 1925, he married and moved to Los Angeles. Two years later, Hughes put up the money for the first of several films he produced, a movie called "Hell's Angels," about World War I (1914–1918) fighter pilots. It was the most expensive movie ever made at that time, and it did very well at the

box office. He went on to produce other films, some of which are considered classics, including "Scarface" and "The Outlaw." He discovered the actors Jean Harlow and Paul Muni, and made Jane Russell a Hollywood star. Hughes became romantically linked with a number of Hollywood stars.

Hughes continued to produce movies while he pursued an interest in aviation. He seemed to be driven to prove his excellence in whatever field he entered. Becoming a pilot in 1928, Hughes went on in 1932 to found the Hughes Aircraft Company, and to design, build, and fly record-breaking planes. He set the world speed record in 1935, transcontinental speed records in 1936 and 1937, and a world flight record in 1938. He was named to the Aviation Hall of Fame in 1973. Hughes built the largest aircraft ever, made out of wood. It flew one time, piloted by Hughes, and was known as "The Spruce Goose."

Hughes became a well known public figure, popular for his aviation and movie heroics. He seemed to embody the traditional American qualities of individuality, daring, and ingenuity.

Human Capital

His aircraft company became a major defense contractor after World War II (1939–1945), and as the profits of his company increased, Hughes became obsessed with ways to avoid paying taxes on his huge profits. In 1953 he created a medical institute designed to be a tax-shelter, to which he transferred the assets of his aircraft company. For a time in the 1950s, his fame increased, as he openly confronted the federal government. In 1956 he loaned future President Richard Nixon's brother, Donald, \$205,000 in an apparently successful ploy to influence the Internal Revenue Service's rulings on the Howard Hughes Medical Institute. In the eyes of many, he was a lone hero fighting against the intrusion of federal bureaucracy and the Internal Revenue Service (IRS). In the eyes of the government, he was a tax-cheat.

Hughes continued investing with his tool company profits. He created Trans-World Airlines (TWA), one of the most famous mid-century world airlines. Because he failed to appear in court in a matter related to possibly illegal TWA operations, Hughes was forced to sell his TWA holdings in 1966. He invested all of the \$566 million from the sale of TWA into Las Vegas hotels, gambling casinos, golf courses, a television station, an airport, and land in Las Vegas. He again increased the size of his fortune.

In 1970 Hughes left the United States. He traveled secretly throughout the world, arriving unannounced in luxury hotels. To the paparazzi, he took on the aura of a romantic figure, but in reality he was a profoundly ill man. His last act of business, before going into total seclusion and paranoid decline, was to sell off his Hughes Tool Division, the basis of his great fortune, and put the money into a building company he named Summa Corporation, located in Las Vegas.

At that point, the Hughes fortune became muddled. His money and business interests seem to have often been used for secret activities; some allegedly involved in Central Intelligence Agency (CIA) operations aimed against the former Soviet Union. One such operation involved the Hughes conglomerate designing and constructing a naval vessel to raise a sunken Soviet submarine. The Hughes organization was reportedly linked, along with the CIA, to the Watergate affair. Details of the end of the Hughes empire are shrouded in mystery and controversy. Howard Hughes' mental illness was progressive and characterized by his obsessive concern to control every aspect of his environment. He died April 5, 1976, on an airline flight to a hospital in Houston, Texas. Hughes left no direct heir or will to his great fortune. The U.S. government was the big winner in the contest for the Hughes estate.

Sixty percent of his fortune was taken as estate tax by the IRS.

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HUMAN CAPITAL

The quality of labor in a country's workforce can directly influence a nation's economic growth. Investment in vocational training and education, which improves the quality of labor, is called investment in human capital. As an individual becomes more skilled and educated, productivity or output of work may increase, along with income. The concept of human capital can provide justification for wage and salary differentials by age and occupation. Education and training in skill development can create human capital just as construction of a building creates physical capital.

Some economists assert that a society should allocate resources to educational and training services similar to the allocation of resources for physical capital. Costs would be incurred in expectation of future benefits. However, unlike physical capital, human capital is not a guarantee and cannot be repossessed in settlement of a debt. The key question has been whether or not benefits exceed expenditures by a sufficient amount.

Until the mid-nineteenth century, education expenditures were primarily generated by the private sector. By the 1850s all states had developed programs for funding public schools. As late as the early twentieth century, most people considered education that was beyond the primary grades to be a luxury—particularly

among low-income groups. However literacy rates continued to move upward and since 1940, education levels have consistently climbed. In 1940 24 percent of the U.S. population had high school diplomas and 4.6 percent earned college degrees. By 1996 almost 82 percent had completed four years of high school and almost 24 percent had completed four or more years of college. By attending college or vocational training

programs, individuals were able to invest in themselves. Firms invested in human capital with on-the-job training. Government invested in human capital by offering programs to improve health, quality free schooling, including vocational and on-the-job training, and by providing student loans.

***See also:* Physical Capital**



IACOCCA, LIDO ANTHONY

Lee Iacocca (1924–) retired as the Chief Executive Officer (CEO) of the Chrysler Corporation in 1992. He had joined the corporation fourteen years earlier when Chrysler was on the edge of bankruptcy. The company was at the time one of the largest automobile manufacturers in the world, employing thousands of people. Upon entering the company Iacocca convinced everyone involved, including the United States government, to underwrite \$1.2 billion in loans to rebuild the company. To obtain this critical support, Iacocca used the legendary salesmanship and public relations skills he had honed while president of the Ford Motor Company. Seemingly by sheer willpower, Iacocca saved Chrysler and its employees from financial ruin.

Lido Anthony Iacocca was born in 1924 in Allentown, Pennsylvania. He was the son of Italian immigrants. Lee, as he preferred to be called, learned about business from his father, Nicola, who was a businessman with many interests. Nicola was a cobbler, the owner of a hot dog restaurant, a theater owner, and the owner of one of the first car rental agencies in the country. Iacocca credits his father with passing on to him a love for the automobile.

Iacocca earned his Bachelor's degree from Lehigh University. He later earned a Master's in mechanical engineering, with a specialty in industrial engineering, from Princeton University. He decided early on to become an auto company executive. After graduating from Princeton in 1946 he joined the Ford Motor Company as an engineering trainee. Within a year he realized that he was far better at selling automobiles than at making them. Iacocca entered the fast-track of sales. In 1960, at age thirty-six, he sped into the vice presidency and general management of the company's most important unit, the Ford division.

In 1964 Lee launched the Mustang automobile. Its attractive styling and successful marketing introduced a new wave of sports cars to the Ford operation. The

Mustang earned Iacocca instant fame as an industrial innovator. In 1964 his face was on the cover of both *Time* and *Newsweek* magazines. By 1967 he was the executive vice president of Ford Motor Company. In 1970 he became president of the company. His only superior was Henry Ford II (1917–1987), chairman of the board of Ford Motor Co. For reasons that were never made clear, Chairman Henry Ford II discharged Lee Iacocca in June 1978. It was a shock to many people who saw Iacocca as a natural heir at Ford.

Five months later Iacocca was named president of the rival Chrysler Corporation. He became chairman in 1979 and began turning around the failing corporation. At the time Chrysler was headed for bankruptcy. Iacocca took the number three automaker, deep in debt, and transformed it into a highly profitable enterprise. He began managing expenses by winning approval of over \$1 billion in federal loan guarantees. He then sold off profitable units like the tank manufacturing division and introduced new products to the marketplace. He also brought the president of the United Auto Workers onto the company's board of directors.

Within six years Chrysler paid off its debts and posted a profit of \$2.4 billion. In 1985 Chrysler bought the Gulfstream Aerospace Corporation for \$637 million and the E.F. Hutton Credit Corporation for \$125 million.

Under Iacocca's leadership the company put out innovative new vehicles and eventually bought out competitor American Motors Corporation. As Chrysler bounced back to life in the 1980s, Iacocca became an extraordinary business and corporate celebrity. Some of his detractors felt he was a self-obsessed egomaniac, but many analysts of his career regard him as an important U.S. industrial hero of the late twentieth century.

A key product to the resurgence of the Chrysler Corporation was Iacocca's promotion of the K-car "minivan." It was a vehicle loved by the young family



Lee Iacocca.

in need of room and efficiency. The mini-van largely helped revitalize Chrysler and its public image. It clearly set the trend for the enormous popularity of the sports utility vehicle that claimed much of the auto industry's market in the late twentieth century.

Iacocca continued to be the successful and charismatic CEO of the Chrysler Corporation until his controversial retirement in 1992, during a period when Japanese auto competition was once again hurting Chrysler's profits. He moved into retirement reluctantly after spending much of the previous thirty years of his life as an automobile industry corporate legend. Iacocca remained a major stockholder in Chrysler and in 1995 he became involved in a battle to gain control of the company. In the unsuccessful attempt for control, Iacocca sided with Las Vegas financier Kirk Kerkorian and was strongly criticized.

Iacocca's impact on the auto industry was controversial, but undeniable. He saved the Chrysler Corporation and turned it into a profitable business. In 1998, even in retirement, Iacocca was still involved in the

auto industry, investigating the market for electric cars in California.

See also: **Automobile Industry, Chrysler Corporation**

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IDAHO

One of the most sparsely populated states, Idaho remained undeveloped until gold and silver strikes began to attract eager prospectors. Like other areas of the Great Plains and the West, Idaho was at first just a place to cross during a westward journey, not a place to settle. As mining and agriculture began to take hold and the transcontinental railroad made settlement and commerce more feasible more people began to make Idaho their new home. Contemporary Idaho has a number of important industries and significant agricultural products, especially potatoes. Idaho's tourist industry is also strong, attracting thousands annually to the state's ski resorts and scenic areas.

During the first quarter of the nineteenth century Idaho was part of the vast territory known as the Oregon Country, claimed at various times by the United States, Great Britain, Spain, and Russia. Until 1805 no known white explorers had disturbed the Native American tribes who were the only residents of Idaho. When Meriwether Lewis and William Clark's expedition reached the region that year the Native Americans helped supply the explorers for their journey to the Columbia River and the Pacific. Fur trappers and missionaries soon followed. Although the Oregon Trail crossed Idaho and the area officially became United States land in 1846, no one thought the territory worthy of settlement until 1860. In that year, Mormons established the first permanent settlement at Franklin and a gold rush began in northern Idaho. The Idaho Territory was organized in 1863. According to historian F. Ross Peterson, "It is a sad fact of American history that while hundreds of thousands of uniformed Americans in Virginia, Tennessee, and Maryland were trying to kill each other [in the American Civil War (1861–1865)], thousands of Americans in the West were running from creek to brook to river trying to get rich quickly."

In the following two decades Idaho grew rapidly with Boise established as the capital in 1863. The Boise Basin became the most developed part of the state, reaching a population of 6,000 by 1864. Two years later \$24 million in gold was produced during the Boise Basin strike. By then more than \$50 million in gold had been taken from the Idaho mountains with little regard for possible damage to the environment.

As mining boom towns came and went agriculture was becoming more important in Idaho. Telegraph service and the transcontinental railway reached the state, and the population increased twofold between 1870 and 1880. The Utah and Northern Railroad,

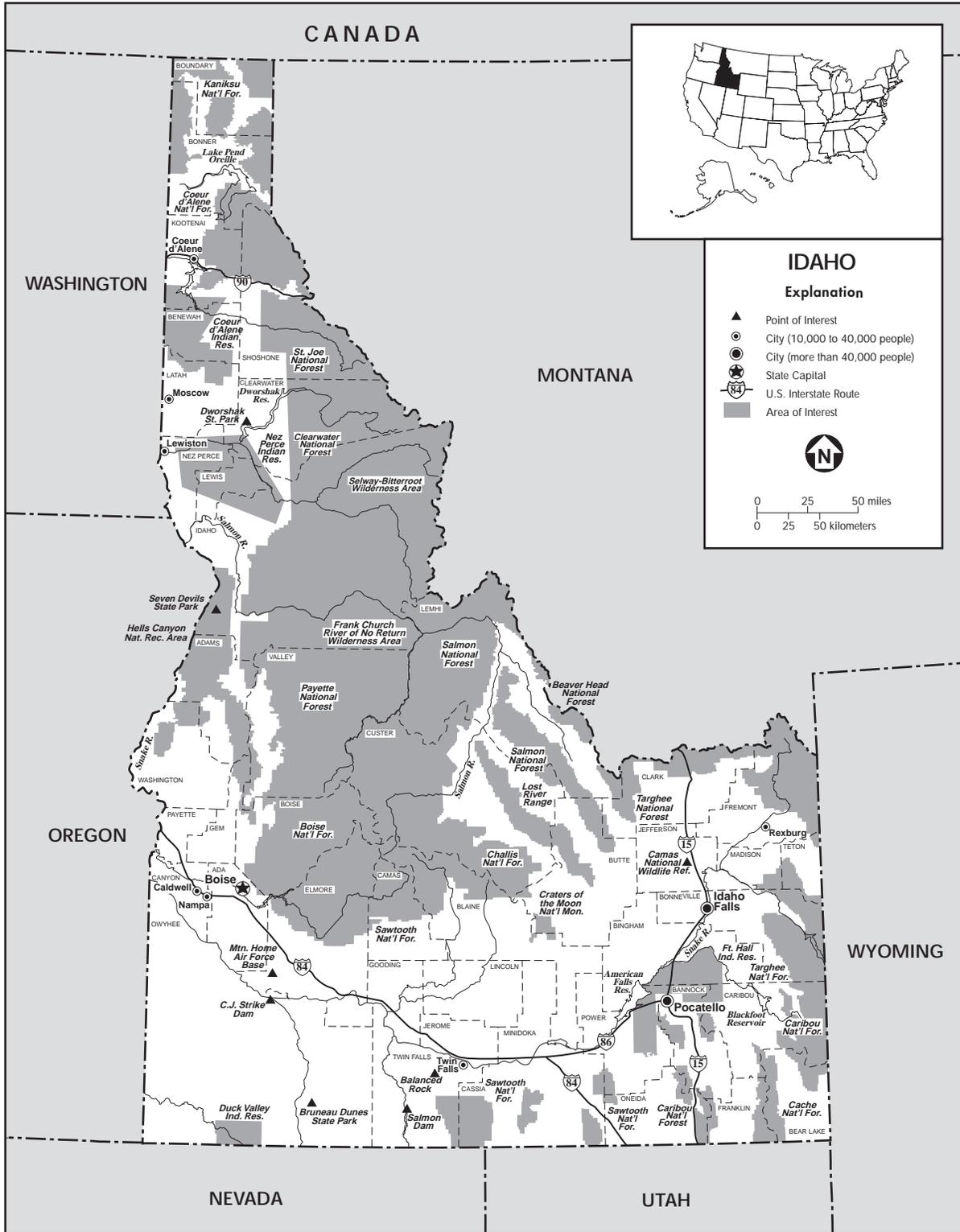
owned by mogul Jay Gould, was the first major railroad in the state which hastened the settlement of northern Idaho. Many Mormons, encouraged by their Utah church leaders, migrated to Idaho during this time to establish farms and communities such as Blackfoot and Victor. The Oregon Short Line was completed through Idaho in 1884 and a traveler could now reach Portland, Oregon, from Omaha, Nebraska, in five days—a trip that had taken Lewis and Clark 18 months to complete in 1805. The Northern Pacific and the Chicago, Milwaukee, Saint Paul, and Pacific railroads also made possible the development of lead-silver lode mining in the area of the Coeur d'Alene Mountains. During the late 1870s, as in all territories settled by whites, Native American residents were gradually pushed off their land by a series of wars. The most famous Idaho battle was the Nez Percé war, after which Chief Joseph surrendered and his people were pushed onto reservations.

Another rush of prospectors came to Idaho between 1880 and 1884 after silver and lead were discovered in south central Idaho and the panhandle region. Idaho became the 43rd state in 1890, having reached a population of more than 88,000 that same year. During the 1890s Idaho was plagued with violent labor disputes in the mining regions and political bickering among Mormons and non-Mormons.

Further economic growth was made possible in the early twentieth century by federal land and irrigation projects. A very large sawmill at Potlatch was an indication of an increasingly prosperous timber industry, and agriculture also began to grow in importance in the state. The development of the russet potato in the 1920s gave Idaho its signature agricultural product. A farm depression in the 1920s, however, lasted through the Great Depression of the 1930s and did not end until World War II (1939–1945). Both agriculture and industry were important after the war, especially the fertilizer and potato businesses. Development was encouraged even more after the construction of a nuclear reactor testing and power plant at Idaho Falls in 1951, the first such generating station in the country. Idaho's mountains and open spaces also created a thriving tourist business. Today, the Sun Valley ski resort and other scenic areas attract thousands of tourists each year.

Contemporary Idaho faces new problems as the population expands and environmentalists push for better land use planning. Controversies also arise over mineral development and over water supply and dam construction. A major economic and human disaster occurred in 1976 when the new Teton Dam in eastern Idaho collapsed, causing loss of lives and \$400 million in property damage.

Idaho



State of Idaho.

Idaho's economy in the 1990s was largely dependent on agriculture, mining, forest products, and food processing. Idaho is the nation's leader in potato production; most potatoes are grown in the Snake River plain, and about three-fourths of the crop is used for processed potato products such as french fries or instant mashed potatoes. Other important crops produced by Idaho include hay, wheat, barley, and sugar beets. This agricultural bounty is made possible because nearly 64 percent of all land used for farming in the state is under irrigation. Mining is only a small percentage of the state's annual gross product, but a variety of minerals, such as garnet, phosphate rock, construction sand and gravel, silver, lead, and pumice are produced. It is one of the few places that produces molybdenum, in a reopened mine at Thompson Creek.

Manufacturing in the state is concentrated in the resource industries—food processing, chemical manufacturing, and lumber production. In the late 1970s and early 1980s a number of northern California computer concerns, such as Hewlett Packard, opened or expanded plants in Idaho. The leading food producer is Ore-Ida Foods, and J.R. Simplot processes both food and fertilizers. Some of the wood products industries include Boise Cascade and Louisiana-Pacific.

The state survived a downturn during the recession of the early 1980s by restructuring its major industries. Although the number of workers employed in many industries in the state has shrunk, chemical manufacturing employment grew 36 percent during the 1980s, and paper industry employment rose by 30 percent. Between 1982 and 1991, tourism employment increased by 35 percent, and jobs in the high-technology industry increased by 50 percent between 1986 and 1990. In 1996 the average per capita income in the state was \$19,539, ranking 43rd in the nation. Although Idaho was a pioneer in establishing fair labor practices only 8.1 percent of all workers belong to unions, and the state is now a right-to-work state.

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ILLEGAL DRUGS (ISSUE)

One of the most serious social problems in the United States since World War II (1939–1945) has been the trafficking in illegal drugs. These drugs—mostly derived from the opium poppy or from coca leaves—have powerful psychotropic (mind-altering) effects and are very addictive.

The U.S. government's attempt to deal with the drug problem has few defenders. The devastation that heroin and "crack" cocaine have imposed on the nation's already disorganized central cities and even on its affluent suburban high schools are widely acknowledged. There is less agreement on the root causes of this policy failure. Critics differ widely. Conservatives point to the weakening of family values. Liberals have no consolidated position on the drug problem. Some counsel a "get tough" policy of more vigorous enforcement of existing drug laws. Others go to the other extreme and favor the decriminalization of drugs. They point to the fact that the greatest growth in the U.S. prison population is from non-violent drug offenders. They argue that the result of the official U.S. policy banning drugs has been to turn addicts into criminals and to create a world-wide "black market" in illegal drugs.

As Adam Smith (1723–1790), the eighteenth century spokesman for free market economics, might have predicted, the constricted supply and growing demand of a banned substance inevitably increases the price and attracts entrepreneurs—in this case, organized crime. Or, as novelist William Burroughs once ironically remarked, the economic marvel of heroin is that the problem of slack demand never arises. Heroin is a very salable product: once introduced into the population, it needs no advertising; it not only sells itself, it drives the buyer to sell himself or herself.

As early as the second half of the nineteenth century, medical researchers recognized that opium and morphine combined beneficial pain-killing qualities with problems of addiction. In fact, when the German pharmaceutical company Bayer introduced heroin into the United States, it called the drug a non-addictive substitute for morphine. By the time government regulation arose during the Progressive period (1900–1920), the addictive qualities of these drugs

Illegal Drugs (Issue)



Policeman guarding 20 tons of cocaine in 1989, which at the time was the largest drug bust to date. The cocaine had a street value of \$6.7 billion.

were better understood and the government banned them in the Pure Food and Drug Act of 1906 (which prevented Coca-Cola Co. from adding its most potent ingredient). By World War II, a growing number of drugs were ruled illegal. Still, the use of illegal drugs before World War II was minuscule by late twentieth century standards and confined to the margins of society.

In the first few decades after World War II the worldwide black market in illegal drugs grew steadily and sustained the profit margins of organized crime. Not since the Eighteenth Amendment to the U.S. Constitution prohibited alcohol in 1918 (followed by the repeal of Prohibition in 1933) had organized crime been able to corner the market on such an attractive commodity. Still, in spite of a growing underground drug culture in the 1940s and 1950s, there was little panic concerning drugs in mainstream society.

This all changed suddenly in the 1960s and 1970s, as rampant drug use (both marijuana and hallucinogenic drugs) by the young and a “tidal wave” of heroin inundated the United States. In contrast to earlier heroin, which originated in the opium poppy fields of Afghanistan, most of this new wave of drugs came from the “golden triangle” area of Laos, Burma, and Thailand in southeast Asia.

This was made possible by a remarkable set of military and political alliances between the Central Intelligence Agency (CIA) and the warlords that it recruited to fight covert anti-communist campaigns in

Laos, Cambodia, Thailand, and Burma during the Vietnam War (1964–1975). At that time, Congress had granted authority to President Lyndon Johnson (1963–1969) to wage limited war in Vietnam, but nowhere else. In order to generate funds for covert anti-communist warfare, the CIA allowed the Meo tribesmen of northern Laos, among others, to cultivate opium and to sell large quantities of drugs. Beginning in 1965, “Air America,” a CIA-front operation, even participated in transporting drugs. A large portion of the drugs made their way into the United States, and through corruption among individual agents as well as South Vietnamese government officials, some went directly into the veins of U.S. soldiers in Southeast Asia. The Corsican Mafia (the “French Connection”) in Marseilles, France, also prospered from this glut of heroin.

In the late 1970s youth-culture drugs like LSD faded from the U.S. drug scene and the more addictive heroin once again became popular. The Sicilian Mafia, facing competition from the Corsican Mafia, stepped up its own drug operations, smuggling heroin from anti-communist guerrillas in Afghanistan. Thus, the connection between opium trafficking and Cold War anti-communist crusades clicked into place again as much of this new opium product was generated by the rebel Mujahadeen to fund their CIA-supported war against the communist government of Afghanistan. Anti-communist warlords needed money to fund their operations, and the CIA was willing to “look the other way” as they grew and sold prodigious quantities of

drugs. These banner crops needed outlets, and U.S. organized crime was there to service the market.

Late in the 1970s the U.S. heroin market seemed finally to have reached its saturation point. New organized crime rings in Latin America began to step up production and distribution of a different, but equally addictive and destructive drug, cocaine. By the mid-1980s new, more potent methods of ingestion (free-basing) and forms (crack) appeared. Whereas heroin never lost its association with a low socio-economic consumer profile, cocaine appealed to a more “upscale” public. Hollywood stars like Richard Gere were quite open in their acceptance of the drug. Because of the few short-term side effects associated with its use, cocaine became the “drug of choice” during the 1980s. Sex was reportedly more enjoyable on cocaine. Long-term side effects like heart problems and sexual impotence did not become apparent until later, when millions of Americans found themselves addicted.

On January 30, 1982, President Ronald Reagan (1981–1989) mobilized his forces and announced a war on drugs. The First Lady, Nancy Reagan, took a high-profile position and sternly advised America’s youth to “Just say no!” Vice President George Bush became the chief coordinator of drug policy. As former head of the Central Intelligence Agency, Bush was no doubt familiar with the problem. He targeted a prominent center of narcotics distribution, south Florida. Bush incorporated the U.S. Attorney’s Office, the Drug Enforcement Agency, the U.S. Customs Service, the Federal Bureau of Investigation, the Bureau of Alcohol, Tobacco and Firearms, the Internal Revenue Service, the U.S. Border Patrol, and the Army, Navy, and Coast Guard into the fight. These agencies pooled resources, shared information, and coordinated a strategic assault to rid the United States of what many believed was a drug plague that caused crime, social dislocation, and demoralization.

During the first year of the war, the U.S. Attorney’s Office reported a 64 percent increase in drug prosecutions. In 1983 six tons of cocaine were seized in south Florida; by 1985 such seizures snared twenty-five tons; in 1986, thirty tons. According to the DEA, this represented more cocaine than the drug cartels in Colombia had produced in 1980. While these arrests and seizures were touted as successes, many realized that more people were using cocaine, heroin, and other drugs than ever before. Even in south Florida, the primary theater of combat, illicit drugs were as easily available as over-the-counter varieties, and were often sold in the same places—openly and without fear of the law.

At the same time the new Latin American cocaine cartels were growing in power, the Reagan administration began to wage a covert war against the Cuban-supported Sandinista government of Nicaragua and to oppose all Marxist and communist influence in Latin America. In a post-Vietnam mood of disgust with waging wars against Third World countries, Congress forbid the use of public funds to overthrow the Sandinistas. The Reagan administration used covert methods, paid for with predominantly private funds. The resulting congressional Iran-Contra hearings investigated relations between the United States government, the Islamic fundamentalist regime in Iran, and the anti-Sandinista *Contra* forces in Nicaragua. Buried in this investigation was the question of whether drug sales helped fund the *Contras*.

Responding to public pressure, the Senate Foreign Relations Committee set up a special Subcommittee on Terrorism, Narcotics, and International Operations, chaired by Senator John Kerry, to conduct hearings into these matters. Its findings were clear: at the very least the CIA (and other U.S. agencies) had again looked the other way while the Colombian drug cartels provided millions of drug-generated dollars to arm the *Contras*.

The Kerry Committee also found instances of drug activities on the part of U.S. allies in the region, the most important of whom was General Manuel Noriega of Panama, known by U.S. drug enforcement agents since 1971 as a drug trafficker linked to the Colombian cartels. The Kerry Committee learned that the CIA had used Noriega to funnel secret arms to the *Contras*. As evidence uncovered by the Kerry Committee showed, Noriega had been on the payroll of the CIA since 1976, when he collected an annual fee of \$110,000. By 1985 he was collecting \$200,000 per year, all in secret cash deposits in the Bank of Credit and Commerce International (BCCI—which would figure prominently in new scandals in the early 1990s, including drug-money laundering). Ostensibly Noriega was “our man” in Central America serving in the war against communism. Yet in 1986, when the DEA proposed an undercover plan to unravel the mysteries of a multibillion-dollar drug money-laundering scam in Panamanian banks, it had to seek CIA approval. The go-ahead was given by the CIA, but with the stipulation that any information that exposed Panamanian government officials be dropped.

The DEA’s findings in this regard may have been ignored, but the Kerry Committee’s revelations were not. In 1988 the U.S. District Court in Miami issued an indictment against Noriega and a warrant for his arrest. Eventually Noriega was caught, tried, convicted, and

Illinois

imprisoned. During his trial, both the CIA and the National Security Council (NSC) refused to hand over files on Noriega, saying that to do so would compromise national security.

In late November 1997, under the administration of President William Clinton (1993–2001), the United States and Mexican governments entered into an agreement to help control the weapons smuggling from the United States into Mexico. Under the agreement, the U.S. Federal Bureau of Investigations (FBI) and the Office of Alcohol, Tobacco, and Firearms (ATF) were to coordinate efforts with Mexico's Procuraduria General de la Republica (PGR) to stop illegal trafficking of arms. A U.S.-based ATF office and U.S. Customs personnel at the American Embassy in Mexico City were called upon to oversee the effort. Experts from the two countries conducted investigations to determine whether weapons sold legally in the United States were diverted to the black market, where drug traffickers in Mexico acquired them. The new accord was part of a sophisticated joint strategy to combat drug trafficking, a strategy which included the creation of a hotline between the U.S. Pentagon and Mexico's Secretary of National Defense to coordinate efforts to intercept drug shipments moving into the United States.

The joint U.S.-Mexico effort to control illegal sales of firearms was part of an ongoing campaign embraced by the Organization of American States (OAS) to reduce gun smuggling and reduce violence both in the United States and in Central and South America. The campaign, which was first proposed by Mexico, sought to tighten controls on weapons trafficking across national borders and impose restrictions on weapons production. According to a report from Mexico's drug enforcement campaign, customs and other law enforcement authorities confiscated almost 23,000 illegally imported weapons and 1.2 million munitions during 1996 alone. The report said at least one-third of the weapons and almost one-fifth of the munitions were destined for drug traffickers in the black market.

Ironically, the joint U.S.-Mexico effort followed reports that the Clinton administration had requested a threefold increase in the budget for exports of weapons and military equipment to Mexico. According to the non-governmental Federation of American Scientists (FAS), the Clinton administration requested \$9 billion for sales of weapons, aircraft, radar units, and other military equipment to Mexico in the 1998 budget. The FAS, whose board of sponsors includes over 55 American Nobel Laureates, claimed that the United States domestic gun market was the principal source of weapons for the drug traffickers, and that both the Mexican

government and the drug traffickers were dependent upon the United States for guns. The FAS also warned that weapons originally exported to Mexico to combat drug trafficking would soon be diverted for other purposes.

Thus, as of the late 1990s, the ability of the U.S. government to control the black market in drugs and guns appeared to be limited by a set of strategies, reflexes, and relationships in place for generations.

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ILLINOIS

Situated in the center of the Midwestern prairie, on the edge of Lake Michigan, the state of Illinois was always in a good position to benefit from its own natural resources. It is bounded on the west by the Mississippi River, while the Ohio runs along its southern border. Good land and water routes helped the state grow from an undeveloped territory into a powerhouse of agriculture and industry. Most notable of the land routes were the numerous railway lines running through the state. Illinois cities and farms, as well as its service industries continuously fostered a diverse economy. This eventually placed the state high in per capita income nationwide, with Chicago as its shining star.

The first white people to exploit the resources of Illinois were French fur traders who explored Illinois rivers in the seventeenth century. Although the British controlled the Illinois territory after the Treaty of Paris (1763), they made no attempt to establish permanent settlements. The state of Virginia claimed Illinois from 1778 to 1784 but gave up its claim to the area when Illinois became part of the new Northwest Territory. The Treaty of Greenville in 1795 gave the United



State of Illinois.

Illinois

States the tract at the mouth of the Chicago River, which later became the site of Chicago. The Illinois Territory was created in 1809, and after the British were defeated in the War of 1812 (1812–14), Illinois formally became the twenty-first state in 1818.

After the final defeat of the Indians in the Black Hawk War of 1832 the Illinois prairie became open to settlement, especially by people from Kentucky. The term “land office business” certainly applied to Illinois during this time, as settlers, who were lured by cheap land prices, flocked into the new state. Farmers and entrepreneurs from the East found possibilities in the state’s good soil and convenient water routes.

In the first part of the century, schemes to promote rapid economic development in the form of roads, canals, and railroads left the state in a debt so heavy that it would persist for 50 years. Yet, Illinois continued to grow rapidly, and northern and central Illinois were helped considerably when the short-lived Illinois and Michigan Canal opened in 1848. A network of railroads was built in the 1850s and allowed the state to prosper during the American Civil War (1861–65). It fostered continued growth after the war by providing easier routes to market for both farmers and manufacturers.

The early years of the industrial revolution helped both farm and city. The John Deere plow and McCormick reaper, both made in Illinois, revolutionized agriculture during the mid-nineteenth century and added to the increased prosperity of the state

The period after the American Civil War saw substantial economic growth, particularly in the city of Chicago. In the minds of its citizens, Illinois was soon divided into two parts: Chicago and “downstate.” Chicago became the central city of the Midwest; its development was spurred by its proximity to Lake Michigan and the Chicago River, and by the railroads, which brought farm products to the city. The great Chicago Fire of 1871 temporarily halted the city’s growth. But it was soon brought into even greater prominence by steel mills, banks, new buildings, and transportation networks. The crown jewel in the latter part of the nineteenth century was the building of the “White City”—the Columbian International Exposition of 1893. It showcased the technological achievements of a growing United States and highlighted the importance of the nation’s second largest city at the time.

Foreign immigrants, so vital to the growth of the entire state, came at first from northern Europe and after 1890 from southern and eastern Europe. They developed prairie farms, small towns, and cities and

eventually provided needed labor for Chicago industries. Chicago became a cradle of the labor movement; the Knights of Labor and the Chicago Federation of Labor, two of the earliest unions were originated in Chicago. The 1886 Haymarket riot and the 1894 Pullman Strike brought the labor problems of Illinois to national attention.

Most of Illinois prospered during the first 30 years of the twentieth century. The International Harvester Company became a major Chicago manufacturer of farm equipment. The Caterpillar Company, makers of earth-moving equipment, dominated Peoria. The Chicago steel industry, centered in Gary, Indiana, became second only to that of Pittsburgh. The state led the nation in food production, agricultural implement manufacture, and agricultural finance. World War I (1914–18) spurred economic growth in the state. War production demanded more the unskilled labor, which was again provided by European immigrants and also by African Americans coming from the South.

The pursuit of wealth preoccupied Illinois during the 1920s, highlighted by the violence and corruption surrounding the Prohibition era and the organized crime wave that accompanied it. The Great Depression affected Illinois as much as it did the rest of the nation. Farmers were the first to suffer; then industries began closing around 1930. Growth slowed drastically, and the Illinois coal industry suffered. The pro-business Republicans who had run the state since the 1850s suffered great losses in the 1932 election, as African Americans, white ethnic minorities, and factory workers responded to the economic hopes brought by Franklin D. Roosevelt’s New Deal. The 1933 Chicago World’s Fair (named “A Century of Progress”) brought attention to Chicago and optimism to its citizens, despite depressed economic conditions. During World War II (1939–45) Illinois began to recover, helped largely by military contracts.

Prosperity reigned in Illinois during the 1950s. At that time the economy began its gradual shift from a manufacturing to a service economy. The negative effects of heavy industrialization began to appear as well. By the 1960s the state faced severe problems with air and water pollution, and urban decay. The Chicago stockyards closed in 1972. The yards had been a symbol of Chicago’s preeminence in the meat-packing industry since 1865. A severe recession followed during the early 1980s, as industries like steel, machine tooling, and automobiles were facing increasing foreign competition and were forced to lay off workers. Many industries fled to the South, and by 1990 the unemployment rate in Illinois was 7.2 percent, in contrast to the national average of 5.2 percent. In 1992

the city of Chicago faced additional economic losses when water tunnels under the city ruptured. In 1993 flooding of the Mississippi and Illinois rivers caused 1.5 billion dollars of damage in western Illinois.

In the 1990s Illinois regained economic strength, ranking seventh in per capita income among all the states in 1996. It prospered in the service sector, the metals industry, and food processing, as well as in the manufacture of industrial and farm equipment, electric equipment, appliances, electronic components, and printing equipment. The 1989 Technology Advancement and Development Act aided companies that develop advanced technologies for commercial use. Labor unions in Illinois declined to little more than 20 percent of workers statewide, but continued to be strong in the Chicago area. Chicago remained the Great Lakes' busiest port and the leading wholesaling center of the Midwest, as well as Illinois's industrial center. The city was followed by Rockford, the East St. Louis area, Rock Island and Moline, and Peoria. The tourism industry also became an important economic boon to the state, with Chicago as a major tourist destination.

Led by the central and northern corn-belt counties, Illinois was one of the top five producers of agricultural products in the late 1990s. The total number of farms, however, declined significantly after World War II. Mining is also an important industry in the state. Illinois continued producing significant amounts of non-fuel minerals, including industrial sand and gravel, cement, and clays. The state was the only producer in the nation of fluorspar in 1995.

See also: Black Hawk War, Caterpillar Company, Chicago Fire of 1871, John Deere, Haymarket Bombing, Knights of Labor, Cyrus McCormick, McCormick Reaper, Northwest Ordinance, Pullman Strike

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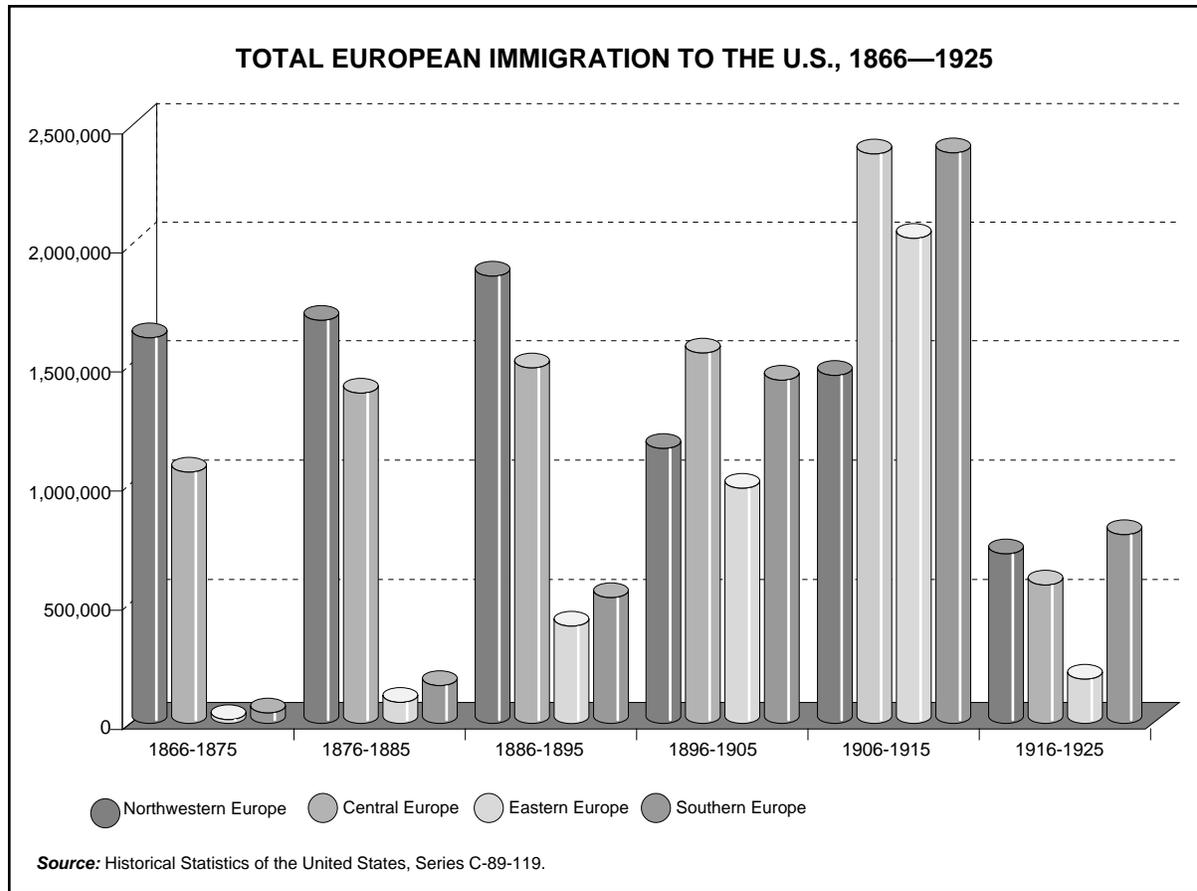
IMMIGRATION (ISSUE)

Immigration is the influx of people to a country or region which is different from their country of birth. In the United States, immigration has been a basic part of life at least since the settlement of Jamestown in 1607 and remains part of American life today. One of the truisms of U.S. history, then, would seem to be that all Americans are immigrants or the descendants of immigrants.

While the early white settlers of America were largely English, there were significant numbers from other areas including Ireland, Scotland, and Wales in the British Isles, various German states, French Huguenots, as well as Dutch and Swedes who were absorbed when their settlements became English colonies. With the exception of the Huguenots who settled in Massachusetts and South Carolina, most of the non-English settlers were in New York, Pennsylvania, and Delaware. Immigration can be voluntary or involuntary. Africans, too, represented a significant portion of the immigrant colonial population, especially in Virginia and South Carolina. However, immigration was not a clear concept in the colonial period when all of the colonies were being settled. In fact, prior to 1820, no statistics were kept on immigration and regulation was largely left to the states. In that year the Department of State began to keep statistics. Thus, in the sense that immigration is an observed and recorded phenomenon, it can be said to have begun in the United States around 1820.

Emigration (the outflow of people from the country of origin) was characterized by two factors—push and pull. Push is shorthand for the various reasons people might want or need to leave their home country; the pull consists of the attractions that the United States offered. Famine, religious persecution, failed revolutions, and war have been strong factors “pushing” emigrants toward the United States. Low-cost land in the late nineteenth century, religious and political freedom, and economic opportunity have been the major “pull” factors which helped immigrants (people of foreign heritage newly-landed in the United States) achieve the promise of success in their new country.

U.S. immigration can be divided into several distinct phases based on the origins of those entering the country. Immigrants from the British Isles, including Ireland, and Germany heavily dominated the “old” phase of immigration, prior to the 1890s. The “new” immigration phase, from the 1890s to 1920, saw large numbers of immigrants from southern and eastern



Shown are the changes in European immigration to the United States. Prior to 1896 immigrants were primarily from Northwestern and Central Europe. Between 1896 and 1915 the number immigrating from Eastern and Southern Europe greatly increased.

Europe. From 1920 to 1965 there were nationality quota limitations on the number of emigrants from a particular country entering the United States each year. The post-1965 period continued limitations on the numbers entering the country each year, but abandoned nationality quotas.

Between 1830 and 1880 some 9 million people entered the United States. Most were from western and northern Europe. Irish and Germans were the two most identifiable groups, although equally large numbers came from Great Britain and smaller but steadily increasing numbers from Scandinavia. Repeated failure of the potato crop in Ireland beginning in the mid-1840s and the failure of the 1848 revolutions in Europe were events that led to dramatic increases in migration.

Many immigrants entered the United States through Castle Garden, New York City's immigration depot. In 1864 Congress established the Bureau of Immigration, but it was primarily concerned with collecting statistics. In 1882 the first comprehensive, national immigration law was passed, but primary responsibility still

lay with the states. In 1891 Congress established immigration as a federal responsibility and established formal procedures and standards for admission to the U.S. Since most immigrants were entering the country through the port of New York a processing center was established at Ellis Island in 1892.

Between 1880 and the outbreak of World War I (1914–1918) 25 million people entered the United States. Beginning in the late 1880s increasing numbers of immigrants derived from eastern and southern Europe. They were Italians, Poles, Russian and other eastern European Jews. These “new” immigrants supplemented rather than replaced emigration from northern and western Europe, which continued as before. The new immigrants were overwhelmingly non-Protestant and few spoke English. The new immigrants triggered concerns about the future character of the United States and how such different groups could be assimilated. There was also concern about Asian immigrants that led to the Chinese Exclusion Act of 1882 and the Gentlemen's Agreement between the United States and Japan in 1907. These concerns first led to

demands for a literacy test for immigrants that was enacted over President Woodrow Wilson's (1913–1921) veto in 1917 and the establishment of quotas for various nationality groups based on the 1890 census, first enacted on a temporary basis in 1920.

The quota system was made permanent in 1924 and governed entry into the United States for forty years. Some countries rarely filled their quotas while others, in central eastern and southern Europe, often had long waiting lists. Latin American, Caribbean, African and Asian countries had minuscule quotas. The quota represented a significant reduction in the number of people allowed into the country. Between 1925 and 1929 the total quota was 164,667 people per year, a striking contrast to the 1.2 million immigrants in 1914, the last year before World War I. Some exceptions were made to the quotas for refugees from World War II through the Displaced Persons Act of 1948 and the McCarran-Walter Act (1952), but total immigration remained well below pre-quota levels.

In 1965 the Immigration and Nationality Act ended the national origin quota system and established new criteria for admission to the United States based on the need for certain skills in the workforce, refugee status, and the reunification of families. The changing nature of immigration is clear from the comparison between the origins of immigrants since 1820 and the origins of those arriving between 1981 and 1996. Seven out of the top ten nationalities represented in the emigration from 1820 to 1981 were European—Germany, Italy, the United Kingdom, Ireland, the former Soviet Union, Austria, and Hungary. The others are Mexico, Canada, and the Philippines. In contrast, no European nation appears in the list of most common nation of origin from 1981 to 1996. This group is dominated by Mexico, with nearly a quarter of all emigrants, along with Asian and Caribbean nations.

See also: Tenements

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IMPERIALISM (POSSESSION OF COLONIES) ISSUE

Imperialism is a policy aimed at the extension of political, economic, and cultural control over areas beyond a nation's boundaries. It can be accomplished in one of four ways: by military conquest; by treaty; by lending money to a weak country and then taking over control when the recipient country is unable to repay the debt; by economic penetration followed by intervention when the settlers from the expansionist country demand it. During the late nineteenth and early twentieth centuries the United States engaged in all these activities.

Modern imperialism was triggered by the Industrial Revolution, which so increased the productive capacity of the major European states that they were forced to seek overseas markets and sources for raw materials. This process began around 1870. The United States joined the competition late because the country had been preoccupied with westward expansion across the North American continent.

Until the 1890s overseas expansion was not a matter of high priority, interest in the acquisition of Cuba peaked from time to time, especially during the 1850s. The United States purchased Alaska from Russia in 1867, and established a presence in Samoa during the 1870s. The importance of Hawaii was recognized early in the nineteenth century; by 1875 a treaty made Hawaii a virtual protectorate of the United States and gave the country control of Pearl Harbor.

American imperialism received new impetus during with the Spanish-American War (1898), when the press stimulated a spirit of nationalism. Between 1895 and 1898 the native Cubans were in revolt against an oppressive Spanish regime. Major American newspapers gave the rebellion extensive and sympathetic coverage, which fueled demands for action. The United States demanded a settlement and sent the battleship *Maine* to Cuba to protect American interests. When it blew up in Havana harbor on February 15, 1898, hostilities became a certainty. The war in the Caribbean began in April and lasted only until August 1898. The conflict included U.S. invasions of Cuba, Puerto

Rico, Guam, and the Philippines. In addition, during the height of wartime enthusiasm, Hawaii was annexed. Early in the war the United States, by means of a law known as the Teller Amendment, had denied any ambition to take over Cuba. However, the actual conquest of Cuba during the war naturally raised the question of the status of the island in relation to the United States.

The war was formally concluded by the Treaty of Paris of 1898 in which Spain ceded Guam and Puerto Rico and sold the Philippines to the United States for \$20 million. Spain also gave up her claim to Cuba which remained under American military occupation from 1898 to 1902.

During the war attitudes shifted among many groups in U.S. society and the desire for territorial expansion matured. It was especially well developed among business leaders, advocates of a large navy, and influential politicians like Theodore Roosevelt and John Hay. They came to be known collectively as the "Imperialists." They argued that territories won with U.S. blood should not be given up, that ownership of overseas territories would be good for business and trade, and that to be a great nation, the United States had to have a great navy (which, of course, required coaling stations and bases all around the globe).

Not everyone agreed with the Imperialists. The opponents of expansion, including former President Grover Cleveland, author Samuel Clemens, and Progressive Jane Addams, were given the name "Anti-Imperialists." They argued that conquest was incompatible with U.S. tradition, and that the economic advantages of overseas possessions would be offset by the dangers of potential conflict with other nations. The debate on Imperialism raged on until February 6, 1899, when the Treaty of Paris was narrowly ratified by two votes.

American expansion did not end with the conclusion of the war. In Cuba, a U.S. influence remained, although United States troops were withdrawn in 1902. Cuba was forced to accept the terms of the Platt Amendment, which permitted U.S. intervention and reduced Cuba to the status of an American protectorate. This relationship endured until 1934 and led to substantial U.S. economic penetration.

United States' expansion in the Caribbean continued. In 1903 the United States fomented a revolution in Panama, which separated the province from Columbia. The United States and the new Republic of Panama immediately concluded a treaty, which allowed the United States to build a canal in Panama on land leased

for 100 years. The Panama Canal was built over a period of 10 years from 1904 to 1914, and its very existence required a United States presence in the Caribbean. The importance of the region to the United States was also reflected in the so-called "Roosevelt Corollary" to the Monroe Doctrine. In 1904 President Theodore Roosevelt (1901–09) declared that the U.S. reserved the right to intervene in the affairs of smaller western hemisphere nations (whom the U.S. policy makers sometimes called "banana republics") should these smaller countries fail to meet their financial obligations to European creditors. The United States would reorganize the repayment schedule to prevent invasion by the European creditors. During the next few years this policy was applied in the Dominican Republic, Haiti, and Nicaragua.

The Dominican Republic went bankrupt in 1904. The following year the United States took over control of the country's customs houses and the administration of its finances. Marines were inserted in 1916 to maintain order and the Dominican Republic remained under American military government until 1924. Even after the marines were withdrawn, U.S. financial control continued until 1941. Meanwhile private U.S. interests gained control of the financial affairs of the country and 30 percent of the sugar industry.

In 1915, in order to prevent possible occupation by German creditors, the U.S. intervened in Haiti and remained there until 1934. The American presence was based upon a treaty that allowed for American control of Haiti's finances and defenses, but the intervention in Haiti was deeply resented by the Haitian people, even though it brought infrastructure repair and improved health standards.

During the early twentieth century U.S. Marines entered Nicaragua on several occasions, at the request of the government, to maintain order. Moreover, there was an extensive financial connection. By 1913 U.S. interests handled 30 percent of Nicaragua's imports and bought 56 percent of exports. During the next few years U.S. businesses assumed almost complete control of the nation's finances. President Calvin Coolidge sent the Marines back into the country in 1925 to help put down a revolution and to protect U.S. interests. The Marines did not leave again until 1933.

During the era of U.S. expansionist activities abroad there was also a vast increase in overseas investments, which rose by 500 percent between 1898 and 1914. Canada and Mexico were the leading targets for U.S. investments. In the former, where the major interests were manufactured goods, chemicals, and lumber, the increase was from \$189.7 million to \$867

million. In Mexico the increase was from \$49 million to \$336 million. There, investments were concentrated in extractive industries like mining and oil as well as in railroads. In Central and South America, U.S. investments totaled \$458 million by 1914. The main interests in those regions were fruit and mining. Investments in oil did not begin to expand until later.

Investments in Asia also increased, but not to the extent predicted by the Imperialists of 1898, who had argued that possession of the Philippines would open vast markets and sources of raw materials, especially in China. However despite major efforts on the part of the U.S. government to promote trade and investments in the Far East, trade did not flourish. From 1898 to 1914, U.S. exports to Asia increased from \$39.2 million to \$380.2 million. Although the latter figure may seem large, it represented only 6.05 percent of all U.S. trade. U.S. economic penetration in the Far East did not develop to the level that had been predicted because of the poverty in the region and the determined opposition of competitive nations, especially Japan.

Overall, U.S. imperial expansion was not as successful as many people had hoped. The interventions were expensive and often frustrating because they caused bitterness and resentment among the people of the affected countries. Moreover, as U.S. productivity rose, businesses sought to expand their markets in the Western Hemisphere rather than in the Far East. This required the promotion of good will, not tension. So the Age of Imperialism waned.

In 1934 Congress passed legislation providing for Philippine independence in 10 years; in Latin America a new “Good Neighbor” policy replaced the Roosevelt Corollary. Troops were removed from the Dominican Republic, Haiti, and Nicaragua, and treaties with Cuba (1934) and Panama (1939) ended their protectorate status. At an international conference in Montevideo, Uruguay, in 1933, the United States formally renounced intervention.

But, after the 1959 revolution in Cuba, the Cold War priorities of the U.S. dictated a new round of intervention by the Central Intelligence Agency (CIA) in Cuba, Honduras, Chile, Nicaragua, and a number of other countries.

See also: Big Stick Diplomacy, Dollar Diplomacy

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IMPORTS

Imports are goods and services that are brought from the country in which they are produced into another country for use by its people. Examples of goods that have been imported into the United States include oil from the Middle East, cars from Japan, wine from France, and bananas and coffee from South America. There are thousands of other imported goods, ranging from raw materials to finished products like computers, clothing, and jet aircraft.

Imports play an important role in the economy of virtually all modern industrial nations. In many leading industrial nations, 20 percent or more of all money spent was used for buying something produced in another country. The United States is one of the world's leading importing countries, which enables citizens to buy a wide range of goods and services.

Imports give citizens a broader range of products to choose, but they can be a source of political anxiety as well. Laborers who rely on sales of domestic-made products for job protection may complain that their fellow citizens are spending money on foreign-made products when similar products may be produced domestically. The higher the amount of imports, the greater the number of jobs that may be lost to foreign workers. In the 1970s for example, U.S. auto and steelworkers were losing jobs while record levels of foreign-made cars and steel were being imported to the United States. This anxiety led to calls for protectionist legislation—laws that restricted the flow of goods into a nation. Another source of anxiety from imports is the

Inca

fear that one nation may develop too great a dependence on foreign goods. In the 1970s for example, Middle Eastern oil producers were able to create widespread shortages of gasoline and other energy products in the United States by temporarily halting oil shipments to the United States.

See also: Exports, OPEC Oil Embargo, Protectionism

INCA

The Inca were an American Indian people of western South America who settled in the altiplanos (high plains) of the Andean mountain region. Between 1200 and 1400 they subjugated neighboring tribes to form a vast and wealthy empire. Inca territory covered parts of present-day Colombia, Ecuador, Peru, Bolivia, Chile, and Argentina. The capital was at Cusco (in Peru). The civilization reached its peak during the latter part of the 1400s and into the early 1500s. The Inca had a multi-layered government in which the central authority of the emperor was balanced against the regional authority of chiefs. However, the emperor required absolute obedience from local rulers. Inca ruins indicate that they were accomplished engineers: They not only built an extensive system of roads and bridges to connect the provinces, but they built irrigation systems, temples, citadels, and terraced gardens on a grand scale. Machu Pichu, high in the Andes of Peru, is believed to be the last great city of the Inca. The Inca were skilled craftspeople who worked with gold, silver, and textiles (cotton and wool). The government controlled trade. There was no system of money; cloth, which was highly valued, was sometimes used as a medium of exchange. The Inca used llamas to transport goods. Canoes, rafts, and other boats were used in coastal areas and along rivers. Like the Aztec of central Mexico, the Inca were pantheistic (worshiped many gods), and they, too, at first mistook the Spanish explorers for gods.

The last of the great Inca rulers, Huayna Capac, died in 1525, and his sons subsequently fought over the empire. When the Spaniards, led by Francisco Pizarro (c. 1475–1541), arrived in 1532, they encountered a somewhat weakened Inca society. Nevertheless the people resisted the European incursion, and in 1536 they rose up in rebellion. The Inca were conquered by the Spaniards in 1537, and their vast territory came under Spanish colonial control.

See also: Aztec, Maya

INCENTIVE

Companies offer incentive plans to encourage employees to work harder. Incentive pay is a reward for employees or employee groups whose extra effort on the job results in higher production levels. For instance, incentive pay might be given to a sales department that exceeds its monthly sales goals. In addition to helping motivate employees, many companies believe that incentives improve recruiting and retaining high-quality workers, boost morale, and send a positive message about management's performance expectations.

Incentive schemes can be found at all levels of a company, from the shop floor to the boardroom. To be effective, an incentive plan must be clearly defined and the terms for payment understood and agreed upon by the employer and employees. There are several types of incentive schemes, which provide different ways to determine if an employee should receive incentive pay. The type of program will also affect how an employee's job performance will be measured. For example, factory workers might have their job performance rated according to their contribution to a team or the quality of the product they produce. On the other hand an executive's job performance might be based on company profit or cash flow. The outcome of these performance measures will determine whether an employee qualifies for incentive pay.

Incentives may be monetary or nonmonetary and may include cash or vest an employee in a profit-sharing plan. In some ways incentive pay is similar to an employee bonus program because compensation in both plans is based on exceptional job performance and paid in addition to an employee's basic salary. Bonuses, however, are usually given to employees only once a year, while incentive payment is made immediately after an employee becomes eligible for it.

Incentive programs are an outgrowth of the piece-rate system. The piece-rate system bases payment on the number of units that workers produce. The system began in the sixteenth century with the disintegration of the craft guilds. At that time, merchants hired people to work from their homes; home-based workers were then paid based on piecework. This piecework system was replaced by the rise of the Industrial Revolution in the late 1700s, which took production out of the home and into the factory. The use of incentives for factory work did not come about until the end of the 1800s, when scientific management theorists said that financial rewards could improve worker performance.

See also: Industrial Revolution

INCOME

Income is an important concept in economics as well as accounting. Accountants prepare an income statement to measure a company's income for a given accounting period. Economists are concerned with measuring and defining such concepts as national income, personal income, disposable personal income, and money income versus real income. In each field the concept of income is defined in slightly different terms.

For accounting purposes, income is distinguished from revenues. A company's revenue is all of the money it takes in as a result of its operations. On the other hand, a company's net income or profit is determined by subtracting its expenses from its revenues. Thus, revenues are the opposite of expenses, and income equals revenues minus expenses. When looking at a company's income statement, it is easy to distinguish between revenues, which appear at the top of the statement, and net income, which appears at the bottom. In other contexts, however, it is easy to confuse the two through improper usage. It is misleading to refer to revenues as income, for a company with revenues of \$1 million is much different from a company with net income of \$1 million.

For personal income tax purposes, gross income is money received by an individual from all sources. Many of the items that the Internal Revenue Code defines as income and that are called income on tax form 1040 are actually revenues, such as dividend income, investment income, and interest income. The Internal Revenue Code also provides for exclusions and exemptions as well as for nontaxable types of income to arrive at the concept of taxable income.

While accountants measure a single company's income for a specific accounting period, economists are concerned with the aggregate income for an entire industry or country. In looking at an entity as a whole, economists define its gross income as the total value of all claims against its output. That is, when goods are produced and services are rendered by the entity, workers, investors, the government, and others have a claim against those goods and services. Workers are paid wages or salaries, investors receive interest payments for their investment, and the government collects taxes. The total value of these claims represents the entity's gross income and is equal to the total value added through activities that have contributed to the production of the entity's goods and services.

In looking at the economy as a whole, economists view gross national income as the total of all claims on the gross national product. These include employee

compensation, rental income, net interest, indirect business taxes, capital consumption allowances, incomes of proprietors and professionals, and corporate profits. National income includes all compensation paid to labor and for productive property that is involved in producing the gross national product. In addition, about 20 percent of national income includes such items as depreciation or capital consumption allowances, indirect business taxes, subsidies less surpluses of government enterprises (such as the U.S. Postal Service), and business transfer payments to employees not on the job.

Personal income includes all payments received by individuals, including wages, transfer payments such as sick pay or vacation pay, and the employer's contribution to Social Security. Personal income differs from national income in two important aspects: (1) some national income is received by entities other than individuals, and (2) some individuals receive personal income from social insurance programs that are not connected with producing the current gross national product.

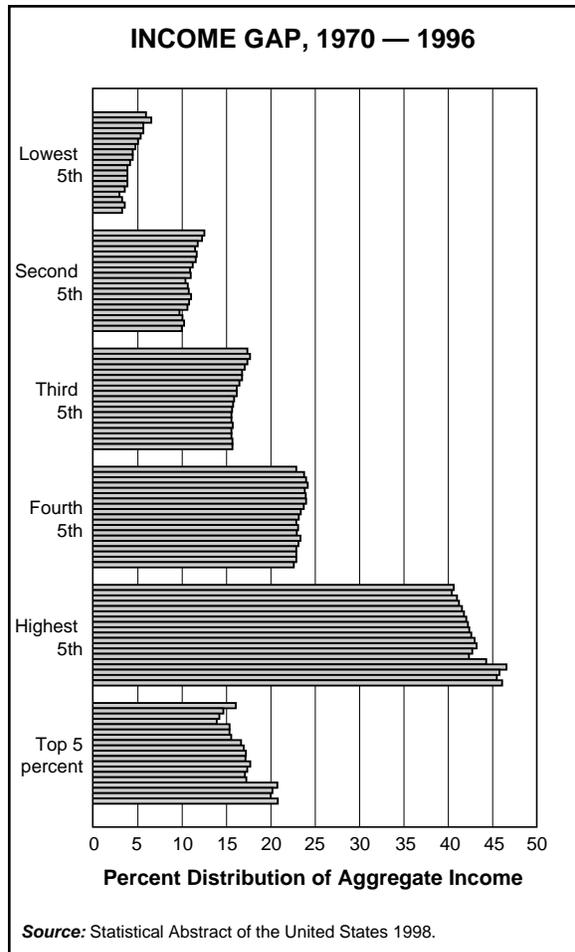
Disposable personal income is the amount of personal income that remains after an individual's taxes have been paid. It is estimated that approximately 70 percent of the gross national income ends up as disposable personal income. The remaining 30 percent includes such items as depreciation, retained corporate profits, and the government's net tax revenue.

Economists also distinguish between money income and real income. While money income is measured in terms of the number of dollars received, real income is measured by the purchasing power of those dollars. After all, what is important is not how much money you earn, but how much you can buy with that money. Economists use a deflator based on a price index for personal goods and services to calculate an individual's real income from his or her money income. Since rising prices reduce the dollar's purchasing power, real income provides a truer measure of buying power than does money income.

See also: Revenue

INCOME GAP

In the United States, as in every nation, an income gap exists between the rich and poor. Income levels predict the ability to purchase goods and services. Economists analyze the distribution of income by ranking all family income levels from highest to lowest, then dividing the levels into fifths, 20 percent of



This graph depicts the share of total income received by U.S. families divided into five equal income groups and the top five percent. The income gap remained relatively the same, though the bottom 80 percent decreased, and the top 20 percent increased their shares.

families in each of five groups. (The same numbers of households are in each fifth.) The range of income for each fifth is then determined. In 1998 the lowest fifth's income ranged from \$0 to \$15,102, and their total income represented 4.6 percent of the entire income of all households in the U.S. That same year the highest fifth's income range was \$55,907 and above. Their total income represented 44 percent of the entire income of all households.

In 1947 the lowest fifth received 5.1 percent of the entire income of all households and the highest fifth, 44.3 percent. Although the incomes of all families increased through the years, these figures illustrate that the income gap between the poorest and the richest, in percentage of all U.S. household income received, changed very little. Individuals at the lowest levels generally fall into the following categories: minorities, the elderly, young wage earners, households headed by

women, urban low-income-housing residents, and the rural poor.

Various factors, including education, inherited wealth, ability, experience level, and discrimination, contribute to the unequal distribution of income or the income gap. In addition, a self-perpetrating condition known as the cycle of poverty traps many individuals at the lowest income levels. People born into slums in large cities are likely to remain there the rest of their lives. High crime, poor living conditions, limited educational opportunities, and lack of adult role modeling all contribute to the perpetuation of the cycle. Wealthy families are more likely and able to send their children to expensive universities and thus help them obtain high-paying jobs.

INDENTURED SERVANTS

The arrival of indentured servants in the American colonies addressed a labor shortage that emerged in the early 1600s because of the success of a system of land distribution that was meant to encourage the establishment of farms. In 1618 the Virginia Company, a joint stock enterprise that wanted to settle and develop of Virginia, adopted a new charter based on the "headright system." Englishmen who could pay their own Atlantic crossing were granted fifty acres of land; each of their sons and servants were also granted an additional 50 acres. Other colonies were developed under the headright system in which the land amounts varied by colony. Soon there were more farms than there was labor to work the fields. The colonists solved this problem through the system of indentured servitude.

There were two kinds of indentured servants: voluntary and involuntary. Voluntary servants were people, often trained in a craft or skill, who could not afford passage to the colonies. In exchange for their passage, they agreed to work for a period of four to seven years for a colonial master. At the end of this period, the servant became a freeman and was usually granted land, tools, or money by the former master. Involuntary indentured servants were the impoverished, those in debt, or criminals whose sentence was a period of servitude. Most indentured servants in North America were voluntary. Their period of obligation to a colonial master was longer than that of a voluntary servant, usually seven to fourteen years. But, like their counterparts, the involuntary servants also received land, tools, or money at the end of their contract, called "freedom dues," and they also became freemen.



Certificate of Freedom for an indentured servant

Many indentured servants were drawn from England, Ireland, Scotland, and Germany. In European ports people contracted themselves or became involuntarily contracted to ship captains, who transported them to the colonies where their contracts were sold to the highest bidder. Roughly speaking, half of colonial immigrants were indentured servants. Colonial laws ensured servants would fulfill the term of their obligation; any servant who ran away was severely punished. Laws also protected the servants, whose masters were obligated to provide them with housing, food, medical care, and even religious training. The system was prevalent in the Middle Atlantic colonies, but it was also used in the South. When the economies of the Caribbean islands failed at the end of the century, plantation owners sold their slaves to the mainland. There the slaves worked primarily on southern plantations, replacing indentured servants by about 1700. In other colonies the headright system ended with the American Revolution (1775–1783).

See also: Slavery

INDEPENDENCE, ECONOMIC IMPACT OF (ISSUE)

Although the Treaty of Paris (1783) ended the American Revolution (1775–1783) and formally granted the newly formed state political independence from Great Britain, answers to the economic questions raised

by its new-found freedom were not as easy to find. The former colonies had been an integral part of the British Empire and its vast transatlantic economy for nearly 200 years. Before any decisions could be made concerning the economic direction that the United States would take, serious political questions had to be settled first. But even after the Constitution of the United States was adopted in 1789, after the Articles of Confederation proved insufficient, economic problems still loomed large in the minds of many Americans. In the end, Americans were posed with two rather idealistic options. Would the United States seek self-sufficiency in an agrarian economy with small, independent self-sufficient farms, as Thomas Jefferson (1743–1826) advocated. Or would it seek a continuation of the international specialization and exchange it had grown accustomed to during the colonial era, as Alexander Hamilton (1755–1804) proposed? Before they could choose either one of these however, Americans had to deal more directly with the problems caused by the Revolution and its newly found political independence.

For many Americans, independence didn't provide all the solutions it appeared to have promised. For some, it only made things worse. The British Navigation Acts, although no longer restricting trade outside the Empire, were now applied to Americans who wished to trade in the Empire. Moreover, the mercantilist regulations of other European countries were often times more stringent than British laws had been. War-born industries found it impossible to match British efficiency. Cheap British manufactured goods began reappearing on the American market and the protection that American industries had enjoyed due to trade disruptions during the war, disappeared. Trade came to a standstill, domestic prices fell (farm produce brought the lowest prices) and unemployment among common laborers rose sharply.

Specie (coined money) balances that had accumulated in the last years of the war flowed out, back to England as payment for imports. During the war, Congress and the several states had issued almost \$437 million in paper currency. Because of the magnitude of these issues as well as counterfeit currency, state monies had depreciated in varying degrees. Money issued by Congress (Continental currency) had become almost completely worthless and soon found its way into the hands of speculators. As money lost its value, business again, as it had during the colonial years, became dependent upon English, Spanish, French, and Portuguese coin. Currency became as scarce as it had ever been under British rule and the cry for paper money mounted, especially from the debtor class of farmers and common laborers. In many cases, the legal

collection of farmer/laborer debts could only be settled by imprisonment or by stripping the debtors of real estate, cattle, or furniture.

Under the Articles of Confederation, which had been adopted in 1777 during the war, Congress had little authority and was unable to exert any effective control over the economic activity of the individual states, either in their relations with foreign countries or with each other. It could not levy taxes, issue money, or enforce a uniform tariff on imports and exports and could only ask the states for funds with which to carry out its duties. Under the Articles, some states could receive a higher percentage of foreign trade that would more than compensate for any loss either in manufacturing or employment.

But things weren't all bad under the Articles of Confederation. The break-up of some of the large estates previously owned by Tories (Loyalists) did allow states to provide some minor improvements in access to land and to flexibility of its use (although some tracts passed intact into the hands of wealthy patriots). Quitrent payments to colonial proprietors were abolished and laws restricting entail (which allowed heirs only the use but not the right to sell estates) and primogeniture (a policy which granted the eldest son exclusive rights to inheritance) were established. The Land Ordinances of 1784 and 1785 and the Northwest Ordinance of 1787 provided a highly favorable climate for westward movement and unwittingly eased transition to government under the soon-to-be ratified Constitution. By dictating the terms by which land could be sold and administered politically, the Ordinances settled many potentially serious problems. Land could be sold only after accurate surveys had been done and townships systems had assured secure land titles. In addition, because the thirteen states ceded their claims to western lands to the central government, new states could enter the Union on equal political footing, not as colonies.

Even so, with the central government facing no more urgent problems than those stemming from its financial difficulties, what little progress the Articles did achieve proved insufficient to reestablish public confidence and order. Shays's Rebellion in 1786 convinced many Americans that a stronger federal government was necessary.

But when the framers of the Constitution assembled in the spring of 1787, their emotions were still mixed. While they were compelled by the sobering experiences of what independence had brought so far, they were also moved by the revolutionary zeal of more

liberty and less government. In the end, the Constitution they produced reflected these tensions. It gave the federal government the powers to tax, borrow, and coin money, regulate foreign and interstate commerce, establish a postal service, and issue patents and copyrights, but it imposed constraints on the government's ability to regulate trade. The federal government could not impose duties on exports, could not discriminate against the ports of any state in its commercial regulations, could not restrict a carrier's freedom to enter or leave a state without stopping in another, and finally, could not extend any trade barriers between the states themselves.

In his Report on Public Credit (January 1790), Alexander Hamilton, Secretary of the Treasury under President George Washington (1789–1797), recommended that the federal government assume full responsibility not only for the outstanding debts incurred by Congress during the war but also for the debts accumulated by the states since 1775. By doing so, he wanted to ensure that the holders of public securities, most of whom were wealthy merchants and speculators, would have a significant financial stake in the survival of the national government. The new Congress accepted Hamilton's proposal and assumed the debts of the central government under the Articles of Confederation as well as the debts of the thirteen states.

To further promote economic development, Hamilton also presented to Congress a report on manufacturing. The report recommended that the government embark on a protective tariff policy that would tax imports in order to nurture infant industries, foster new ones, and stimulate domestic production. As a strong advocate of mercantilism, Hamilton was dissatisfied with the narrow economic base of merchants and farmers. He believed that manufacturing had to be developed, with the aid of the federal government, as soon as possible. Finally, Hamilton proposed that the creation of a national bank would provide the federal government with funds necessary to discipline irresponsible state banks, some of whom he believed could debauch the monetary system by issuing paper money.

The response to Hamilton's proposals was quick and immediate, mostly among farmers. They resented monetary curbs and saw a national bank as a successor to the Bank of England, which they felt, was too inclined to make monied men rich and landed men poor. They found their most ardent spokesman in Thomas Jefferson. Jefferson envisioned a rural democracy with an agrarian economy and believed that the United States should remain a nation of farmers. He argued diligently against the shackles of tyranny, which

for him came in the form of a powerful central government. He spoke out against the “evils” of an urban economy and sought to uphold liberty at all costs. Hamilton, on the other hand, sought order and regulation and fought against political anarchy. He wanted to diversify economic life by encouraging shipping, manufacturing, and increased economic activity through the legislative powers of a strong federal government. While Americans remained skeptical about the extremes of both of these views, by the end of the nineteenth century, Hamilton’s vision had been decided through the fires of political maturity, civil war, victory abroad, national aggrandizement, economic prosperity, and western expansion.

See also: American Revolution, Alexander Hamilton, Thomas Jefferson, Mercantilism, Navigation Acts, Navigation Acts (Economic Burden on the American Colonies), Report on Manufactures, Specie

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INDIANA

The stereotypical picture of Indiana is one of rolling farm fields, open space, and small towns with picturesque courthouse squares. The state of Indiana is much more than this, however. It is as urban as it is rural, and has a highly diversified economy. The state’s economy has a high proportion of agriculture, but the state also houses a large heavy industrial and high technology sector. The urban-industrial lifestyle in some parts of Indiana coexists well with the rural small-town ways of life in other parts of the state.

Europeans first ventured into Indiana in the 1670s. It was the Frenchmen Father Jacques Marquette (1637–75) and Robert Cavelier (1643–87) who first explored the region. Another Frenchman named Jean Baptiste Bissot lived in a Native American village at the present site of Fort Wayne. The French erected Fort Miami in 1720. Vincennes’ son constructed another fort at the site of the town that later bore his name. The British vied with the French for control of the territory during this period, and the land was ceded to the British after the French and Indian War (1754–1763). During the American Revolution (1775–1783) George Rogers Clark (1752–1818) captured Fort Vincennes from a British garrison.

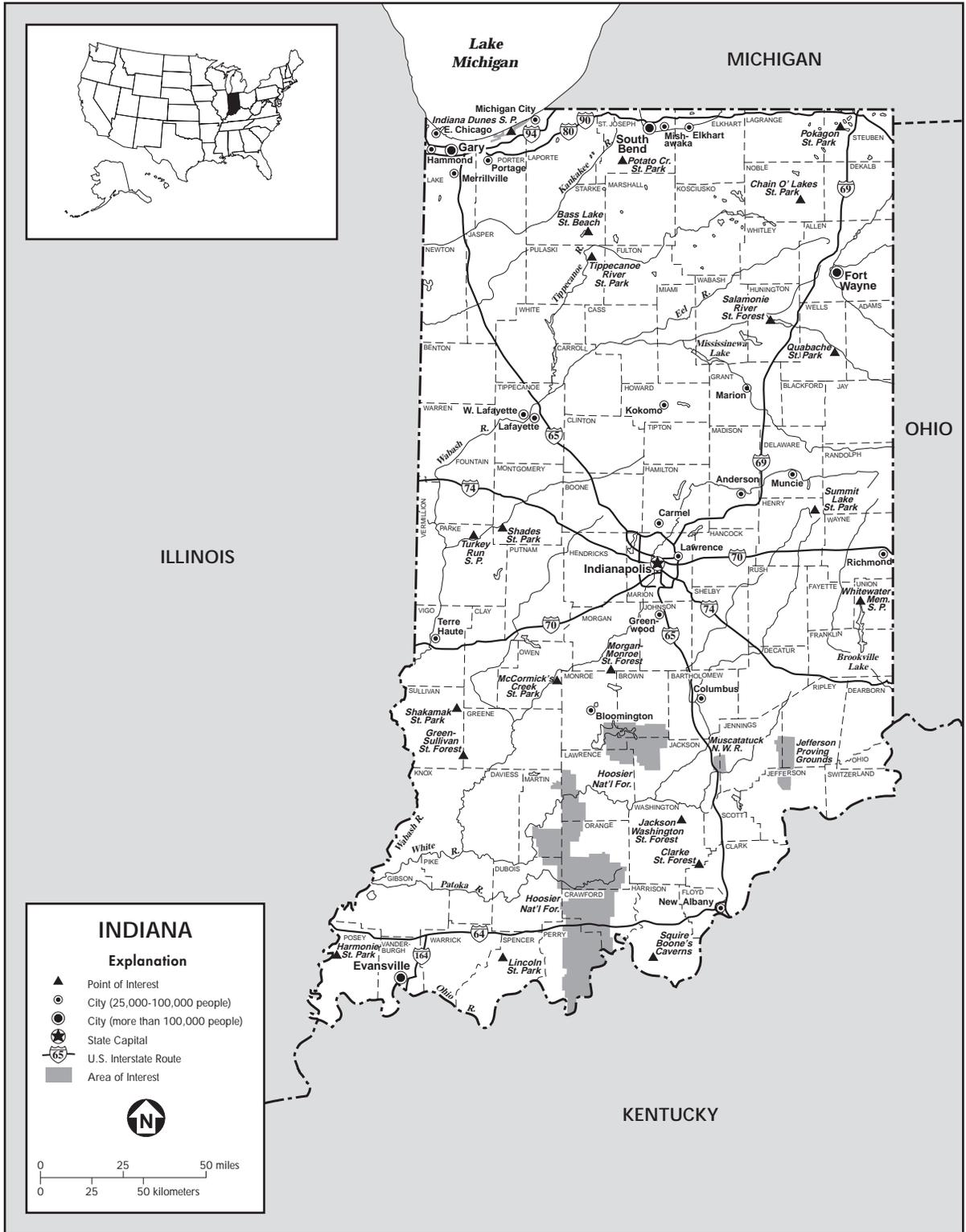
Future development in what would become Indiana was regulated by the Ordinance of 1785 and the Northwest Ordinance of 1787. The Northwest Territory was the area between eastern Pennsylvania and the Mississippi River. It was bounded on the south by the Ohio River and on the north by Canada. This region included the present-day states of Indiana, Ohio, Illinois, Michigan, Wisconsin, and parts of Minnesota. In 1794 General Anthony Wayne (1745–96) defeated the Native Americans in Ohio at the Battle of Fallen Timbers. The resulting Treaty of Greenville pushed many Native American tribes out of the territory. This encouraged the rapid settlement of the region by white Americans.

The first state to form out of the Northwest Territory was Ohio in 1803. By that time the rest of the Northwest Territory was called the Indiana Territory. The Michigan and Illinois territories soon separated from the Indiana Territory, and Indiana took on its present boundaries. In 1816 it became the nineteenth state of the union.

Indiana developed from south to north, largely because of the commerce made possible by the Ohio River. An increasing number of settlers established farms in the area as Native American tribes were driven out of the state. Trade in corn, hogs, whiskey, and timber flourished along the river. Indianapolis was a centrally located and planned city, being the capital of the state. It grew slowly, however. The major transportation arteries were located far away from it early on.

In the 1830s the state embarked on a massive internal improvements program that left it in severe debt. The Wabash Canal was built, largely using the labor of Irish immigrants. The National Road (now U.S. 40) reached Indiana in 1827, and the Michigan Road (now U.S. 421) was completed in the late 1830s. The first railroad in Indiana was completed in 1847. It ran from Madison to Indianapolis. Railroad building

Indiana



State of Indiana.

increased rapidly in the 1850s and continued to do so after the American Civil War (1861–1865).

Indiana was staunchly pro-Union during the Civil War. Primarily an agricultural economy when the war began, Indiana began to industrialize during the war. The industries included such enterprises as gristmills, sawmills, meat packing plants, breweries, furniture factories, and carriage makers. The Studebaker Company became well known for its wagon manufacture during the Civil War. The Van Camp Company was also important during the war for its canned pork and beans.

Industrialization and growth continued after the war. In 1867 the famous Eli Lilly drug company was established in Indianapolis. Glass factories proliferated in the 1880s in northeastern Indiana after the discovery of natural gas. New manufacturing towns like Terre Haute, Muncie, Fort Wayne, and South Bend began to grow. Steel manufacture became the lifeblood of Gary and an oil refining industry was centered in nearby Calumet. By the beginning of the twentieth century, Indiana had become a center for the developing automobile industry, with 375 manufacturers were turning out “horseless carriages.” The popularity of cars in the state made possible the construction of a speedway at Indianapolis; the first Indianapolis 500 race was held in 1911.

Indiana industries were benefited by the onset of World War I (1914–1918). But things changed once the war was over. By 1920 the number of automobile manufacturers had declined to around a dozen. The only one to compete successfully with the “big three” automakers in Detroit was Studebaker. It grew to around 23,000 employees during World War II (1939–1945). Studebaker ceased manufacturing in 1965, but auto parts remained a large segment of Indiana’s industrial base. By 1920 the urban population was beginning to outnumber the rural population.

World War II gave a strong boost to Indiana’s economy. Most factories converted to production of war materials, and unemployment virtually disappeared in the state. DuPont and Goodyear built large powder plants near Charlestown. That virtually made the sleepy small town of just under 900 “explode” overnight. According to historian John Bartlow Martin, 45,000 were employed in the plants’ operations and 15,000 managed to stay in Charlestown. Martin wrote: “The single liquor store reportedly earned more than one hundred thousand dollars net.” The town was again virtually deserted after the war: “[T]housands of war workers hadn’t even waited to be laid off; they just piled their mattresses, stepladders, and pots and pans

onto their cars and put the kids in the back seat and went back across the river to the hills to stay.”

The economy of Indiana remained strong even after wartime production ceased. The number of wage earners in Indiana nearly doubled between 1940 and 1950. Workers came in from other states. Labor unions grew despite Indiana’s reputation as an anti-union state. National corporations like General Motors and Inland Steel were absorbing smaller companies. In 1984 General Motors was the state’s largest employer, followed by Inland and U.S. Steel. The availability of natural resources such as coal, natural gas, and stone encouraged industrial development; good transportation networks also enabled industrial success. This was especially true in the northwestern part of the state.

The early 1980s were difficult economic times for Indiana. The state suffered a recession like many of the other “Rust Belt” states. In addition Indiana had been losing population since the 1960s as many workers migrated south. The state’s economy began to improve as high-technology industries were brought in and the service sector expanded. That brought a net gain in population between 1990 and 1996. In 1995 Indiana’s per capita income was over \$21,000, ranked 28th in the nation. In 1997 there were six Fortune 500 companies with headquarters in Indiana. The state continued to rank among the top ten states in agricultural production, with cash receipts for all crops and livestock reaching \$5 billion by 1995.

See also: Northwest Ordinance, Rust Belt

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INDIGO

Indigo is a deep blue dye used to color cotton, wool, and other textiles. Today it is manufactured

synthetically, but in earlier times it was derived from the indigo plant, a member of the legume family. The plant was chiefly grown in India (hence its name). In the Caribbean indigo was cultivated by European colonists. During the 1600s it was a principle item of export from the region. In the United States the indigo plant was cultivated in the low country of South Carolina and Georgia beginning in 1741. It was introduced by Elizabeth Lucas Pinckney (1722–93), the daughter of a plantation owner whose family later figured prominently in American politics. Pinckney had brought the plant with her from the Caribbean island of Antigua, where she had lived. Since indigo is a labor-intensive crop, plantations required numerous slaves to cultivate the plant. Growers sold indigo overseas to be used in the European dyestuffs industry. By the 1760s indigo had become an important crop for the southern plantation owners—its export value was on a par with rice and wheat. It continued to be grown in the region until the American Civil War (1861–65). Synthetic indigo was produced in 1880, and it was first used commercially in 1897. This launched a synthetic dye industry that completely eliminated the need for the dye to be derived from plants.

See also: Plantations, Triangular Trade

INDUSTRIAL POLICY

Industrial policy refers to organized government involvement in guiding the economy by encouraging investment in targeted industries. Such policy serves to allocate capital across manufacturing industries by a system of taxes, subsidies, and investment incentives designed to move the economy along a specific pathway. Although an industrial policy was in place since the 1950s in many developed countries including Japan, Germany, France, and Sweden, it continued to be hotly debated in the United States toward the end of the twentieth century.

Japan's successful industrial policy drew a great deal of attention. In Japan the Ministry of International Trade and Industry (MITI) orchestrated directed development of selected industries and products which it deemed necessary for Japan to compete in the international market. MITI only assisted the private sector in targeted industries. It generally financed no more than 50 percent of a project, leaving the rest to the private sector and market influences. The MITI is not autonomous but is overseen by various government agencies. Japan's automobile industry served as a highly successful model where a specific industry was targeted to assume an expanded role in world markets.

Advocates for an industrial policy in the United States pointed to four major issues. First, since the law of supply and demand in world markets is greatly skewed by various measures employed by nations to help particular industries, the U.S. needed to do likewise to compete. Second, an industrial policy could help ease the social costs when industries lost their competitive advantage by assisting in retraining workers for new jobs. Third, industrial policy could ease "boom and bust" cycles by planning tax incentives to stabilize regions. Finally, the United States already protected certain industries and special interest groups but in a haphazard manner with no organized social goals; an organized program was believed to be more effective.

Opponents cited the market as the most efficient allocation of resources, insisting the government could not do a better job. Interfering in the market process was generally less accepted in the United States than in other countries.

See also: De-Industrialization

INDUSTRIAL REVOLUTION

The advent of the Industrial Revolution towards the end of the nineteenth century raised numerous economic and political questions for the United States that neither the populace nor the government was prepared for. In the years following the American Civil War (1861–1865), the twin pillars of capitalism and industrialization catapulted the American economy to the forefront of world commerce. Oil, steel, rail, mining, and agricultural industries all enjoyed tremendous growth in the latter part of the nineteenth century as Americans exploited the riches of its natural resources, land, manufacturing technology, and a large labor pool from increased immigration. In cities across the United States, all of these elements came together to form the ingredients and the momentum behind the Industrial Revolution.

America's tremendous industrial and financial growth in the last decades of the nineteenth century were due in large part to the entrepreneurial boldness and business instincts of a number of industrial and financial tycoons who came to be known as the "robber barons." J.P. Morgan, John D. Rockefeller, Cornelius Vanderbilt, Andrew Carnegie, James J. Hill, Jay Gould, and others guided their diverse business interests to unprecedented levels of profitability. The monopolies of the robber barons enabled them to eliminate less powerful competitors, raise prices, and

subsequently realize huge profits that were pumped back into their businesses. The federal government gradually began to heed the voices of small business owners, who called for reform, and the cries of American workers, who had begun launching the country's first organized labor unions in the face of company-sponsored violence and public ridicule.

In 1890 the Sherman Anti-Trust Act was enacted in an effort to curb the power of the trusts, but the robber barons continued to maintain their privileged positions in the American system. Blessed with access to abundant natural resources, valuable technological advances, a growing labor force, and a congenial political environment, these men and the monopolies they held dominated the U.S. economy. So much so that, for a generation after the Civil War, political power of the presidency paled in comparison to the economic talent and power of the robber barons.

The railroad industry particularly transformed the business landscape of the United States. By the early 1850s several railroads had established lines that allowed them to transport freight back and forth between the Great Lakes region and the East Coast, and new railroad construction projects were generating across eastern America. This ever-growing network of rail lines, many of which spanned relatively short distances, came to be seen as a more timely, reliable, and inexpensive way to transport goods than other options previously available. The explosive growth of the railroad industry in the eastern states, coupled with the potential wealth contained in the country's western territories and the nation's accompanying desire to expand in that direction, convinced growing numbers of people that a transcontinental railroad stretching from coast to coast should be built. Begun in 1863, the effort was hampered by the Civil War and the daunting obstacles of western geography and weather, but on May 10, 1869, the rail lines of the Central Pacific and the Union Pacific railroads were finally joined in Utah. Celebrations of the epic achievement erupted across the nation as Americans hailed this giant step forward in the country's westward expansion.

Farmers benefited from increased mechanization, sophisticated transportation options, and scientific cultivation methods. Nonetheless, the financial situations of many farming families grew precarious in the 1880s and 1890s. Record crop yields resulted in lower prices while production costs increased, a combination that threw many farmers into debt. They responded by forming unions and alliances that insisted on populist reforms. Many of their themes, dismissed as outlandish when first expressed, later became cornerstones of progressive reform in the early 1900s.

The surging economic and technological growth of the United States caused tremendous changes in the character of American life during the last decades of the nineteenth century. The rural farming culture of previous generations gave way to an increasingly urban and industrial one, as manufacturing plants sprang up and cities mushroomed in size; the nation's urban population rose 400 percent between 1870 and 1910.

Still, for many Americans, city life was less an immediate experience than a distant and powerful lure. The attraction was powerful, for the drain on the countryside was particularly noticeable, especially in the Midwest and in the East. As the 1870s and 1880s witnessed the worst agricultural depression in the country's history, large numbers of farmers succumbed to the temptations of urban promises and packed their bags. Jobs, higher wages, and such technological wonders as electricity and the telephone gradually took its toll on rural defenses.

THE SURGING ECONOMIC AND TECHNOLOGICAL GROWTH OF THE UNITED STATES CAUSED TREMENDOUS CHANGES IN THE CHARACTER OF AMERICAN LIFE DURING THE LAST DECADES OF THE NINETEENTH CENTURY.

Joining these farmers were an increasing number of immigrants from eastern and southern Europe, who, like their American counterparts, came mostly from the countryside and knew very little of urban life. These "new" immigrants, as they were called—as opposed to the more established generation of largely Protestant immigrants from the western and northern European countries of Britain, Ireland, Germany, and Scandinavia—came largely from Italy, Austria, Hungary, Poland, Serbia, and Russia and were predominantly Catholic or Jewish. These "new" immigrants typically congregated in the urban centers of the East, particularly New York.

As Americans gradually came to favor urban over rural life, there was much about the Industrial Revolution that would justify the prejudices of the old rural ideals. Cities of the late nineteenth century grew without plan, with a minimum of control, and typically by the direction of industrial enterprise. Accordingly, American cities seemed to harbor all the afflictions that plague modern society: poverty, disease, crime, and decay. For members of the urban working class, life was often marked by hardship and uncertainty. Layoffs were common, and as much as 30 percent of the urban work force was out of work for some period during the year. Child labor was common as well, and in 1900 as

Industrial Workers of the World (IWW)

many as three million of America's children were forced to work on a full-time basis to help support their families.

Living conditions in the cities were often deplorable, with thousands of families forced to reside in slums that were breeding grounds for typhoid, smallpox, cholera, tuberculosis, and other diseases that swept through the cities on a regular basis. City tenement housing quickly degenerated into slums that not only brought unsanitary living conditions, but also increased poverty, prostitution, and organized crime. In 1881 the homicide rate in America was 25 per million; in 1898, the rate had risen to 107 per million. Diseases such as cholera, typhoid fever, and diphtheria increasingly plagued cities and wreaked havoc on working-class populations. Several factors made many problems in American cities more pronounced. In the 1880s and 1890s the gulf between social classes was dramatically emphasized. The term "Gilded Age," coined by Mark Twain, came into common use and indicated corruption, profiteering, and false glitter. In both Chicago and New York, elegant and lavish homes were often built on the same street or within view of the slums. A few blocks from New York's elite Fifth Avenue, the desolation of Shantytown, with its Irish paupers and roaming livestock, presented a sharp 60-block contrast. While a relatively high degree of residential mobility did exist, ethnic neighborhoods such as Little Italy, Polonia, and Greektown also served to highlight and define urban poverty.

The industrialization of the United States also produced a fundamental reorganization of public consumption. As the nation's manufacturing plants and farms produced greater quantities of goods and products, an increasingly consumer-oriented economy emerged. Products of convenience—such as processed and preserved foods, ready-made clothing, and telephones—appeared and were made available to a far greater number of consumers than ever before.

Leisure time activities blossomed as well. Revolutions in transportation, technology, and urbanization all fostered an environment favorable to the pursuit of recreational activities. Americans with money in their pockets and time on their hands looked to spend both on entertainment, and businessmen rushed to supply consumers in this newest lucrative economic niche. Organized sports, previously the territory of only the wealthiest American families, were embraced by all classes of spectators and participants. Circuses, vaudeville shows, theatrical dramas, and musical comedies attracted tens of thousands of citizens, too. As one commentator on the times noted, "while telephones, typewriters, cash registers, and adding machines sped

and made routine the conduct of business, cameras, phonographs, bicycles, moving pictures, amusement parks, and professional sports defined the mass popular culture that still dominates our times."

See also: Child Labor, Immigration, Industrialization, Monopoly, Robber Barons, Sherman Anti-Trust Act, Slums, Tenements, Urbanization

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INDUSTRIAL WORKERS OF THE WORLD (IWW)

Founded in 1905 by the leaders of 43 labor organizations, the Industrial Workers of the World (IWW) was a radical labor union. The IWW pursued short-term goals via strikes and acts of sabotage and a long-term agenda to overthrow capitalism and rebuild society based on socialist principles. One IWW organizer proclaimed that the "final aim is revolution." Though small in numbers because of their extremist views and tactics (its membership probably never exceeded 100,000), the IWW members, called "Wobblies," attracted national attention. Railroad labor organizer and socialist Eugene Debs (1855–1926) endorsed the organization's anti-capitalist agenda and became one of its leaders.

Unlike the American Federation of Labor (AFL), the IWW organized skilled and unskilled workers by industry rather than by craft. Founded and led by miner and Socialist William "Big Bill" Haywood (1869–1928) and miners' agitator Mary "Mother" Jones (1830–1930), the IWW aimed to unite all workers in a camp, mine, or factory for eventual takeover of their

employer's industrial facility. The union organized strikes in lumber and mining camps in the West, in the steel mills of Pennsylvania (1907), and in the textile mills of New England (1912). The leadership advocated the use of violence to achieve its revolutionary goals and opposed mediation (negotiations moderated by a neutral third party), collective bargaining (when worker representatives bargain with an employer), and arbitration (when a third party resolves a dispute). The group declined during World War I (1914–18), when the IWW led strikes that were suppressed by the federal government. The organization's leaders were all arrested and the organization dissolved. Haywood was convicted of sedition (inciting resistance to lawful authority), but managed to escape the country. He died in the Soviet Union.

See also: American Federation of Labor (AFL), Knights of Labor, Textiles

INDUSTRIALIZATION

In the years following the American Civil War (1861–1865), the twin pillars of capitalism and industrialization catapulted the American economy to the forefront of world commerce. Oil, steel, rail, mining, and agricultural industries all enjoyed tremendous growth in the latter part of the nineteenth century as Americans harvested the riches of its natural resources, land, manufacturing technology, and a large labor pool from increased immigration.

America's tremendous industrial and financial growth in the last decades of the nineteenth century was due in large part to the entrepreneurial boldness and business instincts of a number of industrial and financial tycoons who came to be known as the "Robber Barons." J. P. Morgan (1837–1913), John D. Rockefeller (1839–1937), Cornelius Vanderbilt (1794–1877), Andrew Carnegie (1835–1919), James J. Hill (1838–1916), Jay Gould (1836–1893), and others guided their diverse business interests to unprecedented levels of profitability. The monopolies of the Robber Barons enabled them to eliminate less powerful competitors, raise prices, and subsequently realize huge profits that were pumped back into their businesses. But the federal government gradually began to heed the voices of small business owners who called for reform and the cries of American workers who had begun launching the country's first organized labor unions in the face of company-sponsored violence. In 1890 the Sherman Anti-Trust Act was enacted in an effort to curb the power of the trusts. But the Robber Barons continued

to maintain their dominant positions in the American system. Blessed with access to abundant natural resources, valuable technological advances, a growing labor force, and a congenial political environment, these men and the monopolies that they held dominated the American economy. For a generation after the Civil War, the political power of the presidency paled in comparison to the economic power of the Robber Barons.

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Industrialization

Still, for many Americans city life was less an immediate experience than a distant and powerful lure. Yet the attraction was powerful, for the population drain from the countryside was particularly noticeable, especially in the Midwest and East. As the 1870s and 1880s witnessed the worst agricultural depression in the country's history, large numbers of farmers moved to the city. Jobs, higher wages, and such technological wonders as electricity and the telephone gradually drew many failing farmers to the cities.

Joining these erstwhile farmers in the cities were an increasing number of immigrants from eastern and southern Europe, who, like their American counterparts, came mostly from the countryside and knew very little of urban life. These "new" immigrants—in comparison to the more established generation of largely Protestant "old" immigrants from the western and northern European countries of Britain, Ireland, Germany, and Scandinavia—were Italians, Austrians, Hungarians, Poles, Serbs, and Russians, mostly Catholic or Jewish. As the African American emigration out of the South to northern and midwestern cities, the "new" immigrants typically congregated in the urban centers of the East, particularly New York.

As Americans moved to the cities, they were not necessarily happy with the change. Cities of the late nineteenth century grew without planning, with a minimum of control, and typically by the dictates of industrial enterprise. U.S. cities seemed to harbor all the afflictions that plague modern society: poverty, disease, crime, and decay. For members of the urban working class, hardship and uncertainty often marked their lives. Layoffs were common, and as much as thirty percent of the urban work force was out of work for some period of the year. Even steady work brought frequently brought exhaustion. "Scientific Management," a phrase coined by Frederick Winslow Taylor, invaded the workplace and the disciples of efficiency used stop-watches to "time" the performance of a job in order to figure out how to get more productivity out of the workforce. Child labor was common as well, and in 1900 as many as three million of U.S. children were forced to work on a full-time basis to help support their families. Living conditions in the cities were often deplorable, with thousands of families forced to reside in slums that were breeding grounds for typhoid, smallpox, cholera, tuberculosis, and other diseases that swept through the cities on a regular basis. City tenement housing quickly degenerated into slums that not only bred vermin and rotten odors, but also brought poverty, prostitution, and organized crime. In 1881 the homicide rate in America was 25 per million; in 1898, the rate had risen to 107 per million. Diseases such as

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In addition, the industrialization of the United States produced a fundamental reorientation of consumption. As the nation's manufacturing plants and farms produced even greater quantities of goods and products, an increasingly consumer-oriented economy emerged. Products of convenience—such as processed and preserved foods, ready-made clothing, and telephones—appeared and were made available to a far greater number of consumers than ever before.

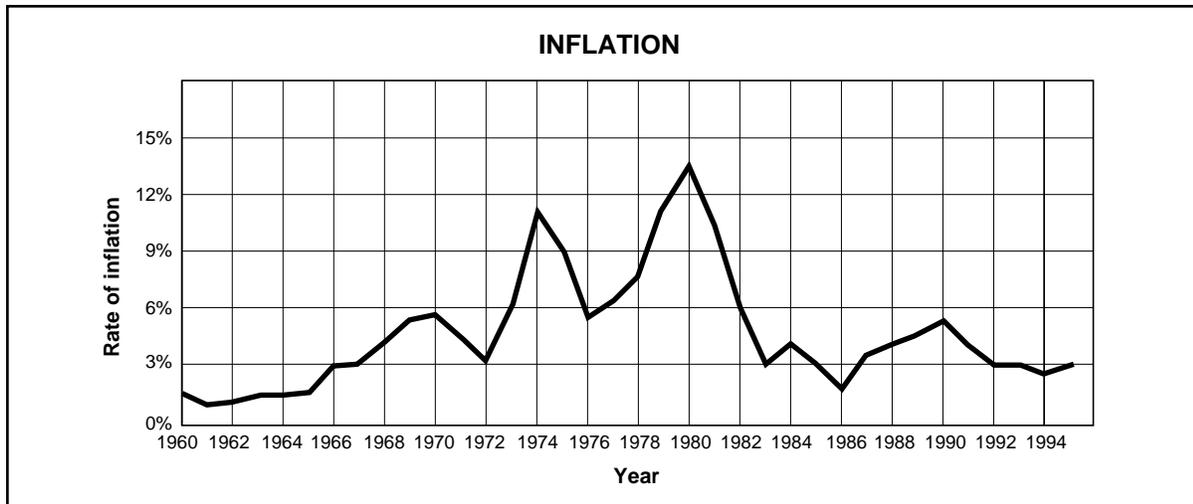
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See also: **Child Labor, City Planning, Immigration, Frederick Winslow Taylor**

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Graphing inflation, which is an economy-wide rise in prices that continue over time. Shown here, rates over a 35-year span, with a low rate of about two percent in 1960 and a high of about 13 percent in 1980.

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INFLATION

Inflation is a continuous rise in the price of goods and services. It is important to note that a rise in the price of just one or two items does not constitute inflation; nor does a one-time rise in all prices mark an inflationary period. To count as inflation, the price increases must be general throughout the economy and must continue over time. The hallmark of inflation is that money buys less than it once did. A cup of coffee that may have cost a dime at mid-twentieth century may cost a dollar some 50 years later.

Rising prices have been observed in most Western industrialized nations since the end of World War II (1939–1945). Economists, however, debate at which point inflation begins to pose a threat to society. If prices rise steeply and quickly enough, say, in the range of five to ten percent a year, inflation can undermine a nation's economic well being. The value of savings decreases, since the money saved will buy less and less over time. Senior citizens and others living on fixed incomes see their buying power erode.

Inflation also means business owners must pay a steadily rising price for labor and raw materials, which cuts into profits. Eventually, rising prices can choke off economic growth, and lead to a recession.

The government can fight inflation by restricting demand for goods and services, usually by raising interest rates or imposing new taxes. Such measures tend to lead to higher unemployment, which dampens demands for goods and services and, in turn, brings down prices. Economists debate whether the cost of fighting inflation, e.g., higher unemployment and less growth, is worth the pain. Certainly a moderate amount of inflationary price increases, in the range of one to two percent per year, is viewed by many economists as not worth worrying about.

Inflation is measured by the government's cost of living index. The opposite of inflation is deflation, a steady decline in the level of prices over time.

See also: Cost of Living Index, Deflation

INFORMATION SUPERHIGHWAY

As highways made out of concrete help people to physically transport themselves and their goods from one place to another, the Information Superhighway, (made out of telephones, computers, satellites, and other communication devices), helps people and businesses remain in contact with one another. The Information Superhighway is a phrase that describes the expansion of digital telecommunications, involving

Infrastructure

more and more people: locally, nationally, and globally. This superhighway, whether it involves making a cellular phone call to a friend, or e-mailing a business to order a product, is leading us in a direction of increasingly easier communication without regard for borders. The development of new methods, such as the Internet, to share information has triggered a revolution in global telecommunications. It began in the 1950s and continued to make dramatic and high-speed changes in the ways we communicate throughout the twentieth century. With each evolution in telecommunications technology, the Information Superhighway has grown in size, improving the connections between individuals and businesses next door and around the world.

See also: **Internet**

INFRASTRUCTURE

Infrastructure refers to the network of roads, bridges, railroad lines, water and sewage pipes, the electrical power grid, and all the other physical structures needed for the functioning of a modern industrial economy. Although some new roads and other projects are built each year, the crucial need of infrastructure in already industrialized countries is to repair and maintain what is already there. Governments at all levels, including federal, state, county, and local, must budget funds each year to maintain their infrastructure. Failing to do so means risking the deterioration of roads, bridges, and other structures essential to the orderly working of society. The existing infrastructure in the United States has been built up over many decades, and represents an investment by society that probably runs into trillions of dollars. Economists also sometimes use the word infrastructure to refer to the financial institutions that are needed in a modern economy, such as banks, stock and bond exchanges, and the like.

INITIAL PUBLIC OFFERING (IPO)

In order to raise capital, corporations offer their securities for sale to the general public. An initial public offering (IPO) is the first instance in which a corporation offers a specific, registered security for sale. An IPO of common stock converts a business owned by one person or several persons into a business owned by many. This practice provides an immediate injection of cash which can be used to increase the

company's prospects of growth and expand its equity base, increasing the possibility of stock value appreciation.

Corporations must go through the red tape of registration with the Securities and Exchange Commission (SEC), which sets standards and regulations for the investment market, before any offering can be made. In this process a corporation must reveal extensive information about its inner workings, develop an initial offering prospectus (a detailed brochure about the corporation's performance, management, and plan of use for the funds raised), and determine the price at which the new security will be offered on the market. Once the SEC has given its approval, the initial public offering may go forward.

See also: **Appreciation, Equity, Securities and Exchange Commission, Stock**

INTEREST

Interest is typically expressed as a quarterly or annual rate of percentage charged or earned on a sum of money. For example, if an individual borrows \$2000 from a bank or lending institution and that institution charges an annual rate of six percent interest on the loan, the individual will pay the lender up to \$60 a year for the use of the money. Paid interest is usually incorporated in monthly installments submitted by money borrowers in a scheduled repayment plan. The process is similar for interest earned. A bank may offer an annual earned interest rate of three percent to investors with a savings account. An individual with \$100 in a savings account at that bank will earn \$6 a year in interest.

Interest rates play an important role in lending and investment decisions. Money borrowers will look for the lowest interest rate they can find for their loan, whereas investors will look for the highest interest rate to better the return on their investments. In the economy the interest rate is often affected by factors such as a country's stage of development, productivity, and investment needs, among others. Internationally, fluctuating interest rates can cause flows of capital between financial institutions and different countries. For instance, if domestic interest rates are low in the United States and higher in Asia, investment capital will flow out of the United States and into Asia so that investors can take advantage of the higher interest rates on their investment moneys.

See also: **Capital Gain, Debt**

INTERNATIONAL BUSINESS MACHINES CORPORATION (IBM)

Around the year 1911 Charles Ranlett Flint (1850–1934) founded the Calculating-Tabulating-Recording (CTR) company. He merged two companies he had previously managed, International Time Recording Company and Computing Scale Company of America, with an unrelated firm called Tabulating Machine Company. A man named Herman Hollerith (1860–1929) had founded the Tabulating Machine Company. Hollerith was an engineer who invented a tabulator to punch, sort, and count cards. This merger was the beginning of IBM. It would eventually become the world's largest computer company.

The tabulator served the needs of the U.S. Census Bureau in the 1890 and 1900 censuses. It was used for processing large amounts of data. Other organizations with similar needs adopted the machine for their own use. In the early twentieth century society was becoming more urban and commercialized. Consequently the ability to process financial and other data became an important factor in running a profitable business.

CTR did not become focused on the tabulator as its primary product until John Watson (1874–1956) was hired as the company's general manager in 1914. Watson had worked at National Cash Register (NCR) for about 20 years. Although he rose to become the company's general sales manager, he was under a cloud when he came to CTR. He had been convicted along with his boss, John Patterson, of violating the Sherman Antitrust Act on behalf of NCR. When the government dropped its case against NCR in 1915, Watson was made president of CTR.

Watson understood that CTR's future lay in its tabulating division. The tabulator was a basic office tool that would be in ever-increasing demand as the number of office workers grew. He quickly established a well disciplined sales force. He hired many former NCR salespeople. They were courteous, well-dressed, and trained in selling a service, not just a product.

The nation's economy boomed in the 1920s. In 1924 CTR became IBM. By the end of the decade it was a dominant leader in providing large tabulating systems for public and private customers. The company was very profitable in the 1920s and 1930s. It operated in the less competitive business segment of large custom-designed systems. IBM's practice of leasing rather than selling its machines increased its profits. Its cross-licensing agreements with its chief

competitor, Remington Rand, kept the two companies from antagonizing each other.

IBM also required its customers to use IBM cards for its tabulating machines. There were literally millions of such cards already in use. IBM was selling nearly 85 percent of all keypunch, tabulating, and accounting equipment in the United States. The company's growth remained unchecked despite a 1936 U.S. Supreme Court ruling that ordered IBM to lift its restriction that customers use only IBM cards.

Demand for IBM's products increased when President Franklin Roosevelt's administration (1933–45) inaugurated the New Deal during the mid-1930s. The newly created federal bureaucracy needed IBM's calculating machines. The newly formed Social Security Administration placed an order for more than four hundred accounting machines and 1,200 keypunchers. IBM had successfully carved out a market niche that addressed the need of large-scale organizations that required machines capable of massive amounts of calculations.

World War II (1939–1945) saw IBM's sales more than triple. They reached \$141.7 million by the end of the war. Demand was high in both governmental and private sectors. The company's machines were used to monitor the manufacture and movement of numerous products used in the war effort. The military had a need for high-speed calculators. This resulted in IBM creating the Mark I, a machine that is considered by many to be the world's first computer. It used IBM punch cards for large calculations. It also retained a set of rules to apply to future input. Practically, it was the first calculator with memory. The Mark I had 765,000 parts and 500 miles of wire, yet it was still less powerful than the kind of hand-held calculators which were common in the latter half of the twentieth century.

IBM was involved in other computer-related projects during World War II and after. But in 1951 its old rival Remington Rand took the lead by marketing the UNIVAC. IBM remained cautious about entering the computer market. At the time IBM punch cards were used even by electronic computers and the company still controlled 85 percent of their market.

In 1952 Thomas Watson, Jr. (1914–1993), succeeded his father as president of IBM. The new president led IBM into the computer market; IBM's first business computer, the 701, was introduced in 1951. As IBM marketed new models its customers began switching from IBM tabulating equipment to IBM computers.

IBM also began to expand internationally. In 1949 it established a new subsidiary for international sales, IBM World Trade Corporation. Thomas Watson's younger brother, Dick Watson, headed the subsidiary. While World Trade had sales of only \$6.3 million in 1949, it operated in 58 countries, giving the company a base for future expansion. In many countries IBM set up local subsidiaries to sell IBM products and conduct further research and development. As those countries adopted computers IBM was able to achieve dominance on those markets. Only Japan and the United Kingdom produced local competitors for IBM. This left IBM with a 33 percent market share in those two nations. World Trade eventually surpassed the domestic IBM in sales.

Computers began developing more rapidly in the late 1950s. In 1958 Sperry Rand and Control Data Corporation (CDC) introduced the second generation of computers. The new machines featured transistors instead of vacuum tubes. Then a third generation of machines using integrated circuitry was quickly introduced. IBM responded with a large capital-spending program. Six new plants were built and thousands of workers were hired. In 1965 IBM introduced its 360 line of small, fast computers with their own exclusive software. The 360s were immediately successful and resulted in IBM's dominance over the computer market for more than a decade. From 1965 to 1975 IBM sold 65 percent of all U.S. computers.

IBM's competitors challenged the company by specializing in different niches of the computer market. When the first microcomputers were introduced in 1960 IBM chose not to enter the market. IBM did not enter the personal computer market until 1980. By that time it was unable to achieve the dominance it had with its mainframes and minicomputers. Nonetheless sales of the 360 line and the subsequent 370 line continued to grow. In 1984 IBM achieved peak earnings of \$6.6 billion on sales of \$46 billion.

During the 1980s IBM was held up as a model of business excellence. But by the end of the decade the company needed an overhaul. Revenues and earnings were weak, and the company's stock price was in decline. Its worldwide market share had fallen from 36 percent to 23 percent. IBM could no longer keep its dominant position in the fast-changing world of computers simply by building bigger and faster machines. The corporation had to find other ways to compete.

IBM's turnaround began in 1993 when Louis Gerstner, former chair of RJR Holdings Corporation, took over as Chief Executive Officer (CEO). The

measures he took to revive the company included de-emphasizing research and development, refocusing on services and systems, and cutting the work force. He also revived the company's faltering mainframe business.

IBM also embarked on a more aggressive acquisitions program. In 1995 it acquired the software company, Lotus, for \$3.5 billion. Other software firms were bought. IBM also invested \$1.2 billion in Prodigy with Sears, Roebuck, and Company before selling it at a loss to the company's management and other investors.

With computer networking becoming more predominant in the business world IBM began to make all of its products network-ready. Corporate use of the Internet also became more widespread. IBM sought to provide products for corporate intranets and new Web technologies. In 1997 it introduced a new line of lower-cost mainframe computers that promised the same speed as traditional mainframes. In 1998 it introduced a new line of so-called "e-business tools." These included servers, work stations, PCs, and notebooks. They were meant to facilitate business transactions over the Internet.

"Deep computing" was another area of emerging growth for IBM. It linked high-speed computers with analytical software. The U.S. Department of Energy and the National Aeronautical and Space Administration (NASA) were two major customers for this type of supercomputer.

As the 1990s drew to a close IBM was in a much stronger position. Despite its poor market position in the computing industry at the beginning of the decade, IBM was being held up once again as a model of business excellence.

See also: **Computer Industry, Herman Hollerith, Microsoft**

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INTERNATIONAL MONETARY FUND (IMF)

The International Monetary Fund (IMF) was a group of 182 countries that joined together to create a cooperative, stable system for buying and selling each others' currencies; monitoring the global flow of money; and fostering international trade and economic growth. To join the IMF, a country had to agree to contribute an amount of money (based on its economic size) to a general pool of funds. The IMF used this pool of money to make loans to member countries that fell behind in their financial obligations with other IMF countries, or that wanted to restructure their economies. Because it had the world's largest economy, the United States contributed the largest amount (\$35 billion in 1998) to the IMF and therefore had the largest vote in how the IMF used its funds. The IMF had no power to enforce how its members spent the money loaned to them, but it could threaten to withhold future loans if a member country failed to live up to its obligations.

The IMF was formed in 1944 as the Allied countries began to write the rules that would govern the economic relationships between the nations after World War II (1939–1945). During the Great Depression (1929–1939) the sudden collapse in economic confidence around the world led many consumers to try to trade in their paper currency for gold. But many countries did not have enough gold on hand to meet this demand and were forced to break the longstanding connection between their currencies and their gold reserves. With some countries hoarding gold and others letting their currencies “float” unattached to gold, it was hard to determine how much one country's currency was worth compared to another's, and international trade suffered. The IMF rectified this situation by requiring that all member countries permit their currencies to be converted freely into other members' currencies, by establishing a definite value for each currency relative to others, and by eliminating policies that discouraged global investment and trade. The value of all world currencies was fixed in terms of the U.S. dollar, with \$35 equaling one ounce of gold.

In 1971 President Richard M. Nixon (1969–1974) ended this system of defining the value of the dollar

against gold, and the values of world currencies have since been defined more loosely. As a result the IMF maintained much closer supervision of its members' economic policies so exchange rates—the value of one currency relative to another—didn't fluctuate wildly. Although the IMF's main functions were to coordinate the economic policies of its members and to provide technical assistance, training, and consultation, it has been mostly known for the massive loans it made to its members. In 1995 for example, the IMF extended credits of \$18 billion to Mexico and \$6.2 billion to Russia to help them survive economic crises.

See also: Currency, Exchange Rates, Mexican Bail-Out

INTERNET

The Internet is an international system of interconnected computer networks of government, educational, nonprofit organization, and corporate computers. The computers and networks are connected to each other by high-speed data communications lines, and even dissimilar computers are able to exchange data with each other using a set of data communications protocols called TCP/IP (Transmission Control Protocol/Internet Protocol). TCP/IP supports Simple Mail Transfer Protocol (SMTP) to permit the sending of electronic mail (E-mail) messages, File transfer protocol (FTP) for moving files between computers, and telnet which makes it possible to log in and interact with a remote computer. TCP controls the transmission of data between computers, and IP controls the automatic routing of the data over what might be a chain of computers.

The Internet's structure is based on a predecessor network called ARPAnet, which was established by the U.S. Department of Defense's Advanced Research Project Agency (ARPA) in 1969 as an experiment to determine how to build a network that could withstand partial outages, such as from an enemy attack. Each computer on the network communicates with others as a peer instead of having one or a few central hub computers, which would be too vulnerable. In the late 1980s ARPAnet was replaced by NSFNET, run by the National Science Foundation, which expanded the network, replaced its telephone lines with faster ones, and funded more college and university connections to the network. Thus, educational institutions became the dominant users in the 1980s. Other organizations and corporations joined by linking their computers, local



This girl's computer is accessing the Internet, which is an interconnected international network linking together computers via high speed data communication lines.

area networks (LANs), and wide area networks (WANs) to the Internet and adopting TCP/IP to connect their computers. As a result, the Internet comprises some networks that are publicly funded and some of which are private and which charge network access fees. Consequently, different users pay different fees, or none at all, for the same services. In the 1990s corporations and consumers became the biggest users of the Internet.

See also: **Computer Industry**

INTERNET AND THE ECONOMY (ISSUE)

The Internet, an electronic form of communication that uses a computer, a modem, and a phone line, was developed in the mid-twentieth century. First established as a communications board for academics in the late 1960s, the Internet grew from a phenomenon found mainly in the halls of academia and government

to a worldwide source of information, “chat,” and commerce. It has spawned the Information Superhighway, which allows for instant communication everywhere. It created a new arena for advertisements and opened a new avenue of commerce—E-commerce.

Twenty years after its development, the Internet grew from a small hobby of academics and government workers to a worldwide community of millions of Web users. Though industries were initially wary of using the Internet to promote their business to consumers, the continued growth of the World Wide Web and the temptation of reaching millions of users were undeniable. In the late 1990s it was estimated that the Internet doubled in size every three months. Though it grew worldwide, much of this increase was in the United States, where over half of the Internet's nearly seven million host computers were located.

As the Internet grew, service companies sprung up to offer online services (connections to the Internet) to users, encouraging the even further expansion. Companies like CompuServe, America On-Line, Netcom, and Prodigy took early advantage of the new market. By the mid-1990s the Internet had become an economic and social force. In the fall of 1995 the initial public offering of an Internet service company called Netscape Communications on the New York Stock Exchange created huge publicity. The stock opened for trade at around \$14 per share, and the company's young founders soon found themselves millionaires. By July 1999, Netscape stock was trading at \$97.63 per share.

Online service companies were not the only ones to profit from the Internet. By the end of the twentieth century, the United States was home to more businesses online than any other part of the world. It was also home to the highest number of computer owners, the most access nodes, and the lowest telecommunication rates. The Internet, however, was still a work in progress at the end of the twentieth century. Computer crashes, connectivity interruptions, slow transfers and downloads, and out-of-date or finding inaccurate information were common user experiences. But these problems did not slow the Internet's popularity or its development. Computer industry pioneers like Bill Gates have envisioned the Internet as a source for most avenues of communication, connecting computers, telephones, television, and radio.

One vision of the Internet—as a new market for business—was clearly being realized in the 1990s with the development of E-commerce. Businesses can post their advertisements online in hopes of wooing consumers to their products. By the click of a mouse on an

online advertisement, a user can be taken to a business's website, see an image of the promoted product, read about its benefits, and often have the option to purchase that item online. The Internet is a forum in which small companies may be able to better compete in the global marketplace. It also removes many barriers of communication between customers and businesses, such as geography and time zones.

AVAILABLE 24 HOURS A DAY, SEVEN DAYS A WEEK, THE INTERNET PROVIDES A NON-STOP FORUM FOR BUYERS AND SELLERS TO INTERACT.

E-commerce has grown notably in the 1990s. Online companies such as Amazon.com have experienced large growth and surging popularity with users. Amazon.com provides the curious with book and music reviews, customer opinions, soundbites of song tracks, discounted prices, and ease of purchase. An online shopper at Amazon.com can read many opinions about a book or CD before deciding to purchase, add an item to his or her electronic shopping cart, and head to the never-a-line check-out (payment by credit or check only) all without the hassle of crowded malls or overeager salesmen. The benefits for a purely online company such as Amazon.com come in the low overhead costs of operation and the many consumers it can reach through its general reputation and extensive advertising network.

Books and music and online services are not the only areas of business to benefit from the Internet. Consumers can buy just about anything on the Internet, from food and clothing to cars and airline tickets. Looking for a new apartment? Go to apartments.com. A new job? Try careerpath.com. The options are endless for the diligent online consumer. The variety of choice and the ease with which consumers can communicate with one another present a challenge to businesses. While the Internet allows companies to talk directly with their customers without the aid of distribution channels and mass advertising or the mediation of the press, it also allows outsiders to more easily reach one another and talk about companies amongst themselves, without going through the same intermediaries. Received poor service from an online company? Post your complaint in chat rooms and on posting boards across the World Wide Web. Bad publicity from the average consumer has become more a threat for businesses due to the easy communication inspired by the Internet. Companies have less control over their public image. Anything and everything about a business can be known—and found out—on the Internet. While this

may benefit consumers, it is a double-edged sword for companies.

Though E-commerce grew rapidly in the second half of the twentieth century, its actual successes have been questioned. Some economists claim E-commerce may diminish a company's profits. The Internet drops the cost per transaction, so it becomes practical to auction an item for dollars rather than thousands of dollars and still make money. A mass merchandiser like Internet Shopping Network, for example, can program its computers to accept the 3,000 best bids over \$2.10 for 3,000 pieces of costume jewelry, rather than accept one set price for the jewelry, which would be common practice in a shop. In addition, as consumers use search engines to scour the web for the cheapest prices and the latest offers, rival competitors are only a mouse click away. The advantages of being the most well known company or the biggest advertiser are mitigated on the more level playing field of the Internet.

Available 24 hours a day, seven days a week, the Internet provides a non-stop forum for buyers and sellers to interact. The opportunities for profit, loss, problems, and rewards may be staggering and unpredictable, but E-commerce is clearly paving the way to a new economic road. Buy. Sell. Complain. Compliant. Do it all at your convenience on the Internet.

See also: Computer Industry, Information Superhighway, Internet

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INTERSTATE COMMERCE COMMISSION ACT

The Interstate Commerce Commission (ICC), established by act of Congress in 1887, is responsible for regulating the rates and services of specified carriers that transport freight (goods, whether raw or finished) and passengers between states. ICC jurisdiction, expanded by subsequent acts of Congress, includes trucking, bus services, water carriers, expedited delivery

services, and even oil pipelines. The regulatory agency, the nation's first such body, was borne of necessity during the late 1800s, when farmers and others charged the railroads with discriminatory freight practices.

With rail lines crisscrossing the nation, the question of who would control rates and monitor practices had become crucial. Many states, particularly in the Midwest, had set up regulatory boards but because the rail companies operated between states, enforcing state laws on them proved cumbersome and impractical. Meanwhile the railroads, operating without oversight by any effective regulatory body, set their own standards and practices, which resulted in many abuses.

In a U.S. Supreme Court ruling in 1877, in the case of *Munn v. Illinois*, the authority of the state boards to regulate the railroads was upheld. But less than a decade later, in the case of *Wabash, St. Louis and Pacific Railway Company v. Illinois*, the high court invalidated its earlier decision and proclaimed that only the U.S. Congress has the right to regulate interstate commerce. In issuing their decision the Court cited Section 8, Article 1 of the U.S. Constitution (1790), which states that "Congress shall have the power . . . to regulate commerce with foreign nations, and among the several states, and with the Indian tribes."

The Interstate Commerce Act was passed in 1887, creating the Interstate Commerce Commission to regulate the interstate railroads. The agency's purview was later expanded to include all ground and water carriers that operate on an interstate basis. In addition to controlling rates, the agency also enforced laws against discrimination. The ICC's authority was strengthened by congressional legislation including the Hepburn Act (1906) and the Mann-Elkins Act (1910).

See also: Hepburn Act, Interstate Commerce: Regulation and Deregulation, Mann-Elkins Act, Munn v. Illinois, Wabash Case

INTERSTATE COMMERCE: REGULATION AND DEREGULATION

In many ways the methods of transportation in the United States in the early nineteenth century would have been familiar to the medieval European. Overland transport was still largely by foot and four-legged beasts over poorly maintained roads. Mass amounts of freight could not be moved efficiently over very long

distances. But by the mid-1800s growth of a national railway system began to profoundly alter the country forever.

Although a few horse-powered railroads began operating in the United States in the early 1800s, steam-powered locomotives were not used until the 1830s. By the 1850s railroads were under construction in all states east of the Mississippi (many for only short distances), with most activity in the Northeast. Expansion of the rail network continued, peaking in the 1880s.

With rail lines crisscrossing the nation, the question of who would control rates and monitor practices had become crucial. Meanwhile the railroads, operating without oversight by any effective regulatory body, set their own standards and practices, which resulted in many abuses.

From the start, railroads were capital-intensive and demanded high-cost maintenance regardless of the fluctuations in the amount of business. The large amounts of money needed created the conditions for consolidation and merger, or at least for coordination of markets and services offered. This need for greater organization stemmed from railroads' increasing dependence on higher volumes of business to spread these fixed costs over as much traffic as possible. In addition, railroads often attempted to form cooperative "pools," or cartels to keep rates high. However, consistent and effective cooperation was not always feasible between competitors. Price wars did occur on lucrative high volume lines, such as links between Chicago and New York. Prices were frequently inflated on smaller branch lines with less competition. Rural areas tended to pay higher rates to subsidize higher volume lines connecting urban centers. This sometimes drove smaller customers out of business. The railroad's political power was also increasingly evident with the rise in corrupt and discriminatory practices mostly at the state level.

Consequently, the public, especially farmers and small independent manufacturers, became disenchanted with the railway companies. The platform of the Farmers' Alliance movement (1880–1896) included a reform of transportation costs, which led state legislatures to begin passing legislation to create commissions to oversee railroad business. These commissions were generally ineffective because of the railroad's pervasive economic and political power. As railway networks continued expanding across state lines, an individual state's power to regulate railroads diminished.

Thus, in the early days of the republic most trade did in fact occur within the borders of each state, but as systems of transportation and communication emerged

in the nineteenth century, an increasing percentage of all economic transactions involved interstate commerce. Many states, particularly in the Midwest, had set up regulatory boards, but because the rail companies operated between states, enforcing state laws proved cumbersome and impractical. This meant that the role of Congress in overseeing the affairs of the economy was bound to grow.

For most of the nineteenth century, however, the U.S. Supreme Court assumed a very conservative posture and discouraged Congress from attempting to expand its authority in the economy. The Constitution itself actually offered guidance on this somewhat ambiguous point. Although it gave the states the power to regulate trade within their own borders, the so-called “commerce clause” of Article I gave Congress the power to “regulate Commerce . . . among the several states,” i.e., trade that crosses the border between two states. *Interstate commerce* is the term used to refer to such trade.

Thus, the Supreme Court ruled in 1877, in the case of *Munn v. Illinois*, that the state regulatory boards had jurisdiction over the railroads. But less than a decade later, in the case of *Wabash, St. Louis and Pacific Railway Company v. Illinois*, the high court invalidated its earlier decision and proclaimed that only the U.S. Congress has the right to regulate interstate commerce. In issuing this decision the Court cited Section 8, Article 1 of the U.S. Constitution (1790), which states that “Congress shall have the power . . . to regulate commerce with foreign nations, and among the several states, and with the Indian tribes.”

Thus, inevitably, as the country became more complex and interconnected, and as the railroad companies grew from small, local concerns into interconnected systems of rich and powerful corporations, the fight over regulation of interstate lines moved to Congress. As time went on, railroad interests actually preferred dealing on the federal level rather than fighting the same war in all the state legislatures. In addition, the railroads’ feared the “ruinous competition” of the unregulated capitalist environment. Far from being free market capitalists, their goal was to become a government-sponsored cartel that would insure them a rational process of setting rates and a guaranteed profit. Thus, both the railroads and the anti-railroad forces pushed for regulation.

Finally, in 1887 Congress passed the Interstate Commerce Act, the first broadly regulatory act designed to establish government oversight over a major industry. Patterned after earlier state regulatory laws,

the act created the Interstate Commerce Commission (ICC), the nation’s first regulatory agency. The agency’s original charge was to regulate railroad rates through court orders and to prohibit discriminatory practices including rebates to selected customers. The act originally provided for a commission of five, which eventually expanded to eleven.

The stated purpose of the ICC was to protect consumers and shippers from the monopolistic freight rate policies of the railroad industry, to control which companies gained entry into that industry, and to foster an efficient national transportation system. Other legislation expanded the scope and function of transportation regulation. Congress added telephone, telegraph, and cable service oversight to the ICC in 1888, followed by railroad safety in 1893. However, the ICC remained largely ineffective. During the President Theodore Roosevelt’s (1901–1909) administration, the ICC’s authority was substantially strengthened. Discriminatory practices against short haul routes were ruled illegal in the Elkins Act of 1903. The Hepburn Act of 1906 gave the ICC the authority to enforce approved rates without court orders and it also added pipelines to ICC oversight. The Sherman Anti-Trust Act of 1890 and the Clayton Act of 1914 further strengthened the federal government’s role in interstate commerce by outlawing monopolies and business practices that tended to “restrain trade.”

In 1902 President Theodore Roosevelt (1901–1909) persuaded Congress to create the Bureau of Corporations to inspect the financial books of any business involved in interstate commerce. In 1906 the powers of the ICC were expanded to include the regulation of oil pipelines, and in 1935, under the Motor Carrier Act, they were expanded again to include the trucking industry. The Transportation Act of 1920 further changed the ICC’s charge from merely approving rates to actually setting them. The ICC now determined appropriate profit levels of railroads. It also granted the right to operate and it organized mergers. In 1938 the federal government was given regulatory power over the domestic airline industry and in 1940 and 1942 over the inland waterways and freight forwarding industries, respectively.

The monopoly of railroads in freight hauling came to a close in the 1930s with emergence of the trucking industry, which was also added to ICC responsibilities in 1935. In three Supreme Court decisions between 1936 and 1942 the commerce clause was reinterpreted to permit Congress to regulate virtually all commerce that had a national impact, even intrastate (within a state’s borders) commerce. However, as the railroads

Interstate Highway Act

failed to generate sufficient capital to meet increasing volumes, their political power declined, beginning in the 1910s. The ICC then sought rate stability to ensure the industry's survival and profitability.

During the Great Depression (1929–1939), the ICC assumed a publicly unpopular role of guaranteeing rates of return on railroad capital by raising freight rates despite declining freight volumes. No rate reductions occurred during the 1930s—a bitter pill for industries needing long-distance hauling of bulky commodities. In 1940 Congress added water carriers such as barges to ICC oversight; in 1970 Amtrak's passenger rail service was also added to ICC oversight by the Rail Passenger Act. The ICC thus had oversight over all surface common carriers.

By 1970, however, it was clear that federal regulation of interstate commerce had created its own problems, and Congress began deregulating such industries as airlines, railroads, freight carriers, household moving companies, and inter-city buses. Finally in 1996 Congress eliminated the Interstate Commerce Commission altogether.

The ICC's original goal had been to ensure the public "reasonable and just" rates that did not constitute a monopoly. The Interstate Commerce Act did not define exactly what that meant except that rate setting should not be used to suppress competition. Through the years ICC critics accused the agency of favoritism to the railroad industry by establishing high rates and discouraging lower priced competition. Others argued the railroads' monopolistic powers had so diminished by the 1930s that the ICC was no longer needed.

Other regulatory agencies took over some of the ICC's territory. In 1934 the Federal Communications Commission (FCC) assumed responsibility for telephones, telegraphs, and cable services. The newly formed Department of Transportation in 1967 took over safety concerns. Still, by the 1960s the ICC had 2,400 employees and its annual budget in the 1970s was \$30 million. President Jimmy Carter's (1977–1981) administration greatly diminished the commission's powers to set rates by the 1976 Railroad Revitalization and Regulatory Reform Act. In December of 1995, through the ICC Termination Act, the ICC ended with some of its staff and functions transferred to the Surface Transportation Board.

See also: Hepburn Act, Interstate Commerce, Interstate Commerce Act, Mann-Elkins Act, Munn v Illinois, Sherman Anti-Trust Act, Clayton Anti-Trust Act, Wabash Case

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INTERSTATE HIGHWAY ACT

By 1919 the need for a planned system of national highways became apparent with the increasingly common use of the automobile in the United States. The emergence of the trucking industry in the 1930s further increased calls for long-distance interstate superhighways. The limited-access German autobahn system provided a model concept for a similar system in the United States. President Franklin D. Roosevelt (1933–1945) envisioned highway construction as an ideal public works program, and Congress passed the Federal Aid Highway Act of 1938, which directed a feasibility study of a toll road highway network. The study concluded that a toll system was impractical, but it did recommend creating a 26,700 mile non-toll highway network. Roosevelt forwarded the proposal to Congress in 1939, but the nation was soon drawn into World War II (1939–1945), and Congress shelved the idea. Roosevelt, however, maintained an interest in the proposed highway program throughout the war, expecting that such a massive public construction program would help the postwar economy rebound. In 1941 Roosevelt established the National Interregional Highway Committee to further refine the concept. The resulting 1943 committee report recommended a 39,000 mile interregional highway system. Also focusing on urban freeways, the committee recognized the great influence such transportation networks would have on urban development and stressed the importance of careful design.

Further debate highlighted conflicting interests, such as urban versus rural needs, states with dense populations versus those with a sparse population, and state versus federal control. The resulting Federal Aid Highway Act of 1944 authorized a 40,000 mile interstate highway system connecting primary metropolitan areas and industrial centers, and serving national defense needs. But the act set no priorities for construction and, significantly, provided no special funding. It did require state and local governments to determine the most appropriate routes and to develop national design standards. In 1945 the federal Public Roads Administration adopted a set of standards and, in 1947, designated almost 38,000 miles of routes for construction. With no special funding, however, the resulting construction was slow, as states were reluctant to divert funds away from other priorities.

The Cold War and the Korean War (1950–1953) emphasized the need for improved highways for military use. Consequently, the 1952 Federal-Aid Highway Act provided the first specifically authorized federal funds for interstate highway construction: \$25 million to states on an equal match basis. By 1953 states had constructed almost 20 percent of the designated interstate highway system, at a cost of nearly \$1 billion. Little of it, however, was considered of suitable quality for even existing use.

With newly elected President Dwight Eisenhower (1953–1961) taking special interest in the proposed system, Congress passed the Federal-Aid Highway Act of 1954, authorizing \$175 million on a sixty-forty matching basis. Still disappointed with the meager funding commitment, Eisenhower formed an Advisory Committee on a National Highway Program to press for more sweeping legislation. Finally, overcoming opposition of the trucking industry to a proposed user tax to support the program, Congress passed the Interstate Highway Act in 1956. The act established a 40,300-mile national system of highways to be built over a 13-year period. The federal government would contribute 90 percent of construction costs, projected to exceed \$30 billion, with states responsible for later maintenance costs.

Avoiding major debt, Congress created a pay-as-you-go program. The unique funding strategy included creation of the Highway Trust Fund and the Federal Highway Administrator position to manage the massive program. Funding was also provided to purchase right-of-way not already acquired by the states. Motorist-related user taxes on various fuels (including gasoline) and on truck use (including tire and equipment sales) formed the basis for funding. Those enterprises selling the taxed products, such as service stations,

paid the excise tax directly to the government and then were reimbursed through consumers' purchases the following year. The tax revenue annually raised more than the federal portion of construction expenses. The excess funds were invested in special U.S. Treasury securities, with the interest from the securities placed in a trust fund. The federal government reimbursed the states after the highway construction expenses were incurred, placing limits on how much states could spend annually. How these funding limits were apportioned to the various states, a very contentious issue during original passage of the act, was based on a formula taking into account populations served, total roadway mileage in a state, and the land area served.

The act stipulated uniform design standards to meet interstate demand projected through 1975, including fully divided highways with complete control of access, minimum distances between interchanges, and set lane widths. Use of overpasses or underpasses for road intersections and railroad crossings was required initially for only the more heavily traveled segments, but after 1966 was required for all interstates.

Upon passage of the 1956 act, the federal government provided over \$1 billion to begin construction. The interstate legislation was hailed as one of the greatest public works programs in U.S. history. The unique numbering system and interstate marker designs were selected in 1957. In 1990 President George Bush (1989–1993) re-designated the system as the Dwight D. Eisenhower System of Interstate and Defense Highways. Although comprising only one percent of U.S. roadways, the interstates supported over 20 percent of vehicular traffic and almost 50 percent of trucking traffic.

The interstate program had substantial socioeconomic effects on U.S. society, some anticipated and some not. The cement and concrete industries boomed spurring advances in pavement technologies. Goods could be moved much more efficiently, and increased mobility allowed commuting workers to live in areas farther from their places of work. Not fully anticipated was the mass movement of city residents to the suburbs. The exodus left some cities with declining populations and a demise in the quality of life resulting from a substantial loss of tax revenue. In addition, the freeways undercut mass transit prospects in the United States.

By the mid-1990s, over 40,000 miles of the interstate system had been constructed, at a cost of \$137 billion. The system extended across the lower 48 states, Hawaii, Alaska, and the Commonwealth of Puerto

Intolerable Acts (1774)

Rico. Maintenance expenses and increasing congestion had become major concerns by the 1990s.

See also: **Suburbs (Rise of)**

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INTOLERABLE ACTS (1774)

The Boston Tea Party of December 16, 1773, helped unite American resistance to the British government. It also launched, however, a campaign in Parliament that was led by King George III's Prime Minister Lord Frederick North to punish the rebellious Bostonians. Between March and June of 1774 the government passed four bills aimed at ending dissent in the colony of Massachusetts. They are known collectively as the Intolerable Acts.

The Boston Port Act, passed in March of 1774, stopped all shipping into or out of the port of Boston until payment was received for the tea ruined in the Boston Tea Party and the tax that was due on it. Another measure, the Massachusetts Government Act, was passed in May 1774. The act altered the charter presented to the colony in 1691, changed the representative assembly to an appointed body, and gave much greater powers to the colony's governor Thomas Hutchinson, who was appointed by the king. When Hutchinson requested a leave of absence the government replaced him with a soldier who would unquestioningly obey orders: General Thomas Gage, commander of all British forces in North America.

The Administration of Justice Act, also passed in May, moved trials for capital offenses that involved

British officials or soldiers out of Massachusetts. The British Parliament believed local juries would never render a fair verdict. Finally, the Quartering Act, passed in June, gave General Gage the power to house British soldiers in private homes, something forbidden in the previous Quartering Act of 1764. Although Gage had to pay fair rental prices for his soldiers' lodgings, the act's intent was to punish the people of Boston for the Tea Party. Gage received four regiments of soldiers to keep order in the town.

THERE IS NO ANIMAL, HOWEVER WEAK AND CONTEMPTIBLE, WHICH CANNOT DEFEND ITS OWN LIBERTY, IF IT WILL ONLY FIGHT FOR IT.

Samuel Adams, June 27, 1774

These four acts, all directed primarily against the people of Massachusetts and Boston in particular, constituted the Intolerable or Coercive Acts. The acts aroused little direct opposition because they were limited in scope to New England and did not affect the interests of the majority of colonists. Taken together, however, the statutes posed a threat to American interests and institutions throughout the colonies. They denied the power of local political organizations, supported military law over civil law, and changed customary judicial practices. The end result was that most colonists felt sympathy for the Bostonians. The colony of Virginia, for instance, observed a day of fasting and prayer to protest the closing of Boston Harbor.

Parliament's passage of another bill, however, sparked feelings of alarm throughout British North America. The Quebec Act, passed in June, 1774, created a government for the former province of French Canada. Part of the act established the rights of French-speaking residents to worship as Roman Catholics and created a royal governorship and advisory council for the area. The act also expanded the territory of Quebec south from the Great Lakes to the Ohio River. Although Parliament did not intend the Quebec Act to be part of the Intolerable Acts, colonial radicals grouped it with the others as a way of uniting opposition to the king's government.

If there was a single act of Parliament that was almost guaranteed to offend all the colonies, it was the Quebec Act. The measure took away all the claims that colonial governments had to western lands through their original charters. It also created a reserve area for Native Americans bordered by the Mississippi and Ohio Rivers in the west and by the Appalachian Mountains in the east. By stopping colonial expansion at the mountains, the act alienated both rich and poor

Americans. Impoverished settlers had been making homesteads west of the Appalachians since the end of the French and Indian War (1754–63). Richer colonists, including Benjamin Franklin and George Washington, had already laid claim to thousands of acres of these western lands and risked losing their private fortunes. George III's Solicitor General Alexander Wedderburn publicly acknowledged the anti-American bias of the Quebec Act. He declared in Parliament that the Quebec Act was meant to keep the colonies tied economically and politically to the sea, so that they would be easier to control.

In order to resolve the differences brought about by the Intolerable Acts, the colonists called the First Continental Congress (1774). Representatives from 12 of the 13 colonies (Georgia declined to participate) met in Philadelphia in September of that year. The delegates represented a complete spectrum of political beliefs, ranging from conservative loyalists to radical patriots. They joined together to petition the Crown for repeal of the acts. They split, however, over the question of what measures should be taken if the acts remained in effect. In a document known as the Suffolk Resolves, the Massachusetts delegation—including Samuel Adams and his cousin John Adams—called for a complete boycott of British goods and the training of local militia to resist British troops. The stage was set for the beginning of the American Revolution (1775–83).

See also: American Revolution, Appalachian Mountains, Boston Tea Party, Benjamin Franklin, French and Indian War, Quebec Act, George Washington

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INVESTMENT

Investment refers to the acquisition of an asset for the sole purpose of producing future monetary income and/or capital gains. For an individual an investment may consist of the purchase of financial assets such as stocks, bonds, life insurance, and mutual funds, or physical assets such as a house or a car. Economists define investment as the increase in capital goods in an economy. Capital goods are the material or human resources that enable a business to produce a product or service. Investments in capital goods by businesses would include the purchase of factories, buildings, machinery, or a skilled and knowledgeable labor force. Businesses may also invest in research and development projects in order to improve their products or create new ones. For a business a successful investment is considered to be one that increases profits that can be passed on to shareholders which, in turn, raises the value of a company's stock.

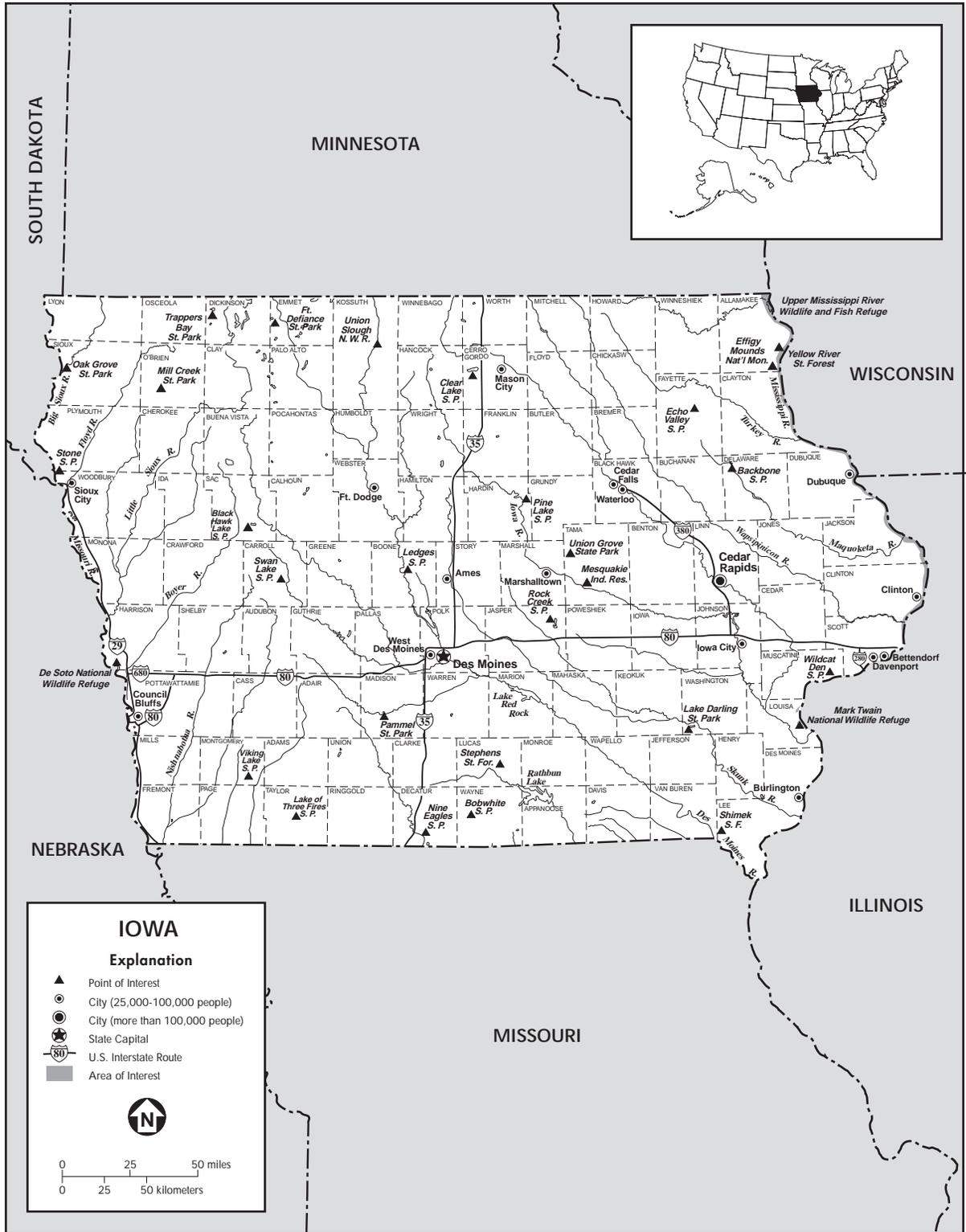
A business's decision to invest in a particular item or project is based on two considerations. The first consideration is the expected rate of return on the investment, or how much profit the investment will generate for the business. The expected rate of return can be estimated based on forecasts of potential sales, profits, and expenses. The second consideration is how much risk is involved in obtaining the expected rate of return. Whether an individual or a business makes an investment, evaluation of risk is essential to successful investing. Practically every investment has some capacity for financial loss, but the degree of risk involved can vary greatly. Therefore investors need to estimate how much loss can feasibly be assumed and limit any risks accordingly.

See also: Capital Goods, Profit, Speculation, Stock

IOWA

Situated in the center of the nation and between two major rivers, Iowa had some built-in advantages as pioneers began to move westward to establish farms on the prairie grasslands. Spurred on by the development of railroads, more and more people came to this fertile territory. Although the economy of contemporary Iowa actually depends more on industry and the service sector than on farming, the image of Iowa as a state of rolling farmlands and small towns persists. As the diary of Elmer Powers, a 1930s rural Iowan, indicated, Iowa farmers take pride in "[t]he responsibility of

Iowa



State of Iowa.

growing the food and flesh for a distant and often unappreciative city.’”

A trip down the Mississippi River in 1673 made Father Jacques Marquette the first European to visit Iowa. The territory was inhabited by several Native American tribes. The only permanent white settler for many years was a French trapper, Julien Dubuque, who obtained the right from the Fox Indians to work the lead mines in the area, which later bore his name. Iowa came under United States control when France included it as part of the Louisiana Purchase of 1803. Meriwether Lewis and William Clark then went up the Missouri River on their famous expedition, stopping in Iowa and finding it a fairly empty region.

The westward wave of white settlement caused Winnebago, Sauk, and Fox Indians to flee to Iowa. Their stay was brief, however, as more whites moved into the territory and drove them out. Iowa was successively part of the Louisiana, Missouri, Michigan, and Wisconsin territories, becoming a separate territory in 1838. It entered the Union in 1846 as a free state at the same time Florida was admitted as a slave state.

Settlement in the territory proceeded at a rapid pace, since the new state boasted one-fourth of the nation’s fertile topsoil. Farmers from Indiana, Ohio, and Tennessee, and from far-reaching states, such as Virginia, New York, and the Carolinas, came in droves. According to historian Joseph Frazier Wall, the convenience of waterways was important to the development of Iowa. Travelers from the East could come via canals to the Ohio River, and from there down the Mississippi to Davenport or Dubuque. “The entire water trip,” according to Frazier, “might take a month, but this was lightning-quick compared to the wagon and cart journey from interior Pennsylvania or Ohio or even farther east across a third of the continent from the Great Smokies of Carolina or the Blue Ridge mountains of Virginia.” These mostly Anglo-Americans made the state’s culture quite homogeneous in religion and ethnicity. Later immigrants came from Germany, Ireland, and Scandinavia during the 1870s and 1880s. Iowa was the second-highest producer of wheat by 1870, but in the following decades the wheat belt moved farther west and Iowa began to produce more corn to feed cattle.

Despite the abundance of farmable land in Iowa, pioneers by no means had an easy time taming it. The high prairie grass with its extensive root system made it necessary in many cases to hire a professional “prairie-breaker,” a person who made his living by breaking up the soil with a team of oxen and a special, heavy-duty plow. According to Frazier, this process was effective

but very costly to the average farmer who might have to work six to eight years to make his land claim pay for its cost. In addition farmers had to cope with periodic plagues of grasshoppers and plant diseases.

Some interesting sidelights in Iowa’s history were the experimental socialist communities that developed in several areas of the state during the mid-nineteenth century, particularly the Amana colonies in Iowa County. In Amana, founded by a religious group called the Community of True Inspiration, all lands, mills, factories, tools, and livestock were held in common. While other utopian communities had failed, Amana flourished, growing to 26,000 acres of farmland and 1,800 inhabitants by the turn of the century. The communitarian character of Amana, however, was weakened by the Great Depression of the 1930s, and Amana soon became a capitalist corporation with each member a stockholder. Today it is a cooperative company town that has become famous for its manufacture of refrigerators, air conditioners, and microwave ovens, as well as for its tourist appeal.

Iowa supported the Union during the American Civil War (1861–1865), not only because of its anti-slavery sentiment but because of its strong desire to keep Mississippi River shipping alive during a time of crisis. Railroads were vital to the growth of agriculture in the state; the Mississippi and Missouri railroad was the first to cross the state, followed by the Chicago, Iowa & Nebraska, and later the Chicago & Northwestern railroads. Three other major railroads were the Chicago, Burlington & Quincy, the Illinois Central, and the Chicago, Milwaukee, St. Paul & Pacific. By the 1870s, despite the railroads’ obvious benefits to commerce, Iowa farmers were against the high rates and monopolistic practices of the railroads. A powerful lobby in the state, the National Grange, succeeded in getting the legislature to pass the Granger laws to regulate railroads.

During the late nineteenth century Iowa was slowly becoming a center for much scientific experimentation in farming, especially in animal and plant genetics. Livestock and poultry were refined to meet the tastes of urbanized people who liked more tender beef and chicken. Soybeans were introduced from the Orient, and hybrid corn appeared early in the twentieth century, increasing corn yields significantly. Giant seed companies, such as Pioneer, DeKalb, and Cargill, grew rapidly to accommodate the farmers’ increasing desire for the hybrids.

Because so much of Iowa’s land was valuable for agriculture, towns and cities tended to stay relatively small. At first they grew up along the rivers—towns

Ironclads

such as Dubuque, Burlington, Davenport, Bellevue, Keokuk, and Fort Madison. Railroads made possible the development of inland cities such as Grinnell and Waterloo. Still, the state did not develop major metropolitan areas comparable to Chicago or Indianapolis. Des Moines, the state's largest city, still has only around 200,000 people, and the second-largest city, Cedar Rapids, is only about half that size. Since much of Iowa's industrial production is related to agriculture no one metropolitan area dominates, nor is there any natural port of entry that would create a concentration of population and industry.

After World War I (1914–1918) prices for farmland rose considerably, forcing many cash-poor farmers to lose their land around the time of the Great Depression. A small number of farmers joined the Farmers Holiday Association, which staged a number of violent strikes in 1932. Most farmers, however, sought relief in political change within the system. Overwhelmingly, Democrats were elected to office in 1932 on all levels, and the state began to benefit from President Franklin D. Roosevelt's (1933–1945) New Deal programs. High demand for farm products improved the farmers' situation during World War II (1939–1945). After the war, however, the state's economy shifted emphasis from agriculture to manufacturing and service industries. Food processing and farm implement manufacture, early industries in the state, remain important to the economy. In the 1990s the service sector encompassed nearly 50 percent of the economy, with manufacturing at 25 percent, and agriculture at only nine percent.

Inflation plagued Iowa during the late 1970s, driving up the cost of fertilizers and farm equipment. Iowa also suffered during the recession of the 1980s, losing 7.9 percent of its population. A serious drought in 1988 prompted Iowa's governor to declare a state of emergency, as soybean and corn harvest dropped to their lowest levels in 14 years; this disaster was followed by an early frost, which further damaged the already ruined farmlands. Since 1970 the state has seen a loss of 41,000 family farms; more than 90 percent of all of Iowa's land, however, is still farmland. By the early 1990s diversification of businesses, industries, and agriculture had helped the state's economy to make a cautious recovery.

Iowa ranked well below the national average in unemployment, at 3.8 percent, in 1996. Its per capita income in that year was \$22,560, placing it 28th among all states. Iowa's farm income, nearly \$12 billion in 1995, came from the sale of livestock and meat products, feed grains, and soybeans. Some of the important industries in the state, all members of the *Fortune* 500,

include Caterpillar Tractor, General Motors, Mobil, General Electric, General Foods, Procter & Gamble, and U.S. Steel. Around 12.5 percent of all employees in the state are members of labor unions.

See also: National Grange, Utopian Communities,

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IRONCLADS

Ironclads were warships built of wood or iron and covered with thick plates of iron. During the 1820s naval guns that fired explosive shells (versus solid cannonballs) were developed. Because the new shells could easily destroy the hull of a wooden ship, the navy began developing ways to protect its battleships from this superior ammunition. Ships clad in iron could better sustain the fire of explosive shells.

The first battle between two ironclads was staged during the American Civil War (1861–65). On March 9, 1862, the Union's *Monitor*, originally built as an ironclad and equipped with a revolving gun turret, faced the Confederacy's *Virginia*. (The *Virginia* was made by raising the sunken federal boat the *Merrimack* and covering the wooden vessel with iron plates.) The ships met at Hampton Roads, Virginia, a channel that empties into Chesapeake Bay. Though the outcome was indecisive, the *Monitor*'s performance in the battle was sufficient to warrant the U.S. Navy's production of a fleet of ironclad ships. The March 1862 battle off the coast of Virginia marked the beginning of modern naval warfare.

The use of sturdier materials in shipbuilding, along with the steam-power and the screw propeller, all

of which were used by Civil War ironclads, greatly improved the efficiency of maritime commerce after the war. In fact John Ericsson (1803–1899), the designer of the Monitor, had also developed the screw propeller.

See also: Civil War

IROQUOIS

The Iroquois, or Iroquois League, was an American Indian confederacy made up of the Cayuga, Mohawk, Oneida, Onondaga, and Seneca—Iroquoian-speaking Eastern Woodlands tribes that had settled in the area of present-day New York, west of the Hudson River. The confederacy was formed sometime between the late 1300s and mid-1400s as the League of Five Nations. Member tribes agreed they would not undertake war without the agreement of the other tribes. Within the confederacy each nation had a role; the Mohawks, for example, were charged with defending the eastern end of Iroquois territory.

The Iroquois were mighty warriors. Other tribes either looked to the league for protection or viewed them as a menace. Among the Iroquois enemies were the Huron, a tribe in the Great Lakes region. As the French and British encroached on Indian lands, the bond among the Five Nations grew stronger. In 1722 a sixth tribe, the Tuscarora, joined the league, expanding its territories and its number. (Thereafter the confederacy is alternately known as the League of Six Nations.)

When fighting broke out in the colonies between the French and the British, the Iroquois sided with the British, in what would be known as the French and Indian War (1754–1763). Some historians view the Indian-British alliance as the critical factor in the British victory in the conflict. These historians promote the idea that had it not been for Iroquois involvement, North America would have been divided between the French and British.

When the American Revolution (1775–1783) began, the Iroquois split their loyalties: All tribes except the Oneida sided with the British. During the course of the war, Mohawk chief Thayendanegea, better known as Joseph Brant (1742–1807), led the Iroquois in many raids including the massacre at Cherry Valley, New York, in 1778. The following summer an American army marched through upstate New York, devastating

Indian lands. After the war ended, most of the Iroquois were moved to lands in Ontario.

See also: Eastern Woodlands Indians

IRRIGATION

Irrigation is an artificial watering of the land to produce crops. Irrigation compensates for the lack of regular rainfall in the more arid regions of the world and requires large supplies of water. The two water sources are surface water in lakes, streams, and rivers, and groundwater stored beneath earth's surface in aquifers. Aquifers are natural underground reservoirs where water accumulates.

The two main types of irrigation making use of surface water are the basin system and the perennial system. Basin irrigation relies on annual flooding to fill canals dug adjacent to the overflowing river. The canals traverse through farmland, flooding the area with nutrient-rich water. The modern and widely used perennial system, utilizing reservoirs generally created by dams and extensive canal networks, allows water to be supplied at suitable intervals throughout the year. The other source of irrigation water, groundwater, is pumped to the surface from wells dug into aquifers. The well is placed as near to the land to be irrigated as possible and a system of canals or pipes carries water to the crops.

Recognizing the value of irrigation as an aid to permanently settling the arid American West, Mormon settlers in the Salt Lake Valley in present-day Utah built the first large scale irrigation canal system in 1847. Demand for food by the gold rush miners in California and Colorado in the 1840s and 1850s spurred development of ditch systems to irrigate bottomlands along streams. After the American Civil War (1861–1865), the great agricultural settlement boom, lasting from the 1870s to the 1940s, promoted more efficient irrigation institutions as a means of stimulating economic development of the West. Mutual irrigation companies, first formed in Utah, were followed by irrigation districts in California formulated through the Wright Act of 1887. The districts could levy taxes and issue bonds for irrigation development. With the Carey Act of 1894 and the Reclamation Act of 1902, the federal government began major dam construction efforts. The Reclamation Act established the Reclamation Service, later known as the U.S. Bureau of Reclamation. The agency planned the two largest irrigation

Isolationism (Issue)

systems in the United States, the Colorado River Project with Hoover Dam completed in 1936 and the Columbia River Basin Project with the Grand Coulee Dam completed in 1942. The projects transformed immense expanses of arid lands into productive farmland.

The development of deep-well turbine pumps in the 1930s and 1940s led to a rapid increase in acreage irrigated by wells, particularly in the Great Plains and Texas.

See also: **Westward Expansion**

ISOLATIONISM (ISSUE)

From the time when George Washington (1789–1797) gave his farewell address at the end of his presidency, warning against “entangling alliances with Europe,” through the nineteenth century, the United States maintained an almost steadfast policy of isolationism. But at the beginning of the twentieth century the United States began to turn away from the isolationism that preceded the Spanish-American War (1898). As a major industrial nation with expanding foreign markets, the United States was soon considered a world power. Global expansion meant increased wealth as raw materials became cheaper to acquire; prices were driven down and consumption was up. The new century saw American businesses prospering in many sectors, including oil, steel, textiles, railroads, and food products. This unprecedented technological progress was marked by the birth of the automobile and the aviation industries. But even with increased prosperity, the isolationist reflexes of the U.S. still shaped U.S. economic and diplomatic life until the advent of World War II (1939–1945).

In the first four decades of the twentieth century the United States clumsily attempted to ward off Japanese aggression in China, assumed a paternalistic administration of Philippine affairs and engaged in “dollar diplomacy” vis a vis its smaller neighbors in the western hemisphere. The most ambitious and idealistic diplomatic project that the U.S. attempted was to intervene in World War I for the most altruistic and idealistic of reasons but with little diplomatic success. In short, the U.S. had little to show for its diplomatic efforts before World War II. With very different policies, Theodore Roosevelt and Woodrow Wilson stand

out as the most internationalist presidents. Neither believed that the U.S. could go far with an isolationist foreign policy.

Teddy Roosevelt put forth a muscular, imperialist foreign policy, while Wilson tried a kind of “missionary” foreign policy—sacrificing 112,000 American deaths simply in order to participate in the peace treaty through which he tried to structure a post-war set of diplomatic relationships that would end all wars. Wilson stood for democracy as the most advanced, humane, and Christian form of government. For him all people were capable of being trained in the habits of democracy and it was the role of the United States to help them achieve democracy.

When the nations of Europe were drawn into World War I (1914–1918) the majority of U.S. citizens wanted their country to remain neutral. The national consensus was solidly isolationist. They approved of trade, but they feared being sucked into a war in which they could see no moral difference between the belligerents. The pattern of immigration led most Americans to sympathize with the British and the French, and they grudgingly accepted the British maritime blockade of trade with Germany. Wilson helped to create a pro-war national consensus based on the belief that German actions—especially its submarine warfare, were morally bereft and would, if left unchecked, eventually threaten the United States. U.S. trade with Germany declined from \$169 million in 1914 to \$1.2 million in 1916, but the flow of U.S. goods into Allied hands was overwhelming, rising from \$825 million to \$3.2 billion in the same period. The United States became a warehouse for the Allied powers and sent munitions, food, and goods to Europe.

World War I gave the Wilson administration unique opportunities to achieve its international economic goals. He was successful in getting the Allies to accept the concept of the League of Nations. But his arrogance in dealing with the Republican Senators, plus the isolationism that sprung up again with the end of the war led the Senate to reject the Treaty of Versailles. This resulted in a powerful swing back to isolationism in the years before World War II.

During the 1920s the nation’s attention was directed towards internal changes rather than international affairs. In the opening years of what would be a decade of worldwide depression, President Herbert Hoover (1929–1933) made a series of proposals to quiet rising international tensions. In 1930 his administration extended the naval-limitations agreements of the early

1920s. In 1931 he proposed a moratorium on international debt while refusing to cancel the lingering World War I debts owed to the United States by the European powers. Hoover also pressed for an international agreement on arms limitation, but the World Disarmament Conference held in Switzerland in 1932 failed to achieve its goals. International economic and military pressures intensified. Fascism in Italy, Nazism in Germany, State Socialism in the Soviet Union, and militarism in Japan were ascendant, fueled by the global depression.

President Franklin D. Roosevelt's (1933–1945) early foreign policy achievements were mixed. His administration took an isolationist stance at the World Economic Conference in June, 1933, when U.S. representatives refused to cooperate in an effort to stabilize world currencies. In 1934 however Roosevelt took an internationalist stance in the U.S.-negotiated Reciprocal Trade Agreements on tariff reductions. His vacillating policies reflected his political priorities: at the beginning of his administration, domestic issues were much more important than foreign policy.

The predominant mood in the United States in the 1930s was deeply isolationist. Not only was the Great Depression (1929–1939) wreaking havoc domestically, but many citizens believed that the nation's losses during World War I far outweighed the gains. Between 1934 and 1936 discoveries made by a Senate investigating committee headed by Senator Gerald P. Nye further fueled the nation's mood of isolationism. Exposing war profiteering by banks and corporations during World War I, the Nye committee investigation led many to conclude that the interests of U.S. banks and corporations had driven the United States into a war the nation should have avoided. The notion that "merchants of death" were responsible for manipulating the United States into war was widespread.

Influential men such as Charles Lindbergh and retired U.S. Marine Corps Maj. Gen. Smedley D. Butler promoted the idea of "Fortress America," the notion that the United States was ensconced safely between the moats of the Atlantic and the Pacific, armed for defense against but not for intervention in the corrupt affairs of Europe. The Senate's refusal to allow the United States to join the World Court in 1935 was another indication of the country's, pervasive, isolationist mood. Fearful of being pulled into a war from which it would only suffer, Congress passed three acts that declared U.S. neutrality. In the event that a war broke out between other countries, the Neutrality

Acts of 1935 and 1936 made it clear that the United States would not supply either side with weapons or ammunition. The Neutrality Act of 1937 moved the nation further in the direction of isolation and asserted a "cash-and-carry" policy by which warring countries could purchase weapons (but not ammunition) in cash only. When the Spanish Civil War broke out in 1936, the United States remained on the sidelines.

Interventionists insisted that the future of the United States lay in establishing peace and stability abroad for the sake of trade and commerce. A world divided into closed and self-contained trading blocs was a world in which the United States would not prosper. Interventionists anticipated that renewed U.S. trade abroad might end the Depression. They believed that the United States had a vital stake in ensuring that the outcome of the war in Europe and Asia favored liberal democracies and market economic systems. However, not all interventionists advocated direct military involvement toward this end. Many argued that economic assistance, as in the case of the Lend-Lease Plan, would be enough to ensure the survival of western democracies. Others, however, insisted that liberal democracy and free enterprise would perish in a world dominated by authoritarian regimes. Such interventionists saw no alternative to military engagement.

In his first term Roosevelt worked closely with isolationist progressives such as Senators Robert La Follette, Jr., Hiram Johnson, George Norris, Burton K. Wheeler, and Gerald P. Nye. During his second term Roosevelt gradually broke with the isolationists as international tensions heightened. In October, 1937, Roosevelt's famous quarantine speech which called for international cooperation in bringing unspecified economic and diplomatic pressure to bear on aggressor-nations irritated the isolationists. Beginning in 1937 they increasingly turned against the president.

As the 1930s drew to a close the United States stood by while Hitler began his push eastward. As World War II began Roosevelt declared, "This nation will remain a neutral nation," but he called for a revision of the Neutrality Acts to allow the United States to sell England and its Allies weapons and ammunition. Congress skeptically allowed purchase of arms on a cash-and-carry basis.

Ironically, European orders for war goods sparked a phenomenal economic boom that brought the United States out of the Depression for good. Many believed that as long as the United States stayed out of the war

Isolationism (Issue)

both peace and prosperity were possible. But members of the Roosevelt administration leaned toward U.S. intervention in the European conflict. Economists within the administration warned that German success in Europe and Japanese victory in Asia would irrevocably close huge markets for U.S. goods. Unless the United States intervened in these conflicts, they argued, the economic future of the United States would be worse than the Great Depression. Such arguments, in concert with war atrocities on the part of Germany and Japan, convinced Roosevelt and his administration that the United States must set isolationism aside and take an active hand in the European and Asian wars. But the people of the United States still resisted. On December 12, 1937 Japanese airplanes sank the Panay, a U.S. gunboat navigating the Yangtze River in China. But people in the United States were ready to forgive the incident after a formal Japanese apology. The Japanese invasion of Manchuria remained a major cause of disagreement between the United States and Japan. But

only the bombing of Pearl Harbor on December 7, 1941, effectively pulled the United States out of the isolationistic attraction.

See also: Franklin D. Roosevelt, Woodrow Wilson, World War I, World War II

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JACKSON, ANDREW

Andrew Jackson (1767–1845), the seventh President of the United States, grew to adulthood and public prominence as the emerging nation was undergoing profound social and economic changes. In the wake of those changes Jackson worried about the central government's propensity toward abuse of power and the accumulation of power in the hand of a small political and economic elite. As president, Jackson remained a strident and popular spokesperson for majority rule in the United States. He did, however, exert the power of the presidency over other government branches far more than any president before him, leading to charges that he was primarily interested in personal power. He was denounced as a fraud and an opportunist who nearly wrecked the credit and currency systems of the United States. But Jackson also took issue with members of the privileged elite who sought to use the government for their own selfish purposes and thereby endanger the integrity of democracy in the United States. For many in the United States Jackson came to symbolize the democratic advances of his time.

Andrew Jackson was born in March 1767, in a log cabin, the son of poor Scotch-Irish immigrants. He was orphaned at age 14 and spent his adolescence with his aunt in the frontier areas of the Carolinas. Jackson drifted from one job to another, squandered a small inheritance, and developed a lifelong interest in horseracing and cockfighting. His education was spotty and he never appeared to develop an affinity for formal learning.

In 1784, at the age of 17, Jackson moved to Salisbury, North Carolina, to study law. He worked as a clerk for two years, copying legal documents, running errands, cleaning the office, and reading law books. He finished his law training in the office of Colonel John Stakes, and in 1787 he became an attorney in North Carolina.

Shortly after his law training ended, Jackson moved to the territory that would become Tennessee, and he



Andrew Jackson.

was appointed the area's attorney general. While in this position Jackson bolstered his income by selling land to new settlers. He also built a mansion in Nashville called the Hermitage. Later, when Tennessee became the sixteenth state, Jackson represented the state in Congress, but he resigned after only two years in order to be a judge on the superior court of Tennessee.

When the War of 1812 (1812–1814) broke out against Great Britain, Jackson was dispatched by the governor of Tennessee to fight with the Tennessee militia against Creek Indians, who had used the war as an opportunity to attack the Southern frontier. Although he lacked military training and experience, Jackson soon became an excellent general. His leadership qualities emerged and he was highly regarded by

other soldiers who gave him the nickname “Old Hickory” as a sign of respect. After leading a spectacular victory over a British invasion of New Orleans, Louisiana, in 1815, Jackson instantly became a national celebrity.

Distinguished as a popular military hero, Jackson was encouraged by his friends to bid for the U.S. presidency. After the War of 1812 ended, however, Jackson only briefly returned to Tennessee before resuming his military position in order to subdue raids carried out by Native Americans from Spanish Florida. After a series of controversial military moves made by Jackson, including the capture of Spanish cities, the United States and Spain negotiated their disputes, and the United States acquired land that would eventually become Florida. In 1821 Jackson became provisional governor of the new territory of Florida, but resigned from the position after only four months.

Upon returning to his home in Tennessee, Jackson was pushed once again to campaign for the presidency. Though he made an unsuccessful presidential run in 1824, losing to John Quincy Adams (1825–1829), Jackson ran again in 1828 and won the presidency at age 61. He rewarded many of his supporters with government jobs—then a common practice in state governments, but essentially new to the federal government. This so-called “spoils system”—where elected officials employed their friends as pay-off for campaign support—tended to guarantee that no appointed federal employee would have a lifetime “right” to his or her job. Jackson believed that this system of replacing staff made the government more democratic.

Jackson’s administration was marked by his fight against the Second Bank of the United States, which was a federally chartered institution where government funds were kept. The Bank of the United States used these funds to pay the government’s bills, but also to give loans to the public and other banks. It was not directly regulated by the government, but rather led by a board of shareholders, with Nicholas Biddle (1786–1844) as its head. Jackson disliked the bank for economic and political reasons. He felt that its shareholders used the bank’s control of much of the money supply to benefit themselves. Jackson also distrusted the issuance of bank notes, which in his own experience led to excessive borrowing and debt. Like many other Americans, Jackson distrusted credit and banks in general, and favored the strict use of specie (coined precious metals).

When the Bank of the United States’ charter was brought up for renewal in 1832, Jackson vetoed it. He criticized the bank for failing to establish a “uniform

and sound” currency, and began to deposit government funds in other banks. Many of the leaders in the Senate opposed Jackson, and his position on the bank. Nevertheless, Jackson’s successful veto of the re-chartering of the bank in 1832 was arguably a major reason for his re-election to a second presidential term that same year.

Over the course of its remaining four years of existence, the Second Bank of the United States tried to use its power to force a reconsideration of its charter. It issued far more loans than it could support, helping to trigger a wave of real estate speculation on the frontier. Disturbed, Jackson issued the Specie Circular in 1836. The circular required that all purchases of frontier land, which was owned by the government, be paid for with specie. This stopped the speculation, but also bankrupted many investors who lacked sufficient specie to pay their obligations and helped to trigger a major depression.

Jackson’s policy of fiscal restraint helped him accomplish one of his most cherished objectives during his second term: full payment of the national debt. This was the only time up to that point in U.S. history when the nation was free of debt and it was one of Jackson’s proudest accomplishments.

As Jackson proceeded through his second term, he frequently used his executive power to veto proposed Congressional legislation. He believed that the president had the right to annul what he deemed harmful to the public interest, a departure from earlier presidents who only vetoed bills they thought were unconstitutional. Using his veto power creatively, Jackson vastly expanded presidential executive power in government.

Also during his second term, a concept called “Jacksonian democracy” emerged as Jackson developed and popularized his own notion of essential democratic elements. He preached about the importance of equality, freedom, and majority rule, and advocated a limited government, fiscal restraint, laissez-faire economics, and support of the individual states in their constitutional sphere of activity.

Throughout his political career Jackson was both a beloved and much-hated figure. During many reform periods in U.S. history Jackson was seen as a hero, and Jacksonian democracy was extolled as one of the great advances in the development of popular government. Yet Jackson was also denounced as a person out for his own political advantage, who mesmerized the public with populist rhetoric and behaved like an autocrat in his role as president.

When Jackson’s friend Martin Van Buren (1837–1841) was elected president in 1836, Jackson retired to

the Tennessee mansion, the Hermitage. He remained politically active until his death, at the age of 78, in 1845.

See also: Bank of the United States (Second National Bank), National Debt, Spoils System, War of 1812

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JAPAN, OPENING OF

In 1638 the shogun Hideyoshi, a Japanese military and political leader, was determined to isolate Japan from growing European religious and commercial influences. Hideyoshi declared Japan closed to all foreigners and restricted the empire's contact with the outside world to a small group of Dutch traders. This policy of isolationism came to an end nearly 250 years later with the arrival of an American naval expedition led by Commodore Matthew Perry (1794–1858). His diplomatic efforts, backed by a military show of force, opened the Japanese empire to trade and political relations not only to the United States but to the rest of the known world.

Ships of the American whaling industry sailed in the northern Pacific ocean near Japan beginning in the late 1700s. Those unfortunate foreign sailors who were shipwrecked on the Japanese islands because of the region's violent storms were normally imprisoned, and in some extreme cases they were put to death. News of this mistreatment slowly trickled back to the United States, where Congress became increasingly agitated by the Japanese rulers' isolationist foreign policy. A movement to open diplomatic relations between the United States and Japan was further accelerated by the introduction of steam-powered ships.

By the mid 1800s the American sea-going fleet was converting from clipper ships whose sails relied on

the wind to steam ships powered by coal-fueled furnaces. Because steam ships were not capable of carrying enough coal to complete the voyage across the Pacific, refueling ports were established along the Northern Pacific following a trail from the western United States, up through Alaska, and on through the northern border of Japan's empire. In 1851 the United States discovered that coal could be mined in Japan. If refueling stations could be established along the country's shores, the United States fleet could greatly increase its influence within Asia. The thought of establishing ports of call within the Japanese empire greatly appealed to the expansionist political philosophy popular at the time.

SO LONG AS THE SUN SHALL WARM THE EARTH, LET NO CHRISTIAN DARE TO COME TO JAPAN.

Hideyoshi, Japanese Shogun, 1638

The United States' first attempt to negotiate a treaty with Japan was met with an embarrassing defeat. An envoy led by U.S. Naval Commodore James Biddle (1783–1848) sailed into Edo (Tokyo) Bay in 1846. The Commodore's ship was quickly surrounded by Japanese guard boats and boarded by several of the shogun's emissaries who diligently studied every component of the ship. Once completed with their inspection, the Japanese officials provided Biddle with a letter from the shogun demanding he immediately set sail and not return. Six years would pass until the United States would once again attempt to establish a treaty with Japan.

In 1852 Matthew Perry was appointed as Commander in Chief of the United States Naval Forces stationed in the East India, China, and Japanese seas. Perry's naval career was primarily spent directing peacetime activities. Although Perry saw action during the War of 1812 (1812–14) and the Mexican War (1846–48), he was mainly known for his involvement in helping to establishing Liberia, a West African country where freed American slaves found sanctuary. A passionate believer in American expansionism, Perry was greatly concerned over the growing British trade presence in Asia. He expressed these concerns to President Millard Fillmore (1850–53) in 1852 after England gained control over Singapore and Hong Kong. President Fillmore heeded Perry's advice, and in 1853 he commanded Perry to implement a trade treaty with the Emperor of Japan.

Perry diligently studied the lessons learned from the United States first attempt at negotiations with Japan six years earlier. He believed Commodore Biddle's chief mistake was not demanding respect from

Jay Treaty

the Japanese officials. A plan was set in motion to impress the Japanese by displaying America's technological advantages and military might. Perry set sail for Edo Bay with a contingent of four vessels which included the new steam driven paddle wheelers the *Susquehanna* and *Mississippi*. He also brought with him gifts for the Japanese Emperor to demonstrate the technology gap between the two countries. A scaled-down version of a steam-powered locomotive train, rifles, plows, and other American-engineered machines were stored on board the ships.

On July 8, 1853, Perry's small but impressive fleet entered Edo Bay. Once again the Japanese quickly surrounded the ships and demanded that they be allowed to board the vessels. Perry had anticipated this response. Orders had been issued by the Commodore not to allow any Japanese officials to board the ships until a qualified representative from the Emperor was present. His crew obeyed his commands and held off the Japanese at musket point. An American interpreter informed the officials that their commander had been ordered to present a letter to the Emperor or an appropriate representative. The military presence displayed by the fleet left little doubt the Americans would be easily rebuffed.

Intense negotiations took place between the two parties during the next five days. Finally, on July 14, Commodore Perry left his stateroom and came ashore along with 250 members of his crew. Attired in his dress uniform and accompanied by two armed black stewards, Perry presented the Japanese officials with the letter from President Fillmore. The Japanese also provided Perry with a letter demanding he immediately set sail and not return. Perry stated he would return the following year to accept the Emperor's response. The meeting was brought to a close and the American force sailed out of Japanese waters for the winter.

In February 1854 Perry returned to Edo Bay with a larger show of military might. His force consisted of more than 1,500 sailors serving on 10 ships. Once again intense negotiations took place over the trade concessions stated in President Fillmore's letter. After days of deliberation an agreement was reached between the two countries.

The official treaty ceremony with the presenting of gifts took place on March 13, 1854. The Japanese were enthralled with the scaled-down version of the steam locomotive presented by Perry. Equally impressive was the exhibition held by the Japanese sumo wrestlers.

Perry visited several other Japanese ports before returning to his command on April 14, 1854. His

actions led to extensive negotiations between the United States and Japan. Townsend Harris, an American diplomat, spent the next 10 years attempting to finalize a trade agreement with the Japanese. Perry's treaty also opened the door for several other European nations to establish trade treaties with the formerly reclusive country. His efforts and the resulting trade with the western nations had a profound effect on the technological and military modernization of the Japanese empire, although the opening of Japan had little immediate economic impact on the United States.

See also: **Matthew Perry**

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JAY TREATY

The main problems confronting the second administration of President George Washington (1793–1797) were rooted in the conflict between England and France. The French Revolution in 1789 quickly moved from a period of moderate rule through ever more tumultuous stages. In 1793 King Louis XVI was guillotined and the monarchies of Europe mobilized for war with France. Until 1793 the revolution had little direct impact on the young American republic, although it is difficult to overstate how important the events in France were to Americans with respect to their political beliefs. Americans believed that their own revolution and republican institutions would serve as a guide for a world shackled by tyrannical government. For citizens of the United States, the revolution in France and the triumph of republicanism validated their own experiment with democratic government. Both the American and the French revolutions were seen as

harbingers of a new golden age of worldwide individual liberty and representative government. These were lofty ideals and few held them more dearly than Thomas Jefferson (1743–1826) and his political supporters, who were loosely organized in the Democratic-Republican Party.

As head of state, Washington felt obliged to plot a moderate course for the United States. As Europe plunged into warfare, Washington labored to keep the fragile republic out of harm's way, convinced it would suffer great, perhaps irreparable, damage if it became entangled in the European war. This war, in a sense, was the first "world war" and it unleashed frightening levels of violence. Washington feared that the new nation might be caught underfoot in this elephant stampede. To this end, Washington addressed the delicate problem of the United States' relationships with France and with England. Under the alliance of 1778, the United States was obliged to defend the French West Indies "forever against all powers." Other treaty provisions allowed French privateers to equip themselves and operate in U.S. ports.

Even though France had been a critical factor in the Revolutionary War against Britain, Washington was unwilling to honor what he felt were unrealistic and dangerous obligations. On the one hand, he believed France was outnumbered on the European continent and would likely lose the war. More importantly, France was clearly weaker in naval power than Great Britain, and the United States had virtually no navy at all. Defending the French West Indies or allowing French privateers to operate out of U.S. ports appeared to be an unrealistic task. Furthermore, the European war brought Spain and Britain together as allies. Any official or unofficial aid to France ran the risk of bringing the weight of Spain and Britain—whose colonial possessions bordered the United States—and their numerous Native American allies against the United States.

Other calculations were also important. Even though the two nations had fought a war against each other, Great Britain was still the United States' main trade partner and eastern merchants lobbied against any action in support of France. Indeed, those who had commercial interests at stake usually supported the Federalist Party and the policies of Treasury Secretary Alexander Hamilton (1755–1781), which favored supporting Britain. After conferring with his advisors, Washington issued a proclamation of neutrality in April 1793.

Although the United States had no navy to speak of, it did have a large merchant marine, and British

treatment of U.S. trading vessels made it difficult for Washington to maneuver safely among the belligerents. Great Britain rejected its former colony's definition of neutral rights, based on one strand of international law that held that "free ships make free goods." Instead, the Crown embraced a narrower definition that permitted the seizure of neutral ships' cargoes. Britain also regularly boarded U.S. merchant ships at sea and "impressed" (kidnapped) U.S. seamen who, they claimed, were deserters from the Royal Navy. This issue would foul Anglo-American relations until the War of 1812. Between 1803 and 1812, 8,000 American sailors were impressed by the British. But impressment was already an important complaint during the 1790s. Another issue between the U.S. and Great Britain was that the British forces had not vacated the forts in the Northwest Territories as they had agreed to do in the Treaty of Paris that ended the American Revolutionary War. They also foiled Washington's efforts to make peace with the region's tribes, who were reportedly told by the British Governor General of Canada to prepare for war with the United States.

Washington dispatched Chief Justice John Jay to Britain to negotiate a settlement. Jay's Treaty was signed on November 19, 1794. When it arrived in the United States in March of 1795, it re-ignited political warfare between the Republicans and the Federalists. The treaty failed to resolve the most divisive issue: Britain refused to recognize the United States' rights of neutrality. The treaty also prevented the United States from imposing discriminatory tariffs on British goods, and provided for the payment of pre-Revolutionary war debts still owed to British businessmen. For its part, Britain agreed to evacuate its forts in the disputed territories and to make compensation for U.S. ships recently seized in the West Indies.

Widely viewed as a humiliating and one-sided document, the treaty was unpopular and Washington suffered the indignity of scattered calls for his impeachment. Critics argued that the treaty stripped the United States of the weapon of trade sanctions, the only weapon that could persuade Britain to change its position on the neutrality issue. The Republicans also charged that the treaty was yet another effort by the Washington administration to bring the United States closer to Britain, albeit in a subordinate position, and away from any sympathetic treatment of France. Washington, however, supported the treaty, fearing war with Britain.

Amid renewed criticism of his judgment and character, Washington brought his still considerable prestige and power to bear on the issue of ratification and, with the aid of committed Federalists, secured passage.

But a high price was paid for the treaty in that it moved the nation further from Washington's long-standing hope that the republic, through the goodwill of its leaders, could achieve elite and popular consensus. The treaty further polarized elite and popular opinion. It also widened and hardened divisions in Congress between New Englanders and much of the Middle Atlantic states, on the one hand, and the South, on the other. In the vote in the House of Representatives over whether or not to support the treaty, 79 percent of those supporting the Jay Treaty were from New England or Middle Atlantic states, while over 73 percent of those rejecting it were from Southern states.

Despite its divisive political repercussions, the Jay Treaty must be judged as an important achievement. By working to normalize relations with Britain, the treaty helped protect American security and promote economic development during the vital formative years of the republic. One of its key provisions was the British agreement to turn over to the United States several military posts (including Detroit) that the British had illegally occupied since the Treaty of Paris (1783). The date for the Britain evacuation of the forts was July 1, 1796. Equally important, the treaty marked the advent of modern international arbitration. It authorized the formation of three boards or commissions of arbitration to resolve three important issues: the northeast boundary of the United States; the amount of losses and damages to British creditors who suffered breaches of lawful contracts due to the Revolutionary War; and compensation of U.S. citizens for losses sustained by the seizure of their vessels or cargoes by the Crown or its agents during the war with France.

Although the arbitration approach was important as a concept of international relations, the commissions formed to address the issues of the U.S. boundary and compensation to British businessmen were less than successful. The findings on the first matter were inconclusive, while the deliberations on the second matter were eventually deadlocked. The tribunal dealing with the claims of U.S. citizens against Great Britain, however, had lasting importance. Similar in structure to the other two commissions, it was comprised of two members appointed by both Britain and the United States. The final member was chosen by mutual consent, or in the case of disagreement, by the drawing of names submitted by each side.

Significantly, the commission was able to avoid deadlock over differing positions on substantive law by enlisting an outside expert to resolve the issue. This marked the beginning of the use of neutral, third parties to make binding decisions to resolve disagreements.

See also: American Revolution, War of 1812, George Washington

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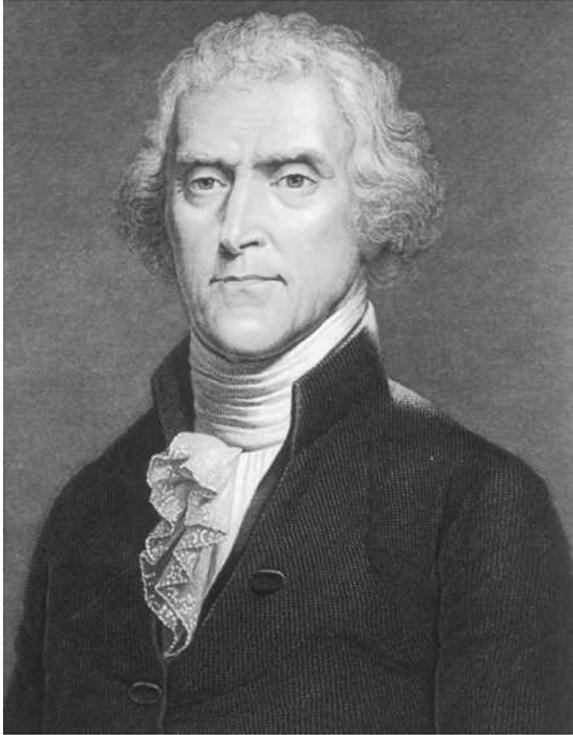
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JEFFERSON, THOMAS

Thomas Jefferson (1743–1820) is best known as one of the founding fathers of the United States, a president, and the primary author of the *Declaration of Independence*. Less well known is the enormous range of Jefferson's other interests and talents. He was very well-read in science, ancient and modern history, philosophy, and literature, and was one of the best-educated and most knowledgeable people of his time in the United States.

From his intense reading in the philosophy and literature of his day, Jefferson adopted the elements of what became known as the eighteenth century Enlightenment. He believed that human nature was good, and rational laws governed the universe. He also believed in the freedom of all individuals to inquire into all things. He was convinced of man's inherent individual capacity for justice and happiness by the use of reason, the self-improvement of one's work, and progress.

Jefferson's political and business philosophy translated into fiercely democratic feelings about the new nation's destiny. He embraced the spirit of capitalism as long as everyone could participate in it equally. He fought tendencies of large property owners to behave like aristocrats and kings in the newly born United States. He expressed his philosophy and, indirectly, his view of life in the *Declaration of Independence*: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness."



Thomas Jefferson.

Jefferson was born into a social circle where he could have lived a life of ease and comfort. He was born in Shadwell, Virginia, in 1743 on a farm property that included five thousand acres of land. He entered the prestigious College of William and Mary at age seventeen. Although he enjoyed the study of science he decided there was no opportunity for a scientific career in Virginia at that time. He instead studied law and philosophy, and was admitted to the bar in 1767, at age twenty-four. Jefferson led a successful legal practice, which he abandoned in 1774 at the onrush of the American Revolution (1775–1783) to lend his support to the independence movement.

While he was a member of the Second Continental Congress in Philadelphia, Pennsylvania, Jefferson was asked to draft the *Declaration of Independence*. Other members of the Congress made many changes to his original draft; yet it clearly bore Jefferson's stamp. For the first time in history the basic written tenets of individual personal freedom were laid as the foundation of a nation. The principles of national equality, the rights of individual persons, the sovereignty of the people, and the right to revolution were all written into a single document that served as a theoretical basis for the United States government and national commerce.

After the American Revolution and the birth of the United States, Jefferson served in the U.S. Congress

where he developed much of what became national policy on business and commerce. He drafted the first ordinance of government for the vast Western territory, which indirectly created free and equal republican states from the existing wilderness. By doing this Jefferson opened up new regions of land to U.S. commerce. Jefferson also paid attention to foreign trade and business, creating a liberal commercial policy to increase business with different European powers.

In 1785 Jefferson succeeded Benjamin Franklin (1706–1790) as minister to France. In Europe, he focused on commercial diplomacy with France and was also engaged in ongoing efforts to broaden U.S. commerce with many other European nations.

In 1789 President George Washington (1732–1799) asked Jefferson to become Secretary of State. He accepted. For the next three years Jefferson fought to increase commercial trade with France and develop more even-handed commerce. His strongest opponent was Alexander Hamilton (1755–1804), who was then Secretary of the Treasury. Hamilton promoted policies that interfered with free trade and enriched the few at the expense of the many. These policies encouraged fraud in commerce and broke down the restraints of the Constitution. Jefferson fought Hamilton, fiercely seeking a free trade situation in which all citizens could participate. This led to the formation of the modern political party now known as the Democratic Party. (It was ironically called the Republican Party at that time.) In 1800 the “man of the people” was elected to the presidency of the United States based on his democratic political principles.

Jefferson's presidency comprised a series of reforms. He restored freedom of the press, which had suffered from restrictions in early nationhood; scaled down the military forces; and abolished all internal taxes. He also began a federal fiscal program to end the national debt. Jefferson sought to create a national condition that would further not only peace, but also equality and individual freedom in business and most other matters. During his presidency he also expanded the size of the United States, purchasing 800,000 square miles of North American territory from the French in the Louisiana Purchase (1803).

Jefferson's legacy to the United States is large. He increased the physical size of the United States through land purchases and supported democratic participation of common people. As a founding father of the United States and a writer of the *Declaration of Independence*, Jefferson embodied the ideals and hopes that shaped a nation. He died at his home in Monticello, Virginia, on July 4, 1826.

See also: Continental Congress (Second), Louisiana Purchase, George Washington

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JIM CROW LAWS

In 1877, as the post–Civil War (1861–1865) era of Reconstruction drew to a close, the former Confederate states of the South were freed from the control of the occupation army of federal troops and carpetbaggers. They began to assert segregationist policies on the ex-slaves who had experienced only a fleeting taste of freedom. Although defeated, the white people of the former Confederacy considered African Americans inferior. Although the Thirteenth, Fourteenth, and Fifteenth Amendments to the Constitution had supposedly freed African-Americans from slavery and declared them citizens with enforceable rights, the concerted resistance of the old white South undid the few gains that Reconstruction policies had achieved.

In 1875 the U.S. Congress passed a Civil Rights Act guaranteeing African Americans access to public facilities. It was obvious, however, that even at the federal level the political commitment to equality was weakening, as the language to maintain integrated school systems was stripped from the bill before its passage. Still, when some minor efforts were made to enforce the already weakened law, Southern state legislatures reacted by erecting a legal system to separate the races in every aspect of daily life. The result was a web of public policies and practices through which a racial caste system emerged in the South. Under these new laws, which were called “Jim Crow laws” after the ubiquitous shuffling minstrel character of the same name, “persons of color” were relegated

In the 1890s, poll taxes and literacy tests succeeded in disenfranchising all but a handful of southern blacks. America had once again walked away from an opportunity to achieve justice. In place of slavery came “Jim Crow” laws that governed almost every aspect of life for Black Americans living below the Mason-Dixon line. The insidious Jim Crow caricature of the Negro became a powerful barrier to legal and social equality.

Henry Hampton and Steve Fayer, *Voices of Freedom: An Oral History of the Civil Rights Movement from the 1950s through the 1980s, 1990*

to second-class status and denied access to the public education and transportation institutions.

The emergence of a caste system in the South gained momentum from two Supreme Court decisions. In the 1883 *Civil Rights Cases*, the Court struck down the 1875 act as exceeding Congress’ powers under Reconstruction. Then in 1896 the Court ruled racial segregation was legally acceptable. The 1896 ruling came from a Louisiana case, *Plessy v. Ferguson*.

In 1890 the state of Louisiana passed a law requiring “colored” and white persons be provided “separate but equal” railroad passenger car accommodations. In 1892 Homer Plessy, a person of acknowledged one-eighth African American descent, refused to leave the “white” car on the East Louisiana Railroad. He was arrested. The case eventually ended up in the U.S. Supreme Court. The Court ruled that the state law was a reasonable exercise of state police powers to promote the public good. The Court went further and held that separate facilities did not have to be identical. It turned out that the “separate but equal” doctrine was merely self-serving rhetoric. For the next six decades the reality was most often “separate and unequal” treatment. Because the races could not encounter one another on the grounds of a presumption of equality, the ideology of white supremacy was able to perpetuated itself from generation to generation. African Americans had to live with inferior facilities, access, and services.

As inequality became institutionalized, the Jim Crow laws required the separation of races in every facet of life including transportation, schools, lodging, public parks, theaters, hospitals, neighborhoods, cemeteries, and restaurants. Inter-racial marriages were prohibited. Business owners and public institutions were prohibited from allowing African American and white

clientele to mingle. While the objective was to eliminate any contact between whites and persons of color as equals, the effect was to deprive African Americans of key economic and social opportunities, adequate food, shelter, clothing, education, and health care. In addition, between 1890 and 1908, every state of the former Confederacy acted laws to limit African American voting rights. With discriminatory voting requirements, such as literacy tests and poll taxes, African Americans (and many poor whites) were effectively barred from participation in the political arena.

The National Association for the Advancement of Colored People (NAACP), created in 1909, took the lead in combating Jim Crow laws. Successes in reversing Jim Crow laws were quite limited prior to World War II (1939–1945). Finally, the turning point came in 1954 when the Supreme Court struck down public school segregation in *Brown v. Topeka Board of Education*. Reversing the earlier *Plessy* decision, the Court asserted that the separate-but-equal doctrine was unconstitutional in regard to public educational facilities. Support for Jim Crow laws waned as the civil rights movement gained momentum in the following years. Finally, the Jim Crow era came to a close with a series of landmark federal laws passed by Congress during the 1960s. The most notable of the new federal laws were the Civil Rights Act of 1964, the Voting Rights Act of 1965, and the Fair Housing Act of 1968. Though formally ended, the Jim Crow era had lasted from the 1880s to the 1960s. Its legacy was a society still struggling with the effects of “separate and unequal.”

See also: Civil Rights Movement, Plessy v. Ferguson

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JOBS, STEVEN PAUL

Computer designer and corporate executive Steven Jobs (1955–) was the co-founder of Apple Computers. He helped create one of the first affordable personal computers for home use and launched one of the largest industries in the United States. Jobs, with his friend, Steve Wozniak (1950–), pioneered the design and development of desktop computers.

Born in 1955 and adopted by Paul and Clara Jobs of Mountainview, California, Steven Jobs grew up in the comfortable environment his adoptive parents provided. His father was a machinist, and his mother an accountant. Steve attended high school in Los Gatos, California, where his family had moved. While in high school he became involved with electronics projects and worked a summer job at a nearby computer firm, Hewlett Packard. After graduating in 1972 Jobs attended Reed College for two years before dropping out. He worked for the Atari computer company part time where he earned enough money to visit India to study Eastern spiritualism. While in India he practiced meditation and studied Eastern culture, but he became ill with dysentery after three months and was forced to return to the United States for adequate medical treatment.

In 1975 Jobs began associating with a group of computer aficionados known as the Homebrew Computer Club. There he met a technical whiz named Steve Wozniak, who was working on building a small computer. Jobs and Wozniak teamed up and formed Apple Computer Corporation in 1976. Wozniak finished the design of his small computer and, working out of Steve Jobs' parents' garage, the two men worked at refining and marketing their product.

Jobs saw a huge gap in the existing computer market at that time because no computer was yet targeted for home use. While Wozniak improved his initial computer, Jobs lined up investors and bank financing.

The redesigned computer, called the “Apple II,” hit the marketplace in 1977. The first year sales reached \$2.7 million and within three years had grown to \$200 million. Jobs and Wozniak successfully and importantly opened an entirely new market—the home, or personal, computer. They brought the computational speed of business systems into people's homes and started a new era in information processing.

By 1980 the personal computer era was well underway and Apple had plenty of competition from Radio Shack, Commodore, and IBM. Fierce competition proved a good thing for the consumer public, but the Apple corporation stumbled in its efforts to stay ahead of the competition. When the Apple III was introduced to the public in 1980 it suffered from technical and marketing problems. In 1983 Jobs' introduction of the new computer Lisa failed in the marketplace because of its high price and stiff competition from IBM. Apple lost half of its market share in 1983. The Macintosh was introduced in 1984 and continued Apple's trend of poor marketplace performance. By 1985, following internal conflicts at Apple Corporation, Steve Jobs resigned from the company he had founded, retaining only his title as chairman of the board of directors.

That same year, Jobs sold his shares of Apple stock to launch another business in Redwood City, California, called "NEXT." The goal of NEXT was simple: to build a breakthrough computer that would revolutionize research and higher education. Jobs used \$100 million of his own assets from Apple shares to start NEXT, and other entrepreneurs, like Texas billionaire Ross Perot (1930—), invested an additional \$20 million in the project. Canon Corporation also invested heavily, \$100 million in 1989, and an additional \$15 million extended in credit to NEXT in 1992. The NEXT did not live up to its goals and Jobs was criticized by the business media as being more of a business huckster than a consistently productive business entrepreneur. However, lightning did strike twice for Jobs.

In 1986 Jobs had purchased a small firm from filmmaker, George Lucas (1945—), called PIXAR, a business specializing in computer animation. During the next six years Jobs put \$40 million into PIXAR and set out to make the first-ever completely computer animated film. In 1996 the film "Toy Story" was released. Produced completely with PIXAR computer animation, it was an enormous success. PIXAR's market value for Steve Jobs, who owned 90 percent of the company, climbed suddenly to \$1 billion.

Within a short time after PIXAR's success Jobs made headlines again. In 1995 Apple bought Jobs' NEXT company for \$400 million and rehired Jobs as advisor to G.F. Amelio, the Apple chief executive officer (CEO). Jobs was also officially re-appointed to Apple's board of directors. Apple understood that it could not hope for a better salesman than Jobs. His genius for infecting others with his enthusiasm was recognized by critics and admirers alike.

By 1997 lightning struck Jobs a third time. Jobs and Bill Gates (1955—), CEO of Microsoft Corporation, announced that their companies were joining forces. Microsoft would invest \$150 million for a nonvoting minority stake in Apple and the two companies would cooperate in several marketing and technology fronts. This alliance made Microsoft and Apple the two largest players in the still growing computer industry. Steve Jobs regained his former position as one of the richest and most successful people in the revolutionary marketplace of home and business computers.

See also: Computer Industry, Stephen Wozniak

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JOHNSON, HUGH SAMUEL

Few have the opportunities to serve as did Hugh Samuel Johnson (1882–1942) in war and peace, in the military and in public service. And few who have served did so with as much distinction and universal praise. General Hugh Johnson served in the Army in the first great world war and in the government as an administrator, a critical position during the beginnings of the recovery from the Great Depression.

Hugh Samuel Johnson was born on August 5, 1882, at Fort Scott, Kansas. His father, Samuel Johnston, and mother, Elizabeth Mead, had moved to Kansas from Pontiac, Illinois, in order for the elder Johnston to practice law. Before Hugh's birth, his father dropped the "t" from his last name in an effort to separate himself from another lawyer with a similar name. Shortly after his birth, Hugh Johnson's family moved to Greensburg, Kansas, and the family was to continue moving regularly until 1893 when they moved to

Cherokee Strip in the Indian Territory, now Oklahoma. Johnson's father was appointed the postmaster of Alva, and there he remained for the rest of his childhood. Johnson rode horseback, hunted, and studied at local schools. He rubbed shoulders with frontiersmen and Indians.

Johnson studied at Northwest Normal School (later to be Oklahoma Northwestern Teachers College) until the start of the Spanish–American War, when he ran away to enlist in the Teddy Roosevelt's (1858–1919) Rough Riders. Brought back home by his parents, Johnson extracted a promise of an appointment to West Point, and his father was able to deliver, having become active in Democratic Party politics. Johnson did not have a very distinguished career at West Point, finishing in the middle of his class and graduating in 1903. After West Point, Johnson entered the cavalry service in Texas.

Immediately after the great San Francisco earthquake and fire in 1906, Johnson's 1st Cavalry was ordered to the area to administer relief. By coincidence, the two officers above him in the chain of command were transferred or taken ill, and he was left to feed, shelter, and cloth seventeen thousand destitute people. He did the job well. In addition, Johnson spent two years in the Philippine Islands from 1907 to 1909, was executive officer at Yosemite National Park from 1910 to 1912, and was superintendent of Sequoia National Park in 1911. After a short tour on the Mexican border in Arizona, Johnson received orders to Harvard Law School. When war broke out in Europe in 1914, Johnson was transferred to the University of California, where he finished a three year course of study in 19 months. Johnson received a Bachelor of Arts in 1915 and his Doctor of Jurisprudence in 1916 with the highest honors.

Armed with his law degree, Johnson reported to General John Pershing's command in Mexico. While there, he studied the problems of Mexico's form of government, and according to Johnson, he was to study "the whole body of constitutional, administrative, State and municipal law of both the United States and the Republic of Mexico." This study "soaked me through with the theory and practice of Federal, State and municipal political structure in the United States." This formed the basis for his next big assignment: the establishment of the Selective Service Administration.

Hugh Johnson was next ordered to Washington to serve as the assistant to the law officer of the Bureau of Insular Affairs. In this post, he prepared briefs for cases in the Supreme and Circuit courts. His superior, General Crowder, was assigned by President Woodrow Wilson

(1913–1921) to draw up a bill for organizing a large army in preparation for joining the war in Europe. Johnson was assigned the task, and wrote the draft version of the bill that would establish the draft in 1917. Moreover, as Deputy Provost Marshal General, he wrote the rules and policies under which the draft would be implemented, and was the executive in charge during 1917 and early 1918. Johnson established a draft system that was decentralized, placing much authority on local draft boards while making the entire system far more fair than draft systems had been before. Johnson's accomplishment was considered brilliant and he was awarded the Distinguished Service Medal.

Johnson wanted to serve in combat, however, and he made several attempts to see action in France. Appointed Colonel on March 20, 1918, however, he took over the Purchase and Supply Bureau of the General Staff as a Brigadier General just the following month. Johnson did another brilliant job of bringing order to chaos in the Army supply system. During this time, he also served on President Wilson's War Industries Board, where he made friends with an important person, Bernard Baruch. Yet Johnson still itched for combat, and on September 1, 1918, he was able to take command of the 15th Brigade, 8th Division, at Camp Fremont in California. Before he was able to get to France, however, the Armistice was signed and the war was over. Disappointed, Johnson resigned from the military and assumed a career in the civilian world of business.

During the 1920s, Johnson worked with the Moline Plow Company and the Moline Implement Company. He remained close to Bernard Baruch, and they worked together on plans for an economic crash they saw coming. Together they joined President Franklin Roosevelt's (1933–1945) "New Deal" brain trust. When Roosevelt was elected in 1932, Johnson was credited with many of the planks in Roosevelt's New Deal platform. General Johnson helped draft the National Industrial Recovery Act, and when it was passed into law, Johnson was appointed as the first head of the National Recovery Administration (NRA). As such, Johnson was in charge of establishing codes of fair practice for business (companies who complied were awarded the "Blue Eagle"), and in organizing industry throughout the country to create jobs. Sincerity, energy, and skillful administration characterized his work at the NRA and he was credited with creating nearly 2.8 million jobs worth about \$3 billion in payroll. The NRA had a major role in abolishing child labor and sweatshops, and in regulating hours, wages, and working conditions. He resigned from the NRA on

Joint Stock Company

October 15, 1934, and the Supreme Court overturned the NRA law shortly thereafter.

Hugh Johnson served as Works Progress Administrator in New York City from August to October, 1935, but never again held a position in public service. He increasingly broke ranks with the Roosevelt administration until ultimately he supported Wendell L. Willkie in the election of 1940. Johnson's opposition to involvement in the coming war in Europe and to Roosevelt stemmed from his belief that the United States military was unprepared for entry in World War II (1939–1945) and for what he termed “amazing blunders and failures” by the New Deal brain trust.

Johnson continued to be constructive, typically, even as the advent of the war approached. He wrote columns in the Scripps–Howard newspaper chain from 1934 until his death. He applied for reinstatement into the Army Reserve, and was saddened when the appointment was declined.

Hugh Johnson married Helen Kilbourne on January 5, 1904. They had one child, Kilbourne Johnston (who resumed using the “t” in the last name). Besides his service medals, Johnson was affiliated with both Phi Delta Phi and Phi Beta Kappa fraternities. He was an Anglican Catholic by religion. Johnson died on April 15, 1942, in Washington, D.C. He was buried in Arlington National Cemetery with full military honors.

See also: National Recovery Administration, New Deal, Franklin Delano Roosevelt

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JOINT STOCK COMPANY

A joint stock company is a specific form of business organization that is structured like a corporation, but is treated like a partnership in the eyes of the law.

Such companies are no longer common in the United States, but are still frequently found in Europe. Like a corporation, a joint stock company has a legal identity distinct from the legal identity of whomever owns it. Its owners hold shares in the company that can be freely transferred to others, and the company continues to exist even if its original members no longer retain ownership of it. Like a partnership, the owners of a joint stock company have some limited liability if the company goes bankrupt or is sued. Joint stock companies are easier to establish than corporations, but they share the ability of corporations to raise large amounts of capital.

Even for the prosperous governments of Britain and the Netherlands in the seventeenth century, settling the North American continent was too expensive a proposition to shoulder on their own. Before Christopher Columbus's (1451–1506) discovery of the New World was a century old, the British government was granting exclusive charters to joint stock companies like the Levant Company and the Muscovy Company to establish colonies around the world. By pooling the wealth of many private businessmen, these companies could undertake the huge expense of funding colonial settlements until they became profitable. The first joint stock company in America, the Virginia Company of London, failed to produce a profit in Jamestown, Virginia. After 18 years of losses, Britain dissolved the company in 1624 and took over the settlement. The Plymouth Company, a joint stock company founded to settle New England, was a little more profitable, and the Massachusetts Bay Company (founded in 1629) successfully established a colony in Salem, Massachusetts; Boston; and Connecticut. Another joint stock company, the Dutch West India Company, settled present-day New Jersey and New York before England seized the territory from the Netherlands in the 1660s. The joint stock companies' charters gave them wide powers to recruit armies, establish political institutions, and collect taxes, and because all of its owners lived in the colony the Massachusetts Bay Company actually achieved independent self-management. This kind of independence made the British Crown very nervous, however, and in 1684 it cancelled the Bay Company's charter and ruled the colony directly.

See also: Corporation, Partnership, Settlement and Economic Development

JONES, MARY HARRIS

Mary “Mother” Jones (1830–1930) is one of the great legends of American progressive politics. After



Mary "Mother" Jones.

losing her own family to yellow fever, Mary Jones found in the lives of the downtrodden a new family to nurture and support. She did this for seventy years as a trade union organizer, a feminist, and a campaigner against child labor in America.

"Mother Jones" was born in 1830, near Dublin, Ireland to parents who were eager to emigrate. When Mary was five years old, her father came to America, where he went to work building canals and railroads, a job similar to the one he had held in Ireland. Once he became a naturalized American citizen around 1840, he sent for his wife and daughter.

The family first settled in Toronto, Canada, where Mary's father was working on one of the first Canadian railroads. They later moved to Michigan. Mary was an excellent student and she graduated with high honors from high school. She became a teacher at a Catholic school in Monroe, Michigan, soon after graduation.

She moved to Chicago to explore the possibilities of becoming a professional dressmaker, but, at age 30, returned to teaching, this time in Memphis, Tennessee. There she met and married Robert Jones, an iron

worker who was an enthusiastic member of the Iron Moulder's Union. During the first four years of their marriage they had four children. Work was plentiful in Tennessee, and for a time the family enjoyed a modest prosperity. But in 1867 a sudden yellow fever epidemic swept through Memphis, taking the lives of Mary's husband and all of her children. At 37, Mary Jones's life was devastated and she was completely on her own.

She returned to Chicago and worked as a dressmaker, but her bad luck continued when her dressmaking business was destroyed in the Chicago Fire of 1871. Homeless and penniless, she turned to her deceased husband's fellow union members for help. Their compassion towards her touched her heart. She felt that the union had saved her life. From that time on, she pursued union organizing with an astonishing enthusiasm that made her an American legend.

Mary Jones began working as a union activist with the Knights of Labor. This union was founded in 1869 in an attempt to unite all workers under a single organization. Mary discovered she had a real talent for inspiring others with her speeches. The Knights of Labor often sent her to particularly tense spots during strikes. She could inspire workers to stay with the union during the hard days of labor action, when there was neither work nor money.

Joining strikers in the coal mines of Pennsylvania in 1873, she witnessed conditions bordering on slavery and children near starvation. Her own Irish heritage caused her to work passionately on behalf of the mostly Irish workers. It was her kindly, protective concern for the workers in the Pennsylvania coal mines that earned her the nickname "Mother Jones."

Mother Jones moved from strike to strike. In 1877 she was involved in the nationwide walkout for better conditions for railroad workers. In 1880 she was in Chicago on behalf of workers trying to obtain an eight-hour day. She also took part in the strike at the McCormick-Harvester works, where a bomb killed several policemen and police fired randomly into a crowd of union workers, killing 11 people and wounding dozens of others.

In her 60s Mother Jones became an organizer for the United Mine Workers Union. Since judges were reluctant to jail such an elderly woman, her age was an asset to the union movement. As she grew older, her attention focused on securing laws that prohibited child labor. She made speeches and engaged newspaper writers to accompany her to places where children were working in slave-like conditions. She also became active in the movement to obtain the right of women to vote.

During the final years of her life, Jones continued to move around the country, giving fiery speeches and organizing workers. She was one of the founders of the Social Democratic Party in 1898 and of the Industrial Workers of the World in 1905. She helped to organize the coal fields of Pennsylvania in 1899. At age 82 she was arrested during a violent strike in West Virginia and sentenced to 20 years in jail. Public outcry was so loud that she was pardoned by the governor and released. She then went on to spend six days in Michigan's Copper Country in August 1913, supporting a copper miners' strike. A woman of astonishing vigor, she marched three blocks in a miners' parade at age 83. In her 90s, she returned to Chicago to work at organizing dressmakers.

On her 100th birthday Mother Jones was asked to speak on the radio about her experiences. She spoke long and well, denouncing the exploitation by business of the American worker and urging all her listeners to organize to transform an unjust society that had fallen into a great Depression. Unchanged by time and full of passion for justice for the American worker, Mother Jones died in Silver Springs, Maryland, in 1930. She became a legend in her lifetime.

See also: **Chicago Fire of 1871, Industrial Workers of the World, Knights of Labor, Labor Movement, United Mine Workers**

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JONES, SAMUEL MILTON

Samuel Milton Jones (1846–1904) was born in the village of Ty Mawr, in Caernarvonshire, Wales, on

August 3, 1846. Jones was brought to the United States at the age of three and raised in New York, where he received only about thirty months of schooling. At the age of 18, in 1864, Jones found work in the Titusville, Pennsylvania, oil fields. Jones did well in the oil business, and worked the industry in Pennsylvania, West Virginia, Ohio, and Indiana. In 1870 he became a producer himself.

When Jones' first wife died, he moved to Ohio in 1886 seeking some change in his life. He operated from a headquarters in Lima, Ohio, and operated his oil fields, which were the result of a big strike that year. Also in 1886 Jones met and married a woman from a prominent Toledo family, Helen W. Beach. They were to have three sons.

Jones studied oil field production. In 1893 he invented the "sucker rod," a device that permitted deep-well drilling. He made a fortune on the sucker rod by establishing a manufacturing plant in Toledo he called the Acme Sucker-Rod Company. Jones was an efficient business manager. But he was also a kind and benevolent employer who introduced many worker reforms such as the 8-hour day, paid vacations, and a minimum wage. He also eliminated child labor and piece-work. He instituted a five percent Christmas Bonus. Many of his competitors and political enemies called Jones "socialistic."

Jones hung a sign in his factory extolling the "Golden Rule" and encouraged all employees to honor it. He used the same Golden Rule in his own dealings and believed it worked. From this, his workers and the general public came to call him "Golden Rule Jones".

Golden Rule Jones entered politics in 1897. Running as a Republican, he was elected mayor of Toledo. But his political allies did not support the reforms he championed, and he fell out of favor. Jones's reforms included fighting against corruption, improvement of industrial conditions in the city, and the establishment of city parks. The Republicans refused to nominate Jones in 1899. But he ran as an independent and won by a landslide. Following this victory, Jones brought the 8-hour day and minimum wage to city workers.

Jones continued with his reforms as he won four successive elections. He pushed for municipal ownership of services and utilities, and the direct popular nomination of candidates for public office by petition (without the intervention of political party machinations). He added public services and established public parks and kindergartens. Jones died in office on July 12, 1904, but his reforms were carried on by his mayoral successor.

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JUNK BONDS

Junk bonds are bonds issued at higher yields than investment grade bonds. The higher the yield, expressed as a percentage rate, the higher the risk of the bond. Two major rating services, Standard and Poor's, and Moody, have slightly different bond rating scales. Bonds rated lower than BBB on Standard and Poor's, or Baa on Moody are considered junk bonds. In comparison, Standard and Poor's rates investment grade bonds at BBB up to AAA.

Junk bonds, issued by companies without long track records of sales and earnings and/or with shaky credit ratings, must pay higher yields to off-set the real

risk of nonpayment. They attract risk-oriented investors willing to gamble that companies issuing the higher interest rate bonds will be able to meet the terms of the bonds. The junk bond market is volatile and investment institutions with fiduciary responsibility, charged with investing wisely for a beneficiary's benefit, generally avoid junk bonds.

Racing into the U.S. investment scene in the 1980s, junk bonds allowed companies to raise funds cheaply. Legendary junk bond guru Michael Milken of the investment company Drexel Burnham Lambert had dazzling success raising enormous sums of capital for companies through the sale of high-yield junk bonds. Milken and Drexel were behind many junk bond finance attempts at company takeovers. In 1988, interestingly, the fortunes of many unsuspecting buyers were lost when the Securities and Exchange Commission charged Milken and Drexel with insider trading and stock fraud, which drove the company out of business.

In the late 1990s junk bonds underwent a reincarnation of sorts; they became a more acceptable part of a highly diversified investment portfolio. A number of professionally managed high yield junk bond funds emerged and offered investors a safer route than buying individual issues.

See also: Bonds, Investment, Standard and Poor's



KAISER, HENRY JOHN

During the first part of the twentieth century Henry Kaiser (1882–1967) became one of the most prominent business entrepreneurs in the United States. Because he built most of his businesses in the western United States, he played a major role in developing the economy of that region. By the end of his life he had founded Kaiser Paving, Kaiser Steel, Kaiser-Frazer Automobile Corp., Kaiser Aluminum and Chemicals, Permanente Cement, Kaiser Industries, and the Kaiser Health Plan, the largest health maintenance organization (HMO) in the United States.

Born in 1882 in upstate New York to German immigrant parents, Kaiser was the youngest of four children. He began working full time at age thirteen in a dry goods store in Utica, New York. His boundless energy, optimism, and creativity showed in most things he did. By age seventeen Kaiser had taken up photography, just as the nearby Eastman Kodak Company was pioneering major advances in photographic equipment. He began as a partner in a small photographic studio, and by age twenty-one had opened a successful string of photography shops on the east coast of Florida aimed at servicing the tourist trade.

Looking elsewhere for more business opportunities, Kaiser made his way to the west coast of Canada and started a cement paving company. Before long, he expanded his operations to Washington, Oregon, and California. Later his headquarters moved from Canada to Oakland, California.

Kaiser's major work began as an extension of his cement company. He earned a reputation for fast, high quality work as a road builder and expanded his operations to build highways. In 1931, Kaiser joined an incorporated consortium of contractors known as Six Companies in order to contract with the federal government to build the Hoover Dam. He served as a liaison between the contractors and the government bureaucrats. Later he was similarly involved in building major

portions of the Bonneville and Grand Coulee dams on the Columbia River.

With the outbreak of World War II (1939–1945), Kaiser recognized that the war would enlarge the prospects for business by increasing the need for raw materials, such as aluminum, steel, and magnesium. Between 1939 and 1941, he advocated greater business involvement in war preparations. After 1939, Kaiser became heavily engaged in the shipbuilding industry, primarily the building of cargo ships. He attracted national attention during World War II, gaining the reputation of a “Miracle Man” and the “Number 1 Industrial Hero” because of the speed with which he built ships crucial to the war effort. Kaiser ignored the usual methods of building ships bottom up from the keel; instead he employed assembly-line methods. (His reputation was so well established that President Franklin Roosevelt (1933–1945) considered him as a vice presidential running mate in the 1944 election.)

Kaiser made his share of enemies in business. When eastern steel shortages began in the United States prior to the attack on Pearl Harbor (December 12, 1941), Kaiser began to make his own steel. The large steel industries of the east were outraged. After World War II began, however, much of the anger against him fell away as the nation entered into a spirit of business cooperation to support the war effort.

Kaiser joined in a business partnership with Joseph Frazer in 1945 to manufacture automobiles that featured streamlined body curves and eliminated old-style wheel fenders altogether. Kaiser-Frazer quickly became the fourth largest producer of automobiles in America. It was a short-lived enterprise, lasting only until the early 1950s. At that time Kaiser-Frazer could no longer compete with Detroit's Big Three: General Motors, Ford, and the Chrysler Corporation. Nonetheless, Kaiser-Frazer automobiles were visionary and changed the shape and design of modern cars. Though Kaiser's automobile business was a business failure, the company inspired car owners with a new vision of what cars could be. Moreover, despite dropping his car

Kansas

venture, Kaiser continued to develop his aluminum and chemicals companies which had been created to aid the production of his modern, lightweight cars.

Kaiser's aluminum company was, overall, his most profitable enterprise. After World War II, however, the Kaiser Corporation became a multi-faceted empire. His company's personal health care program, Kaiser Permanente, eventually grew to become the largest health maintenance organization (HMO) in the nation.

Kaiser was a successful and creative businessman who was known as a "workaholic" because of his addiction to his work. In 1954 he moved with his second wife to Hawaii but never retired; leisure did not interest him, and he had few hobbies. Though he remained seriously overweight, he enjoyed good health until near the end of his life. He died in Hawaii in 1967, at the age of 85, still involved with the many successful business projects he created.

See also: Assembly Line, Automobile Industry, Health Maintenance Organizations, Liberty Ships

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KANSAS

Native Americans roamed the plains of Kansas at the time French explorers paddled the Mississippi River in the 1700s. The area now known as Kansas was part of the vast French holdings in central North America known as the Louisiana Territory. In 1803

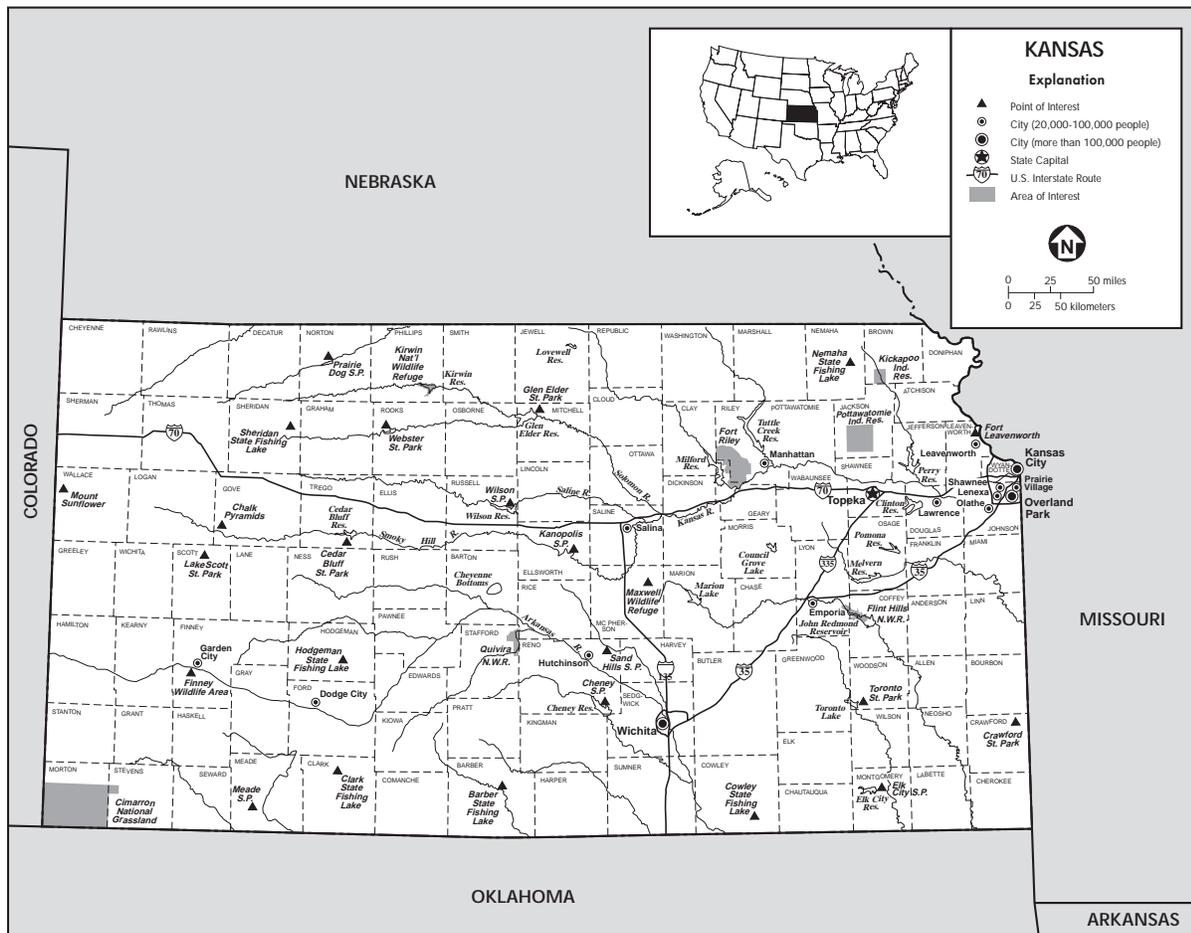
Napoleon Bonaparte, Emperor of France, needed funds to support his European wars. U.S. President Thomas Jefferson (1801–1809) seized this opportunity and purchased Louisiana land for \$15 million, doubling the size of the United States and bringing the region that would become Kansas and several other states under American control.

President Jefferson sent the Lewis and Clark expedition to explore the country from St. Louis to the Pacific Ocean. When the expedition reached Kansas, they described the country as "delightful . . . the whole country exhibits a rich appearance." Although this account was favorable, other explorers reported Kansas to be a dry wasteland, and as a result migration to Kansas started out slowly compared to other parts of the country. However, the rich abundance of fur-bearing animals lured American trappers and traders to the area.

During the first half of the 1800s settlers started to migrate west to Kansas, at this point still an unorganized territory, in search of adventure and a new life. Missionaries also came to the plains and taught tribes of the region how to work the land. Eventually, the United States government would push all Native Americans westward onto reservations.

When gold was discovered in the 1850s in what is now Colorado, miners rushed across the country to seek their fortune. As mining grew in the west, transportation was needed to carry people and goods. The Leavenworth and Pike's Peak Express to Denver made 19 stops in Kansas along the route. Federal land grants were awarded to other companies to encourage more railroad building and settlement along the railroads. Over the next several decades about 200 companies built railroads across Kansas. Many towns sprang up along the track, together with hotels, gambling houses, and saloons.

The 1850s were also a period of political turmoil in Kansas. The passage of the Kansas-Nebraska Act in 1854 formally organized the territory of Kansas, and allowed for the people who lived there to determine if slavery would be permitted there. Previously, the Missouri Compromise had prevented slavery from spreading into Kansas, and the predominantly anti-slavery North was greatly angered by what they saw as an attempt by the South to expand its power and influence. Pro-slavery southerners and anti-slavery northerners flooded into the region in an effort to gain control. There was frequent conflict between the two sides, the area became known as "Bleeding Kansas." The controversy over Kansas worsened the split between the



State of Kansas.

North and the South, was a major force behind the formation of the Republican Party, and helped drive the nation in the American Civil War (1861–1865). Kansas would eventually be admitted to the Union as a free state in 1861.

After the Civil War thousands migrated to Kansas to take advantage of the government’s promise of free land. In a government-backed effort to encourage settlers to move west, the Homestead Act of 1862 allowed any citizen who paid a ten dollar filing fee to claim up to 160 acres of federal land as long as they farmed the land for 5 years. In 1873 the Timber Culture Act made the same promise to those who would plant trees on one-fourth of the land they claimed within four years. By that time new Kansas homesteaders had already claimed about 6 million acres.

After the Civil War the government also encouraged the development of railroads by giving the railroad companies land grants. More than 200 companies laid tracks that zigzagged across Kansas. As the railroads offered land grant acreage at low prices and

reduced fares to new settlers, they helped to open the state for commerce and development.

The new settlers in Kansas were known as “sodbusters” because they cut up large squares of sod and, as lumber was scarce, used them to make walls and roofs for their new homes. They planted crops in place of the sod. They soon discovered how harsh life could be on the plains. “Rattlesnakes, bedbugs, fleas, and the ‘prairie itch’ were what kept us awake at nights and made life miserable,” wrote W.H. Russell, a Rush County settler. Also, a grasshopper plague in 1874 destroyed crops on 5,000 square miles of farmland. In addition, the severe weather—blizzards, rainstorms, droughts, and prairie fires—stranded trains and destroyed crops and homes.

After the Civil War cattle was abundant in Texas but scarce in the north. Texas cattle ranchers took advantage of the demand from the north and began driving their cattle to the nearest railroad stations in Kansas. “Cow towns” were established at cattle shipping points. The cow towns played host to cowboys

looking to spend their money in hotels, saloons, dance halls, and gambling houses.

During the boom years of the 1870s and 1880s new settlers were attracted to Kansas due to better weather conditions and improved farming methods as well as easy railroad access to outlying areas of the state. Wealthy farmers and land developers bought up land and established towns. At the same time, more than 15,000 former slaves traveled from the south to Kansas to establish a new way of life for themselves. A blizzard in 1886 and a drought in 1887, however, quickly caused the state to fall into a depression. Ranchers were forced to leave because more than 20 percent of the state's cattle herd perished in the blizzard and the farmers lost all their crops in the drought.

Farmers who stayed behind were frustrated by falling wheat prices and the high cost of shipping goods. They formed the Farmers' Alliance and became a major component of the Populist Party in the 1890s. Members of the party were voted into congressional seats of other political office. The Populists were instrumental in implementing laws that helped farmers by regulating banks, stockyards, railroads, telegraph companies, and building-and-loan associations.

The Populist movement gave way to the Progressive administrations of governors from 1905 to 1913. New reforms called for laws that reduced railroad fares and costs for shipping grain. Child labor laws were instituted along with workmen's compensation and further banking regulations. In addition, the use of machines such as tractors and threshers made farming easier and helped increase crop production. New crops such as sorghum, sugar beets, broomcorn, and alfalfa were harvested in the plains.

During World War I (1914–1918) Kansas stepped up production of wheat to feed the troops. After the war more roads were built to accommodate automobiles built by a Kansan Walter P. Chrysler (1875–1940), founder of the Chrysler Motors automobile company. This modest recovery, however, was only temporary. During the Great Depression (1929–1939) Kansas was devastated. The country suffered the worst depression in history; stock markets crashed and Kansas crop prices dropped. In 1932 a severe drought began and turned the area into a "dust bowl. Governor Alfred M. Landon attempted to bring relief to farmers and businessmen by reorganizing state banks, cutting taxes, and halting mortgage foreclosures for six months. President Franklin D. Roosevelt's (1933–1945) New Deal provided jobs building libraries, schools, and post offices. The Agricultural Adjustment Act was also passed in 1933 as part of the New Deal. It sought to

raise farm prices by encouraging farmers to reduce production. But true economic relief only came at the start of World War II (1939–1945). During the war plants in Kansas built more than 25,000 aircraft and produced munitions and artillery for the war effort. Wheat and soybean farming also stepped up to provide food for military personnel.

After the war, manufacturing growth steadily increased and people began to move from rural to urban areas. For the first three decades after the war, businesses grew in Kansas and meat packing, mining, flour milling, and petroleum refining became the largest industries in the state. In addition, more aircraft were built in Kansas than anywhere else in the country. Farming remained the most prominent part of the state's economy.

Farmers enjoyed prosperity in the 1960s and 1970s as feeds and improved fertilizers increased production, but they faced a crisis as a recession hit in the 1980s. Many farmers lost their land and were forced into bankruptcy. Kansas sought to expand its market of products and signed a trade agreement with the St. Petersburg region of Russia in 1993.

The 1990s also brought extremes in the weather. Drought and topsoil erosion damaged 865,000 acres, drove up prices, and depleted grain stores. From April through September 1993, floods caused more than \$574 million worth of damage. Efforts to restore economic growth included the allocation of government block grants. In 1995 the median household income in Kansas was \$30,346 and about 11 percent of all Kansans lived below the federal poverty level.

See also: **Bleeding Kansas, Cow Towns, Dust Bowl, Farmers' Alliance, Homestead Act, Homesteaders, Kansas-Nebraska Act, Lewis and Clark Expedition**

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KANSAS-NEBRASKA ACT (1854)

The Kansas-Nebraska Act of 1854 was the one piece of legislation most responsible for bringing about the American Civil War (1861–1865). Within a year of the passage of the act, free-soil settlers and pro-slavery advocates were at war in Kansas—a confrontation known in the press as "Bleeding Kansas". That conflict continued throughout the Civil War, resulting in the death of hundreds of settlers and the destruction of thousands of dollars of property.

The federal government had been looking for a general solution to the conflict between those who wanted to see an expansion of slavery and those who wanted to see the abolition of slavery. The first serious attempt to resolve the issue was the Compromise of 1820, or the Missouri Compromise. This solution would have Missouri join the union as a slave state, while Maine would come in as a wage-labor state. Finally, no more slave states could be created north of Missouri's southern boundary (36 degrees; 30 minutes latitude). The slavery issue reemerged after the Mexican War (1846–1848), in which the United States won California, Arizona, and New Mexico—territory south of the Missouri Compromise line, but not specifically covered under the Compromise. The Compromise of 1850 tried to patch together a solution by admitting slave states and free states to the Union in pairs and passing a stronger federal fugitive slave law, among other items. By 1854, however, the flood of settlers heading west to the Nebraska territory exposed the failure of the Compromise and brought the slavery issue before Congress once again.

The Kansas-Nebraska Act was the brainchild of Senator Stephen A. Douglas (1813–1861), a Democrat from Illinois. Douglas proposed to split the Nebraska Territory into two states, Kansas and Nebraska, and to repeal the Missouri Compromise (which would have kept slavery out of both states). Douglas believed that sectional conflict between the North and the South over slavery could be avoided by adopting a policy he called "popular sovereignty." Popular Sovereignty had been suggested by Michigan Senator Lewis Cass. It allowed the citizens of each territory to decide by referendum

whether slavery could exist in their areas. Although the concept was fair in principle, it was very easy to abuse. Of the first three elections for congressional representatives in Kansas (each of which resulted in a pro-slavery victory) congressional examinations later found all of them to be fraudulent.

Instead of bringing the North and South closer together, Douglas's bill widened the gap between North and South. Many northern voters regarded his Kansas-Nebraska Act as a betrayal of their key principles of free soil and free labor. The Democratic Party now had very little appeal in the North. It became the party of the South and the party of slavery. The Democratic Party lost control of most free-state legislatures in the elections of 1854 while Free-Soilers, Whigs, and other opposition parties gained representation.

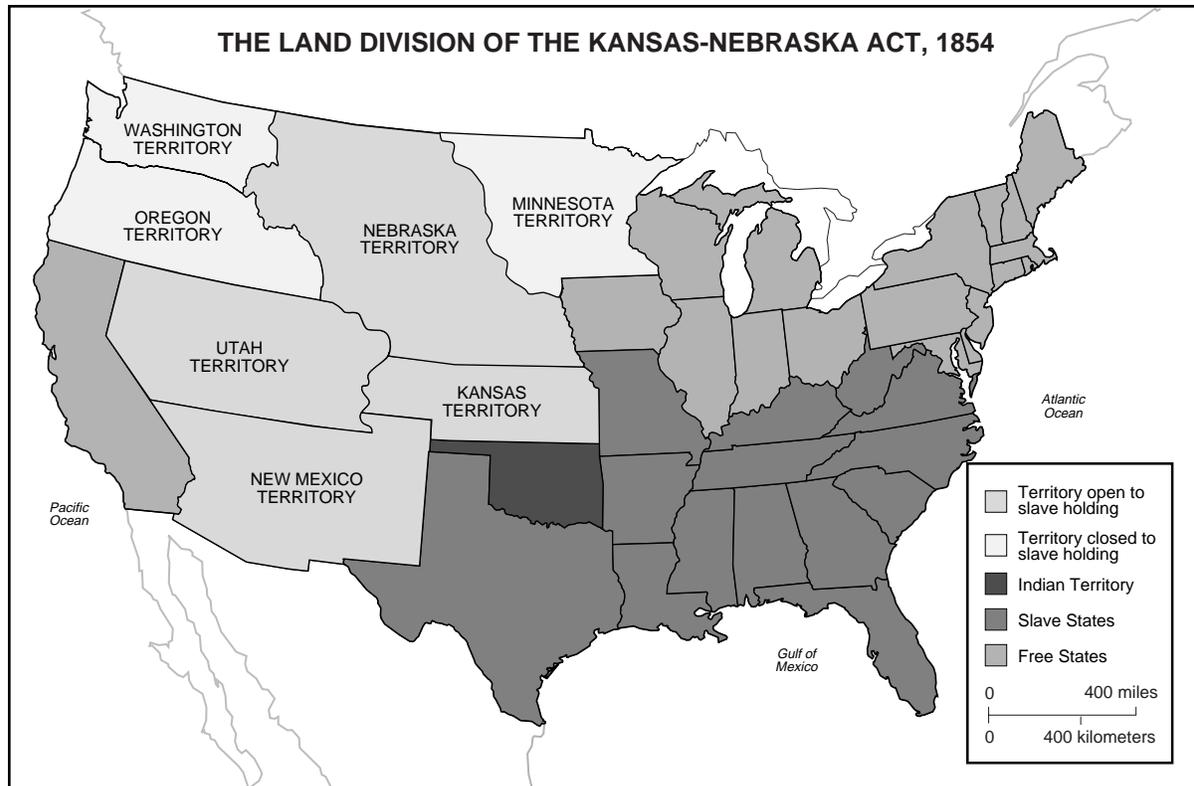
The Kansas-Nebraska Act drove the nation closer to secession. Organizations such as the New England Emigrant Aid Company were formed to promote free-labor settlement in Kansas. Among the provisions that they donated to the free labor forces in Kansas were rifles. Southerners responded with their own organizations, led by public figures like Senator David Atchison of Missouri, to intimidate the anti-slave forces and to insure a pro-slavery population in the territories. The end result of this process was the outbreak of civil war and the eventual admission of Kansas to the Union as a free state on January 29, 1861.

See also: **Bleeding Kansas, Civil War (Economic Causes of)**

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Keelboats



The land division detailed in the Kansas-Nebraska Act of 1854 was one of the events leading up to the Civil War. The definition of which states west of Missouri would be free and which would allow slavery aroused strong public feeling on both sides.

KEELBOATS

Keelboats were long, narrow crafts that come to a point at one or both ends (the bow and/or the stern). They linked the northwest and southwest frontiers of the United States and continued to do so even after the introduction of the steamboat in 1811.

Keelboats moved along waterway currents. Going downstream, a keelboat could carry up to thirty tons of cargo and travel at about five miles an hour. Traveling upstream was more difficult. Return trips, often from New Orleans to Pittsburgh, could take as long as four months, traveling sometimes at a pace of less than one mile per hour. The boatmen poled, paddled, or pulled the boat by hand.

Powering keelboats against the currents of the Mississippi, Ohio, or Allegheny Rivers required keelboat workers to have incredible strength and endurance. The boats frequently had to be towed with a rope or “corde” upstream, where currents were too strong for rowing. The crew climbed over rocks and cliffs and waded through swampy waters at the river’s edge to pull the boat, always alert for venomous snakes, alligators, bears, wildcats, and wolves.

When snags or quicksand prevented keelboat crews from cordelling, they used the arduous technique of warping. Warping involves tying a rope to a tree, returning to the boat, and hauling it hand over hand up the river.

Through the determination and strength of keelboat workers in the 1800s, settlers, their belongings, live-stock, and freight were transported throughout the nation’s interior. Keelboat workers were paid an average of \$10 to \$20 per month and provided to a vital link to the nation’s interior, contributing to the nation’s westward expansion.

See also: Westward Expansion

KELLEY, FLORENCE

Florence Kelley (1859–1932) never saw the fruits of her efforts to agitate on behalf of working women and children in the United States. Her early efforts led to minimum wage legislation for women and children in 1937, and to the Federal Fair Labor Standards Act of

**Florence Kelley.**

1938. Most historians credit her with creating conditions for the legislative abolishment of unregulated child labor and establishing a minimum work wage for all U.S. citizens.

Florence Kelley was born to comfortable circumstances in Philadelphia, Pennsylvania on September 12, 1859, the daughter of U.S. Congressman William Darrow Kelley. Florence grew up in an intensely

political household. She was exposed to talk about political changes occurring in the United States, including abolition of slavery and the women's rights movement which was then focused on passing a nineteenth amendment to the Constitution to guarantee the right of women to vote.

Kelley graduated from a Quaker-run school in Philadelphia and then entered Cornell University, graduating at age 23 with a bachelor of arts degree. She taught briefly after graduation, and then in 1883 went to Zurich, Switzerland for graduate studies.

In Switzerland at the age of 25 she met a young Russian medical student whom she married in 1884. While living and studying with her husband, Florence came into contact with a number of European socialists. She learned their new ideas about economics and social structure. At one point she received permission from Friedrich Engels (1820–1895), a collaborator and friend of Karl Marx (1818–1883), to produce an English translation of Engels' important book, *The Conditions of the Working Class in England*. Kelley and Engels corresponded regularly thereafter for several years, and Kelly was deeply influenced by Engels' socialist ideas.

Kelley and her husband returned to the United States in 1886. They had three children together, but the marriage ended in divorce in 1891. During her married life Florence Kelley embraced socialist economic ideas. After her divorce, while raising her three children, she began to put her ideas together with her work life.

Florence began her work life in 1891 as a special agent for the Illinois Bureau of Labor Statistics, inspecting "sweat-shops"—small unregulated manufacturing companies usually in the clothing manufacturing business, where frequently 10-year-old girls worked 12 to 16 hours a day sewing for dismal wages. At this time in the 1890s, there were no restrictions or laws against these practices.

In 1853 Kelley was appointed by the newly-elected governor of Illinois, John Attgeld, as Illinois' chief factory inspector. In this position she was able to establish within certain factories a free medical examination center for working children. She also recommended legislation related to controlling dangerous machinery in the workplace. She also personally examined more than a thousand shops during a smallpox epidemic in Chicago, ensuring that contaminated garments of clothing were discarded. Unfortunately, after Governor Attgeld lost his re-election bid in 1897, most of Kelley's progressive programs were reversed or

Kellogg Company

abandoned. An Illinois law Kelley had worked on which established an eight-hour workday for women, and banned employment of girls under age 14, was declared unconstitutional by the Illinois Supreme Court. Despite such reversals Kelley went on to become the General Secretary of the National Consumers League, continuing her fight against child labor and poor working conditions in factories.

During the 1920s Kelley came to realize that progressive political reform in the United States, popular in the pre-World War I (1914–1918) era, had changed; the United States had become more politically conservative. More and more people in the United States were associating social welfare programs with “radicals” and socialist subversion.

Florence Kelley died in 1921. Despite setbacks in the implementation of her ideas an astonishing number of them were eventually put into practice, mostly during the Great Depression era (1929–1939). In 1937 the U.S. Supreme Court reversed the Illinois Court decisions related to women’s working conditions and millions of women achieved a minimum wage guaranteed by Federal legislation. Child labor was also abolished and maximum hours of employment were established and regulated.

Florence Kelley’s “failures” during her lifetime likely represented a series of good ideas raised at the wrong time. During the 1920s, the peak activity of Kelley’s work life, the forces of powerful unregulated business interests in the United States served to frustrate many social reforms aimed at improving the health and working conditions of millions of U.S. workers. Arguably it took a Great Depression in the United States to cause U.S. legislators and businessmen to see the values of social reform.

See also: Child Labor, Fair Labor Standards Act, Women in the Workplace

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KELLOGG COMPANY

By the time Will Keith Kellogg (1860–1951) launched his cereal company—originally known as the Battle Creek Toasted Corn Flake Company—in 1906, he had already been in the cereal business for more than 10 years as an employee of his brother’s Adventist Battle Creek Sanitarium. Dr. John Harvey Kellogg, a strict vegetarian and the sanitarium’s internationally celebrated director, also invented and marketed various health foods. One of the foods sold by Dr. Kellogg’s Sanitas Food Company was called Granose, a wheat flake the Kellogg brothers had stumbled upon while trying to develop a more digestible form of bread. The wheat flake was produced one night in 1894 following a long series of unsuccessful experiments. The men were running boiled wheat dough through a pair of rollers in the sanitarium basement. The dough had always come out sticky and gummy, until by accident the experiments were interrupted long enough for the boiled dough to dry out. When the dry dough was run through the rollers, it broke into thin flakes. Thus were flaked cereals born.

Commercial production of the Granose flakes began in 1895 with improvised machinery in a barn on the sanitarium grounds. The factory was soon in continuous production, turning out more than 100,000 pounds of flakes in its first year. A ten-ounce box sold for 15 cents, which meant that the Kelloggs collected \$12 for each 60-cent bushel of wheat processed, a feat that did not go unnoticed around Battle Creek, Michigan.

Meanwhile, other cereal companies were growing quickly. Kellogg’s most notable competitor was the Postum Cereal Company, launched by a former sanitarium patient, C. W. Post. Post added Grape-Nuts to his line in 1898 and by 1900 was netting \$3 million a year, an accomplishment that inspired dozens of imitators and turned Battle Creek into the cereal-making capital of the United States.

In spite of the competition, Dr. Kellogg was slow in funding the company’s expansion of cereal production. His brother, W.K. Kellogg assumed the leadership of that branch of the business and in 1902 Sanitas



Kellogg's CEO Arnold Langbo shakes the paw of "Tony the Tiger" after announcing that prices would be cut on their most popular cereals.

improved the corn flake that it had first introduced in 1898. The new product had better flavor and a longer shelf life than the unsuccessful 1898 version. By the following year the company was advertising in newspapers and on billboards, sending salesmen into the wholesale market, and introducing an ambitious door-to-door sampling program. In late 1905, Sanitas was producing 150 cases of corn flakes a day with sales of \$100,000 a year.

The next year W. K. Kellogg went into business for himself and launched the Battle Creek Toasted Corn Flake Company. Kellogg recognized that advertising and promotion were key to success in a market flooded with look-alike products, so the company spent a third of its initial working capital on an ad in *Ladies Home Journal*. The result was that sales jumped from 33 cases per day to 2,900 cases per day in 1907.

In July 1907 a fire destroyed the main factory building. On the spot, W. K. Kellogg began making plans for a new fireproof factory, and within a week he had purchased land at a site strategically located between two competing railroad lines. Kellogg had the

new plant, with a capacity of 4,200 cases a day, in full operation six months after the fire. "That's all the business I ever want," he is said to have told his son, John L. Kellogg, at the time.

By the time of the fire, the company had already spent \$300,000 on advertising but the advertising barrage continued. One campaign told newspaper readers to "wink at your grocer and see what you get." (Winkers got a free sample of Kellogg's Corn Flakes.) In New York City, the ad helped boost Corn Flake sales fifteen-fold. In 1911 the annual advertising budget reached \$1 million.

By that time, W. K. Kellogg had finally managed to buy out the last of his brother's share of the company, giving Will Kellogg more than 50 percent of the company's stock. W. K. Kellogg's company had become the Kellogg Toasted Corn Flake Company in 1909, but Dr. Kellogg's Sanitas Food Company had been renamed the Kellogg Food Company and used similar slogans and packaging. Will Kellogg sued his brother for rights to the family name and finally prevailed in 1921.

Kellogg, Frank Billings

In 1922 the company reincorporated as the Kellogg Company because it had lost its trademark claim to the name “Toasted Corn Flakes,” and had expanded its product line so much that the name no longer accurately described what the company produced. Kellogg introduced Krumbles in 1912, followed by 40% Bran Flakes in 1915 and All-Bran in 1916. Kellogg also made other changes, improving his product, packaging, and processing methods. Many of those developments came from W. K.’s son John L. Kellogg, who had been working for the company since its earliest days. J. L. Kellogg developed a malting process to give the corn flakes more of a nutlike flavor. He also saved the company \$250,000 a year by switching from a waxed paper wrapper on the outside of the box to a waxed paper liner inside, and invented All-Bran by adding a malt flavoring to the bran cereal. He held more than 200 patents and trademarks.

In subsequent decades the company continued to add new products, but it never strayed far from the ready-to-eat cereal business. In the early 1950s Kellogg’s continued success was tied to two external developments: the postwar baby boom and television advertising. To appeal to the younger market, Kellogg and other cereal makers brought out new lines of pre-sweetened cereals and unabashedly made the key ingredient part of the name. Kellogg’s entries included Sugar Frosted Flakes, Sugar Smacks, Sugar Corn Pops, Sugar All-Stars, and Cocoa Crispies. The company created Tony the Tiger and other cartoon pitchmen to sell the products on Saturday-morning television. Sales and profits doubled over the decade.

In the 1980s Kellogg targeted a more health-conscious market. The company spent \$50 million to bring three varieties of Nutri-Grain cereal to market in 1982. Two years later, Kellogg sparked a fiber fad when it began adding a health message from the National Cancer Institute to its All-Bran cereal. By the late 1990s Kellogg held about one-third of the U.S. cereal market and produced 12 of the world’s top 15 cereal brands.

See also: Advertising, Will Keith Kellogg, Charles Post

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KELLOGG, FRANK BILLINGS

Frank Billings Kellogg (1856–1937) emerged out of poverty and hardship to achieve a career as U.S. Secretary of State and a recipient of the Nobel Prize for Peace in 1929. Though Kellogg began his professional life as an awkward legal representative of some of the wealthiest Americans, his political and personal friendship with President Theodore Roosevelt (1901–1909) led Kellogg to become one of the most formidable and progressive attorneys in the federal government’s efforts to break-up industrial monopolies. Kellogg was the first great prosecutor of the Sherman Anti-Trust Act, a federal law that prohibited an exclusive private monopoly or ownership of any single industry.

Kellogg was born in New York. He relocated to Olmsted County, Minnesota, with his family at age eight, part of the typical pioneering experience of his era, moving from the East Coast to the then mysterious West. Kellogg’s father took the family to Minnesota to farm, but the endeavor was not prosperous. Kellogg worked on the family farm and managed to obtain six years of formal education, an accomplishment for children of hard-working farming families.

He determinably worked to be become a lawyer and escape the miseries of farm life. Kellogg passed the bar in 1877, and he described his success as “a life line thrown to rescue me from a desperate struggle for a livelihood.”

As a young attorney, he took every case that came his way. In 1887, at age 31, Kellogg became a partner in a prestigious law firm in St. Paul, Minnesota, headed by his cousin, Cushman Kellogg Davis. There, Kellogg began a successful career. He took on railroad and iron ore litigation, connected with the exploitation of the great Mesabi mineral range in Minnesota, defending some of the titans of American business, such as John D. Rockefeller, Andrew Carnegie, and the railroad builder James Hill.

During business trips to Washington, D.C., Kellogg met Theodore Roosevelt, then a member of the Civil Service Commission. They became friends, and when

Roosevelt became president, Kellogg had an easy entree to the White House. His friendship with Roosevelt led to many court cases in which Kellogg, representing the federal government, fought many of the most formidable industrial figures of his day. Like Roosevelt, Kellogg was alarmed by the sudden increase in corporate mergers, the formation of huge entities that often resulted in near-total monopolies on industries in the United States.

Appointed as Special Assistant Attorney General, Kellogg began fighting the paper trust, known as the General Paper Company, and won. In 1906 he began prosecution of the Union Pacific Railroad, which was eating up its competition at an alarming rate. These government victories led to the greatest single trust case of the era, the prosecution of the Standard Oil Company for violating the Sherman Anti-Trust Act. Kellogg won a Supreme Court interpretation of his case in 1911, which forced Standard Oil to break-up into smaller, competitive companies. This victory inspired newspapers to describe Kellogg as “the trust buster.” Though Kellogg was a largely uneducated, nervous, hot-tempered, outspoken, and undiplomatic man, he had become a winner in the eyes of the public through his work at keeping monopolies from dominating American big business.

In 1912, Kellogg was elected president of the American Bar Association. By this time, Kellogg had undergone a conversion in political thinking. He began his career as a Republican conservative, but by 1912 he admonished his fellow lawyers to “stand for modern economic legislation, necessary to the development of the people.”

In 1916 Kellogg was elected as a Republican Senator to the U.S. Congress, representing the state of Minnesota. He was, however, defeated in his 1922 bid for re-election.

President Calvin Coolidge (1923–1929) also liked Kellogg, and saw his usefulness during a prosperous post-war period. In 1925 Coolidge named Kellogg Secretary of State. In this position, Kellogg worked to aid in the reconciliation of German reparation debts to the United States and helped arrange loans to Germany for that country’s post-war recovery.

Kellogg’s diplomatic successes were modest, and not truly comparable to his important success as a “trust buster” for Theodore Roosevelt, fighting the industrial monopolies of pre-World War I America. Yet, he was also a success as Secretary of State, always striving to convey the spirit of American good will in

foreign affairs. In 1929 Kellogg was awarded a Nobel Prize for Peace in honor of his diplomatic success with France, creating the Kellogg-Briand Pact of 1928 in which the signing nations renounced war “as an instrument of national policy,” with the hope that it might prevent future war. Frank Billings Kellogg died in 1937.

See also: Sherman Anti-Trust Act

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KELLOGG, WILL KEITH

Will Keith Kellogg (1860–1951) was a pioneer producer of health and breakfast foods born in Battle Creek, Michigan. He was the seventh son of John and Ann Kellogg. Kellogg’s family background includes noted lithographer Elijah C. Kellogg, well-known physician Albert Kellogg, and diplomat Frank Billings Kellogg (1856–1937), who won the Nobel Peace Prize in 1929.

Will Kellogg’s start in life was modest. He attended public school until age fifteen. He then began to work as a salesman for his father’s broom company. He attended Parsons Business School in Michigan for three months. In his late teens Kellogg took a job as an assistant to his flamboyant brother Dr. John Kellogg. John Kellogg was a health food crusader and the creator of a health sanitarium in Battle Creek, where Will Kellogg worked as a bookkeeper, shipping clerk, cashier, and troubleshooter. He helped his brother bring the health sanitarium to national prominence.

Kelsey-Hayes

At the same time Kellogg developed his business skills while by running a subscription service for his brother's health books and managing his brother's Sanitas Food Company. They developed a cooked and flaked wheat cereal which became very successful.

In 1906 Kellogg decided to launch his own breakfast food company. It was first known as the Battle Creek Toasted Corn Flake Company. With an intensive advertising campaign, Will Kellogg built his company into a national corporation, but it had its problems. Kellogg's brother John was the owner of the original patent for the wheat flake cereal. John Kellogg fought his brother in court from 1908 to 1920, challenging Will Kellogg's right to have an independent breakfast cereal company. In 1920 Will Kellogg won the legal battle and claimed exclusive ownership and copyrights to his own cereal products and his company name, the W.K. Kellogg Company.

The wheat and corn flakes were originally developed as health foods to be sold by mail to users of health products. Will Kellogg's later enterprises, however, led him to sell the corn flake products as healthy, enjoyable, and convenient breakfast foods for everyone. Kellogg was enormously successful targeting the mass public this way. At the time, people living in the United States traditionally ate heavy, hot breakfasts. Kellogg achieved a minor revolution when his corn flakes and other cold cereals began to replace the traditional fare.

Will Kellogg was a driven and aggressive man, with whom it was difficult to work. Kellogg groomed his son John to become his successor, but fired him after seventeen years, during which John obtained more than 200 patents for Kellogg's company. Kellogg's grandson was also groomed for the company presidency, but he too was demoted, and later quit the company.

Kellogg broke easily from his parents' Seventh Day Adventist religious faith, but turned much of his early religious training into business and charitable endeavors. During the 1920s he created one of the largest charitable foundations in the nation, the W.K. Kellogg Foundation. Its mission is "to help people help themselves through the practical application of knowledge and resources to improve their quality of life and that of future generations." It is active to the present day.

As a multimillionaire Kellogg purchased a 377-acre ranch in California in 1925. There he raised Arabian horses of the best stock from all over the world. The ranch had high-quality animals and striking

architecture and attracted regular visits by world leaders and movie stars during the 1920s.

Will Kellogg was blind for the last ten years of his 91-year life. The creator of the modern breakfast food industry died in 1951. He was known for hard work, a missionary zeal for the possibilities of the future, and an intolerance for people who didn't see the world his way. He left behind a worldwide industry that continued to thrive long after him.

See also: Charles Post

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KELSEY-HAYES

Kelsey-Hayes was established in 1927 through the merger of Kelsey Wheel and Hayes Wheel. Both companies were founded in 1909, and both had made early advances in the wooden wheel industry. Kelsey and Hayes had important connections in automobile manufacturing, which helped them succeed as automotive parts suppliers. In 1909 the Ford Motor Company purchased three-fourths of the wheels produced by the Kelsey Wheel Company. Similarly, Hayes President and founder Clarence B. Hayes' early experiences in the wheel industry put him in contact with W.C. Durant (1861–1947) who eventually founded General Motors. Thus, even before the merger both companies had strong positions in the industry.

Fearing that Kelsey Wheel Company might become too dependent on the Ford Motor Company, John Kelsey sought to diversify his company's product line

and customer base. Kelsey reduced business with Ford from three-quarters to less than one-third of total sales in 1910. By 1915 Kelsey produced wheels for 15 to 20 percent of the automobile industry. The Kelsey Wheel Company also produced 80 percent of artillery wheels during the World War I. By the end of the war Kelsey was turning consistent profits. During the same period, Clarence Hayes was supplying over half of the American automobile business with his wheels. In the 1920s the advent of the wire wheel required dramatic changes for these wooden wheel producers. Although both companies expanded into wire wheel production, they chose to face this new challenge together, and in 1927 they formed the Kelsey-Hayes Wheel Company.

Litigation against John Kelsey over the patent for wire wheels clouded the merger. The Wire Wheel Corporation of Buffalo, New York, disputed Kelsey right to produce the wheel. When Kelsey died in 1927, his successor George Kennedy bought the Wire Wheel Company in an effort to solve the problem. It was eventually decided, however, that the patent was owned by the Packard Motor Company, a car manufacturer, not the Wire Wheel Corporation. Kennedy paid Packard \$500,000 so that Kelsey-Hayes could continue with wire wheel production. By 1929 the company was making 10,000 wire wheels per day; by this time the manufacturer had also added brakes to its product line.

Kelsey-Hayes endured great challenges in the 1930s. Economic crises overshadowed the purchase of General Motor's subsidiary Jaxon Steel Products Company of Jackson, Michigan. The company had very costly debts that resulted in approximately \$2 million in losses for Kelsey-Hayes. They eventually survived these troubles by restructuring their finances and lowering expenses. But in the meantime a challenge from another quarter arose. The United Auto Workers (UAW) sought to organize the Kelsey-Hayes workers in Detroit, Michigan, who made and supplied brakes for Ford cars. The union struck the company in 1936. The company established a 75-cent minimum hourly wage but still refused to recognize the union. By 1938 and 1939, Kelsey-Hayes was showing profits again. By this time the company was selling newly developed hydraulic brakes to Ford (which had become standard equipment on Ford cars). Kelsey-Hayes also came out with a new brake drum.

During World War II (1939–1945), Kelsey-Hayes contributed to the war effort by producing machine guns. Kelsey-Hayes also manufactured tank components and aircraft wheels. The company acquired French and Hecht, Inc., an already successful manufacturer of wheels for agricultural and construction machinery. In

1946 labor strikes surged throughout the country and Kelsey-Hayes was shut down for six weeks. Nevertheless the same year brought successes when Buick and Chrysler began buying power brakes from Kelsey-Hayes. In 1947 Kelsey-Hayes bought a manufacturer of brake components—the Lather Company. By the 1950s Kelsey-Hayes was enjoying its highest profits in history.

During the Korean War Kelsey-Hayes produced parts for the aircraft industry. They also promoted specialty products for the automobile industry such as chrome-plated and aluminum wheels. In 1958 the company's research and development department began looking into anti-lock brake systems (ABS) for automobiles—prior to this, the ABS was only used in aircraft. With so much diversification of its product line, Kelsey-Hayes Wheel Company saw fit to change its name to Kelsey-Hayes Corporation in the late 1950s.

The company continued to broaden its product line beyond wheels; in the years that followed, the biggest successes were in non-wheel products. Kelsey-Hayes pioneered disc brake systems—standard equipment on Lincoln Continentals and Thunderbirds in the 1960s. But by the 1970s eighty-five percent of U.S. cars were equipped with Kelsey-Hayes disc brakes. Also at that time, nearly every jet engine contained some parts manufactured by the Kelsey-Hayes Corporation. During and after an oil crisis in the 1970s, the market demanded smaller cars that would be cheaper to operate. Kelsey-Hayes took researched and designed new components that would be lighter and more economical. Fewer people were buying new cars during this period; instead, they opted for used ones. Kelsey-Hayes sensed this and in 1978, as new automobile sales declined, they began manufacturing replacement parts.

In spite of these successes Kelsey-Hayes' stock was falling and its credit was overextended during the early 1970s. There was fear of a takeover; in 1973 the company became a subsidiary of Fruehauf Corporation. Kelsey-Hayes quickly recovered from its financial setback and consistently brought Fruehauf its best profits. In the late 1970s Kelsey-Hayes acquired Compositek Engineering Corporation whose history of producing fiber-reinforced plastics brought new opportunities for producing light-weight wheels. At the end of the decade Kelsey-Hayes was producing all types of wheels. The merger did not appear to diminish Kelsey-Hayes' success.

The Federal Trade Commission, however, (FTC) reviewed Fruehauf's acquisition of Kelsey-Hayes and decided that the merger violated anti-trust laws by

Kentucky

discouraging competitive trade. Kelsey-Hayes had been a supplier to Fruehauf and, after the merger, Fruehauf was less inclined to buy from other suppliers. The FTC ruled that this was a restraint of trade. Also, prior to the merger, Fruehauf had itself manufactured products similar to those that Kelsey-Hayes produced. After the merger, Fruehauf had discontinued its own production of those products, and the FTC ruled that this was a limit on the diversity of available goods. Fruehauf was forced to divest itself of some of its Kelsey-Hayes holdings.

The problems for Fruehauf did not end there. Fruehauf was dismantled during a lengthy, unfriendly takeover in the mid-1980s. Kelsey-Hayes was independent again and was renamed the K-H Corporation. But K-H was short-lived, since debt and interest payments diminished any possibility for growth. In 1989 K-H sought out the Toronto-based Varsity Corporation and arranged for a friendly buyout. Under this new owner the company became the Kelsey Hayes Group of Companies, and by organizing itself into business units, the company made it easier to focus on distinct product lines. One year after the merger Kelsey-Hayes showed \$1 billion in revenues.

The Kelsey-Hayes story is about a company in the midst of a competitive environment that was able to survive and build itself up by furnishing the parts needed by big customers like General Motors, Ford, and U.S. government contractors. Although other parts suppliers tried to do the same thing, Kelsey-Hayes was successful because of its ability to read the market and to develop new products that were ahead of their time. The company also understood its limits and subsequently built relations with other companies, either by purchasing or merging. Such strengths contributed to Kelsey-Hayes' ability to issue innovative parts, such as aluminum wheels, disc brakes, and anti-lock braking systems—quite a change from the days of the wooden wheel.

See also: W. C. Durant, Henry Ford, United Auto Workers

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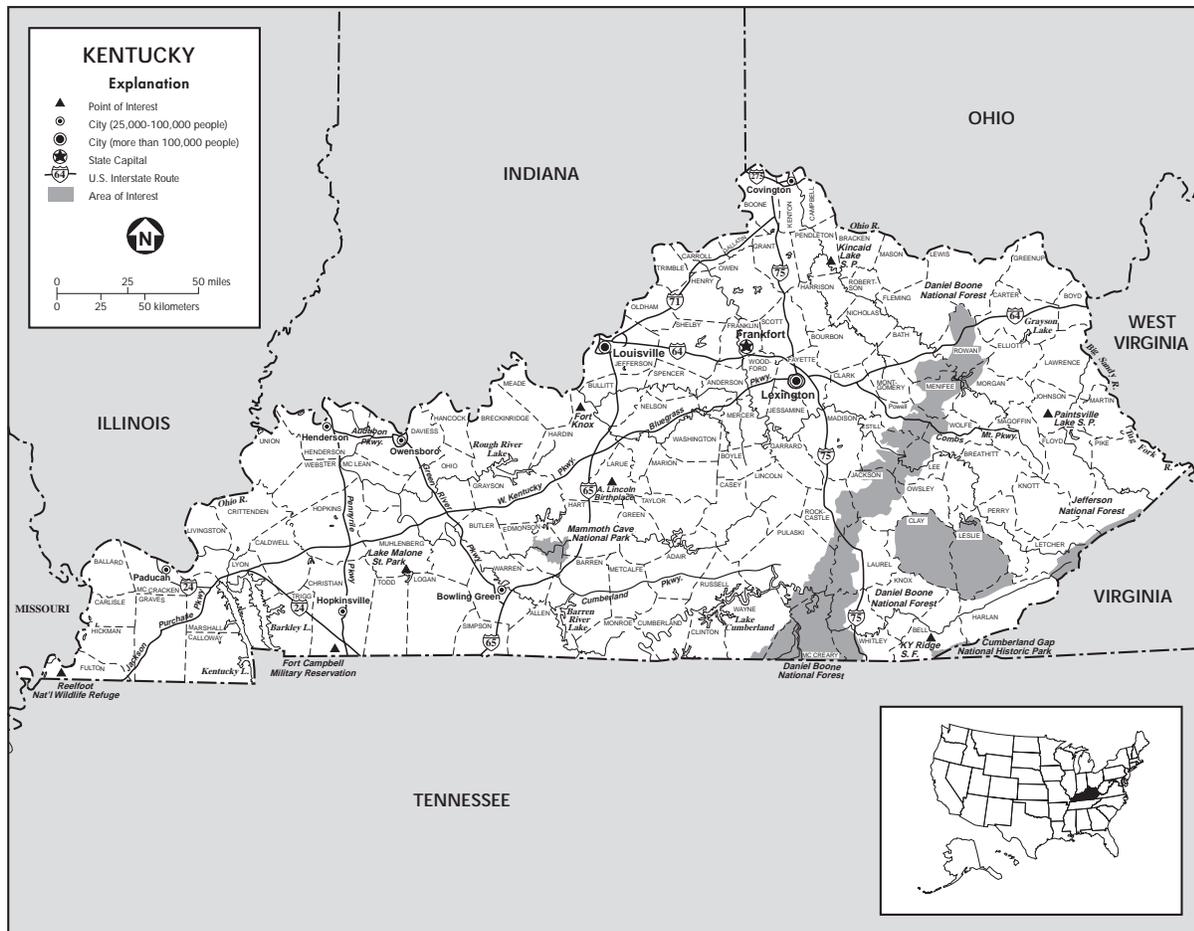
KENTUCKY

British and American surveyors, Thomas Walker and Christopher Gist first explored eastern and central Kentucky in 1751. As part of what was then called “the West,” Kentucky held great promises for the use of its fertile land and abundant hunting grounds. Despite a British ban on western migration, settlers gradually began coming to Kentucky. In 1774 Harrodstown (now Harrodsburg) became the first white settlement in the region.

The Transylvania Land Company, assisted by famous frontiersman Daniel Boone (1734–1820), bought up a large tract of land from the Cherokee Nation and founded Fort Boonesborough in 1775. The colony of Virginia claimed Kentucky as part of its territory at this time. During and after the American Revolution (1775–1783) immigrants streamed in to the region, coming down the Ohio River or through the Cumberland Gap, as Kentucky became the principal route for migration into the Mississippi Valley. The settlements grew, and Kentucky strained at its bonds to Virginia. In 1792 Kentucky entered the Union as the fifteenth state.

Agricultural and processing industries enabled Kentucky to prosper over the next few decades. Kentucky was tied to the lower South economically, especially after the construction of a canal around the Ohio River Falls at Louisville in 1829. Kentucky supplied hemp, used to make ropes and bagging for cotton bales, as well as producing hogs, mules, workhorses, corn, flour, salt, and prepared meats. The state also became a large grower of tobacco, which by 1860 accounted for half the agricultural income in the state. Whiskey production began in the 1860s, with the most popular brew taking the name of the county where it was produced: Bourbon. Horse breeding and racing also developed during this period and became the trademark industry in the Bluegrass area near Lexington.

Kentucky was one of the border states with divided loyalties during the American Civil War (1861–65).



State of Kentucky.

Although the state ultimately backed the Union, thousands of soldiers from Kentucky also fought on the side of the Confederacy. A period of unrest and chaos followed the war during the Reconstruction (1865–1877) period.

By the 1870s economic health was gradually being restored in Kentucky. Liberal tax laws helped railroad construction to increase dramatically, and eastern Kentucky saw extensive development of timber and coal reserves. Many rural people moved into the cities of Louisville and Lexington as industrial growth flourished. In 1900 Kentucky held first place in per capita income among the southern states.

A bleaker picture, however, faced farmers in the state. The “dark-leaf” tobacco farmers of eastern Kentucky, as well as other farmers, experienced long-term price depression. Good land was also becoming hard to come by, as the size of the average family farm dropped to less than ten acres, and many were forced to become tenant farmers. New social movements aimed at farm unrest, including the Grange, the Farmers’

Alliance, and the Populist Party, found many supporters in Kentucky.

Another of Kentucky’s most important industries, coal mining, was going through hard times at the beginning of the twentieth century. By the late nineteenth century lower-sulfur coal had been mined out of the Cumberland coal reserves in the Appalachian region. Distant corporations with a highly developed profit motive employed many but did little to improve the ordinary lives of the people they employed. As mechanization of coal mining increased, jobs in the mining areas of the state became increasingly hard to come by. Deep mining began to give way to strip mining during this period.

During the 1920s a great deal of economic change hit Kentucky. The development of modern highways brought the political power center of the state to the Highway Commission. Political patronage under Governor Flem Sampson controlled nearly all the highway jobs until Sampson’s ouster in 1931. Meanwhile, in the distillery industry, the enactment of Prohibition in

Kerosene

1918 had put thousands out of work. Coal mining experienced a boom in the early twenties, but declining prices after 1927 put thousands more into unemployment lines. Violent confrontations between mine owners and workers became common during this time. In Harlan and Bell counties hostilities were especially rampant and caused property destruction and many deaths.

During the dark days of the Great Depression (1929–1939) in the 1930s, Governor Albert B. (“Happy”) Chandler brought a kind of “conservative progressivism” to the state after years of factional party politics. He used federal dollars from New Deal programs to cancel the state sales tax in favor of a progressive income tax and controversial taxes on cigarettes, whiskey, and beer. An unfortunate consequence of the sales tax loss prompted a downhill slide in funding for education and health care in the state. Adding to the state’s woes, there were a number of violent confrontations during the 1930s between the United Mine Workers (UMW) and mine owners in eastern Kentucky. By 1940 Kentucky had acquired a negative image nationwide because of political corruption, poverty, and labor unrest. In that year the state ranked last among 48 states in per capita income.

World War II (1939–45) brought an economic boost to the state’s economy by increasing the demand for coal and farm products, and also by stimulating the development of industry. As industries grew over the subsequent decades the percentage of people employed in farming decreased. Between 1945 and 1980 the farm population was reduced by 76 percent. Companies such as General Electric and Ford in Louisville and Rockwell International in Clark County helped bring Kentucky industry into the twentieth century. Lexington in particular changed from a farm and college town into a fast-growing metropolitan era, beginning with the arrival of International Business Machines (IBM) in 1956. A good measure of Kentucky’s rise from the economic doldrums came from a steady influx of workers from 1970 on, after years of population loss.

Though still a poor state, economic conditions in Kentucky were greatly improved by the end of the twentieth century. The Bluegrass area and industrial cities were generally the most prosperous parts of the state. Despite federal programs that began in the 1960s to raise incomes in the eastern coal mining regions, income there was still lower and unemployment higher than in other areas of the state. A far higher percentage of the population in the Appalachian counties fell below the federal poverty level than in other counties. Though manufacturing cities, primarily along the Ohio River, provided high levels of employment, the state as

a whole ranked only 42nd out of 50 states in per capita income with an average of \$19,687 in 1996. Coal was still an important product of Kentucky, with over 114 million tons mined in 1996. A more recently discovered resource was petroleum, extracted mostly in Henderson County.

See also: Daniel Boone, Coal Industry, Farmer’s Alliance, International Business Machines, National Grange, United Mine Workers

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KEROSENE

A flammable hydrocarbon oil, kerosene is a petroleum product primarily used for fuel. In 1854 Canadian geologist Abraham Gesner (1797–1864) discovered a process for distilling fuel from petroleum (initially, coal oil). He found the derived substance to be a superior lighting oil. In 1859, when the first successful oil well was drilled near Titusville, Pennsylvania, the shale oil was found to also be an excellent, and then plentiful, source of kerosene. Kerosene illumination caught on quickly. Until the advent of the incandescent lightbulb, invented by Thomas Alva Edison in 1879, kerosene lamps remained the primary source of artificial lighting.

See also: Black Gold

KEYNES, JOHN MAYNARD

Considered one of the most important economic theorists of the modern era, John Maynard Keynes (1883–1946) was a genius who used his extraordinary gift for mathematics to deepen his understanding of economics. He helped to revolutionize modern thought about the workings of the free-trade marketplace and modern industrial capitalism. He is credited with helping to pull the United States and much of Western Europe out of the Great Depression and with creating a

kind of capitalism that works with the federal government to stabilize the ups and downs of a market economy.

John Keynes was the only son born to John Neville Keynes and Florence Keynes, on June 5, 1883. His father was a lecturer at Cambridge University, England, and became the top administrative official at Cambridge. As young John grew up, his parents doted on him, and his mother kept a thorough file of his early achievements.

Keynes was a brilliant student at Saint Faith's Preparatory School. Later, at Eton, he finished first in his class in the classics (the study of the language and culture of ancient Greece and Rome) and second in mathematics. He later went on to Cambridge University to complete his formal education, where, at age sixteen, he decided to pursue the study of economics.

His first job out of college was in India, working as a junior clerk for the British civil service for two years. Keynes then took a position back in England as an economics lecturer at King's College. In 1911, at age twenty-eight, he was named editor of the prestigious *Economic Journal* published by the Royal Economic Society, a position he retained for the next 33 years.

In his mid-30s, Keynes married a ballerina, Lydia Lopokova, and they remained together until his death in 1946. They had no children.

Keynes worked on international aspects of the economy for the British Treasury office in 1917, and in 1920 he began his own career speculating successfully on foreign exchange and commodities. Later that same year Keynes joined the board of directors of the National Mutual Life Insurance Company, where he became the board director in 1923, a position he held until 1938.

JOHN MAYNARD KEYNES WAS . . . CREDITED WITH HELPING TO PULL THE UNITED STATES AND MUCH OF WESTERN EUROPE OUT OF THE GREAT DEPRESSION.

Throughout his life Keynes occupied a variety of influential posts where his economic and financial advice was sought. During World War II (1939–1945), both English Prime Minister Winston Churchill, and U.S. President Franklin Delano Roosevelt (1933–1945) sought his advice.

Outspoken and controversial, Keynes wrote books on all aspects of economics, beginning with his small classic titled *Indian Currency and Finance* (1913), and ending with his last book, *How to Pay for the War*

(1940). In 1936 he published his major work, *The General Theory of Employment, Interest, and Money*. With respect to its importance in economic literature, this work has been compared to Adam Smith's *The Wealth of Nations*, and Karl Marx's *Das Kapital*. It was a shrewd analysis of how economics works in daily life.

Keynes' book contained little on sociology, philosophy, or ideology. He supported capitalism and focused on resolving the question of how a capitalist economy could recover from a depression, which seemed to be an inevitable affliction in the free market system. The answer Keynes proposed may have helped the capitalist world pull itself out of the Great Depression, as well as provided a way for capitalist societies to normalize after war. Keynes theorized that economic difficulties were not the result of overproduction, as was commonly believed, but rather of problems in the distribution of goods. He further stated that it was the shortage of money that prevented goods from being distributed properly during a depression. The solution was the government involvement. Keynes believed that if the government put money into the economy, without taxing citizens, the economy would experience some temporary debt, but the stimulation would bring the stagnant capitalist economy back to life.

Other economists were skeptical of Keynes' ideas, but eventually came to accept them as they saw the U.S. and European economies improve, behaving as Keynes had predicted. Keynes gave to capitalists a method to help economies rebound after periodic downturns.

Unlike most economists before him, Keynes analyzed problems in the economy as if they were arithmetic and not social. He had little use for ideas that glorified either the businessman or the common worker. He believed that the success of an economy depended on following certain basic rules that he had described in his writing. Keynes died in 1946.

See also: Capitalism, Free Trade, Great Depression, Great Depression (Causes of), Keynesian Economic Theory, Adam Smith

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KEYNESIAN ECONOMIC THEORY

Until the onset of the Great Depression (1929–1939), it was conventional wisdom in classical economics that the best way to manage the economy was to take a laissez-faire, or “hands off,” approach. Classical economists believed that, left to their own devices, economies tended toward full employment on their own, and that the best way to deal with a depression was to expand the money supply and wait for the economy to return to “equilibrium.”

In his landmark 1936 book, *The General Theory of Employment, Interest, and Money*, the English economist John Maynard Keynes (1883–1946) argued that the classical economists had it all wrong. Some depressions were so severe that consumer demand needed to be artificially stimulated by government fiscal policies such as deficit spending, public works programs, and tax cuts. During deep depressions, Keynes believed, when the government expanded the money supply pessimistic consumers would simply hoard the money rather than spend it. As proof that Keynesian economic theory was true, economists pointed to the fact that the U.S. economy recovered from the Great Depression only through heavy deficit spending during World War II (1939–1945). Keynesianism became official government policy when the Employment Act of 1946 gave the federal government the explicit responsibility to use fiscal policy to maintain full employment as a way of keeping consumer demand and economic growth strong.

During the administrations of Democratic Presidents John F. Kennedy (1961–1963) and Lyndon B. Johnson (1963–1969), Keynesian economic theory guided government policy. A major tax cut in 1964 that spurred economic growth seemed to prove again that Keynes’ faith in government fiscal measures had more validity than laissez-faire economics. By the early 1970s even Republican President Richard M. Nixon (1969–1974) admitted, “We are all Keynesians now.” However the 1970s introduced a new phenomenon that Keynesian economic theory seemed to have no answer for: high inflation together with high unemployment—a phenomenon known as “stagflation.” Keynes and all

other economists had believed that when unemployment is low, inflation would be high because a fully employed economy consumes a lot, thus, prices would be driven upward. Stagflation seemed to leave the government without options: if it stimulated demand to reduce unemployment inflation would climb, but if it dampened demand to fight inflation unemployment would rise.

Stagflation turned out to be so difficult a problem that by the time President Ronald Reagan (1981–1989) entered office he was calling Keynesian economic theory “a failed policy.” In a return to laissez-faire economics, he proposed that the government stop deficit spending and grow the money supply at a stable rate. The currency growth has been kept under control, and with budget cuts and an expanding economy, the budget was balanced under President William Clinton (1993–2001).

See also: Inflation, John Maynard Keynes, Laissez Faire, Stagflation

KIMBERLY-CLARK CORPORATION

Kimberly-Clark Corporation was established in 1872 in Neenah, Wisconsin, as Kimberly, Clark, and Company. The business was a partnership of four men—John A. Kimberly, Charles B. Clark, Frank C. Shattuck, and Kimberly’s cousin, Havilah Babcock. The company established its first paper mill in Wisconsin; their first product was newsprint made from linen and cotton rags. Within six years the company expanded by acquiring a majority interest in the nearby Atlas paper mill, which converted ground pulpwood into manila wrapping paper. The business was incorporated in 1880 as Kimberly and Clark Company. In 1889 the company constructed a large pulp and paper-making complex on the Fox River.

In 1906, after the deaths of three of the four founders, the company was reorganized and renamed Kimberly-Clark Company. In 1914 researchers working with bagasse, a pulp byproduct of processed sugar cane, produced creped cellulose wadding, or tissue. During World War I (1914–18) this product, called cellucotton, was used to treat wounds in place of scarce surgical cottons. At that time field nurses also discovered that cellucotton worked well as a disposable feminine napkin. The company later recognized the commercial potential of this application and in 1920 introduced its Kotex feminine napkin.

Four years later the company introduced another disposable tissue product, Kleenex, to replace the face towels then used for removing cold cream. A survey showed, however, that consumers preferred to use Kleenex as a disposable handkerchief, prompting the company to alter its marketing strategy entirely. Nationwide advertisements promoting Kleenex for use as a facial tissue began in 1930; sales doubled within a year. In 1928 the company was reincorporated as Kimberly-Clark Corporation and became a publicly traded firm. During World War II (1939–1945) Kimberly-Clark contributed to the war effort by making M-45 anti-aircraft gun mounts, fuses for heavy shells, and other military products.

Introduced in 1968, Kimberly-Clark's first foray into the disposable diaper market, Kimbies, was withdrawn from the market in the mid-1970s because of poor sales and leakage problems. Much more successful were Huggies, the premium diaper introduced by Kimberly-Clark in 1978. Featuring an hourglass shape, elastic at the legs, and refastenable tapes, Huggies were an instant hit and had captured 50 percent of the higher quality disposable diaper market by 1984.

In 1980 Kimberly-Clark launched its Depend line of adult incontinence products through an aggressive television advertising campaign. Just as it had decades before through its promotion of once unmentionable feminine hygiene products, Kimberly-Clark again took on a taboo subject. The company was once again successful. Depend quickly became the best-selling retail incontinence brand in the United States and Kimberly-Clark now had a line of products serving the needs of absorbing bodily fluids which stretched from cradle to grave.

In 1985 Kimberly-Clark relocated its headquarters from Wisconsin to Texas. The company found new product success again in 1989, when Huggies Pull-Ups disposable training pants were introduced. Pull-Ups helped propel Huggies into the number one position in the disposable diaper market. In 1995 Kimberly-Clark merged with Scott Paper Co. in a \$9.4 billion deal that created a global consumer products company with annual revenue of more than \$13 billion. The new Kimberly-Clark emerged from their union with Scott with a roster of leading consumer brands, including Kleenex, Huggies, Kotex, Depend, Pull-Ups, and the Scott brand of bathroom tissue and paper towels.

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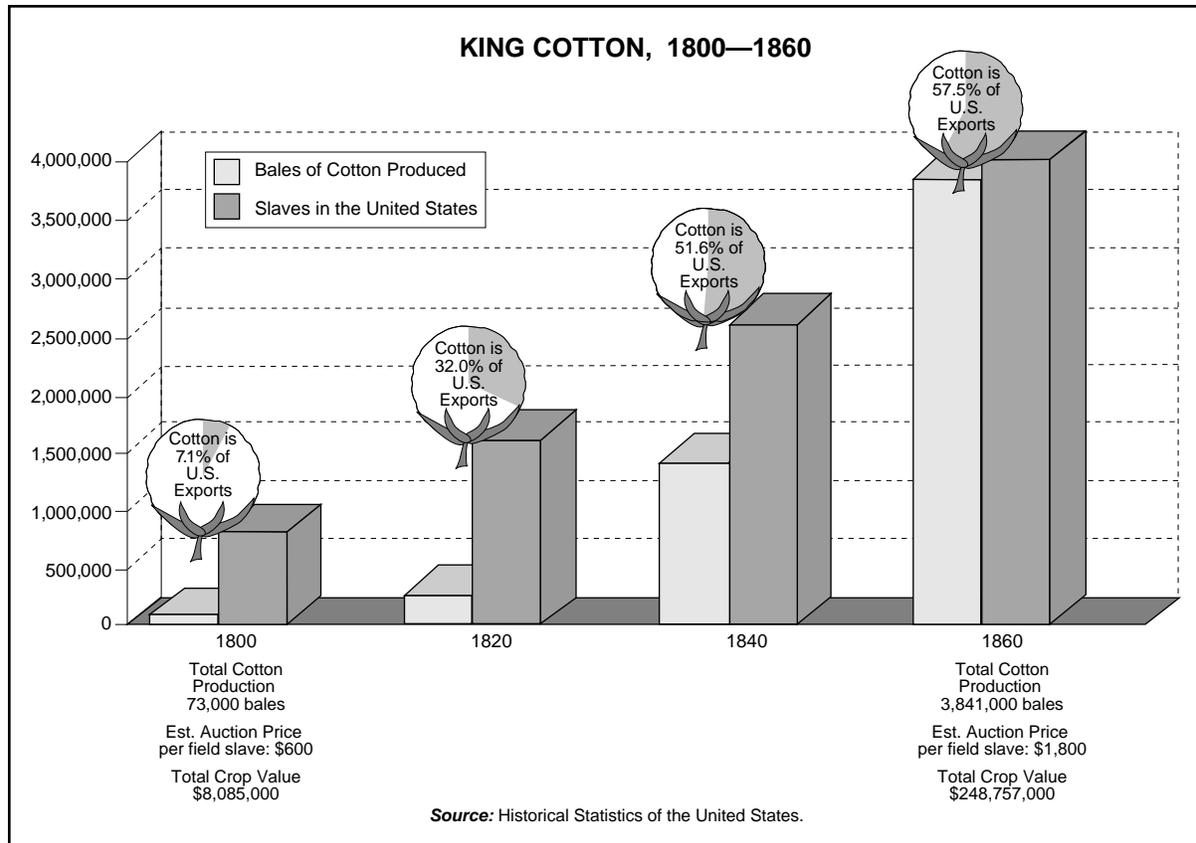
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KING COTTON

Until the 1790s growers were limited to producing the quantity of cotton that could be processed by slaves. Separating the seeds from cotton was time consuming and labor intensive. The bolls (cottonseed pods) were dried in front of a fire, and the seeds were picked out by hand. In 1793 American inventor Eli Whitney (1765–1825) introduced the cotton gin. A revolutionary laborsaving machine, it could clean 50 times more cotton fiber in one day than a human. Though Whitney patented the machine in 1794, imitations were quickly put into production by shrewd businessmen who realized the impact the gin could have on the nation's cotton industry. Just before Whitney developed the gin another inventor, British-born Samuel Slater (1768–1835), introduced the first successful water-powered machines for spinning cotton at a Rhode Island mill in 1790.

There was no shortage of demand for the fiber. As the 1800s dawned, machinery had made cotton the center of the nation's emerging textile industry. Soon New England was dotted with textile factories. Growers in the South increased cotton production to keep up with factories' demands. Slave labor and excellent growing conditions in the southern states (especially Alabama, Mississippi, Georgia, and South Carolina) combined to dramatically increase production. By 1849 annual cotton exports had reached \$66 million and accounted for roughly two-fifths of total U.S. exports.

Cotton came at a dear price: laborers in the North's textile factories worked under difficult and sometimes dangerous circumstances, in the South cotton crops were planted and harvested by slaves. As abolitionists became increasingly vocal and demanded that the U.S. government legislate the end of slavery, southern growers defended the system, saying that their livelihoods and the South's economy depended on it.



The importance of the cotton crop as a U.S. export from 1800–1880, including the close relation between bale production and slave population.

King cotton became an expression coined during the mid-1800s when the economies of southern states were heavily dependent on the cotton industry. In 1858 South Carolina Senator James Henry Hammond (1807–64) taunted northern sympathizers, saying “You dare not make war on cotton—no power on earth dares make war upon it. Cotton is king.” Hammond was not the first to use the phrase; it was coined three years earlier in the title of a book. The South’s dependence on cotton contributed to the deepening North-South divide in the nation. By the time the Civil War (1861–65) began, the southern United States supplied two-thirds of the world’s cotton.

See also: Abolition, Cotton Gin, Samuel Slater, Slavery, Spinning Mills

KING, MARTIN LUTHER, JR.

During the last half of the twentieth century in the United States, Martin Luther King, Jr., (1929–1968) emerged as the major leader of the modern civil rights

movement. He organized large numbers of African Americans in the 1960s to aggressively pursue non-violent civil disobedience in pursuit of racial justice and economic equality. Until his assassination in 1968, King remained a steadfast leader committed to the radical transformation of society through persistent, non-violent activism.

In 1929 Martin Luther King Jr. was born in Atlanta, Georgia, the son of Michael and Alberta King. King was born into a family with deep ties to the African American church. His father was a Baptist minister in Atlanta. King’s maternal grandfather, Reverend Adam Williams, had served as the pastor of The Ebenezer Baptist Church in Atlanta since 1894.

King grew up during the Great Depression, a direct witness not only to racism in the South but to bread lines and social injustice. These experiences heightened his awareness of economic inequalities. He watched his father campaign against racial discrimination in voting and in salary differences between white and African-American teachers. His father’s activism provided a model for King’s own politically engaged ministry.

But we refuse to believe that the bank of justice is bankrupt. We refuse to believe that there are insufficient funds in the great vaults of opportunity of this nation. So we have come to cash this check, a check that will give us upon demand the riches of freedom and the security of justice.

Martin Luther King, Jr., "I Have a Dream" speech, August 28, 1963

King attended Morehouse College from 1944 to 1948. The president of Morehouse, Benjamin E. Mays, strongly influenced King's spiritual development by encouraging him to view Christianity as a potential force for social change in the secular world. King struggled with mixed feelings about religion during his college years, but decided to enter the ministry after graduation, responding to what he called an "inner urge" calling him "to serve God and community." He was ordained during his final semester at Morehouse. King later continued his religious education at Boston University's School of Theology; where he completed a doctorate in theology in 1955.

Accepting a 1954 offer to become pastor of Dexter Avenue Baptist Church in Montgomery, Alabama, King quickly came into contact with the many problems of the modern South. In December 1955, Montgomery African American leaders formed the Montgomery Improvement Association to protest the arrest of National Association for the Advancement of Colored People (NAACP) member Rosa Parks (1913–) for refusing to give up her bus seat to a white man. They chose King to head the new group.

During a year-long boycott African Americans in Montgomery avoided using the bus system. In his role as spokesman, King utilized the leadership abilities gained from his religious background and forged a distinctive protest strategy involving the mobilization of African American churches and skillful appeals for broad-based public support. In his organizing, King began to use the precepts of East Indian leader Mohandas Gandhi, combining Gandhi's non-violence with Christian principles.

After the U.S. Supreme Court outlawed racial segregation in 1956, King's victory spurred him on to expanding the non-violent civil rights movement. In 1957 he founded the Southern Christian Leadership Conference (SCLC), to coordinate civil rights activities throughout the South.



On September 20, 1966, Martin Luther King Jr. (center), escorted these young children to a recently integrated school.

By the time he moved to Atlanta, Georgia, in 1960, King was known nationwide for his book on civil rights advocacy, *Stride Toward Freedom*, and through his work to increase African American voting registration in the South. He also worked with a student-oriented group of civil-rights workers known as the Student Non-Violent Coordinating Committee (SNCC) in an effort to desegregate restaurants in the South with a series of non-violent sit-ins.

In 1963 King was part of the civil rights struggle in the Birmingham, Alabama, campaign. These demonstrations called for a variety of changes in the treatment of African Americans and resulted in King's arrest and brief imprisonment. The arrest brought international attention to him and to the civil rights movement. King spoke bravely and intelligently in speeches that invoked Biblical and Constitutional principles. His activities caught the attention of President John F. Kennedy (1961–1963), who introduced significant civil rights legislation.

King, Richard

That same year, in front of 200,000 people gathered in Washington, D.C., King delivered a speech, known today as the “I Have A Dream” speech. It marked a high point in King’s crusade and served as an inspiration for civil rights supporters. Televised throughout the world, his speech electrified those who heard those words and saw the thousands who had marched on Washington in support of the civil rights movement.

Largely for his advocacy and his use of non-violent social activism in the United States in pursuit of justice for racial and economic minorities, King was awarded the Nobel Peace Prize in 1964. During the late 1960s, he remained a voice of moderation in an increasingly diverse and militant African American movement. The civil rights campaign of the early 1960s became a militant mass movement later in the decade, seeking economic and political gains in the workplace.

King continued to leave his mark on the social protest movements that arose throughout the 1960s. Women’s groups formed and used non-violent militancy to achieve progress in what came to be called the modern feminist movement of the 1970s. Social and economic injustices throughout the country were being addressed with King’s civil disobedience tactics. The American Indian Movement (AIM) became re-activated, as did the labor organizing movement of American Hispanics involved in migratory labor disputes.

On April 4, 1968, while King was working with striking sanitation workers in Memphis, Tennessee, he was assassinated by a white segregationist, James Earl Ray. King’s kindling of social activism if ordinary citizens during the mid-twentieth century greatly affected civil rights in the United States, as well as the working conditions of nearly all minorities who were seeking equality and social justice. His legacy is perhaps best illustrated by the Civil Rights Act of 1964.

See also: **Civil Rights Movement**

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KING, RICHARD

Richard King (1825–1885) became a legend of U.S. business when he created the largest cattle ranch in the United States during the 1850s. At its height the ranch extended over 1.25 million acres in South Texas, close to the Gulf of Mexico. King and his wife Henrietta founded the famous King Ranch with a purchase of 75,000 acres of land. They started with one small rugged house, which they constantly protected from thieves, cattle rustlers, hostile Native Americans, and a variety of trespassers. At his death in 1885 King’s wife inherited the ranch and added thousands of acres to its region. Later heirs to the King Ranch continued to expand it until it became larger than the state of Rhode Island early in the twentieth century.

Richard King was born in 1825, from humble circumstances in Orange County, New York. At the age of eight his parents sent him to be apprenticed to a jeweler. The jeweler’s harsh treatment caused King to run away, and he boarded a ship bound for Mobile, Alabama, where he signed on to become a cabin boy on a steamboat. During his time as a cabin boy he obtained eight months of formal education, the total extent of his schooling.

In 1847, at age twenty-two, King was drawn to the state of Texas. In Texas, King served as a pilot on a government steamship on the Rio Grande River. He later bought his own small steamer and engaged in trade on the Rio Grande. In 1850 a friend joined the venture, and they purchased 22 vessels. During the American Civil War (1861–1865) he traded with Mexico, exchanging cotton for supplies that would be given to the Confederate army. King spent 20 years as a steamboat captain in Texas. During that time he began plans for a great ranch in a region of Texas between the Nueces and the Rio Grande rivers.

In 1852 King purchased a 75,000-acre tract of land southwest of Corpus Christi, Texas, formerly known as the Santa Gertrudis Ranch. King bought the land at a cheap price because it was situated in a perilous region of Texas. The area had once been a part of Mexico and many Mexicans still maintained it was rightfully theirs. The same area was also claimed by Native Americans, who said the land historically belonged to them. A

lengthy struggle ensued over ownership, but no clear legal claim was established. Into this controversy stepped Richard and Henrietta King.

The Kings were tough and determined to survive. They did not let the controversy over the land dissuade them from the purchase. Once their ownership was established the Kings set up residence, ready to fight off trespassers. Richard King erected rendering houses on his ranch before the northern markets were open for Texas beef. He used animal fat to make candle tallow and sent the tallow and animal hides to market by ship. Cowboys later drove thousands of his cattle over the long trail from Texas to Kansas, where they were put aboard trains to be shipped East.

By 1876 King greatly increased the size of his ranch through land purchases. The number of cattle raised on the ranch also grew. At the same time he constructed his own railroad, which he used to ship cattle from his ranch to Laredo, Texas. From Laredo his train joined the main train routes to the east and north. His holdings at that point numbered 100,000 Texas Longhorn cattle, 20,000 sheep, and 10,000 horses.

King died in 1885 on his half-million acre ranch. The King family was then cross-breeding Brahman cattle with English shorthorns. They produced a new and popular breed of cattle called Santa Gertrudis, which was able to mature to full size while eating less range grass.

King's wife survived him and remained on the ranch. Henrietta King founded the Texas town of Kingsville on the King estate. She also built houses, schools, and churches. She gave a tract of land for the establishment of the Texas-Mexican Industrial Institute. The Kings' five children continued to manage the ranch successfully.

By the middle of the twentieth century the King Ranch supplied much of the food and cowhide in the United States. It became a regional hub in Texas, where it transformed wild prairie into a populous and prosperous farming region.

See also: *Cattle Drives, Cowboys, Westward Expansion*

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KLONDIKE GOLD STRIKE

In 1896 the discovery of gold along the valleys of the Yukon and Klondike rivers launched a great stampede of prospectors north to Alaska and the Yukon territory of Canada. Although gold had been found all across Alaska since the 1870s, it was news of a huge gold strike at Bonanza Creek in August 1896 that launched the frenzy of the last great gold rush. The outside world learned of the riches of the Yukon Valley in the summer of 1897, when two ships arrived in San Francisco and Seattle loaded with about \$1.1 million in Alaskan and Canadian gold. By the time winter cut communications, 2,000 prospectors had gathered in Canada at the former fishing camp of Dawson, at the head of the Yukon, with several thousand others on their way. Dawson profited from the influx of prospective miners. By the summer of 1898 it had a population of 30,000, making it the largest Canadian city west of Winnipeg. A few of the immigrants settled in the area, but most fled for richer fields elsewhere in Alaska. The gold boom lasted only a few years, but the social, political, and economic impact of the gold rush continues to this day.

The Klondike strike was one of the best-publicized events of its time. Because of improved communications linking the Atlantic with the Pacific Coast, the news reached New York and Europe almost as soon as it reached the West Coast. New infrastructure unavailable in previous gold strikes, such as the transcontinental railroad completed in 1869, helped bring prospectors from all over the world. In addition to their money and their labor, these people brought their diseases, their language, and their drinking to the area. These took their toll on the native population of the Yukon. Alcoholism, smallpox and tuberculosis, and residential schools that operated only in English stripped many Native Americans of their lives and their culture.

The population of the Yukon never recovered from the boom years of the gold rush. A hundred years



Missionaries in camp on the way to the Klondike to preach to the miners during the Gold Rush, in Alaska, 1897.

after the Klondike strike, the total population of Yukon territory was only 33,000, only a little more than the town of Dawson in the boom years at the end of the nineteenth century. Gold production began again in the Yukon in 1996. But the production was expected to be no more than 125,000 ounces per year, far short of the one million ounces produced in 1900.

**GOLD! WE LEAPT FROM OUR BENCHES.
GOLD! WE SPRANG FROM OUR STOOLS.
GOLD! WE WHEELED IN THE FURROWS,
FIRED WITH THE FAITH OF FOOLS.**

Robert Service, a poet who lived in the Yukon

There are some direct links between Klondike gold and modern American business. John W. Nordstrom, a Swedish immigrant, used his gold stake to found the shoe store that still bears his name. The economic impact of the Klondike strike was usually less direct. Of the 100,000 hopeful prospectors who left for the Yukon in 1896–1897, only about 30,000 were able to complete the journey. Many of them passed through Pacific ports such as Seattle on their way home from the gold fields. These towns absorbed many of those miners, with or without their stake. According to *The Economist* magazine, the willingness

to take a risk—to persist in a difficult situation and, if the desired result does not materialize, to move on to another project—has become a characteristic of modern firms whose origins lie in the Pacific northwest. Businesses like Microsoft, Boeing, and Starbucks created corporate cultures that operate the same way that the successful Klondike miners did.

See also: Alaska, Gold Rush of 1849

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KNIGHTS OF LABOR

An American labor union, the Knights of Labor organization was founded in 1869 as a secretive fraternal society (the Noble Order of the Knights of Labor) in Philadelphia, Pennsylvania. A garment worker Uriah Stephens (1821–1882) and several of his colleagues banded together and opened membership to anyone except physicians, lawyers, bankers, professional gamblers, stockbrokers, and liquor dealers. After a relatively slow start in the depressed economy of the 1870s, when it spread mostly to coal-mining regions of Pennsylvania, the Knights of Labor's membership grew dramatically from fewer than 10,000 members in 1879 to 730,000 members in 1886. Recruiting women, blacks, immigrants, as well as unskilled and semiskilled workers alike, the Knights of Labor began working for reforms, including better wages, hours, and working conditions. The open-membership policy provided the organization with a broad base of support, something previous labor unions, which had limited membership based on craft or skill, lacked.

At a general meeting of its members in Reading, Pennsylvania, in 1878, the organization set its objectives. It wanted an eight-hour workday, prohibition of child labor (under age fourteen), equal opportunities and wages for women laborers, and an end to convict labor. The group became involved in numerous strikes from the late-1870s to the mid-1880s. At the same time, a faction of moderates within the organization was growing, and in 1883 it elected American machinist Terence Powderly (1849–1924) as president. Under Powderly's leadership, the Knights of Labor began to splinter. Moderates pursued a conciliatory policy in labor disputes, supporting the establishment of labor bureaus and public arbitration systems. Radicals not only opposed the policy of open membership, they strongly supported strikes as a means of achieving immediate goals—including a one-day general strike to demand implementation of an eight-hour workday.

Violence that sometimes attended labor strikes not only hurt the cause of organized labor in the country, it further divided the Knights: In May 1886, workers demonstrating in Chicago's Haymarket Square attracted a crowd of some 1,500 people; when police arrived to disperse them, a bomb exploded and rioting ensued. Eleven people were killed and more than a thousand were injured in the melee. For many Americans, the event linked the labor movement with anarchy. That same year several factions of the Knights of Labor seceded from the union to join the American Federation of Labor (AFL). The Knights of Labor remained intact for three more decades, before the organization

officially dissolved in 1917, by which time the group had been overshadowed by the AFL and other unions.

See also: Haymarket Bombing, Labor Movement, Labor Unionism, Terence Powderly, Strike

KNOPF, BLANCHE

A leading U.S. publisher, Blanche Knopf (1894–1966) played a key role in twentieth century book publishing. By promoting books of controversial European authors, in English translation, and the books of U.S. minority groups (African American, Hispanic, and feminist authors), Blanche Knopf aggressively advocated a new cultural and intellectual climate for U.S. reading audiences, one that powerfully impacted, challenged, and changed their view of the world around them.

Born on July 20, 1894, in New York City, Blanche Wolf was an only child born to wealthy parents. As well as sending her to the elite Gardner School in New York, her parents provided the cultural and language training of her own French and German-speaking governesses.

Blanche grew up a keenly intelligent, aggressive, and demanding young woman, with high personal standards for intellectual excellence. At age twenty-two she married Alfred A. Knopf, whom she met at age seventeen and steadily dated thereafter. Alfred was a writer, editor, and a new publisher.

Together with her husband, Blanche Knopf founded and began building the publishing house Alfred A. Knopf Publishers, in 1915. By 1921, Blanche was director and vice president of the Knopf Publishing Corp.

Because she was perhaps the first woman of high position in a U.S. publishing firm, Blanche encountered sexism and personal censure in her professional life. She was openly denied membership to two powerful publisher's clubs—The Publisher's Lunch Club, and The Book Table, based on her sex. Despite certain closed doors, her flair for fluid social interaction, as well as a love for tough negotiating and strategic bargaining, proved great assets in difficult business situations. Without those personal qualities and her first-rate intelligence, she might have dismally failed in the highly competitive, male-dominated, publishing world of her day.

Blanche Knopf became one of the formidable publishers of her time, specializing in new material for the reading public. She sought out and discovered

Korean War

much new talent in Europe and Latin America and also began to publish the works of little known U.S. minority writers, like poet Langston Hughes and writers of the Harlem Renaissance. In publishing their works, Knopf provided a venue for many writers who had never before received much public attention. In doing so, she indirectly challenged contemporary U.S. thought.

Presenting to the public the words and ideas of African American and other minority writers, Knopf introduced a new world of expression to the literary mainstream—views of society by frequently suppressed minorities. She also introduced the new writings of Europeans in translated versions. Knopf introduced existentialism to the United States, publishing the works of Jean-Paul Sartre, Albert Camus, and Simone de Beauvoir. She also published other European giants such as Andre Gide, Thomas Mann, and the controversial psychiatrist, Dr. Sigmund Freud.

Publishing Simone de Beauvoir's work allowed Knopf to bring to U.S. readers one of the central works of mid-twentieth century feminism: *The Second Sex*. The book discussed the powerful and provocative issues of lesbianism, prostitution, and the nature of sex-role limitations, challenging the social conventions of the day.

Through her work Knopf assisted in the dissemination of ideas and issues that revolutionized thinking in the United States in the mid-twentieth century. Her efforts were regarded as controversial and, at the same time, emancipating because many of the books that caused such calamity in social circles were released at a time when the public was most conspicuously conservative in its sentiments (the late 1940s and 1950s).

Knopf and her husband continued to publish the best of foreign-language and minority writing, and the best of U.S. literature throughout their careers. They prided themselves on publishing books that were physically well-made, colorful—always with the hope that each book would challenge the ideas and imaginations of readers.

Blanche Knopf died in New York City on June 4, 1966. She continued to work as an editor until her death, despite losing much of her eyesight in middle age. Although not able to read new manuscripts in later life, she had many of them read aloud to her and retained the final say on what books were to be published.

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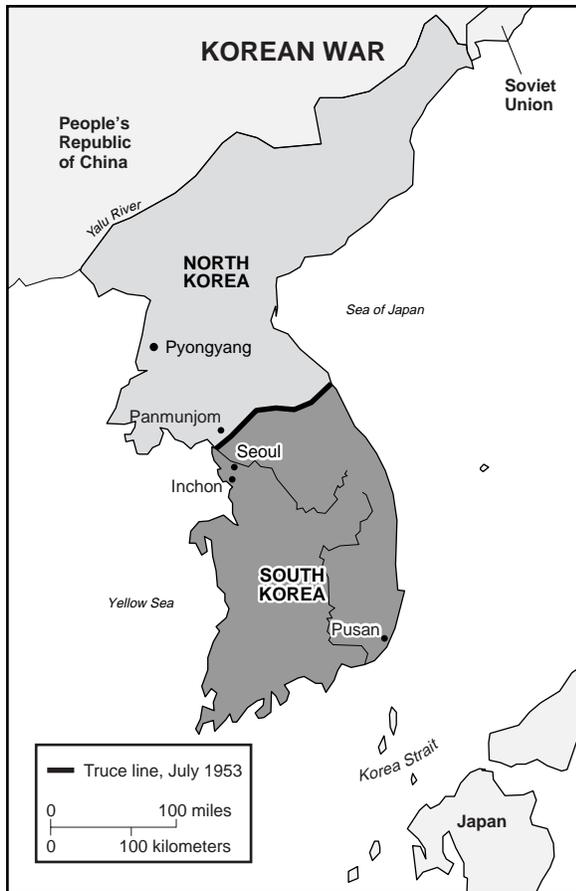
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KOREAN WAR

In 1948 as part of the boundary adjustments following World War II (1939–1945), Korea was supposedly temporarily divided for occupation by the Soviet Union and the United States as victorious former allies against Japan. The Korean peninsula, whose reclusive history in the seventeenth and eighteenth centuries led it to be called the "Hermit Kingdom," had been under Japanese control since the end of the Russo-Japanese War (1904–1905). The division following World War II was at the 38th parallel, a temporary line of demarcation with no other cultural or geographic significance. Like the artificial divisions of Germany and of Berlin in 1945, as well as the supposedly temporary division of North and South Vietnam in 1954, this bifurcation of the Korean nation was a result of the Cold War rather than internal developments.

In their zone lying north of the 38th parallel, the Soviets organized a socialist regime under the Communist Party. Established in 1948 as the Democratic People's Republic of Korea, the regime was headed by Kim Il Sung, a long-time leader of the Communist Party. In the South, various factions vied for power, until the party of the "father of Korean nationalism," Syngman Rhee, won a United Nations–sponsored election. On August 15, 1948, Rhee became President of the Republic of Korea. His regime was about as dictatorial as that in North Korea, and was implicated in corruption and in the repression of internal political opposition.

Both Korean governments were determined to achieve unification on their own terms. Shortly after partition, North Korea supported large-scale guerrilla incursions into the south, and retaliatory raids by South Korean forces kept the divided country in a state of crisis. Despite this situation, American troops were withdrawn in June 1949, leaving behind only a small group of technical advisers. South Korea, whose army was small, poorly trained, and poorly equipped, faced



The Korean peninsula was the scene of intense warfare between 1950 and 1953.

an adversary with an army of 135,000 men, equipped with modern Russian weapons, and between 150 and 200 combat airplanes. Although South Korean leaders and some Americans feared that North Korea might attack across the 38th parallel at any time, Secretary of State Dean Acheson, declared that Korea was not within the “defensive perimeter” of America’s vital interests in the Far East.

The attack came on June 25, 1950. North Korean armed forces—armored units and mechanized divisions supported by massive artillery—struck without warning across the demarcation line. Meeting little resistance, within thirty-six hours North Korean tanks were approaching the outer suburbs of Seoul, the capital of South Korea.

Contrary to Korean and Soviet expectations, the United States reacted swiftly and with great determination. Immediately after the attack the United States requested that the UN Security Council hold a special session which passed a unanimous resolution calling for the end of hostilities and the withdrawal of North

Korean forces to their former positions north of the 38th parallel. The Soviet Union would probably have vetoed such a resolution but the Soviets were boycotting the Security Council to protest the failure of the UN to include Communist China in its deliberations. In any case, the resolution was ignored by the North Koreans and the Security Council met again on June 27 and passed another resolution recommending that “the members of the United Nations furnish such assistance to the Republic of Korea as may be necessary to repel the armed attack.” On June 27, U.S. President Harry S Truman committed U.S. Air and Naval forces to the “police action” (a war was never formally declared) as well as ground forces stationed in Japan.

The North Koreans, however, continued their advance. By the end of June, more than half of the Republic of Korea (ROK) Army had been destroyed, and American units were forced to fight countless rear-guard actions in the retreat southward. In early August, a defense perimeter was created around the important port of Pusan at the extreme southeastern corner of the peninsula. After violent fighting, a stable defense line was established. As American forces and contingents from fifteen other nations poured in, General Douglas MacArthur, Commander-in-Chief of U.S. forces in the Far East and Supreme Commander of the UN forces, decided on a daring amphibious landing at Inchon, a west coast port just a few miles from Seoul. The brilliantly conceived operation, launched on September 15, 1950, proved successful, and the North Korean Army, was forced to retreat back across the 38th parallel. Pressed by public demands for a complete victory, the Truman Administration gave General MacArthur the go-ahead to pursue the enemy across the demarcation line, justifying the decision with the UN Security Council’s authorization. The first crossings took place on October 1. United Nations and ROK forces moved north, and by late November they were nearing the Yalu river boundary between North Korea and Communist China.

The seesaw struggle was reversed once again by the entry of Chinese “volunteers” into the war. Chinese leaders had warned that they would not allow North Korea to be invaded and would come to the aid of the North Koreans. By late October, thousands of Chinese soldiers had crossed the Yalu. One month later, they struck at the exposed flank and rear of MacArthur’s overextended armies. By early December, UN troops were again in headlong retreat, a withdrawal marked by great heroism but resulting in near disaster.

This created a crisis of the first order for President Truman. Truman wanted to stabilize the battle lines

and negotiate an end to the war. General MacArthur wanted to attack China, possibly using tactical nuclear weapons. He said as much in a letter to House Republican leader Joseph W. Martins. Truman could not brook this challenge to his authority and, on April 11, 1951, he relieved MacArthur of command. Although the public clearly sided with MacArthur, Truman's strong stand settled the question of civilian control over the military.

A new battle line was organized south of the 38th parallel, and through the remaining winter and early spring months the lines fluctuated from south of Seoul to north of the parallel. Stalemate finally was achieved in July 1951. The conflict settled down to trench warfare, at which the Chinese were particularly adept, and was marked by indecisive but bloody fighting. This conflict lasted for two cruel years, during which time, more than a million Americans served in Korea.

For much of this period, talks proceeded at P'anmunjom, Korea near the 38th parallel. These talks opened on July 10, 1951 at the suggestion of the Communists. Welcomed by the most Americans, these negotiations were designed to achieve a cease-fire and an armistice. They were broken off repeatedly as germ warfare charges and difficulties over prisoner-of-war exchanges clouded the atmosphere.

The stalemate in Korea was a source of mounting frustration in the U.S., where it heightened the "red scare" and furnished ammunition to Senator Joseph McCarthy in his quest to purge leftists from the government and from influence in the society at large. The Korean War also helped elect Dwight D. Eisenhower to the Presidency. The Republican nominee won support by promising to go to Korea if elected. Eisenhower kept his pledge, but the visit had no noticeable effect on the peace talks.

The Communists finally modified their position on forcible repatriation of prisoners, and a final armistice agreement was signed at P'anmunjom on July 27, 1953. It resulted in a cease-fire and the withdrawal of both armies two kilometers from the battle line, which ran from coast to coast from just below the 38th parallel in the west to thirty miles north of it in the east. The agreement also provided for the creation of a Neutral Nations Supervisory Commission to carry out the terms of armistice. The armistice called for a political conference to settle all remaining questions, including the future of Korea and the fate of prisoners who refused to return to their homelands. In succeeding months, the United Nations repatriated more than 70,000 North Korean and Communist prisoners but

received in return only 3,597 Americans, 7,848 South Koreans, and 1,315 prisoners of other nationalities. The political conference was never held, and relations between North and South Korea remained hostile.

The Korean War cost the United States approximately 140,000 casualties including some 22,500 dead, and \$22 billion. The results were somewhat inconclusive, but the war did prevent the Communist conquest of South Korea, and it demonstrated that the United States would fight to prevent the further spread of Communism. The war did change U.S. foreign policy. It marked a shift in military strategy from aiming for total victory to one of fighting limited wars.

The Korean police action also brought about a quick reversal of the policy of down-sizing the military. Major national security expenditures rapidly increased as a result of the war; national defense expenditures rose from four percent to 13 percent of gross national product in 1953. Defense spending revived inflationary impulses in the economy until the imposition of direct controls in January 1951 stabilized prices. In general, the Korean conflict changed the policy of containment from a selective European policy into a general global policy, and it contributed to the development of the military-industrial complex in America.

See also: Cold War

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KRESGE, SEBASTIAN SPERING

There are certain businesses that have shaped and reshaped the American landscape: the automobile business, the radio and television industry, and what is

called “the variety store industry.” The variety store was a social invention of S. S. Kresge (1867–1966), the man who, at the turn of the twentieth century, began building so-called “five-and-dime” stores. By the mid-century these stores had evolved into the Kresge “variety stores” found in most American towns. They later became major innovators in retailing, operating huge discount retail stores known as K-Mart.

Sebastian Kresge was born in a small community in Pennsylvania in 1867. He was studious as a youngster and attended Fairview Academy, Gilbert Polytechnic Institute in Pennsylvania, and Eastman Business College in New York state. From an early age, he knew how to negotiate a business deal. When his parents had severe financial problems during his school years, Kresge made a deal with them: if they would finance his education, he would, as repayment, turn his entire salary over to them until he reached age twenty-one.

During his late teens, Kresge taught classes and worked as a deliveryman and clerk. By age twenty-three he was in the business world, working as a bookkeeper, selling industrial insurance, and investing in a half-share of a bakery.

The 1890s, for most Americans, were a time of economic depression. During this period of “hard times”, Kresge had the idea of starting a chain-store operation based on low-end products. By 1899 Kresge and his partner J. G. McCrory opened stores in Memphis, Tennessee, and Detroit, Michigan. During 1899 Kresge traded his interest in the Tennessee store to McCrory and took full possession of the Detroit store. The Detroit store was a starting point of the largest chain-store company in America, the S. S. Kresge Co.

The large sign on the Detroit store read: “Nothing Over 10 Cents in Store” and customers poured in. Kresge opened another store with his brother-in-law in Port Huron, Michigan, about 150 miles from Detroit. By 1907 Kresge had created S. S. Kresge stores in Indianapolis, Indiana, in Toledo, Columbus, and Cleveland, Ohio, and in Chicago.

I NEVER MADE A DIME TALKING!

Sebastian Kresge

While making a fortune by selling his inexpensive products under one roof, Kresge was also developing a reputation as a miser. Though he became a millionaire while quite young, he still wore his suits until they became threadbare and he often lined his old shoes with paper instead of resoling them. He was a devout

Methodist and Republican who never used alcohol or tobacco and who refused to be charitable toward anyone who did drink or smoked. Kresge was once asked to give a speech to a school of business administration. The speech, aimed at business students, was stunningly short and to the point. It had only 6 words: “I never made a dime talking!”

Kresge was able to maintain the ten-cent limit in his stores until 1920, when he began selling items worth up to one dollar. After World War II he began selling a range of goods at various prices. His store became a “variety store,” but he was still holding on to the inexpensive end of the product market. By 1961 Kresge approved an \$80 million deal to finance a line of stores called K-Mart and another discount chain, to be located in deteriorating neighborhoods, known as Jupiter stores. By 1966 the Kresge chain stores were the second largest in the country, with annual sales of \$850 billion.

Though Kresge lived much of his personal life like a pauper, his consistent philanthropy, which became evident when he started the Kresge Foundation in 1924, served as an example for other benevolent foundations. Kresge explained his philanthropic spirit simply: “I can get a greater thrill out of serving others than anything else on earth. I really want to leave the world a better place than I found it.” Since its founding in 1924, with an initial endowment by Kresge of \$1.3 million, the Foundation has generously helped children’s organizations, colleges, universities, and many other causes. By the time of his death (in 1966, at age 99), Kresge had endowed the Kresge Foundation with over \$275 million.

Kresge was a businessman who aimed his business at those who were not rich, and he made a fortune by doing so.

See also: Chain Stores

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KROC, RAYMOND ALBERT

Raymond Albert Kroc (1902–1984) had the energy, the salesmanship, and the inspiration to build the greatest international restaurant chain empire in the world, McDonald's Corporation. He was a genuine pioneer of the modern fast-food restaurant business. He took the assembly-line methods of big industry and applied them to a restaurant franchise business that produced a small, standardized menu at low cost to the consumer. Kroc was a super salesman who, at age 52, bought "the golden arches" symbol and the name from the McDonald's brothers drive-in restaurant of San Bernardino, California, to build the McDonald's chain of restaurants. Based on the concepts of a limited menu of controlled quality and predictable uniformity, Kroc's restaurants operated on the credo of "quality, service, cleanliness, and value," and used a massive advertising campaign to promote itself.

In 1902 Kroc was born in Chicago, Illinois, the son of relatively poor parents. He went to public school in the Chicago suburb of Oak Park, but did not graduate from high school. Instead, he left school to open his own music store. When World War I (1914–18) began, Kroc lied about his age in order to serve as an ambulance driver for the American Red Cross (like his neighbor in Oak Park, author Ernest Hemingway).

Kroc, passionate about music as a young man, returned to Illinois after World War I to become a jazz pianist, playing with at least two well-known jazz orchestras. He also became the musical director of one of Chicago's pioneer radio stations, WGES.

Yet, in 1924, a restless Kroc, dissatisfied with the outlook for a career in music, decided to become a salesman. During a period of booming development in Florida, he left Chicago to try his hand at selling real estate in Fort Lauderdale. The boom collapsed in 1926, and Kroc returned to Chicago with his first wife and their child. In Chicago, Kroc became a salesman for the Lily Tulip paper cup company, where he later became Midwestern sales manager, and developed strong promotional and sales skills.

I PUT HAMBURGERS ON THE ASSEMBLY LINE.

Raymond Kroc

In 1937 Kroc ran into an invention that captured his imagination—a machine called a "multimixer" that could make five milkshakes at a time instead of just one. At a time when milkshakes were very popular,

Kroc saw the potential in this invention. By 1941 he had left Lily Tulip and founded his own company to serve as the exclusive distributor for the multimixer. It was a successful business that made Kroc modestly wealthy, but it was not the one that would bring him legendary greatness as an entrepreneur.

Kroc became intrigued with one of his multimixer clients, the McDonald brothers, who owned a drive-in restaurant in San Bernardino, California. The brothers used eight of his mixers at once. A curious Kroc traveled to California in 1954 to find out why so many mixers were being used by this single drive-in.

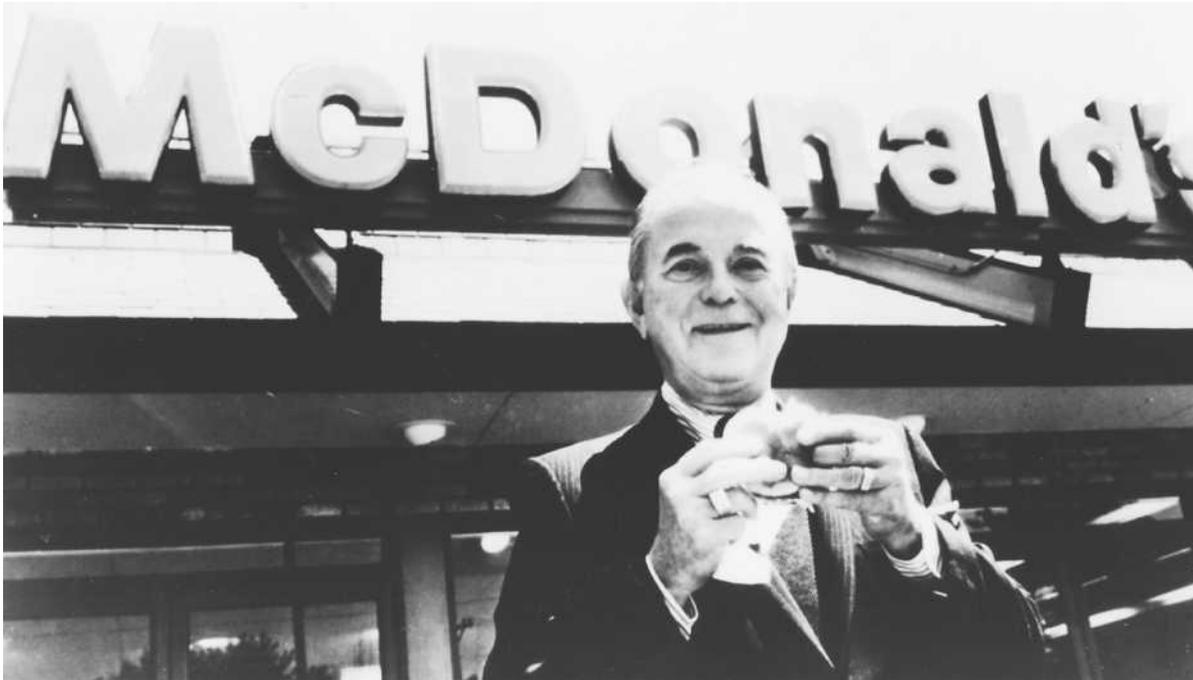
Kroc discovered the brothers McDonald sold just three items: hamburgers, French fries, and milkshakes. Moreover, the "restaurant" only had walk-up windows. The McDonald brothers were specializing in the first "fast food" service.

Kroc marveled at the efficiency of the operation. He was certain he had stumbled on that "once in a lifetime opportunity." The McDonald brothers agreed with Kroc's suggestion that he should open a national chain of their restaurants. The energetic 52-year-old veteran salesman entered into a franchise arrangement with the brothers and in 1955 opened his first store in Des Plaines, Illinois. Kroc quickly opened many franchises and oversaw quality control with an iron hand. His practice of purchasing the land used by the franchises for their operations, not leasing, eventually made McDonald's one of the largest real estate owners in the world.

By 1971 Ray Kroc had bought out the McDonald brothers' share of the business and became the sole owner of McDonald's Corporation. Kroc publicized his business relentlessly using every kind of advertising. Early in his career as Chief Executive Officer (CEO) of the business Kroc said, "I put hamburgers on the assembly line." His stores were not restaurants. Instead they were designed for frequent customer turnover. He forbade the installation of telephones, jukeboxes, or anything that encouraged loitering in the establishment.

Kroc opened his "McDonald's University" in 1972, where every new franchise owner trained in McDonald food production techniques. The school became known as "Hamburger University."

The company used national advertising in every available medium during the 1960s, when McDonald's clown-spokesman, "Ronald McDonald," was born.



Raymond Kroc.

Television advertising was aimed at both children and adults. The McDonald's brand name had an enormous impact on America's cultural fabric. The golden arches became the second most widely recognized trademark, behind Coca Cola.

The company is striking success. Some labor experts estimated that McDonald's was the first place of employment for one in fifteen Americans. Fast-food industry observers estimate that 96 percent of Americans have eaten at McDonald's at least once.

The company founded its international division in 1969. At the end of the twentieth century the international division provided 50 percent of McDonald's operating income, putting the "golden arches" into 85 countries, and adding \$30 billion to its annual income.

McDonald's is also known for its philanthropy, including the creation of Ronald McDonald Houses, which provide live-in facilities for family members of seriously ill, hospitalized children. These residences, which are often near hospitals, have been a great help to the parents of the terminally ill.

In 1984 Ray Kroc died of heart failure at the age of 81. He was survived by his third wife. One of America's most successful entrepreneurs, Kroc is often thrust into the pantheon of American business world that includes Henry Ford, Andrew and Dale Carnegie, John D. Rockefeller, and J.P. Morgan.

See also: *Assembly Line*

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KROGER COMPANY

The Kroger Company traces its roots back to 1883, when Bernard H. Kroger began the Great Western Tea Company, one of the first chain store operations in the United States. Kroger left school to go to work at age 13 when his father lost the family dry goods store in the financial panic of 1873. At age 16 he sold coffee and tea door-to-door. At 20 he managed a Cincinnati grocery store, and at 24, he became the sole

Kroger Company

owner of the Great Western Tea Company, which by the summer of 1885 had four stores. Kroger's shrewd buying during the panic of 1893 raised the number of stores to 17, and by 1902, with 40 stores and a factory in Cincinnati, Kroger incorporated and changed the company's name to The Kroger Grocery and Baking Company.

Kroger Company historians characterize B.H. Kroger as somewhat of a "crank," fanatically insistent upon quality and service. Profanity was called his second language; he often advised his managers to "run the price down as far as you can go so the other fellow won't slice your throat."

Part of Kroger's success came from the elimination of middlemen between the store and the customer. In 1901 Kroger's company became the first to bake its own bread for its stores, and in 1904 Kroger bought Nagel Meat Markets and Packing House which made Kroger grocery stores the first to include meat departments. This important innovation, however, was not easy. It was common practice at that time for butchers to short weigh (give a customer less than the stated weight) and take sample cuts home with them, practices that did not coincide with B. H. Kroger's strict accounting policies. When Kroger installed cash registers in the meat departments, every one of them inexplicably broke. When Kroger hired female cashiers, the butchers opened all the windows to "freeze out" the women and then let loose with such obscene language that the women quit in a matter of days. When Kroger hired young men instead as cashiers, the butchers threatened them with physical force. But Kroger was stubborn, and in the long run his money-saving, efficient procedures won out.

From the beginning Kroger was interested in both manufacturing and retail. His mother's homemade sauerkraut and pickles sold well to the German immigrants in Cincinnati. And in the back of his store, Kroger himself experimented to invent a "French brand" of coffee, which is still sold in Kroger stores. The Kroger Grocery and Baking Company soon began to expand outside of Cincinnati; by 1920, the chain had stores in Hamilton, Dayton, and Columbus, Ohio. In 1912 Kroger made his first long-distance expansion, buying 25 stores in St. Louis, Missouri. At a time when most chains hired trucks only as needed, Kroger bought a fleet of them, enabling him to move the company into Detroit, Michigan; Indianapolis, Indiana; and Springfield and Toledo, Ohio.

After World War I (1914–1918), the company continued to expand, following Kroger's preference

for buying smaller, financially unsteady chains in areas adjacent to established Kroger territories. In 1928, one year before the stock market crashed, Kroger sold his shares in the company for more than \$28 million. One of his executives, William Albers, became president. In 1929 Kroger had 5,575 stores, the most there have ever been in the chain.

During the Great Depression (1929–1939), the company maintained its business. By 1935 Kroger had 35 "supermarkets," adopting the format that had debuted earlier in the decade, consisting of a bigger self-service grocery store featuring large quantities of food at low prices. Frozen foods and shopping carts were introduced in the 1930's. And, instead of going through the usual channels for buying produce, the Kroger Grocery and Baking Company began to send its buyers to produce farms so they could inspect crops to ensure the quality of the food their stores sold. This counteracted the frequent complaint that chain stores sold low-quality foods. This policy eventually resulted in the formation of Wesco Food Company, Kroger's own produce procurement organization.

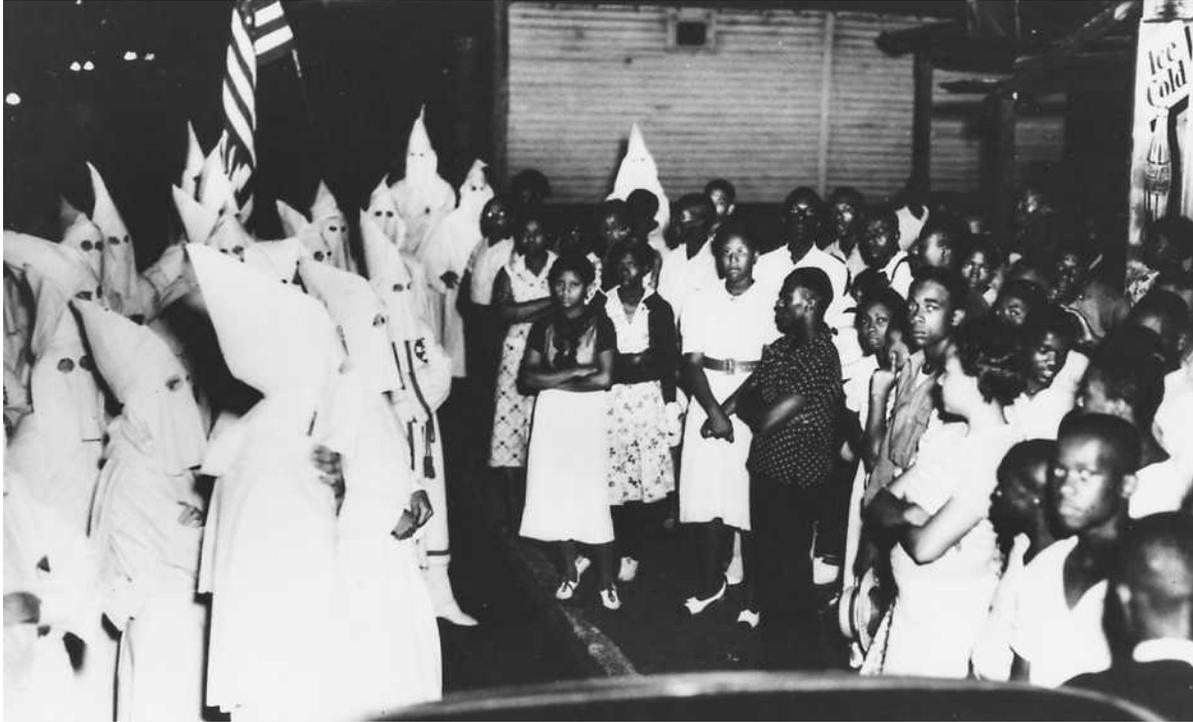
Following World War II (1939–1945), the company changed its name to the Kroger Company. The postwar period was a time of rapid growth for supermarkets. Between 1948 and 1963, the number of supermarkets in the country nearly tripled and Kroger participated in this fast growth. In 1960 the company began its expansion into the drugstore business, with an eye on the potential for drugstores built next to grocery stores. To increase the accuracy and speed of checkout systems, in 1972 Kroger, in partnership with RCA, became the first grocery company to test electronic scanners under actual working conditions. Also during the 1970s Kroger moved more towards the "superstore" concept of one-stop shopping, testing additional in-store specialty departments such as beauty salons, financial services, cheese shops, and cosmetic counters. By the late 1990s Kroger was the largest grocery retailer in the United States with 1,400 stores located in 24 states.

See also: Chain Stores

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KU KLUX KLAN

The Ku Klux Klan (abbreviated KKK) is a white supremacist group—members believe in the superiority of whites over other races. The first part of the name ("Ku Klux") is derived from the Greek word *kyklos*, meaning circle. Klan is a derivative of the English word "clan," meaning family. The group was originally formed in 1865 in Pulaski, Tennessee, when Confederate Army veterans formed what they called a social club. The first leader (called the "Grand Wizard") was Nathan Bedford Forrest (1821–1877), a former general in the Confederate Army, who, on April 12, 1864, in the final days of the American Civil War

(1861–1865), led a massacre of three hundred African American soldiers in service of the Union Army at Fort Pillow, Tennessee.

As the unofficial arm of resistance against Republican efforts to restore the nation and make full citizens of its African American (formerly slave) population, the Ku Klux Klan waged a campaign of terror against former slaves in the South. Klan members, cloaked in robes and hoods to disguise their identity, threatened, beat, and killed numerous African Americans. While the group deprived its victims of their rights as citizens, their intent was also to intimidate the entire African American population and keep them out of, or in some cases remove them from, politics. People who supported the federal government's measures to extend rights to *all* citizens also became the victims of the fearsome Klan. Membership in the group grew quickly and the Ku Klux Klan soon had a presence throughout the South.

In 1871 the U.S. Congress passed the Force Bill, giving President Ulysses S. Grant (1869–1877) authority to direct federal troops against the Klan. The action was successful, causing the group to disappear—but only for a time. The society was newly organized at Stone Mountain, Georgia, in 1915 as a Protestant fraternal organization (called "The Invisible Empire, Knights of the Ku Klux Klan, Inc."), this time widening its focus of persecution to include

Ku Klux Klan

Roman Catholics, immigrants, and Jews, as well as African Americans. Members of all of these groups became targets of KKK harassment, which now included torture and whippings. The group, which proclaimed its mission to be “racial purity,” grew in number and became national, electing some of their members to public office in many states (and not just Southern states). The KKK’s acts of violence, however, raised public ire, and by the 1940s, America’s attention focused on World War II (1939–1945) and the Klan

died out or went completely underground. The group had another resurgence during the 1950s and into the early 1970s, as the nation struggled through the civil rights era. The Klan still exists today, fostering the extremist views of its membership and staging marches to demonstrate its presence on the American landscape. Such demonstrations are often attended by protestors, with violence being the sad outcome.

***See also:* Reconstruction**



L'ANSE AUX MEADOWS

L'Anse aux Meadows, on the northeastern tip of Newfoundland, Canada, may have been the first European settlement in North America. In the 1960s Norse ruins were found here, leading scholars to believe this was the site described by Norsemen (Vikings) after they visited a portion of the North American coast around A.D. 1000. The Viking voyages were recorded in a book called the *Greenlanders' Saga* (1200). Norwegian-born Leif Ericsson (c.970–c.1020) is generally credited with having been the first European to set foot on North American soil. Ericsson was the son of navigator Erik the Red who founded a Norse settlement in Greenland, where he moved his family in 985 or 986. About the same time another Norseman, Bjarni Herjolfsson, who was driven off course on his way from Iceland to Greenland, became the first European to see North America, but he did not go ashore. It is believed that Ericsson decided he would follow up on this discovery, and about 1001 he set out from Greenland with a crew of 35 men and probably landed on the southern end of Baffin Island (north of the province of Quebec). The expedition likely reached Labrador, Canada, and later landed on the coast of what is today Nova Scotia or Newfoundland, Canada. This landfall may have been L'Anse aux Meadows. Ericsson and his crew spent the winter of 1001–02 at a place he called Vinland, which was described as well wooded and abounding in fruit, especially grapes. He returned to Greenland in the spring of 1002.

The first authenticated European landing in North America was in 1500 when Portuguese navigator Gaspar de Corte-Real (1450?–1501?) explored the coast of Labrador and Newfoundland.

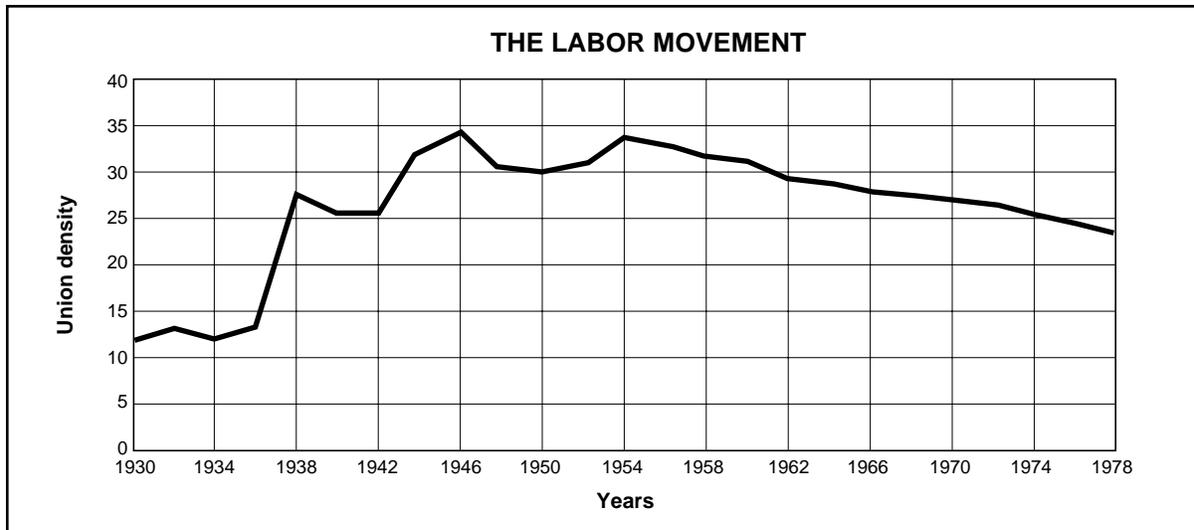
LABOR MOVEMENT

In the last decades of the nineteenth century it appeared that labor was unable effectively to challenge

the combined wealth and power that capitalism in its industrial phase had created. The merger movement brought corporations together into vast concentrations of economic power resting in the hands of relatively few men. These trusts, pools, mergers, “gentlemen’s agreements,” and other instruments of capital consolidation transformed the structure of whole industries, from oil to coal mining, railroads, iron and steel, and meat packing.

This had a major impact on labor relations. On the one hand, the concentration of capital increased the economic power of the “captains of industry.” These vertical and horizontal monopolies brought them the ability, seemingly, to do whatever they liked. Even the growing power of the government seemed unable to contain the power of capital. By the end of the nineteenth century the power among the monopolists seemed to be shifting towards the bankers. An example of this preeminent power of finance capital occurred during Theodore Roosevelt’s administration. Roosevelt, who believed that the government must be strong enough to curb the “bad trusts,” prosecuted and “busted” the Northern Securities railroad holding company in 1904. J. P. Morgan, who was behind the trust, had pleaded unsuccessfully with Roosevelt that “if we have done something wrong send your man to my man and they can fix it up.” In 1904, when the Supreme Court sustained the President’s prosecution under the Sherman Anti-trust Act and the Northern Security trust was dissolved, Morgan quietly sustained this challenge to his authority.

Then a few years later, Morgan quietly stepped in to save Roosevelt’s political hide when the financial panic of 1907 threatened to scuttle a number of New York banks which might set off a general depression. Working behind the scenes, Morgan constructed a pool of financial support from other banks. Morgan, however, told Roosevelt that the crisis could be avoided only if the government agreed not to prosecute a trust involving U.S. Steel and the Tennessee Coal and Iron



Union density refers to membership in labor unions, proportional to the work force. Between 1930 and 1954 union density increased sharply, with only slight declines.

Company, whose stock was held by one of the threatened banks. Roosevelt had to promise to let the deal go through. To observers it was obvious that the bombastic, trust-busting Roosevelt might make more noise in a confrontation with finance capital, but that the real power was in Morgan's hands.

With this kind of power arrayed against labor, what was the use in trying to organize trade unions? The answer, at least in part, is that by bringing capital together, the merger movement also brought workers together in larger concentrations. One example of this, taken from the 1930s and early 1940s, was the anti-union measures taken by the Ford Motor Company. Henry Ford resisted unionization for decades, but when he built the Dearborn, Michigan Rouge River complex of auto factories and steel mills with a workforce in excess of 80,000, it was only a matter of time before the United Automobile Workers Union (UAW) would successfully organize the plant. It is no coincidence that the first nation-wide strikes in the nineteenth century were called by unions in the railroad industry. The railroads were powerful in their resistance to unions, it is true, but they were also vulnerable. Though they both failed, the "Rebellion of 1877" and the Pullman strike in 1894 demonstrated the strategic strength of labor in these new industries.

As for the rest of the economy, labor in the 1880s seemed to be combative, but generally too weak successfully to press its claims for higher wages, shorter hours, and safer working conditions. One of the most interesting workers' associations of the time was the Knights of Labor. This group was less successful in winning strikes than in laying the groundwork for a

strong culture which emphasized solidarity among workers. Their mode of labor organizing was to found "regional assemblies" which included workers in several nearby industries. This approach stimulated a class-conscious culture, but it was hard to fight strikes when the union was not organized to concentrate on the target industry. Led by a machinist, Terence V. Powderly, the Knights were eclectic in their organizing strategy. They sought to enroll all workers into their lodges; women and African Americans were not excluded; only the "parasitic" elements in the communities were not allowed to join—the lawyers, the tavern keepers, bankers and gamblers.

With the Haymarket Riots in Chicago in May 1886, the deteriorating relations with the employers and the government led the labor movement to split in two. One part was the Industrial Workers of the World (IWW). Like the Knights of Labor, the IWW sought to organize all workers in "One Big Union." Also called, affectionately, the "Wobblies," the IWW's roots lay in the unskilled and unruly lumber workers of the northwest, the migrant agricultural workers of the great plains, the Western Federation of Miners, and the textile workers of Lawrence, Massachusetts. They expressed a political culture of American working class radicalism—a political culture that is so complex as to challenge definition. They engaged in free-speech campaigns in southern California during the repressive days of World War I, stepping up to give anti-war speeches on soap-boxes; being dragged away by police; only to be replaced by another speaker. They also most probably murdered mine owners whenever they could get close enough to them. In the exchange of

violence, however, they were more often the victims than the perpetrator. They were what political scientists call “Anarcho-Syndicalists,” (or anarchist-unionists). They believed that there can only be warfare between labor and capitalism and that either capitalism or socialism would emerge from the battle. They refused to negotiate or sign labor contracts with management because that would signify an accommodation between labor and management. Instead, they simply instigated strikes, something they were very good at. Eventually, as American labor became institutionalized, the Wobblies faded away.

The other side of the split in American labor in the late nineteenth century was the American Federation of Labor. In an era in which the employers seemed to be bent on merger and monopoly, other labor leaders began to think of consolidating the labor movement in a different way—by combining the existing trade unions into a national federation similar to the British Trades Union Congress (TUC). In response to management’s monopoly of capital, they set out to monopolize labor, but they did so in a very different way than the Wobblies. This new federation, the American Federation of Labor, was formed in 1886. It did not shrink from the IWW’s fear of “legitimizing” normal relationships between labor and capital. That, in fact, was its goal—to become a legitimate voice of labor in a democratic capitalist society (a contradiction in terms, the Wobblies would have argued). It intended to use whatever tools it could to improve the condition and the wages of labor. It would lobby for legislation in Washington and the state capitals. Of it would go on strike. Like the British TUC, it was composed of craft unions and it promised its constituent unions complete autonomy in the operation of their relations with management. Meeting in Pittsburgh in November 1881, the national trades unions formed the Federation of Organized Trades and Labor Unions of the United States and Canada. The federation grew slowly, hindered at first by the economic recession from 1883 to 1885, and also by defeats in a number of labor disputes. Eventually, in 1886 they formed the American Federation of Labor.

The AFL called for solidarity among workers, but they did so through supporting each others’ boycotts and refusals to “handle struck goods.” They didn’t call for the end of the wage labor system. They called for an alliance of labor unions committed to bread-and-butter wage and working conditions, rather than political or social issues and advocacy. At the convention in December 1886, the American Federation of Labor was born. Samuel Gompers of the Cigarmakers’ International Union was elected president. Eschewing utopianism and espousing practical objectives, the AFL

was able to survive the disastrous strikes of the early 1890s, and emerged in 1897 from the depression of that decade with 265,000 members and uncontested dominance in the American labor movement.

With the revival of traditional conservative pro-business politics after World War I (1914–1918), and the anti-Communism of the first “red scare” (1919–early 1920s) labor evinced a desire to appear “legitimate” and non-controversial. As would happen in the second “red scare” of the early 1950s, the leaders of the AFL denounced the radicals in the labor movement. They stood by as several union leaders accused of instigating the Haymarket Riot in Chicago were indicted, tried, found guilty, and hanged (although the accused were not present at the riot).

Pressing their advantage during the 1920s, the company-sponsored offensive against unions included hard-nosed policies like hiring armed company guards, strikebreakers, and agents provocateurs (hired infiltrators who instigated violence to bring down the repression by the police and the courts), as well as the tactic of founding non-controversial and ineffective “company unions.” Capitalizing on anti-labor sentiments in the population at large, employers drew upon local and state authorities to deploy mounted police and militia to harass and arrest union organizers and disrupt picket lines. Yellow-dog contracts, which threatened workers with dismissal should they join a union, became commonplace. Under the auspices of the National Association of Manufacturers, anti-labor propaganda circulated widely, systematically arguing in favor of open shops, which allowed nonunion workers to be employed even though a union may have organized the workplace.

The protective legislation that Gompers and his fellow labor leaders thought they saw in the 1914 Clayton Act’s provisions excluding unions from prosecution for being “in restraint of trade” was shredded by a U.S. Supreme Court decision in 1921. In *Duplex Printing Press Company v. Deering*, the Supreme Court interpreted the Sherman and Clayton Acts as protecting employers from labor violence, from secondary boycotts, and from the use of other labor tactics that could be construed as unlawful interference with interstate commerce.

Speaking for a conservative Court, Justice Mahlon Pitney held that certain union tactics constituted unlawful interference with interstate commerce and therefore were subject to antitrust laws. By holding unions accountable under antitrust laws for anything the Court deemed to be other than normal and legitimate union activity, the Court effectively nullified the Clayton

Labor Movement

Act's labor provisions, and made it almost impossible for unions to organize workers in nonunion companies.

But under President Franklin D. Roosevelt's administration (1933–1945), things changed for labor. Title 7(a) of the National Industrial Recovery Act (NIRA), gave labor unions the legal right to bargain collectively, and Roosevelt often backed labor in efforts to put forth its side of the story in disputes with management. It was mainly the Congress of Industrial Organizations that benefited from the government's decision not to repress labor. (Under the leadership of United Mineworker President John L. Lewis, the CIO split from the AFL in 1935 and set about organizing the semi-skilled labor in the new mass production industries like auto, steel, and rubber. The CIO demanded that all labor must be organized, not just the skilled trades).

A conservative Supreme Court struck down NIRA, but Congress passed the National Labor Relations Act (the Wagner Act), which upheld the right to bargain collectively, authorized the Fair Labor Standards Act (which continued the 40-hour workweek) and prohibited child labor, and established the National Labor Relations Board to mediate during industrial disputes. When labor unions added the clout of the sit-down strike to government assistance, they secured for themselves living wages and purchasing power.

The 1955 merger that created the American Federation of Labor–Congress of Industrial Organizations (AFL-CIO) healed a serious rift in the American labor movement, but a number of critical problems haunted AFL-CIO leadership during the next 15 years. The nation's political mood following passage of the Taft-Hartley Act in 1947—and the state “right to work” laws that ensued—continued to be generally hostile toward organized labor. Much of this hostility was rooted in public perceptions that many unions were infiltrated and dominated by Communists or, equally menacing to the public welfare, that they were run by corrupt officials in collaboration with organized crime.

The U.S. Secretary of Labor, James P. Mitchell, reflecting the views of President Dwight D. Eisenhower's administration (1953–1961), announced to the 1957 AFL-CIO convention that the president would soon propose legislation to protect union members from “crooks and racketeers.” That prediction anticipated passage of the Labor-Management Reporting and Disclosure Act (Landrum-Griffin Act) two years later. When the Senate Permanent Subcommittee on Investigations, led by Senator John L. McClellan (D-Arkansas) and its chief counsel, Robert F. Kennedy, shifted its focus toward union corruption and

racketeering, labor leaders began to realize the disruptive potential of union reform. Within months, committee revelations concerning corruption among unions of operating engineers, plumbers, and retail clerks became national news.

Aware that the image of organized labor had become badly tarnished, labor leaders during the 1960s attempted to take the lead in cleansing the unions of communist influences as well as dishonest union officials and mobsters. After the merger, the burden of these efforts fell to the AFL-CIO's first president, George Meany, a New York City plumber by trade and a respected organizer and union leader. In his capacity as the McClellan Committee's chief counsel, Robert F. Kennedy personally presented Meany with damning evidence against the AFL-CIO's largest constituent union, the Teamsters.

The Kennedy-Mollenhoff materials specifically alleged corruption involving, among others, Teamster president Dave Beck. Beck, an AFL-CIO vice president and executive committee member, testified in 1957 before the McClellan Committee about his purported theft of \$300,000 of union funds as well as his acceptance of money from employers. Meany was outraged that Beck invoked the Fifth Amendment ninety times. Meany stripped Beck of his AFL-CIO offices and his Teamster presidency and planned to present the Teamsters's 1957 convention with details of Beck's corruption. Under Beck's successor, Jimmy Hoffa, the presentation of the AFL-CIO report on Teamster corruption at the Teamster's 1957 convention was jeered and expunged from the record. Hoffa declared his union ready to “tell the AFL-CIO to go to hell.” Thus, in December 1957 the AFL-CIO expelled its largest union, the Teamsters.

Hoffa by that point was standing trial in New York for wiretapping the telephones of Teamsters who were to appear before the McClellan Committee. While under indictment, Hoffa presided over the Teamsters from 1957 until 1967, the year in which appeals from his 1964 conviction on separate charges of jury tampering, fraud, and conspiracy were exhausted and he began serving the remainder of a 13-year sentence in federal prison. In 1971, with his sentence commuted by President Richard Nixon (1961–1974), Hoffa retired from all Teamster offices with his union's thanks and an award of \$1.7 million, or about a dollar per member. In 1975, as news reports were circulating that the Teamster leader might be about to reenter active leadership of the union, Hoffa disappeared and was presumed murdered.

Meany's efforts to clean house and refurbish labor's name produced significant changes in the AFL-CIO. The AFL-CIO constitution prohibited union corruption and criminality; it did not, however, prescribe enforcement powers. Meany and his aides and committees expelled errant officials or unions, placed them on probation or under monitors, or gave them dated ultimatums to produce reforms. In initiating these actions, Meany challenged the historic autonomy that many unions, particularly those of the old AFL, had cherished as their right. Although Meany largely abandoned his drive against union corruption and criminality by 1963, leaving further measures to the U.S. Attorney General and Senate investigators, one momentous consequence of his reformism was the centralization of authority in the hands of AFL-CIO leaders. Management found themselves dealing less with a federation of unions than with the federation itself—the world's largest labor organization.

Critics from within the labor movement were quick to observe that a more centralized AFL-CIO was also more conservative and complacent. Some critics attributed a relative decline in nationwide union strength to this complacency. Although no observers lamented the convictions of expelled Teamster officials, least of all Beck and Hoffa, most noted that the Teamsters offered many workers one of few alternatives to the giant federation after the Teamsters' return to political favor during the Nixon administration. The union failed in its efforts between the 1960s and 1987 to reenter the AFL-CIO.

The post-Hoffa Teamsters displayed an interest in organizing almost any workers. This approach to organization, pushed regardless of organizational expense and with great daring, accelerated after 1975. The AFL-CIO avoided trying to unionize companies with only a handful of workers, but the Teamsters, in a spirit that strangely recalled the idealism of the Knights of Labor or the I.W.W., often sought recruits in shops with fewer than a dozen employees. It made no economic sense, but, to many Teamster organizers and rank and file, it was the right thing to do. The overall strength of the union rose only modestly to 1.8 million members by the end of the 1970s. In effect, the Teamsters were the AFL-CIO's only formidable and dynamic competition. This remained true until 1968, when Walter Reuther pulled his United Auto Workers (UAW) out of the AFL-CIO and promptly entered an alliance with the Teamsters. The UAW and the Teamsters each launched vigorous and innovative organizing campaigns that were supposed to put labor on the march again. (Reuther, however, died in a plane crash in 1970.)

After many attempts, the Teamsters were allowed to rejoin the AFL-CIO in 1987. Meany's AFL-CIO tried to maintain its membership during a lengthy relative decline in union membership. By the 1990s the labor scene was businesslike, closely monitored by law and by union leadership. A measure of respectability, if not huge popularity, had returned to a more centralized AFL-CIO.

See also: *American Federation of Labor, Congress of Industrial Organizations, Industrial Workers of the World, Knights of Labor, Labor Unionism, John Llewellyn Lewis, RICO Act*

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LABOR UNIONISM (ISSUE)

A modern U.S. labor union is an organized body of workers banded together to better their standard of living by seeking higher wages and improved working conditions. Workers authorize their union representatives to negotiate with their employers in a process known as collective bargaining. If negotiation fails, the workmen often attempt to achieve their goals through strikes (withholding their labor) or by persuading others to boycott their employer's products.

Unions first appeared in the 1820s. They were usually small, local, and short-lived. As the factory system grew in the mid-19th century so did the need for workers' organizations. Before the Civil War (1861–65) such groups remained small and localized. But after the war efforts were made to form labor unions on a national scale.

The first such effort began in 1866 when several trade unions sent delegates to a convention in Baltimore. Under the leadership of William H. Sylvis this

group formed the National Labor Union. The organization grew rapidly and by 1872 it claimed 600,000 members. Its main issue was the eight-hour day, a demand that was regarded as extremely radical. The National Labor Union experienced success for a short time, but numerous factors combined to destroy it: Sylvis' death in 1869, the union's conversion to a political party in 1872, and the panic of 1873.

The next major effort began in Philadelphia in 1869. Under the leadership of garment maker Uriah S. Stephens six men founded the Noble Order of the Knights of Labor. Their platform called for the eight-hour day, an income tax, and workmen's compensation. Stephens maintained that such tactics as strikes were counter-productive, and advocated "education" as the proper means for workers to achieve their goals.

The Knights were structured on the "one big union" concept; all workers were welcome to join. The membership could include the skilled and unskilled, men and women, and people of all races. This broad inclusion policy was a radical idea at the time and eventually led to serious internal tensions.

Because Stephens feared counter-measures by employers, the organization was secret at first and growth was slow. By 1873 there were only three assemblies, all in Philadelphia. Ten years later the Knights had only 52,000 members. However they expanded rapidly after this initial period. By 1886 membership neared one million. This remarkable change occurred because the union veered away from Stephens' original principles and authorized its members to strike. Its reputation was enhanced when it won several of them, especially against railroad companies in Texas.

The Knights of Labor had no sooner reached their peak of growth than they fell into a rapid decline. Unsuccessful strikes undermined their prestige, which was further damaged by factional differences and financial problems. In addition the Knights faced competition from a new organization known as the American Federation of Labor (AFL).

The origins of the AFL go back to November 1881 when delegates representing the carpenters, cigar makers, printers, merchant seamen, and steelworkers gathered in Pittsburgh. They formed a new organization called The Federation of Organized Trades and Labor Unions. Their purpose was to work for pro-labor legislation. One of the most prominent among the founders was Samuel Gompers of the Cigar Makers Union, who was now beginning his long career as head of the U.S. labor movement. At first, the Federation did not accomplish much, but after it reorganized in 1886, a new era in the history of the labor movement began.

The modern U.S. labor movement started with the reorganization of American Federation that took place in Columbus, Ohio on December 8, 1886. Samuel Gompers was elected as president, and the union was structured according to his wishes. Gompers insisted that the organization represent skilled workers only, that it be built as a federation of autonomous trade unions, that it stay out of politics, that it avoid radical economic themes, and that it devote itself to working for attainable goals. These goals included the eight-hour day, child labor legislation, workplace safety, immigration restriction, and workmen's compensation.

The AFL grew slowly at first. By 1890 it claimed only 100,000 members, but by 1900 membership had risen to 548,000, and by 1914 it was approaching two million. Along the way the AFL attracted some very large unions such as the United Mine Workers (UMW, founded in 1890). But there were other large organizations that did not affiliate. Most notable among these were the Railroad Brotherhoods: the Engineers formed in 1863 and the Firemen formed in 1869.

During its early years of growth the AFL faced considerable opposition. Employers were not required by law to bargain with unions and some refused to even recognize their existence. Strikes were often met with a violent response and many court decisions went against labor. The public tolerated such actions because unions were successfully portrayed as un-American and the law tended to uphold property rights more often than human rights.

Still led by Samuel Gompers, organized labor in the United States generally cooperated with the government during World War I (1914–18). Union membership continued to grow, reaching nearly four million. After the war however there was a decline of 25 percent, which resulted mainly from a recession between 1921 and 1922 that cost jobs and lowered wages. As the decade of the twenties continued, employers tended to fight the union movement more vigorously. One of their chief weapons was the "company union," an in-house organization that provided benefits but did not allow bargaining. Such "unions" became very popular in the 1920s and contributed to the decline of the labor movement. By 1927 AFL membership had fallen to 2 million, 11.6 percent of the work force.

The Great Depression of the 1930s brought major changes. Between 1929 and 1933 the effects of the economic collapse on labor were catastrophic. But when Franklin Delano Roosevelt (1933–45) became president he inaugurated the New Deal; many New Deal programs were designed to benefit workers. The

most important of these was the National Labor Relations Act of 1935, which required employers to bargain collectively with union representatives chosen by the workers. This law triggered a boom in union membership, which by 1941 reached 27 percent of the total work force.

At the same time there were other major changes within the labor movement. Head of the United Mine Workers John L. Lewis demanded that the AFL begin organizing campaigns in the major non-union industries such as steel, automobiles, rubber, glass, textiles, and meat packing. Lewis wanted to organize these industries on the industrial or “vertical” basis. This meant that all the workers regardless of skill would be in one union. The majority of AFL leaders presided over craft or “horizontal” unions, and they opposed Lewis’s views.

In November 1935 Lewis announced the creation of the Committee for Industrial Organization (CIO) to carry on the effort for industrial unions. Lewis and his colleagues were expelled from the AFL in 1936. At this point the CIO became the Congress of Industrial Organizations. They continued their work and successfully organized unions in many mass production industries including steel, autos, rubber, glass, and meat-packing. These successes contributed to the rapid growth of the labor movement. The AFL and the CIO however remained separate and did not reunite until 1955.

World War II (1939–45) caused a labor shortage and strengthened the labor movement once again. During the war union membership rose fifty percent, until it reached 35.3 percent of the total work force, the highest it would ever be. Beginning in the 1950s the labor movement entered a long but gradual period of decline, which was caused by a leadership that no longer recruited aggressively, a loss of interest in social reform, technological and structural unemployment, and growing public animosity. Technological and structural employment were perhaps the most important reasons labor unions became less popular. Because of increased use of machines the number of available jobs declined in many industries. A majority of jobs shifted from the industrial sector to white collar and service sectors. By the 1990s only 16.1 percent of workers worked in factories whereas in the 1970s it was 25.8 percent. Fewer people on corporate payrolls meant fewer people in unions because these are the workers most likely to sign industry-wide contracts.

By the 1990s the labor movement had changed considerably. Only 14.1 percent of the work force belonged to unions. Of these the vast majority held non-industrial jobs: 41.9 percent were in the public

sector and only 16.3 percent were in the manufacturing sector. The chances that these trends will reverse again any time soon are very small.

See also: American Federation of Labor, Brotherhood of Sleeping Car Porters, Congress of Industrial Organizations, Industrial Workers of the World, Knights of Labor, Labor Movement

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LAFOLLETTE, ROBERT MARION

Robert LaFollette (1855–1925), known as “Fighting Bob,” introduced political and social reforms into his home state of Wisconsin. His practices later served as models for the rest of the United States during the Progressive Era (1900–1914). His legislative efforts to more fairly distribute and diversify wealth and power in the United States helped U.S. politics become more responsive to popular will rather than to special privilege. LaFollette was unrivaled as a radical and was a persistent fighter for democracy. He was known as the enemy of political machines and corrupt corporations and the friend of the farmer and the emerging blue-collar worker.

Robert Marion LaFollette was born in a log cabin in Primrose, Wisconsin, in 1855. His father died eight months after his birth, and his widowed mother worked hard to provide the essentials for her four children.

LaFollette managed to enroll in the state university at Madison, Wisconsin, in 1875. He supported

himself by teaching school and by editing a student periodical at the university. He was a gifted speaker, who even considered a career in acting during college. However, he chose to study law, and in 1880 he was admitted as an attorney into the Wisconsin bar.

Since legal work was scarce, LaFollette was attracted to running for the office of district attorney in Wisconsin. Although his opposition had more money and more endorsements, LaFollette's door-to-door campaign among his farmer-neighbors, then an uncommon practice for a politician, won him the election. This experience taught him the importance of speaking directly to voters—a lesson he never forgot.

Two years later, in 1884, LaFollette ran for congressional representative from Wisconsin, and by reminding voters directly of his readiness to represent their interests in Washington, he won the election. At age 29, he was the youngest member of the House of Representatives. However, he failed to be reelected in 1890 and returned to a prosperous legal practice in Madison, Wisconsin.

LAFOLLETTE'S IDEAS IMPACTED THE ENTIRE TWENTIETH CENTURY. THEY LED TO LAWS BENEFITING WORKING PEOPLE AND TO EVEN LARGER GLOBAL SOCIAL CHANGES DURING THE PRESIDENCIES OF MEN LIKE FRANKLIN ROOSEVELT, HARRY TRUMAN, AND LYNDON JOHNSON.

The major turning point in his life came when the fiercely-honest LaFollette discovered that many of his Republican colleagues were stealing public funds. One of these colleagues approached him in an unsuccessful effort to obtain a sympathetic judge. LaFollette was being bribed by his own political allies and he later wrote: "Nothing else ever came into my life that exerted such powerful influence on me as that affair. It was the turning point, in a way, of my career. . . ."

From that time until the end of his life, LaFollette was a dedicated and principled public servant. It was now he and "the people" against the rich and venal politicians. He took his hard facts and preached directly to the people, speaking publicly wherever he could.

His enemies in Wisconsin successfully kept him from becoming governor of the state until he won the election of 1900, promising a reform program to destroy the old party machine. LaFollette was reelected to three terms as governor. Against the will of big business, he created a corporate tax and implemented "The Wisconsin Idea," a plan to use government as an agent of social and political reform. He treated Wisconsin as

a progressive political laboratory, with expert commissions attending to taxes, railroads, banking, conservation, insurance, public service, and industrial problems. He next planned to take his "Wisconsin Idea" to the United States Congress and try his ideas on a national level.

In 1906 LaFollette became a senator from Wisconsin. He found himself battling with President Theodore Roosevelt (1901–1909), although both of them were Progressive Party members. LaFollette called Roosevelt "an inconsequential playboy." In 1912 he ran against Roosevelt and William Taft (1857–1930) for nomination as the Republican candidate to run against Democrat Woodrow Wilson (1856–1924) for the presidency. LaFollette's passionate run against Teddy Roosevelt split the Republican Party vote and Wilson likely won the election because of this.

President Wilson (1913–1921) gradually adopted many of LaFollette's progressive ideas. Wilson supported LaFollette's programs for public disclosure of campaign contributions and a fairer graduated taxation. LaFollette worked with Wilson indirectly to limit the powers of business, and he helped create the Department of Labor and the Federal Trade Commission. LaFollette fought for higher worker wages and better working conditions for American laborers, and he supported women's right to vote. He also advocated civil rights legislation for ethnic minorities.

LaFollette's ideas impacted the entire twentieth century. They led to laws benefiting working people and to even larger global social changes during the presidencies of men like Franklin Roosevelt (1933–1945), Harry Truman (1945–1953), and Lyndon Johnson (1963–1969).

Robert LaFollette died in 1925 from complications of pneumonia, asthma, and a coronary condition. He spent a lifetime fighting bad business practices and creating laws to protect the rights of ordinary Americans.

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LAISSEZ FAIRE

Laissez faire is an economic theory that favors the free market and is suspicious of government intervention in the conduct of business and industry. It encourages private ownership and personal initiative as the best means to enrich individuals and societies. Most laissez-faire economists would admit that there are situations when government intervention is essential, but they would prefer to keep the state's role to a minimum. The term arose in the seventeenth century, when a French merchant responded to royal minister who asked how the government could help him by saying, "Laissez nous faire." The phrase is probably best translated, "Let us be." By the late eighteenth century a group of French economists known as physiocrats popularized the theory as a reaction against a system of state controls over the economy known as mercantilism. They maintained the laws of nature, not state regulation, will foster prosperity. Also the British economist Adam Smith 1723–90, who has been called the "father of modern economics," argued that the market would regulate enterprise more effectively than governments. The theory was most widely accepted in Great Britain and the United States in the nineteenth century, but in the early twentieth century it was in part discredited by the misery that was associated with the Industrial Revolution. In the late twentieth century, however, there was a reaction against intrusive government regulation and high taxation, and the reaction was aided by the failure of socialism in Eastern Europe. Laissez-faire principles were again celebrated in the United States under President Ronald Reagan (1980–1988) and in Great Britain under Prime Minister Margaret Thatcher (1979–1990). Her program of selling of government-owned industries to private investors, which was called privatization, has been adopted by many countries throughout the world.

See also: Capitalism, Mercantilism, Ronald Reagan, Adam Smith

LAND-GRANT COLLEGES

Land-grant colleges are those institutions of higher learning which are endowed by funds set up under

the Morrill Act of 1862. The legislation, officially called the Land-Grant Act, was sponsored by Vermont Congressman Justin Smith Morrill (1810–1898), who served in the House of Representatives between 1855 and 1867, and in the Senate between 1867 and 1898. The U.S. public was increasingly demanding the establishment of colleges that would specialize in agricultural and manufacturing programs. Farming remained critical to the nation's economy, whose industrial sector was growing. Training in these areas was essential to the country's future. In 1862 this argument convinced Congress to add military programs to the curriculum of the future schools and to vote to grant more than 11.3 million acres (4.6 hectares) of land to states and territories. These lands were to be sold by the states or territories, and the money would be invested in funds used to set up state colleges. Thirty states (primarily in the Midwest and South) used the funds to set up agricultural and mechanical (A&M) colleges; eighteen states gave the funds to already existing colleges to set up new agricultural and mechanical programs; and the rest granted the funds to private institutions of higher learning. In 1890 a second Morrill Act added money grants to the states for use in A&M programs. Michigan State University, founded as Michigan Agricultural College in 1855, became the model for the land-grant colleges, which also include the University of Illinois, Texas A&M, and the University of California. The far-sighted provisions of the land-grant gave the nation many of its foremost universities.

LAND O'LAKES, INC.

On June 7, 1921, hundreds of farmers from all over Minnesota gathered in St. Paul to vote on the organization of a statewide dairy cooperative. With a unanimous vote, the Minnesota Cooperative Creamery Association, Inc., forerunner to Land O'Lakes, Inc., was born.

Unlike investor-owned corporations, cooperatives work for and answer to their member-patrons, who benefit in direct proportion to the amount of business they do each year with the cooperative—how many products they supply for sale to the general public, or how many they buy from the cooperative. Because each member-patron has one vote, cooperatives are democratic enough to have appealed to the independent U.S. farmers who first joined.

Beginning with a meager financial stake of \$1,375, the directors of the Minnesota Cooperative Creamery

Land O'Lakes, Inc.

Association, Inc. launched a statewide membership campaign. Their project was given a boost when in 1922, after a long fight, the U.S. Senate passed the Capper-Volstead bill, which legalized the marketing of farm products through cooperative agencies. The first year's returns showed a slender profit.

John Brandt, one of the original 15 directors elected to run the organization, became president of the association in 1923. He believed that by working together, competing creameries could raise their profits and offer a better product to their patrons. He urged cooperation among farmers, engineered joint shipments of butter, and proposed a common standard of quality. Most importantly, he and the other directors of the cooperative decided to concentrate on the quality production and aggressive marketing of "sweet cream" butter, butter made from cream before it soured. Although more costly to make and not as familiar to the public, sweet butter tasted better and kept longer.

In February 1924, the cooperative announced a contest to capture the public's attention: its high-quality product needed a catchier name than "Minnesota Cooperative Creamery Butter." First prize was \$500 in gold. An overwhelming response brought in over 100,000 entries; the contest was tied between two winners who both thought of "Land O'Lakes." Soon thereafter an Indian maiden appeared on the butter's packages, completing a now familiar image. The origins of this Indian maiden, however, remain a mystery.

In April 1924, the cooperative won a contract with the U.S. Navy for 30,000 pounds of the new sweet cream butter, and soon thereafter met with a growing demand from U.S. housewives for its conveniently packaged quarter-pound sticks. Because Land O'Lakes was already becoming a household name, only two years after the contest, the cooperative changed its name to Land O'Lakes Creameries, Inc. in 1926.

Land O'Lakes first ventured outside of the dairy business two years later, in 1928, when it organized egg and poultry divisions. This step toward diversification proved crucial during the Great Depression (1929–1939), when dairy businesses throughout the nation suffered enormous losses. In 1930 dairy production was the lowest it had been in two decades, and by December 1933, butter prices had declined to 15 cents a pound, the lowest figures for that month in 25 years. Excess production and surplus holdings were making it almost impossible for U.S. farmers to get back their cost of production, and dozens of creameries held meetings to decide whether they should continue operating. Although Land O'Lakes suffered setbacks due to

these market forces between 1929 and 1940, highly imaginative management and a willingness to fight economic trends cut the cooperative's losses considerably.

Before the Depression Land O'Lakes had dealt mostly with large store chains and other nationwide distributors. But with many of these large accounts cutting back their operations or vanishing altogether, Land O'Lakes began to set up smaller sales branches that could sell directly to groceries and other small outlets. Partly as a result of this marketing strategy, and partly because Land O'Lakes Sweet Cream Butter was being advertised nationally for the first time, Land O'Lakes was able to sell a record 100 million pounds of butter in 1930.

Another Depression era strategy was to diversify the products the cooperative offered both to its member farmers and to the public. Land O'Lakes began an Agricultural Services Division in 1929 to try to reduce member costs for feed, seed, and other farming supplies. In 1934 the cooperative joined three large cheese cooperatives in the operation of 95 cheese factories, and in 1937 Land O'Lakes opened its first milk drying plant, completing a decade of experimentation which pioneered the production of powdered milk. When World War II (1939–1945) called for milk in a form that didn't require refrigeration and had a fraction of its normal bulk, Land O'Lakes was prepared. All of these changes were ultimately successful expansions and contributed to Land O'Lakes' relative prosperity in difficult times.

Following World War II Land O'Lakes diversified further, entering the ice cream and fluid milk markets for the first time. In 1970 the cooperative merged with the Farmers Regional Cooperative, which increased Land O'Lakes capacity to produce and market agricultural production goods (including fertilizers and insecticides) for its member-patrons. That same year, Land O'Lakes Creameries, Inc. changed its name to simply Land O'Lakes, Inc. to better reflect its diverse business. Over the next decade, as Land O'Lakes' butter sales were hurt by the expanding market for margarine, the cooperative diversified further, entering the red meat business in 1978 and launching a soybean processing venture in 1980. But concern about industry overproduction, fluctuating market prices, and increasing operating costs led Land O'Lakes to exit from the poultry and red meat sectors in the late 1980s.

By the late 1990s, through mergers and acquisitions, Land O'Lakes served 300,000 farmers and ranchers in 27 states. In the last years of the twentieth century

Land O'Lakes increasingly sought out growth opportunities outside the United States, and included among its foreign operations feed mills in Taiwan and Poland and marketing functions in Mexico, East Asia, and the Pacific Rim.

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LAND ORDINANCE OF 1785

The Land Ordinance of 1785 was the second of three land ordinances passed by the Confederation Congress after the Revolutionary War (1775–1783). The three ordinances, which included the Ordinance of 1784 and the Northwest Ordinance (1787), were meant to manage the lands of the Old Northwest, ceded by Great Britain at the end of the Revolution. The Treaty of Paris (1783), which established normal diplomatic relations between England and the former colonies after the Revolution, turned the area that is now the states of Ohio, Indiana, Illinois, Michigan, and Wisconsin over to the new U.S. government. In 1784 a committee led by Thomas Jefferson drew up legislation to provide for future statehood for settlers already in the area. The following year, in the Land Ordinance of 1785, Jefferson's committee established the way in which the territory would be measured and divided for sale.

The new nation was governed for the most part by the states. The relationship between the states and with the central government was defined by the Articles of Confederation. The central government was the Confederation Congress, a holdover from the Second Continental Congress which had been convened in the spring of 1775 and had coordinated the revolutionary war effort. The Articles of Confederation, ratified by the states in 1781, summarized the existing relationship between the Congress and the states.

It was an indication of the distrust with which the American people viewed central authority that the Articles of Confederation did not allow the Congress to tax either the states or individuals. As a way of keeping the nation solvent, the states that claimed western lands from the terms of their colonial charters gave up those lands to the Confederation government. The Confederation government expected to use these lands as a way of meeting governmental expenses. In order to attract land buyers, the Congress declared that these lands would be made into new states, which would enter the Union on an equal basis with the original thirteen colonies. This declaration made possible the creation of the modern United States.

The Land Ordinance created the pattern along which American public land would be divided and sold until the passage of the Homestead Act in 1862. The Ordinance of 1785 ruled that the western lands north of the Ohio River would be divided by surveyors into a square grid. Each square (called a township) measured six by six miles and was subdivided into thirty-six one-mile-square sections. Each section (measuring 640 acres) could then be further divided, usually into half, quarter, eighth, or sixteenth-section lots of 320, 160, 80, or 40 acres. Certain sections had restrictions placed on their sales; for instance, money from the sixteenth section of every township was to be set aside to fund public schools in the township. The first territorial survey took place in what is now southeastern Ohio, and it measured land that stretched westward from Little Beaver Creek to the Tuscarawas River and southward to the Ohio River. A total of about 91 townships were created (although some of them were fractional and did not contain a full 36 sections), with about 3,276 sections comprising 2,096,640 acres of land ready for development by U.S. farmers.

Although the Land Ordinance of 1785 was conceived as a way to divide the western territory more evenly than had been the case before the Revolution, in practice it was less than fair. Congress thought that land sales in the territory would help it meet its big debts left over from the war. As a result, land sales were aimed at wealthy purchasers rather than the poorest farmers, who were most in need of land on which to settle. Until 1841 the government also required that public land be offered at auction where syndicates of land speculators usually snatched it up before it could be sold to private individuals. Congress set the minimum amount of land that could be purchased at one section—640 acres—and the purchase price at one dollar per acre. Small purchases on credit were not allowed. The \$640 minimum purchase placed the cost of western lands far outside the budget of most U.S.

citizens. Most of the lands went instead to wealthy land speculators, who were also given the option of buying on credit. The speculators bought lands from the government, divided them up, and then resold them to small farmers at a profit.

An interesting sidelight to the Ordinances was the way that they steered the political culture of the nation. The third Ordinance, passed in 1787, stipulated that future inhabitants would be guaranteed a “bill of rights” guaranteeing freedom of religion and the right to a jury trial. It also prohibited slavery north of the Ohio River, although this applied to the future and did not contemplate the freeing of slaves that were already held in the Old Northwest Territory. The ordinance also contained provisions for the return of escaped slaves.

See also: Thomas Jefferson, Old Northwest, Northwest Ordinance

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LANE, GERTRUDE BATTLES

At the turn of the twentieth century, when women were making significant legal and political advances that would lead them to obtaining voting rights and a notable say in public governance, Gertrude Battles Lane (1874–1941) was distinguished as the editor of one of the leading U.S. women’s magazines, *Woman’s Home Companion*. Gertrude Battle used the *Woman’s Home Companion* not only as a vehicle focused on women’s issues, but she increased the scope of those

issues to include political and social matters, as well as to educate women about how to use the vote in their best interests.

Gertrude Lane was born on December 21, 1874, in Saco, Maine, the daughter of Eustace Lane, an organist and piano tuner, and Ella Maud Battles. She initially attended public schools and as the family wealth increased she was able to attend the exclusive private school Thornton Academy, where she edited the school’s literary paper.

She graduated from Thornton Academy in 1892, and moved to Boston, Massachusetts, where she took work as a private tutor. In 1895 she completed a year long course in business at Burdett College, and in 1896 she began working for the Cyclopedia Publishing Co. as an assistant editor. She worked there for seven years, developing her editorial skills. During this time she also published essays, poetry, and book reviews in various Boston publications.

GERTRUDE LANE WAS “A GRAND COMBINATION OF MAINE SALTINESS AND LATIN TEMPERAMENT.”

Edna Ferber, regarding her friend Gertrude Lane

In 1902 financial problems at Cyclopedia Pub. prompted Lane to search for a new job. In 1903, she accepted the position of “household editor” at the popular *Woman’s Home Companion*, a monthly women’s magazine founded in 1874. Lane stayed with the magazine and its publisher, Crowell Publishing, until her death in 1941.

Lane rose steadily at the *Companion*, becoming the managing editor in 1909 and the editor-in-chief in 1912. She claimed her success was caused simply by hard work, but those who knew her said she also possessed strong editorial skills and a keen business sense. The Pulitzer Prize winning author Edna Ferber (1887–1968), a friend of Lane’s, described her as “a grand combination of Maine saltiness and Latin temperament.”

As editor of the *Companion*, Lane emphasized women and the home, leaving men’s issues for the many men’s magazines that were being published. She spoke to women as homemakers, but she greatly broadened the scope of what a homemaker was. Her magazine began to provide readers with practical service columns, as well as entertaining fiction and a variety of general interest features. The formula she devised succeeded. Under her leadership circulation grew from 700,000 when she took over in 1912, to one million by

1916, and more than two million by 1923. In 1937 the *Companion* took over the lead in circulation from long-time competitor, *Ladies Home Journal*.

Throughout her career as an editor, Lane ran articles that focused on a variety of social and political issues. Her efforts were aimed at educating her female readers. A year after she took over as editor, Lane established in the magazine what was called *A Better Babies Bureau* to promote improved maternal and infant care. She also ran regular articles related to the ongoing fight against child employment as well as articles about unsanitary conditions in food stores.

Other campaigns she pursued in the *Companion* included a series on educating women about how to use their new voting rights. Articles on international peace issues appeared frequently, as well as informational articles on topics like psychology, careers, politics, and college education. A page written by Eleanor Roosevelt (1884–1962), the wife of President Franklin Roosevelt (1933–1945), appeared regularly in the magazine during the 1930s.

Lane maintained strong service departments. She believed the modern woman wanted a magazine with practical, timesaving advice. Lane said that her image of a housewife was “. . . the woman who wants to do less housework, so that she will have more time for other things.”

During World War I (1914–1918) Lane served as a member of the U.S. Food Administration under President Herbert Hoover (1929–1933), while continuing to edit the *Companion*. Lane also served as a member of the 1930–1931 White House Conference on Child Health and Protection.

In 1929 Lane was regarded as one of the best magazine editors in the business and she was made a vice president of the *Companion's* publishers, the Crowell Publishing Co. In 1935, while managing the new *American* magazine for Crowell and editing the *Woman's Home Companion*, Lane began an innovative plan to gain reader support and feedback. She created a “reader-editor panel” composed of 1500 unpaid readers nationwide, who provided for the magazine one of the nation's first consumer-opinion panels.

By 1939 Lane was earning \$52,000 annually and she was described by the *New York Times* as one of the best paid woman of the day.

Lane never married. She entertained frequently and pursued a passion for antique collecting.

See also: Publishing Industry

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LANGE, DOROTHEA MARGARETTA

Beginning in 1919, Dorothea Lange (1895–1965) began to photograph in detail the people and circumstances of the Great Depression (1929–1939). She later extensively photographed working people of the West, such as poor migrant farm workers. Later, working for *Life* magazine, she photographed Japanese-Americans imprisoned in concentration camps in California and New Mexico during World War II (1939–1945). Through the lens of her camera, Americans began to see for themselves the scope and extent of social injustices in the United States. Lange's seemed to prove the old maxim that a picture could speak a thousand words.

Dorothea Margaretha Nutzhorn was born in Hoboken, New Jersey, on May 26, 1895, the first of several children born to Joanna and Heinrich Nutzhorn. Her father was a lawyer and her mother worked as a librarian. At age seven Lange contracted poliomyelitis (polio) in a time when there was no known vaccine. Her right leg was permanently disabled from the knee down, causing her to walk with a limp. Lange said in later years that the teasing she received in childhood because of this illness was both humiliating and instructive. She became very sensitive to the suffering of fellow human beings.

Lange attended school and lived a relatively normal life under her family's hard economic circumstances. She saw New York at its best and its worst, going to concerts and art museums, but also walking in the immigrant ghettos.

At the time of her high school graduation in 1912, Lange decided to become a professional photographer. She worked in photographic studios and studied photography at Columbia University. At age 21 she began to travel across the United States, selling her photographs along the way to help finance her journey. She ended her trip in San Francisco, California, where she opened a photographic studio and took portrait pictures of wealthy San Francisco families.

Lange married the famous painter, Maynard Dixon (1875–1946), in 1920, and the pair lived a bohemian life. They had two children and moved to Taos, New Mexico, to live for a time at the artist colony presided over by Mabel Dodge Luhan (1879–1962).

When Lange left Taos and returned to California, she saw large numbers of homeless and unemployed people, all victims of the Depression. These images inspired Lange to document through her photographs the social conditions she saw in the United States: the soup kitchens, the breadlines, the tragic scenes of the 1930s. This marked the beginning of her career as a documentary photographer.

Having divorced Maynard Dixon in 1935, Lange married Paul Taylor, an economist who was working closely with migrant farm workers. The two became a team, documenting specific information about the Depression throughout many areas of the United States, particularly the South and Southwest.

Lange's became famous when she produced a volume of pictorial evidence about the plight of the poor in the United States. The photographs revealed the varieties of social injustice experienced by many Americans. They reinforced to the government that social and business reforms were needed quickly. Because her work was so emotionally touching and direct, Lange not only recorded conditions but also helped to change them by sharing her work with those who could and would bring change. Her 1933 photograph called "White Angel Bread Line" drew the attention of social, political, and governmental reformers throughout the United States. She photographed the suffering and the social injustices she saw, and let the pictures speak for victims everywhere in the United States.

By 1935 Dorothea Lange was employed by the federal government, helping others to write reports and documenting that writing with her photographs. She continued to work with the government until 1941, when she left to take advantage of a Guggenheim grant offered to her. She then traveled alone to photograph the American war camps, in which Japanese-Americans were imprisoned by the United States government

because it feared these people were security risks during World War II (1939–1945).

Lange's photographs provided a vision of her time and many, once seen, were never forgotten. Lange's work touched the heart and put a human face on government statistics. She died in October 1965, just before the opening of her one-woman photographic exhibition at the Museum of Modern Art.

See also: Great Depression

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LASKER, ALBERT DAVID

During the first half of the twentieth century Albert David Lasker (1880–1952) was one of the most important and most creative people in the U.S. advertising industry. His opinions continually influenced the advertising industry in the United States, and his ideas about effective advertising, agency operations, and the place of advertising in U.S. business and society guided the evolution of advertising for years after he left his profession.

Albert David Lasker was born to American parents in Germany in 1880. His mother's poor health after his birth prompted the family move to his father's birthplace, Galveston, Texas, where Albert and his five siblings grew up. From a very young age Lasker was in love with journalism and writing. At age twelve he started his own commercially successful weekly newspaper, the *Galveston Free Press*. At age thirteen he went to work for the *Galveston Morning News* while he attended high school. He was also the editor of his high school's magazine.

Upon graduation Lasker worked for newspapers in New Orleans, Louisiana, and in Dallas, Texas, planning a career in journalism. In 1898, however, his

father, who opposed his plans for a career in the newspaper business, intervened by arranging for his son to begin work at the prestigious Chicago advertising firm of Lord and Thomas.

Lasker began as a \$10 a week office boy, doing routine general chores around the offices of the firm. His way with words and his experience in writing allowed Lasker to advance rapidly. Within a year he was traveling the Midwest as a top salesman, bringing in major accounts and much income to Lord and Thomas. By 1904, at age twenty-four, Lasker became a full partner and general manager of the agency. His ambition did not end there. In 1910, at age thirty, he bought out the company and became sole proprietor and owner of Lord and Thomas, which had grown to become one of the largest and most successful advertising agencies of its time.

If there was one thing that characterized Lasker's approach to advertising, it was the emphasis on writing and copy writing as the foundation of any good advertisement. He convinced most newspapers and magazines, which were writing their own advertising copy for their advertisers, that good advertising required a specialized and professional approach. Lasker began to offer clients copy writing services. He developed the concept of the account executive, an agency position that served as the central link between the advertiser and all of the agency's creative services. Lord and Thomas became one of the first full-service agencies in the United States.

Lasker's maintained that advertising should be "salesmanship in print." It was an idea quite different from the straight forward, descriptive advertising most common at that time. Lasker wanted an advertisement to sound like a presentation a salesman would make. The advertisement would answer questions that customers might ask.

This approach in strong, persuasive copy led to the original agency copy writing department (a first of its kind). Lasker created his own in-house copy writing classes to train his writers in advertising "salesmanship" techniques. He also began the tradition, well known in advertising agencies, of paying tremendous salaries to proven copywriters. Lasker recognized and appreciated the value of good writers. He almost single-handedly created a profession of copywriters who, if they could produce the profits, could become some of the highest paid writers in the world, earning more than even the most famous journalists of that day.

Lasker's advertising agency became the model for most other agencies. Among his advertising successes was the introduction of products like Kleenex and

Kotex to the mass market, and the turning of Pepsodent into a leading brand of toothpaste. His use of radio as an advertising medium was perhaps his greatest innovation.

Albert Lasker led an exciting and creative life during which he created the modern advertising business. He died in 1952, but his on the modern advertising industry remains.

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LAUDER, ESTEE

Estee Lauder (c. 1910–) epitomizes the American success story. Born Josephine Esther Mentzer, the daughter of poor Jewish immigrants from Eastern Europe, she built a small line of homemade face creams into a billion-dollar cosmetics business through perseverance, ingenuity, and hard work.

Estee Lauder grew up in the Corona section of Queens, New York, the youngest child in a large family. Her mother's brother was a chemist who specialized in developing skin-care preparations. Lauder's lovely complexion was her uncle's best advertisement for his special face cream. After marrying Joseph Lauder in 1930, she worked on her own kitchen stove to refine and improve her uncle's face cream and other beauty products. Soon she began to sell her creams and lipsticks at upscale beauty salons in Manhattan and resort hotels in the New York area. A perfectionist, Estee Lauder insisted on producing only the highest quality cosmetics. Typical of her attention to detail was her decision to market her products in attractive packaging in a distinctive color she called Lauder blue.

Lauder possessed an intense, single-minded determination to make a success of her cosmetics business.

Lease, Mary Elizabeth

Grace Mirabella, former editor of *Vogue* and founder of *Mirabella* magazine, writing in *Time* (December 7, 1998), said of the cosmetics tycoon, “She simply outworked everyone else in the cosmetics industry.” Her ambition extended to her social life. Lauder cultivated affluent people in influential social positions who could help her in her business. She donated sample products as favors at charity balls and made sure that socialites had her lipsticks in their evening purses. Before long, the elegant Lauder was appearing regularly at fashionable dinner parties and charity benefits and her name had become associated with glamour and celebrity.

SHE SIMPLY OUTWORKED EVERYONE ELSE IN THE COSMETICS INDUSTRY.

Grace Mirabella, *Time*, December 7, 1998

By 1946 Estee Lauder, Inc. was formed with Joseph Lauder handling the financial end of the business and Estee concentrating on product development and marketing. They were the firm’s only employees and when the company acquired a coveted sales location at Saks Fifth Avenue in Manhattan in 1948, the couple had to work night and day to produce and package enough face care products to fill the allotted counter space.

The association with Saks opened the door for Estee Lauder products at other prestigious department stores across the country. Lauder traveled to each store and personally trained her handpicked saleswomen in customer service and personal grooming. She pioneered the concept of including free sample gifts with a cosmetics purchase, a practice ensuring the customer would be introduced to a whole range of products she might otherwise never have purchased.

It was the bath oil, “Youth Dew,” that launched Estee Lauder, Inc. into the front ranks of the cosmetics industry. The sweet, persistent scent that doubled as a perfume was an affordable luxury for most women. Youth Dew enjoyed phenomenal success in the 1950s and 1960s and it put the company on the map for good. In the mid-1960s Estee Lauder introduced several new product lines, including Clinique, the first line of both hypoallergenic and fashionable cosmetics, and Aramis, a line of colognes for men. Her fragrances, particularly “White Linen,” became perennial successes.

By 1998 the Estee Lauder, Cos., still a family-owned business run by the two Lauder sons since their mother’s retirement in 1973, was selling cosmetics products in 118 countries and commanded 45 percent of the U.S. cosmetics market. The companies listed

\$3.6 billion in sales in 1997, and the Lauder family’s shares in the business were reported to be worth more than six billion dollars.

Although officially retired for the last 25 years of the twentieth century, Estee Lauder’s influence in the family business remained strong, particularly in planning promotional campaigns and creating new fragrances. With more time available, however, she was free to entertain on a grand scale at her townhouse in Manhattan, her villa in the south of France, her flat in London, England, and her oceanfront home in Palm Beach, Florida. After the death of Joseph Lauder in 1983, Estee Lauder carried on the philanthropic work the two had begun two decades earlier. The Lauder Foundation has made significant gifts to many causes including cancer research.

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LEASE, MARY ELIZABETH

Mary Elizabeth Clyens Lease (1853–1933) was an activist, writer, and public speaker for many causes, including farmers’ issues and women’s suffrage. She was actively involved in the creation of the People’s Party in Kansas. She gained national recognition during the Populist crusade for reform in the 1890s.

In 1853 Mary Clyens was born in Ridgeway, Pennsylvania to Irish immigrant parents. After she finished her education, she began teaching in rural schools in New York. In 1870 she moved to Kansas to teach and there she met and married a druggist’s clerk, Charles L. Lease.

Lease and her husband tried twice to make a living from farming in Kansas, but were unsuccessful both



Mary "Yellin" Lease.

times, blaming their misfortune on the railroads and loan companies. The couple moved to Texas for several years before returning to Wichita, Kansas in 1883. It was back in Kansas that Lease became involved in public life. On St Patrick's Day, 1885, she delivered her first public speech, "Ireland and Irishmen," on behalf of the Irish National League. In the same year Lease was admitted as a lawyer to the Wichita bar.

RAISE LESS CORN AND MORE HELL.

Mary Lease, Halstead, Kansas, 1890

Lease later became involved in other political issues, particularly those that involved the farming community. In 1888 she spoke before the state convention of the Union Labor Party, a forerunner of the People's Party in Kansas. She was the party's candidate for a county office long before women were even eligible to vote. In 1889 Lease became a Farmers' Alliance lecturer and briefly worked as an associate editor for a reform newspaper, the *Wichita Journal*.

In 1890 the People's Party in Kansas, commonly known as the Populist Party, was formed to fight for better conditions for farmers. There was much discontent among the agrarian community at that time because of declining farm prices and the accompanying declines in income. Since farmers blamed corrupt politicians for their plight, Lease and many agricultural

laborers became disillusioned with traditional party politics and believed change would only come through a third party.

In the same year Lease took an active role in the successful campaign to unseat United States Senator John J. Ingalls (1873–91), a Kansas Republican. She reportedly made over 160 speeches during the 1890 election. She was often mistakenly called Mary Ellen, and her enemies dubbed her "Mary Yellin'." During a three-hour speech in Halstead, Kansas, Lease encouraged farmers to "raise less corn and more hell."

In 1892 Lease became involved in the creation of the People's Party of America. She campaigned heavily in the south and west for General James B. Weaver (1833–1912), the party's presidential candidate. In 1893, when the Populists gained control of the administration of Kansas, Lease was appointed president of the State Board of Charities, the highest office held by a woman in Kansas at that time.

By 1896 Lease broke with the Populists because the party was merging with the Democrats to support the presidential candidacy of William Jennings Bryan (1860–1925). She then joined the staff at Joseph Pulitzer's *New York World* as a political reporter. Lease moved to New York City and became a public lecturer for several causes, addressing women's suffrage, Prohibition, evolution, and birth control. She died on her farm in New York on October 29, 1933.

See also: William Jennings Bryan, Farmers' Alliance, Labor Movement, Labor Unionism, Populist Movement, Prohibition, Joseph Pulitzer, Women's Movement

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LEE, IVY LEDBETTER

Ivy Ledbetter Lee (1877–1934) created the model for professional U.S. public-relations promotions and a giant industry that is generally called the publicity business. Ivy Lee believed that facts themselves could be artfully shaped and placed before the public so that they would be seen in a favorable light. Though he is a largely forgotten figure in U.S. history, his impact on commerce, politics, entertainment, and the general business of the United States cannot be overstated. He was the father of all the modern “spin doctors” and public-relations people who seek to present in a favorable light that which is not always pleasant.

Ivy Ledbetter Lee was born in 1877, in Cedartown, Georgia, the son of a Methodist minister. Lee grew up in Georgia and finished his college training at Princeton University in New Jersey, and later, for a single semester, he attended Harvard Law School in Boston, Massachusetts.

Lee began working for newspapers in 1899, working first for the *New York Journal* and later for the *New York Times*. After marrying in 1903, he quit newspapers and went to work with a fellow journalist, George Parker, in an effort to get Seth Low elected as mayor of New York. Lee and Parker afterwards went on to work for the Democratic National Committee in the 1904 presidential campaign.

In 1904 Ivy Lee and George Parker decided to form a public relations company called Parker and Lee. It was the second public relations firm established in the United States. Lee began to represent the interests of large firms, such as the Pennsylvania Railroad, who wanted public images as good, ethical companies benevolent to public interests.

Lee began to pursue a direct style of press relations to get the company’s message across. He described the style in this way: “Shaping their affairs (business) so that when placed before the public they will be approved, and placing them before the public in the most favorable light.” Lee ran into many critics by working with the giants of U.S. business and making every possible effort to project their actions as benign and on behalf of the interests of the public. U.S. labor unions were among the first to ridicule Lee for his manipulation of facts. Lee was also attacked by prominent writers of his era. In one of his novels Upton Sinclair (1878–1968) referred to Ivy Lee as “Poison Ivy Lee,” and the famous U.S. writer and poet, Carl Sandburg (1878–1967) called Lee “a paid liar.” Despite those attacks Lee continued to prosper and became very successful as the Rockefellers’ public relations agent.

Working for the Rockefellers and other corporate clients, Lee engaged in what can only be described as the careful management of the press and public opinion. Lee eventually began to oppose granting exclusive interviews to any single member of the press and instead favored controlling the release of any information himself. He was described as a kind of gardener of the press, pruning and clipping, urging the growth of strong stories in one part of the garden and stamping out the poisonous growth of negative stories in another part of the garden.

From 1916 to 1919 the firm Lee, Harris, and Lee grew to become Ivy Lee and Associates, and then Ivy Lee and T.J. Ross. Clients for their public relations management included Anaconda Steel, Chase National Bank, Phelps Dodge, United States Rubber, Armour Meats, United Artists, Chrysler Corp., and Standard Oil.

As early as the 1920s Lee was representing the financial interests of foreign governments in the United States, including Poland, Rumania, and even a brief representation of the Soviet Union. From 1929 Lee also worked for the U.S. subsidiary of the German corporation of I.G. Farben. In 1933–1934 Lee traveled to Germany and met with Adolph Hitler (1889–1945) in a complex effort to improve the Farben Company’s public image. In 1934 the House Un-American Activities Committee (HUAC) accused Lee of being Hitler’s publicity agent. He was later cleared of that charge. Months later Ivy Lee died as a broken man, leaving an estate of \$24,000.

Modern corporations largely follow Lee’s approach to public relations, while foreign governments regularly hire public relations firms to represent their interests. In the late 1990s these methods provoked little of the outcry that Lee’s work first encountered. Because Lee never published a book on his career in public relations, his work has been largely forgotten.

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LEND LEASE ACT

Enacted by Congress in 1941, the Lend Lease Act gave the president the power to sell, transfer, lend, or lease war supplies to U.S. allies during World War II (1939–1945). These supplies included food, tanks, airplanes, weapons, and other equipment.

The lend-lease program was originally developed to provide assistance to Great Britain and China. The legislation also gave the president the authority to extend aid to any nation whose defense he deemed vital to that of the United States. By the end of World War II, 38 nations received aid under the lend-lease program; prominent among them were Great Britain, China, and the Soviet Union.

Repayment for aid given under the lend-lease program could be “in kind or property,” as well as by other measures agreed to by the U.S. president. Some of the costs were offset by a reverse kind of lend-lease program, where Allied nations gave U.S. troops abroad about \$8 billion in aid.

President Harry Truman (1945–1953) ended the lend-lease program in 1945.

See also: **World War II**

LEONTIEF, WASSILY

In 1973 Wassily Leontief, the Russian-born U.S. economist, received the Nobel Prize in economic sciences “for the development of the input-output method and for its application to important economic problems.” Input-output analysis belongs to that branch of economics pioneered by nineteenth century French economist, Leon Walras. This branch of economics is known as general equilibrium theory, focusing on examining the interdependence of economic forces representing the economy as a whole. The first major practical policy applications of Leontief’s input-output analysis were made by the U.S. Bureau of Labor Statistics, first in 1939 and then again in 1947. His model was used to predict how total and partial sector employment in the United States would change as the economy of the United States shifted from peace to war and back again.

Wassily Leontief was born in St. Petersburg, Russia, in August of 1906. His father, Wassily Sr., was also an economist. The years of Leontief’s childhood were at a time of great social and political upheaval in Russia. He was eight years old when World War I (1914–1918) began and he experienced firsthand the turmoil of the Russian revolution. In 1921 he entered the University of Leningrad (known as St. Petersburg prior to the Russian revolution), where he studied philosophy, sociology, and economics. He graduated in 1925, continuing his education afterwards at the University of Berlin, in Germany. In 1928, at age 22, he received his doctorate in economics.

After graduating he spent a year in Nanking, China, as an economic adviser to the Chinese Ministry of Railroads. In 1931 Leontief emigrated to the United States, coming to America during the Great Depression (1929–1939), where he joined the National Bureau of Economics Research. In 1932 he married the poet Estelle Marks.

In 1931 Leontief began a long tenure as an instructor of economics at prestigious Harvard University. He was promoted to a full professor in 1946. Two years later he founded the Harvard Economic Research Project, a center for what he called “input-output analysis.” He directed this project until its closing in 1973.

Leontief had published his first paper on input-output analysis in 1936. His early work was analytical but not mathematical. He criticized attempts to apply advanced mathematical theories to explain world economic problems. Instead, he believed theories were only useful if they could be implemented and observed. He amplified this view with the publication of his first book in 1941, *The Structure of the American Economy, 1919–1929: An Empirical Application of Equilibrium Analysis*. The very basic thinking of this book described his method of analyzing economic input and output, the basis of his reputation as an outstanding economic innovator. Input-output method is now a standard economic projection tool used in countries and corporations around the world.

His system came slowly to a world crippled by a Great Depression, but as World War II (1939–1945) began, there was new interest in testing the applications of Leontief’s analysis. It was applied first by the U.S. Bureau of Labor Statistics, which examined the Leontief model for predicting how employment changes in the country would change the overall economy. By 1957, in less than 10 years, Leontief’s method had become a basic ingredient in the national accounting systems of most countries in the world, both capitalist and socialist.

Lever Food Control Act

The input-output system developed by Leontief focuses on the fact that economic relationships involving complex interdependence came to represent a picture of the economy as a whole. Prior to Leontief, the field of economics studied mainstream economics focusing only on a few variables. For example, an economist might have looked at how a tax on imported oil might effect the demand for gasoline, while ignoring how the same tax might effect the steel industry. A partial analysis led to seriously misleading conclusions, especially if the industry or changes being studied were expansive.

Leontief's brilliant contribution to economics, the heart of his input-output method, involved a multiple transactions table, dividing the economy into many sectors. Essentially, by increasing the number of sectors being scrutinized and by cross-referencing them on a grid, Leontief was able to come up with the "Leontief inverse," revealing what each sector being studied required to produce one additional dollar's worth of output.

The economic significance of Leontief's method was threefold. First, improvements in international data collection had improved enormously in recent decades because Leontief's system required enormous specific data. Thus the examination of this data revealed the workings of any economy in great detail, far more than in the past. Finally, once demands for goods were specified or projected into the future, Leontief's system could be used for policy analysis. Therefore, the Leontief analysis showed both directly and indirectly what each sector of the economy needed in input in order to increase economic output.

The Leontief system improved as data-gathering improved with the use of computers. He was able to increase the number of economic sectors he studied, because the computer had made the sorting of complex data feasible to analyze.

Input-output analysis had become an essential technique in most economic planning and government budgeting, both internationally and nationally. Leontief's success in applying the input-output model of economic analysis resulted largely from his outstanding ability as a general economist. He was interested in several fields: international trade, monopoly issues, and econometrics—the measuring of the specific strength of an economy. Leontief opposed theorizing about economics, and instead said: "What counts is the relevance of the basic material premises, the capability to exploit effectively all factual data at hand, and to identify promising directions." Leontief's practical and empirical approach, causing modern economics to be ever

more scientific, had put him clearly in a class as a major contributor to twentieth century economic science.

Wassily Leontief died in February 1999, at the age of 92.

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LEVER FOOD CONTROL ACT

The Lever Food Control Act of 1917 authorized the president to regulate the price, production, transportation, and allocation of feeds, food, fuel, beverages, and distilled spirits for the remainder of World War I (1914–1918). Popularly known as the Lever Act, the law also empowered the president to nationalize certain private factories, and requisition storage facilities for military supplies. Private individuals and proprietors were entitled to be compensated for the fair market value of any property taken by the federal government pursuant to the act. U.S. District Courts were vested with jurisdiction to resolve disputes when agreement on fair market value could not be reached. The president delegated his regulatory powers to the federal Fuel Administrator, who carried out day-to-day operations with the help of regional agents he appointed around the country. Although the Lever Act granted the president extraordinary and sweeping powers, the law was upheld by the U.S. Supreme Court in *Highland v. Russell Car & Snow Plow Company* (1929). Stressing that the freedom to enter contracts and own property should not be impaired lightly, the Supreme Court nevertheless concluded that the regulatory powers granted by the Lever Act were necessary for successful prosecution of the war. In passing the Lever Act Congress had similarly declared that the food and fuel

industries are affected with a public interest essential to the nation's common defense. By its terms the Lever Act became ineffective at the war's end. However, a number of sections were re-enacted on October 22, 1919.

See also: Council of National Defense, World War I

LEVITT, WILLIAM JAIRD

William Jaird Levitt (1907–1994) revolutionized the U.S. housing industry. Most construction companies in the United States eventually adopted methods invented by Levitt and his sons to lower the cost of making houses for a mass market of consumers. Levitt's innovations made housing more affordable to everyone. Millions of middle and working class people in the United States became homeowners during the mid-twentieth century due to Levitt's efforts.

William Levitt was born on February 11, 1907, in Brooklyn, New York, the son of a lawyer and building contractor. He attended Brooklyn's public schools and then enrolled at New York University for three years before dropping out.

At the age of 22 Levitt dreamed of becoming a commercial airline pilot. He instead joined his father Abraham and his brother Alfred to create Levitt and Sons, a construction company specializing in single-family home building. The company was founded in 1929. When Levitt became the company's president he occupied himself primarily with management and financial matters. Levitt and Sons did modestly well despite the Great Depression (1929–1939) of the 1930s. Levitt joined the Navy during World War II (1939–1945), serving as a lieutenant with the Seabees, the Navy's "can do" construction team. In the Seabees Levitt gained valuable experience in rapid, safe construction under unsafe conditions.

While he was in the Navy, the family business in the United States made much progress. In 1942 it received a federal war contract to build 1,600 homes for military and civilian personnel near a naval base in Norfolk, Virginia. In the construction of the last 750 homes built there, Levitt's father and brother experimented with building processes, especially with standardization and cost reduction.

After Levitt returned to the family business the company entered its greatest era of success. The Levitt family correctly forecasted the tremendous economic boom that happened in housing construction immediately after World War II. They analyzed the factors that caused single-family houses to be expensive.

One major factor was that single homes were largely custom-made and required time consuming custom installations.

The Levitts decided to apply assembly line techniques to their housing construction. They developed one basic floor plan for a two-bedroom, 800-square-foot house, and made as many pre-fabricated parts as possible. They then hired specialized workers who did only one basic job, going from house to house, ahead of one crew, behind another crew, in assembly-line style. With these innovations the Levitts began to make 36 houses a day.

The crews worked so fast that the Levitts created instant suburbs. The houses sold as fast as they could be built. There were plenty of potential home buyers, most of them war veterans who had inexpensive mortgage loans guaranteed them under the G.I. Bill, a provision of the U.S. government to help returning war veterans readjust more quickly to civilian life back home. This included a home mortgage plan.

The first community built completely by the Levitts was called "Levittown." It was located on Long Island, New York; construction began in 1947 and completed in 1951. It included 17,500 Cape Cod-style homes spread over 7.3 square miles of land. What had once been potato fields was turned into homes with small parcels of land for buyers. The features of the homes included up-to-date kitchen equipment, laundry rooms, and television sets. Each house had two bedrooms and an extension attic that could serve as a third bedroom or an office. As the houses were built they were immediately put on the rental market for \$65 a month with an option-to-buy clause for just under \$7000 and no down payment for veterans.

By 1949 business was going so well that the new houses were no longer rented. They sold immediately, now for \$8000. The Levitts also built larger homes for just under \$10,000, with four to five bedrooms. By building the houses on winding streets and using different color schemes on their facades, the Levitts created houses that all looked "different," at least from the curbside view.

Levitt and Sons earned a profit of \$5 million from the building of "Levittown." The mass production techniques used by the company were clearly the key to its success and future. Later Levittown developments were built in Pennsylvania, New Jersey, New York, and Florida, with the same success.

Levitt understood his marketing success. The majority of the company's sales were to World War II veterans. Levitt sold to young families who sought



Suburbia flourished in the 1950s pursuant to the vision of house builder William J. Levitt who introduced mass-produced housing.

inexpensive “starter homes.” A Levitt home was a family home, and the postwar United States placed great stress on the family unit and of the quality of family life. The Levitt suburban homes also gave families more privacy than was available in city apartments. Living in the suburbs made it possible for young families to have green lawns, small patios, swing sets in a yard, and barbecue grills.

William Levitt and his family company remained successful from the late 1940s to the late 1960s. Levitt’s homes, however, were eventually criticized for their conformity and “ticky-tacky” quality. Levitt was also accused of refusing to sell his Levittown homes to African Americans in the 1950s.

William Levitt died in 1994. During his lifetime he created homes for millions of people in the United States. He provided them with a higher standard of living and a better quality of life than previous generations had enjoyed.

See also: GI Bill, Suburbs (Rise of)

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LEWIS AND CLARK EXPEDITION

The nation’s economy diversified and grew during the first decades of the United States’ independence from the British Empire. With the vast majority of the population engaged in agriculture, Thomas Jefferson (1801–1809) believed that the health of the republic rested on small independent farms, owned by men he called “Yeoman farmers.” Jefferson also favored a strong agrarian economy to counter tendencies of concentrating wealth and power in emerging manufacturing centers of the east.

To find more farming land, Jefferson looked West. Although the Mississippi River formed the western boundary of the United States, Jefferson wanted to explore the region beyond, fearing that if the U.S. did



Lewis and Clark traveled their western expedition with the help of Sacajawea, of the Shoshone tribe, acting as an interpreter.

not expand westward, Britain or other countries might soon colonize the region. The lack of sufficient funding and political support, however, hindered such efforts through the 1790s.

In March of 1801 Jefferson became the third president of the United States (1801–09) and was in a position to further his exploration and land acquisition plans. By the time of his administration, Americans had a clearer understanding of the size of the continent they inhabited. In part, their knowledge was expanded because of the work of Captain James Cook (1728–1779), who measured the longitude along the Pacific Coast in 1780, and later of American Captain Robert Gray (1755–1806), who mapped the precise location of the Columbia River’s mouth in 1792.

In 1801, however, Britain, Spain, France, and Russia still held vague claims to western North America, though the territory was in the possession of Native Americans. With water travel essential to commerce, Jefferson favored exploration and development of new water routes. The primary objective of a proposed expedition was, in Jefferson’s own words, “to determine the most direct and practicable water communication across the continent, for the purposes of commerce.”

Jefferson recruited Meriwether Lewis (1774–1809), a young army captain serving as Jefferson’s personal White House secretary, to lead the expedition. Lewis, in turn, identified Lieutenant William Clark (1770–1838), an earlier commander of his, to serve as the expedition’s co-leader. With agrarian interests in mind Jefferson directed them to make observations and measurements along the exploration route concerning plants, animals, soils, geography, and climate. Jefferson had Lewis tutored in Philadelphia by experts in these fields to prepare him for the expedition.

With preparations for the journey well under way Jefferson completed the Louisiana Purchase with Napoleon Bonaparte of France in 1803. The acquisition instantly doubled the size of the United States by adding 827,000 square miles of land and, most importantly, control of the Mississippi River for commerce. The expedition’s purpose suddenly expanded to include exploration and evaluation of the new lands to determine their settlement and commercial potential.

The party of more than 40 men, called the Corps of Discovery by Jefferson, departed on May 14, 1804, from near the mouth of the Missouri River. Using large canoes and a keelboat for the first part of their journey

(up the Missouri River), the party carried provisions to be supplemented along the way with wild game and fish. Lewis was in charge of scientific observations, with Clark directing map making and journal writing. In 1805 after spending their first winter at a Mandan Indian village on the Missouri in North Dakota, the expedition continued to the Missouri's headwaters and through the ranges of the Rocky Mountains. The expedition then journeyed down the Snake and Columbia rivers arriving at the Pacific Coast in the middle of November. They built Fort Clatsop just south of the Columbia River mouth and waited for a supply ship that never arrived. After a miserably wet winter, the expedition roughly retraced its route back eastward in 1806, splitting apart for much of the time to explore as much territory as possible. They arrived safely in St. Louis with great celebration on September 23 after exploring almost 8,000 miles of terrain in 863 days.

Two centuries later the Lewis and Clark Expedition remains remarkable for several reasons. Only one member of the party died, early in the journey, possibly from a ruptured appendix. By treating the Native Americans with respect, the party created a firm basis for trade, peace, and assistance with settlement. Though the expedition showed that the long-sought major waterway for trade did not exist, a wealth of biological, geographic, and cultural information was gathered in the party's eight-volume journal and maps. Included are previously unrecorded descriptions of 122 animals and 178 plants. The information vividly addressed the commercial potential of the newly acquired lands and territories west of the Rocky Mountains to the Pacific shore. Though the crossing was more difficult than anticipated, the Corps demonstrated its feasibility. The maps and detailed journal more immediately aided the U.S. fur trade. The fur trade spread across the region by the 1820s, and provided furs to a demanding European market.

Most importantly the expedition introduced the first United States presence west of the Rocky Mountains. Once the natural resources and potential settlement sites of the Northern Plains and Pacific Northwest were recorded, the agrarian economy envisioned by Jefferson could become a reality. U.S. citizens settled rich farmlands and established ports to ship produce to markets. As an integrated national economy was first emerging, Lewis and Clark opened the way to U.S. expansion from one coast to the other. The stage was set for an agricultural transformation of the west.

See also: Thomas Jefferson, Louisiana Purchase

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LEWIS, JOHN LLEWELLYN

John L. Lewis (1880–1969) began his working life as a coal miner, working like his father did for low wages in dangerous situations in an unregulated mining industry. He realized early that organizing his fellow mine workers into a common union of shared self-interest was the only way to fight the business practices that had created the circumstances he and other mine workers faced. Eventually, he became the president of the United Mine Workers (UMW), the national union of miners, and later the first president of the Congress of Industrial Organizations (CIO), the first unionized affiliation of industrial workers in the United States.

John Llewellyn Lewis was born in 1880, one of six children born to Thomas and Ann Lewis, in Lucas, Iowa. His father was a coal miner, a Welsh immigrant to the United States. The family moved often, following the availability of work from one coal-mining community to another. Lewis's childhood was filled with his family's continual struggle for financial security. Only because his father had obtained a steady job as a policeman in Des Moines, Iowa for a few years, was Lewis able to attend high school for three and a half years.

Lewis became involved with the organization of the miner's union in Lucas, Iowa, when he was 17. He continued to work in the mines, but he did not settle



John Lewis (center) was a devoted and powerful leader in U.S. organized labor for many years.

into serious union organizing efforts until 1908, at age 28. He moved with his wife to Panama, Illinois, and there became involved in union activities. With the help of his five brothers, Lewis was promoted to spokesman for the UMW.

A year later the UMW, seeking passage of mine safety laws, appointed Lewis as their state lobbyist in Illinois. In 1910 Lewis was made president of his union local in Panama, Illinois, one of the 10 largest union locals in the state. By the next year he had become a full-time organizer for the national organization of craft and skilled-labor unions known as the American Federation of Labor (AFL). He remained with the AFL for six years. His reputation grew as a fierce and progressive voice speaking powerfully on behalf of those who were then a part of U.S. organized labor.

By 1920 Lewis was elected president of the UMW, and he guided the union of dwindling U.S. mine workers through a long period of decline in the 1920s. He held the union together during a time when U.S. industry moved to prevent further labor organizing. It was an era of cheap labor for industry, which was able to use newly immigrated workers from the southern United States and Europe. The rapid introduction of

machinery to business during the 1920s also contributed to the decline of organized labor. The increasing use of machines threatened jobs, and many workers gave up their union activities in favor of preserving their employment. By the end of the 1920s Lewis had obtained absolute control over what was left of the organized mine workers in the United States.

When the United States experienced the Great Depression (1929–1939) after the stock market crash of 1929, Lewis began to fight to keep control of his union. He had to fend off new and aggressive communist labor organizers, as well as union opportunists representing a variety of reactionary labor positions. But, he held the threadbare UMW together.

After Franklin Roosevelt (1933–1945) was elected president of the United States in 1932, Lewis began to regain a large new membership in the UMW, based on Roosevelt's efforts to re-ignite the U.S. economy by mobilizing the industrial forces of the United States back into action with government aid. As part of Roosevelt's National Industrial Recovery Act (NIRA), administered by the National Recovery Administration (NRA), a provision of the NIRA, known as "section 7(a)," guaranteed labor's right to organize unions during this time in an overall effort to not only establish

codes of fair competition for business, but also to provide safeguards for labor. Section 7(a) gave the right to all employees to organize and bargain collectively through representatives of their own choosing, without coercion. Labor unions immediately grew in number and size, including the UMW.

By 1933 most UMW miners were working a five-day week, eight hours a day, for the first time in their lives. At that time Lewis was moving in the direction of organizing all U.S. labor by industry, and not by their occupations or skills. By 1935 after the AFL had refused to include industrial laborers into their union, Lewis began to aggressively organize the neglected laborers in the great mass-production industries like steel, automobiles, rubber, oil, lumber, aluminum, and textiles. In conjunction with other labor leaders, Lewis began to put together the Congress of Industrial Organizations (CIO) in 1936. CIO managed victories in the steel and auto industries between 1936 and 1937 led to a massive membership in the CIO. After that a gradual and very difficult affiliation began, eventually joining the AFL with the CIO in an international union known as the AFL-CIO in 1954.

John L. Lewis fought throughout his adult life for the dignity of U.S. labor. On balance, Lewis succeeded in his efforts. By using “people power” to fight the raw power of money and business influence, Lewis’ creation of an international CIO led to one of the first example of a consolidation of unions built on the efforts of industrial workers. His achievements in acquiring labor benefits for his union’s members were eventually integrated into national policy, as when the Roosevelt administration created legislation to provide social security for the elderly and the disabled. Though this legislation was not due to Lewis’ efforts alone, he was one of the first voices at the turn of the twentieth century to advocate for these measures and to see them become a part of life in the United States. John Lewis died in 1969.

See also: American Federation of Labor, Coal Industry, Congress of Industrial Organizations, Labor Movement, Labor Unionism, National Industrial Recovery Act, National Recovery Administration, United Mine Workers

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LEWIS, SINCLAIR

Sinclair Lewis (1885–1951) was one of the leading U.S. novelists of the 1920s. He was a social critic of the era who wrote from the political perspective of Progressivism. Lewis wrote some of the most effective mass-market criticism against the business corruption of society. He was a fierce critic of materialism in the United States. In books such as *Babbitt*, *Arrowsmith*, and *Mainstreet*, Lewis attacked the smug provincialism, social conformity, and corrupt business values of the U.S. middle class in the 1920s.

Lewis was born on February 7, 1885 in a prairie village in the most Scandinavian part of the United States—Sauk Center, Minn. He was raised in middle class circumstances and attended the local public schools of his community. Lewis grew up in the midst of the Progressive movement in the United States. Many of his Scandinavian neighbors embraced cooperative and socialist ideas, and had embraced unionization and progressive thinking in various ways. Other neighbors of his were middle-class Protestants who strictly conformed to the social standards they deemed acceptable and who saw financial advancement as the major yardstick of success. Lewis grew up with conflicting feelings about himself. He wanted to be a “regular guy,” but he was by nature a non-conformist, an agnostic, a skeptic, and an artist.

Lewis enrolled at Yale University in Connecticut because he hoped to escape Midwestern life. He then began an off-and-on career as a student and world traveler. He graduated from Yale in 1908. Recounting his life to the Nobel Foundation after receiving the Nobel Prize for Literature in 1930 Sinclair wrote: “I drifted for 2 years after college as a journalist, as a newspaper reporter in Iowa and in San Francisco, and incredibly, as a junior editor of a magazine for teachers of the deaf.”

Lewis wrote five novels between 1914 and 1919, and according to him “all of them dead before the ink

was dry.” In 1920 at the age of 35 Lewis published the novel *Mainstreet*. It became an instant and scandalous best-seller, largely because he had attacked “one of the most treasured American myths . . . that all American towns were peculiarly noble and happy,” as Lewis himself said.

Lewis wrote for mass-audiences and usually criticized class values and virtues. He challenged the smug, narrow-minded, and complacent “business values” of mainstreet United States. He became one of the literary voices that indirectly spoke to the issues of Progressive political thinking in the United States. Lewis saw the modernized world of the 1920s change the United States; he saw great problems looming in the near future. He wrote about those people in the United States who had blinded themselves to the perils of smug, small-town thinking.

Lewis’ work flourished in the 1920s. It was a perfect era to indict traditional U.S. values, which had become unacceptable in the young, jaded, sophisticated, and cynical urban climate of the so-called “Jazz Age,” as the era of the 1920s was called. The generation that had just witnessed the mechanized slaughter and meaninglessness of World War I (1914–1918) was ready for Lewis’ books. His writing was welcomed as a refreshing statement of the unvarnished truth—it rejected genteel optimism, blind U.S. nationalism, and traditional religious values.

Lewis continued writing novels after he received the Nobel Prize; his other works included *It Can’t Happen Here*, *Cass Timberlane*, and an early civil rights advocacy novel, *Kingsblood Royal* (1947). He never reclaimed the status he achieved in the 1920s as a critic of business-related pomposity.

Lewis’ critical faculty was compared to that of Thomas Paine (1737–1809) and Mark Twain (1835–1910). He was regarded as a gadfly of the literary scene in the United States. Lewis both outraged and educated average citizens about their frequently misguided lives as hucksters of U.S. business. His impact on the business world of his era was large, complex, and thoughtful.

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LIBERALISM

The term “liberalism” has meant different things at different points in the history of the United States. The different meanings of liberalism turn on the changing relationship between the government and the economy. In the nineteenth century liberalism was a critique of the doctrine of mercantilism which had been the reigning theory of economic activity in the eighteenth century. Mercantilism focused on the commercial life of the nation. It asserted that there was only a fixed amount of wealth in the world and viewed economic life as a kind of commercial warfare between nations in which the goal was to accumulate as much as possible of silver and gold. The government played an active role in this commercial competition between the nations. It encouraged specific manufacturing industries, regulated the quality of manufactures, established trading routes and oversaw the relations with the colonies. This doctrine had begun to crumble in the eighteenth century as a result of excessive regulation and poor administration. Also the economies of some European nations, like Spain, had been undermined by the price inflation that accompanied their governments’ accumulation of gold and silver. The mercantilist economies also sometimes created obstructions to international trade by erecting high tariff barriers to protect domestic industry from foreign competition.

When Adam Smith wrote his *Inquiry into the Nature and Causes of the Wealth of Nations* in 1776, mercantilism had seen its better days. Smith’s was a most elegant critique against the decrepit system, because it was so simple. He argued that all the functions that mercantilism invested in the state could be more efficiently performed by the individual entrepreneur. For instance, rather than have the government dictate prices and quantities of goods for sale, the “law of supply and demand” would automatically find the price and the quantity which best accommodated both the buyer and the seller. Secondly, rather than have the government decide what industry to invest in, the individual entrepreneur, spurred by the profit motive, would make that decision. And, rather than have the government organize production, the entrepreneur, again in the effort to maximize his profit, would find the optimum “division of labor” that would improve productivity and maximize profits.

Liberalism

It was an age of manifestos and Adam Smith's *Wealth of Nations* became (and remains) the most persuasive manifesto of free market capitalism. The nineteenth century economic liberals believed that property rights were the cornerstone of both political and economic freedom. Underlying Smith's system was an assumption (shared by another Scottish philosopher, John Locke) of the promise of harmonious relations among the members of society. Each individual, endowed with certain natural rights, in seeking personal happiness also enhanced the happiness of all. The economic liberals believed that there was no essential contradiction between the "public good" of all individuals. The economy was not, as the mercantilists held, a "zero sum game." The public good could be most effectively furthered by economic liberalism (or the freedom to invest). Democracy could rid itself of the dead hand of government and increase the benign scope of laissez-faire's "invisible hand."

But the emergence over the next two centuries of industrialization, urbanization, big business, over-production crises, instability, the excesses of competition, and the conspiracy to set prices, and in particular the misfortune of the Great Depression (1929–1939) plus two world wars gradually converted modern liberalism from a crusade against governmental interference in the economy into a movement to protect the weak against the strong and the national economy against the unregulated tendency towards instability. Today, at the beginning of the twentieth century and the dawn of a new millennium, liberalism stands for almost the complete opposite than its nineteenth century meaning.

But did nineteenth century liberalism ever actually exist? Many economic historians argue that during the first three centuries of U.S. history, colonial, state, and federal governments continued to intervene in the economy, in varying degrees, under the more modern definition of liberalism. They argue that during the colonial period government at all levels acted in the public interest and that it could set the "just price" for milling and the price of bread, regulate the purity of beer, establish reasonable ferry charges, and grant monopoly franchises. Colonial governments could set wages and even require work. In the process, many colonial regulations were embedded in common law. To enforce this web of complex rules and regulations, colonial governments used constables and wardens. While many of the colonial regulations had disappeared by the time of the American Revolution (1775–1783), the Revolution itself did little to interrupt institutional continuity.

While some economists assert that the U.S. economy in the nineteenth century followed Smith's vision

of laissez faire liberalism, others argue that the government, although undoubtedly supportive of profit-driven economic development, was also beginning to take on the mandate of "twentieth century liberalism"—i.e., the roles of regulator and safety-net. This was the view, clearly present in the Populists and the Progressives, that the profit motive of the individual investor, unless restrained by government, may do damage to the public good.

In addition, the government remained a potent force in the economy, although often in spite of the popular sentiment to limit the role of the federal government in favor of states rights. The federal banking policy illustrates both the resistance to a larger role for the federal government—vented in Andrew Jackson's "bank war" of 1832—and the gradual realization that banks simply needed regulation. Eventually, the national consensus supported President Woodrow Wilson's Federal Reserve Bank which in 1913 created the modern national banking structure.

As the Progressive period unfolded, reforms at the federal level included the lowering of tariffs, the introduction of the income tax, passage of antitrust laws, the Federal Reserve Act of 1913, the direct election of Senators, federal child-labor laws, constitutional amendments prohibiting the consumption of alcoholic beverages, and extending the vote to women. Reforms at the state level brought workmen's compensation laws and pensions for Union Civil War veterans, their widows, and orphans (the nation's first government funded welfare plans). Seeking to break the power of entrenched political interests, reformers also advocated open primaries, initiative, referendum and recall, and promoted governmental regulation of gas, water, and electrical utilities. Urban reformers also sought to weaken political bosses and their machines by implementing commission government and home rule. As the emergence of the modern bureaucratic state continued, various political factions battled for control in a society being transformed by the forces of industrialization, immigration, and urbanization.

Faced with mounting pressure, the federal government also began to regulate the railroad industry as well as break up monopolies. In response to the accumulated demands of the National Grange, Farmers' Alliances, Greenback Party, and eventually the Populist Party, Congress finally passed in 1887 the Interstate Commerce Act, which assigned the federal government the role of market arbiter. On October 15, 1914, Congress passed and President Woodrow Wilson (1913–1921) signed the Clayton Antitrust Act, which was designed to strengthen the Sherman Antitrust Act of

1890 by fully codifying specific illegal antitrust activities. To carry out and enforce the Clayton Act and the Sherman Act, Congress created the Federal Trade Commission in a related measure.

As the country expanded and the population grew, and as the economy became more complex and powerful, some of the underlying structural weaknesses were not apparent to most U.S. citizens. But the Stock Market Crash of 1929 and the subsequent Great Depression changed their views. In 1933 President Franklin D. Roosevelt (1933–1945) formally introduced a new twentieth century liberalism to the United States political and economic landscape. Roosevelt was greatly influenced by the British economist John Maynard Keynes, who proposed the prevention of financial crisis and unemployment by adjusting demand through government control of credit and currency. Roosevelt shifted purchasing power in favor of the poor, the spenders; he provided employment through public works and insurance where it was feasible, and, in other cases, he offered assistance to those injured by economic forces. Essentially through ad hoc measures (measures taken for a specific case or instance), the New Deal unfolded. The objective was to help those in distress, deflate the large interests that had overreached themselves, and improve the functioning of the system.

In the late 1990s, under a more global economy, liberalism was faced with the question of whether the United States and other capitalist countries were prepared to accept a mixed economy—one in which the government, not the market, was responsible for major decisions concerning total savings, investment and spending, which would result, it was hoped, in stable or high levels of employment and output.

See also: Nicholas Biddle, Federal Reserve Act of 1913, Andrew Jackson, Mercantilism, Adam Smith

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LIBERIA

Liberia is a country that lies along the West African coast on the Atlantic Ocean. Sierra Leone borders it on the northwest, Guinea on the north, and the Ivory Coast on the east. The capital of Liberia is Monrovia.

Established in 1821, Liberia was intended as a haven for freed American slaves. Members of the American Colonization Society, which was organized between 1816 and 1817, purchased land from native tribes in Africa, with the goal of transporting freed slaves back to their African homeland. The land was named Liberia, which was derived from a Latin word meaning "freedom."

In 1822 the first returning Africans arrived in Liberia. By 1860, eleven thousand freed slaves from America had settled in Liberia; eventually fifteen thousand made the trans-Atlantic voyage. On July 26, 1847, the country was established as a free and independent republic. But constitutional issues, foreign debt, and territorial disputes soon threatened the new nation. The United States government stepped in with aid to stabilize Liberia.

The plan of the American Colonization Society had always been a controversial one: many abolitionists opposed it, as did some African Americans who believed slavery should simply be eradicated from the United States, and the freed slaves granted all rights of citizenship. The African resettlement movement declined in the mid-1800s.

See also: Abolition, Slavery

LIBERTY BONDS

During World War I (1914–1918) the U.S. Treasury sold war bonds (certificates of indebtedness backed by the federal government) to help pay for the high cost of the war effort. Posters advertising the bonds were emblazoned with an image of the Statue of Liberty and the certificates themselves were called Liberty bonds. Patriotism and the motivational messages of Hollywood stars, such as Charlie Chaplin, Mary Pickford, and Douglas Fairbanks, who spoke at bond rallies, encouraged Americans to buy billions of dollars worth of Liberty bonds to help finance the fight in Europe. Towns were even given quotas of bonds to sell. In 1917 alone U.S. citizens bought \$18.7 billion worth of the bonds, which would pay a fixed 3.5 percent interest

Liberty Ships

rate compared with railroad bonds, which yielded nearly five percent in fixed interest. The success of the Liberty bond sales enabled the federal government to borrow money from its citizens, promising to pay the sum back (plus 3.5 percent interest). The bond sales served to introduce many U.S. citizens to the practice of investing, which they continued after the war. Some analysts believe this mind-set helped fuel overconfidence in the stock market, which contributed to its escalation during the 1920s and to its crash at the end of the decade (1929). During World War II (1939–45) the government again sold war bonds to help raise funds for the fight for freedom.

See also: **Bonds, World War I, World War II**

LIBERTY SHIPS

Liberty ships were American-made, mass-produced merchant vessels that were used by the Allies to carry freight, troops, and fuel during World War II (1939–1945). A few were converted to other uses, including tank transports, hospitals, and repair shops. A Liberty ship was a modified version of a merchant ship of simple design that was conceived in Great Britain. The original plan called for the vessels to be riveted, but riveting was a time-consuming process. By September 1940, Britain was under siege by German naval and air forces and lacked sufficient time or capital to build such ships for itself. So when production of the merchantmen was turned over to the United States, industrialist Henry J. Kaiser (1882–1967) sped up production by welding the vessels and applying revolutionary prefabrication techniques. Kaiser started with an initial keel-to-deliver time of over 200 hundred days. Within a year, however, Liberty Ships were being launched just 24 days after the laying of the keel. They traveled at a top speed of 11 knots, and came in different sizes and weights, with the largest being almost 450 feet long and over 10,000 tons.

Approximately 250 Liberty Ships were sent to Great Britain and the Soviet Union under the Lend-Lease program, while another 200 were used by American forces. Liberty ships take their name from “Liberty Fleet Day,” a day in September 1941 when the first one was launched. Because of the high rate of production, a number of Liberty Ships were defective. But others endured repeated pounding by German surface ships and submarines. One ship even sunk a German auxiliary cruiser with its single four-inch gun.

See also: **Lend-Lease Act, World War II**

LIMITED PARTNERSHIP

A limited partnership is a form of incorporation which involves ownership by two classes of investors known as general partners and limited partners. There can be one or more general partners and one or more limited partners in a limited partnership. Both classes of partners receive income or incur losses of the partnership based on the percentage of ownership each partner has. General partners are responsible for the management of the corporation and assume unlimited liability for any obligations or legal debt. Limited partners are passive owners in that they do not participate in the everyday operation of the corporation. Therefore their financial liability for the partnership is limited to the amount they have invested in the corporation.

See also: **Corporation**

LOBBYING

Lobbying is an attempt to influence the course of government action through persuasion or gifts to legislators. The phrase derives from the advocates’ practice of waiting in the lobby of government buildings, such as the U.S. House of Representatives, to talk to lawmakers as they come and go. Lobbying, as an activity, may be as old as democracy, but the phrase itself seems to have originated in the early- to mid-nineteenth century in Washington, D.C.

From its earliest usage, the term lobbying implied activity that was somewhat illegal or unsavory, including bribery of public officials. Even today when laws strictly limit the types of gifts that lobbyists may give legislators, critics of lobbying decry the large campaign contributions that interest groups are able to give to candidates to influence their future actions. Lobbyists themselves defend their profession. They contend that they perform a vital public service by bringing valuable information about public issues to light.

Lobbying is often performed by major law firms on behalf of clients or by nonprofit groups concerned with a single issue. There have been hundreds of well-organized groups that lobby both in Washington, D.C., and in state capitals. These groups represent almost every conceivable special interest, from business and environmental groups to those concerned with abortion, foreign trade, or tax reform. Some of the better known groups that lobby legislators on issues of interest to their members are the National Rifle Association,

the American Association of Retired Persons, and the National Association of Realtors. Lobbying has had a profound influence on legislative actions.

See also: Special Interest Group

LONG, HUEY PIERCE

Huey Pierce Long (1893–1935) was the seventh of nine children, born in a poor area of Louisiana in 1893. Though he would build his political career on the support of poor whites living largely on farms, Long's family was middle class. In school he excelled as a debater and read widely, particularly from the *Bible*, Shakespeare, and the French writer Victor Hugo.

Long worked briefly as a typesetter and a traveling salesman. He then briefly attended law school, took the Louisiana State bar exam, and passed it in 1915. Long was shrewd, popular, and had a feel for communicating with the "common man;" he became an effective attorney almost immediately. Long's political career began in 1918, with his election to the Louisiana railroad commission, which later became the public service commission. There Long made a name for himself by attacking large Louisiana-based corporations, especially Standard Oil, for being concerned only with their profits and as the source of the problems of Louisiana's poor.

EVERY MAN A KING.

Huey Long

Running with the slogan of "Every Man a King," Long was elected governor in 1928. As governor Huey Long continued to blame big business for the financial problems of the poor in Louisiana. He introduced unprecedented programs aimed at helping the poor in exchange for their votes. He initiated a massive highway and toll-free bridge construction project that put masses of people to work, lowered utility and transportation rates, and provided free schoolbooks, school lunches, and hospital care for everyone. He established free public night schools and began a program of dramatically improving the health standards of working people by taxing large Louisiana corporations. At the same time, there were accusations of bribery and corruption against Long. It is certain that Long's control of the Louisiana Democratic Party allowed him to crush most rivals and assume near total control over the state of Louisiana. He was elected to the U.S. Senate in 1930, but stayed on in his post as governor until his



Huey P. Long.

term expired in 1932, so as to prevent his lieutenant governor, a political opponent, from taking office.

In Washington, DC, Long allied himself with moderate Republicans, and yet strongly supported President Franklin Roosevelt (1933–1945). But Long quickly became impatient with Roosevelt's efforts to end the Great Depression (1929–1939), and saw the opportunity to further expand his power. In 1933 he broke with Roosevelt and began to plan for his own presidential run, using a "Share the Wealth" platform which was aimed at overhauling the tax structure in order to bring about a quick redistribution of wealth.

Under Long's plan the government would limit the income of all people through taxation, and use these funds to ensure that every family would be furnished with a \$5000 allowance and an annual income of \$2000 plus benefits. This idea was very attractive to millions of Americans who had lost their jobs or much of their wages in the Depression. It was met with horror by wealthier Americans, who decried the plan as communism or facism. Large businesses in particular regarded Long and his ideas as a threat.

Huey Long's dreams of the presidency ended in the Louisiana State Capitol in 1935, when he was assassinated by Carl Weiss, a political enemy. Weiss

Longhorn Cattle

was immediately shot and killed by Long's bodyguards. The "Share the Wealth" plan died with Long. The United States would eventually emerge from the Depression, but at Roosevelt's pace, a pace that left U.S. business intact and arguably stronger after World War II (1939–1945).

See also: Louisiana, New Deal

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LONGHORN CATTLE

Longhorn are a breed of cattle descended from cows and bulls left by early Spanish settlers in the American Southwest. They are named for their long horns, which span about four feet (over one meter). By the end of the American Civil War (1861–1865) these cattle had multiplied and great numbers of them roamed freely across the open range of the West. Americans found the beef of longhorns stringy and tough. But ranchers in Texas bred the longhorns with other cattle breeds such as Hereford and Angus to produce better quality meat. As beef was in demand in the eastern United States, shrewd businessmen capitalized on the business opportunity, buying cattle for three to five dollars a head and selling them in eastern and northern markets for as much as \$25 to \$60 a head. Ranchers hired cowboys to round up, sort out, and drive their herds to railheads in places like Abilene and Dodge City, Kansas, which became famous as "cow towns" (raucous boom towns where saloons and brothels proliferated.) After the long trail drive, the cattle were loaded onto rail cars and shipped live to local butchers who slaughtered the livestock and prepared the beef. For 20 years the plentiful longhorn cattle sustained a booming livestock industry in the West: at least six million Texas longhorns were driven across Oklahoma

to the cow towns of Kansas. However, by 1890 the complexion of the industry changed. Farmers and ranchers in the West used a new material, barbed wire, to fence in their lands, closing the open range. Railroads were extended, bringing an end to the long, hard, and much glorified cattle drives; the role of the cowboy changed, making him little more than a hired hand. Big business took over the industry. Among the entrepreneurs who capitalized on beef's place in the American diet was New England-born Gustavus Swift (1839–1903), who in 1877 began a large-scale slaughterhouse operation in Chicago, shipping ready-packed meat via refrigerated railcars to markets in the East.

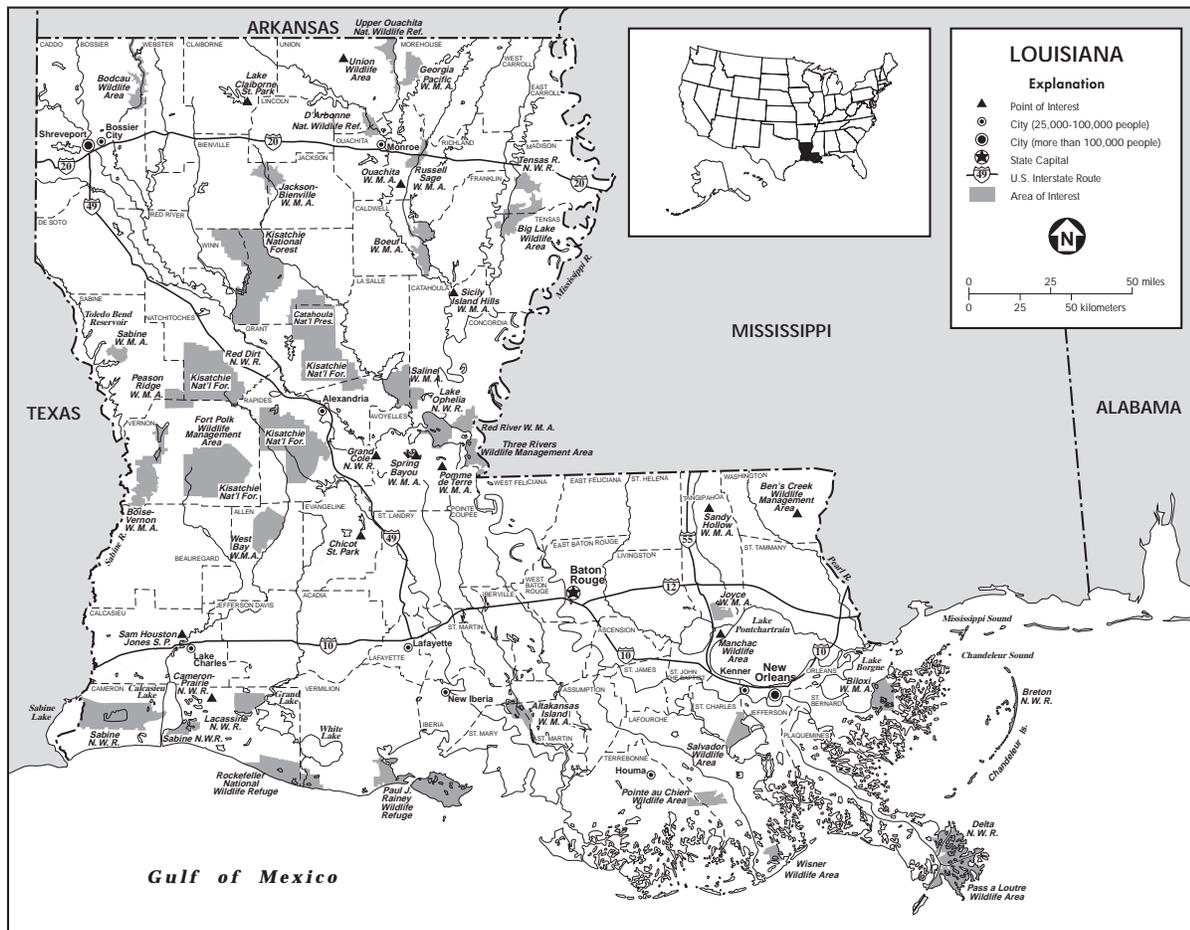
See also: Barbed Wire, Cattle Drives, Cowboy, Cow Towns, Chisholm Trail, Open Range, Prairie

LOUISIANA

Natural resources and farming hold a significant place in Louisiana's economic history. However, the cultural spice of New Orleans has added to the state's economic base by setting the city apart from any other cities in the world and, over the years, making it a unique tourist attraction.

Indians were the first known inhabitants within Louisiana, living in small pockets. Spanish and French explorers navigated the Gulf of Mexico even before Robert Cavelier, Sieur de la Salle named the land at the mouth of the Mississippi River Louisiana. He did so in honor of King Louis XIV, claiming the land for France in 1682. In the 1700s the French began developing settlements in Louisiana and in 1722 New Orleans was established as Louisiana's capital. These early French settlers started tobacco and indigo farms and brought in slaves from Africa and the West Indies to work them.

Louisiana was not particularly prosperous under French rule, however French culture did take hold. In 1762 France ceded Louisiana to Spain during the French and Indian War (1754–1763). The area fared very well under Spanish rule as American settlers and immigrants from Spain and the Canary Islands relocated to the area. The Spaniards also brought black slaves, but there were also many "free people of color" in Louisiana. However the largest number of immigrants were French-speaking Acadian refugees from Nova Scotia who were driven from their homes by the British during the war with France. Their descendants are now known as Cajun. The mixture of these early Spanish, French, and black cultures became the unique and colorful Louisiana of today.



State of Louisiana.

In 1800 Napoleon Bonaparte forced Spain to return Louisiana to France. Three years later Napoleon sold Louisiana to the United States for \$15 million. President Thomas Jefferson's (1801–1809) real estate deal doubled the size of the United States with a cash outlay of about 3 cents per acre.

In the early 1800s Louisiana saw an influx of immigrants from surrounding southern states. On April 30, 1812, Congress approved Louisiana's bid for statehood. Between 1815 and 1861 Louisiana's sugar and cotton production made it one of the most prosperous states in the south. The state was also an important location on the inland north and south water route. Steamboats traveling the Mississippi River transported goods such as cotton, grain, and sugarcane to New Orleans, where it was trans-shipped on ocean-going vessels. This assured the city's commercial and strategic importance.

Wealthy planters in Louisiana depended on slave labor. In 1860 there were more than 330,000 black slaves, nearly half of Louisiana's total population. At

that time the north no longer allowed slavery and when Abraham Lincoln (1861–1865) became president of the United States in 1861, southerners feared he would outlaw slavery in the south as well. The planters in Louisiana held the majority of economic and political power. Their influence led the state to secede from the union with ten other states and form a separate country called the Confederate States of America, thus beginning the American Civil War (1860–1865). In 1865 the South surrendered having suffered disastrous losses; the war ended, and all slaves were freed. When the Civil War was over, however, opportunities for freed blacks were limited, and former slaves returned as laborers to sugar plantations and cotton fields, which they farmed "for shares," (they rented the land and paid in shares of the crop) along with poor whites.

In the 1880s irrigation systems allowed farmers to plant rice, and midwestern farmers migrated to southwestern Louisiana to become rice farmers. In the meantime, lumber and flour mills were started; oil and natural gas were discovered; and railroads were built.

Louisiana Purchase

However, in 1898 a new constitution was drawn up that took voting rights away from blacks as well as many poor whites. Large landowners, businessmen, and politicians controlled the government and resisted social reform, which meant that the small farmers and the urban working class, both white and black, did not share in the general prosperity.

In the late 1920s the Great Depression (1929–1939) caused banks and factories to close around the country and many people lost their jobs. When Huey Long was elected governor of Louisiana in 1928 he based his campaign on the problems in the economy and the growing inequality between the state's citizens. He also campaigned against the Standard Oil Company's high-handed dealings. Although he did not really challenge the racial segregation of the South, he did talk more about class than about race, and he advocated social and economic reforms, such as some improvements in education and health care, for African Americans. Huey Long was an ambitious, talented, and very popular politician who initially supported Franklin D. Roosevelt's New Deal program of governmental aid to victims of the Depression. However, he turned against Roosevelt and would probably have split the Democratic vote in the 1936 election had he not been assassinated in 1935.

The state's economy gradually pulled out of the Depression with the development of offshore drilling, reforestation, and soybean farming. Many residents were put to work building roads and bridges. Louisiana became one of the world's leading petrochemical manufacturing centers with oil drilling in the Gulf of Mexico. After World War II (1939–1945) started, additional jobs were created as ships were built for the Navy in New Orleans.

In the 1970s much of the revenue from the high oil prices was put to work to improve the state's schools and highways. But in the mid-1980s world oil prices dropped, which hurt Louisiana's economy. Energy-related industries, such as machinery manufacturing, also suffered. In 1986 unemployment in the state, especially for women, was the highest in the nation at 13 percent. In the 1990s Louisiana had more people living in poverty than any other state.

In 1992 Louisiana tried to revitalize its economy by legalizing riverboat and casino gambling. This effort created thousands of jobs and also helped attract more than 20 million tourists annually. In the 1990s the service industry was the leading employer. While chemicals were the leading product in Louisiana in 1995, others, such as fertilizer, soap, paint, plastic, ships, airplanes, paper, and praline candy, were also

growing. At the same time crops grown in Louisiana included soybeans, rice, cotton, sugarcane, and sweet potatoes. Shipping and transportation was also significant because the Port of South Louisiana, the busiest port in the United States in 1995, handled nearly 400 billion pounds of cargo annually.

While the average household income in 1997 was \$34,400, the distribution of that income was skewed. In 1995 nearly 20 percent of Louisiana residents were below the federal poverty level, while eight percent had a disposable income greater than \$75,000, including 1.7 percent whose disposable incomes were greater than \$125,000.

See also: Huey Long, New Orleans, Plantations, Petroleum Industry, Sharecropping

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LOUISIANA PURCHASE

In 1801 after a series of secret agreements, French Emperor Napoleon Bonaparte (1769–1821) recovered the territory of Louisiana from Spain, which France had lost in 1763. When the land was handed over, U.S. goods were refused storage at the important international port of New Orleans—a violation of the Pinckney Treaty. Since New Orleans was an integral port to U.S. international trade, unhappy U.S. farmers and merchants grumbled for war.

President Thomas Jefferson (1801–1809) realized that this French acquisition challenged U.S. trade and presented a stumbling block to the United States, should it ever choose to expand its current borders westward. Believing that his decision was in his country's best interests, Jefferson sent Secretary of State James Monroe (1758–1831) to Paris to discuss the possibility of purchasing the Louisiana Territory from



The shaded area indicates the approximate 827,000 square miles of land acquired by the U.S. in 1803 from the Louisiana Purchase.

France. At the same time, Jefferson authorized a gathering of militiamen at home as a show of force against France.

EVERY EYE IN THE UNITED STATES IS NOW FOCUSED ON THE AFFAIRS OF LOUISIANA.

Thomas Jefferson, in a letter to Robert R. Livingston, U.S. minister to Paris, 1802

Napoleon, who was already on unfriendly terms with Britain, did not want to face a British-U.S. alliance. In 1803 he agreed to sell the Louisiana Territory (approximately 827,000 square miles) to the United States for a price of \$15 million. The United States doubled its territorial size and extended public lands

westward into the Missouri River and the Rocky Mountains.

Although the Louisiana Purchase extended U.S. boundaries and ensured protection of U.S. trade at the port of New Orleans, it presented a dilemma to Jefferson. He had a dream of seeing the United States stretch from the Atlantic to the Pacific Oceans. He also believed the government was invested with only those powers explicitly stated in the Constitution, and the authority to purchase new territory was not among those powers.

In purchasing the Louisiana Territory, Jefferson used implied Constitutional powers, by which he strengthened the national government. His action, however, created a sense of uneasiness among those who

feared a return to an authoritarian regime so soon after the American Revolution (1775–1783). A strong central government infringed on states' rights, which Jefferson also ardently supported. At the time he considered proposing a Constitutional amendment to allow explicitly the authority to purchase new territory. But, Secretary of the Treasury, Albert Gallatin, advised Jefferson that the executive office had an inherent right to expand the nation, and Congress had the power to admit newly acquired land into the Union as a state or annex it as territory. Jefferson accepted this position and Congress ratified the land purchase. Regardless of the president's philosophical conflict, the public approved of the purchase. In 1804 Jefferson was re-elected to a second term.

Reaching from the Rocky Mountains to the Mississippi River and from Canada to the Gulf of Mexico, the Louisiana Purchase ensured that the U.S. would have ample room for expansion for years to come. Later four whole states (Arkansas, Iowa, Missouri and Nebraska) and parts of nine others (Louisiana, Minnesota, Oklahoma, Kansas, Colorado, Wyoming, Montana, North Dakota, and South Dakota) were made from this vast area. It increased the reach of the agricultural class by securing large amounts of land and transportation networks. With uninhibited access to the Mississippi and Missouri Rivers, goods and services could now be transported over greater distances. The U.S. economy could not help but expand.

Whatever its constitutional implications, the Louisiana Purchase was one of the most important presidential decisions in the nation's history. Through this purchase, the United States became a continental power, controlled the continent's main navigation routes, and became owner of vast new resources. These combined assets promised the young nation greater economic independence from Europe and set a precedent for future territorial expansion.

In order to realize the full potential of this uncharted land, President Jefferson dispatched a 35-member expedition to explore it. Led by U.S. Army officers Meriwether Lewis and William Clark, the expedition was to determine the most direct practicable water communication across the continent for commerce purposes, map the land, gather plant and animal specimens, collect soil and weather data, and record the details of all they saw. It was a large task. Between May 1804 and September 1806, the expedition sighted the Pacific Ocean before returning to St. Louis. The explorers did not find the much sought-after Northwest Passage, but the information they did acquire spurred the nation towards further expansion and settlement.

See also: Thomas Jefferson, Lewis and Clark Expedition, Napoleonic Wars (Economic Impact of)

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LOWELL, FRANCIS CABOT

Francis Cabot Lowell (1775–1817) was a member of a large aristocratic New England family that came to dominate the business, political, and cultural life of Massachusetts. He was born in Newburyport, Massachusetts, a year before the signing of the United States Constitution. Francis was a U.S. business pioneer who helped bring about in the United States what is now called the Industrial Revolution. By memorizing and bringing to the United States mechanical details of the English power loom used to make cotton fabric, Lowell created with his business partners the first U.S. textile factory. It was a revolutionary facility built in Waltham, Massachusetts. There the new water-powered loom technology was used with all the other processes of spinning and weaving cloth to enable the manufacture of finished cloth from raw cotton under one roof. It was known as the "Waltham-Lowell System."

Francis Lowell grew up in Newburyport, Massachusetts, the son of John Lowell, a prominent judge married to Susanna Cabot, the daughter of an immensely wealthy shipping family. Francis enrolled at Harvard University in 1789, where he excelled in mathematics. After graduating in 1793 he began to work in an import-export company owned by his uncle, William Cabot. Lowell traveled widely and sought to develop trade and business connections. He prospered

in his work and, when his father died in 1802, Francis inherited one-third of his father's \$80,000 estate, invested for the most part in eight commercial ships.

By 1810 Lowell was, according to most standards, a wealthy man. He was not in the best of health, however, and his wife's health was becoming problematic as well. They decided to travel to Edinburgh, Scotland to improve their health and to observe the power looms that were being used for producing cotton fabric in Manchester, England and other locations.

Lowell had thought of building a textile mill back in Massachusetts believing that New England would only prosper by supplementing its cloth trade with manufacturing facilities. When Lowell returned to Massachusetts in 1812 he was aware that the War of 1812 (1812–1814) would likely cripple his overseas commercial trading business, and so he became intensely active in developing a cloth industry locally, in Massachusetts. The power loom he saw in England was not available in the United States and it was illegal to export the looms for foreign use because the English wanted no competition in their production of power loom finished cloth.

Lowell was determined to bring the power loom to the United States. While he was in England he studied the looms, making sketches and drawings when he could, and memorized mechanical details. Back in Massachusetts, Lowell was able to create his own version of a working power loom with the help of a skilled mechanic, Paul Moody (1779–1831). In 1812 Francis Lowell and other businessmen established what they called the Boston Manufacturing Company. They incorporated it in 1813 and chartered to capitalize it at \$400,000.

With the power loom ready, and the business company established, the loom was patented. Land was purchased by Lowell for the Boston Manufacturing Company along the Charles River at Waltham, Massachusetts, and later along the Merrimack River. In 1814 the company erected buildings on the land at Waltham and fitted them with looms and machines based on Lowell's model, powered by water. At the end of 1814 the mills became operational. They were soon recognized to be the world's first mills capable of converting raw cotton into finished fabric under one roof, revolutionizing the entire textile industry.

Lowell and his fellow entrepreneurs, a group of men who were later widely known as the "Boston Associates," transformed the country's textile industry. So great were the profits at Waltham that the Boston Associates soon looked for new sites throughout the state, and found them at East Chelmsford (later

renamed Lowell, Massachusetts), at Chicopee, Manchester, and Lawrence. The "Waltham-Lowell System" of producing cotton fabric from raw cotton under one roof in a mill operation succeeded beyond all expectations. It gave the Boston Associates control over one-fifth of cotton fabric production in the United States by 1850. By expanding into other businesses related and unrelated to cotton production their empire expanded. The Lowell and the Boston Associates turned to philanthropy, establishing hospitals, schools, and universities.

Though he died at the early age of 42 in 1817, Francis Lowell clearly took a part of the young United States into the Industrial Revolution era. He pioneered work in mass textile manufacture, making cotton fabric domestically produced by a U.S. work force available to people in the United States at inexpensive prices.

See also: Rhode Island System of Labor, Samuel Slater Builds First Factory, Samuel Slater

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LOWELL SYSTEM OF LABOR

During the early 1800s factories went up throughout New England, where rivers were used to power recently developed manufacturing machinery. One such factory was established between 1812 and 1814 in Waltham, Massachusetts. At this site, on the shores of

the Charles River, industrialist Francis Cabot Lowell (1775–1817) built the Boston Manufacturing Company, the first complete cotton spinning and weaving mill in the United States. Here the raw cotton fibers were processed to produce cloth.

To attract the necessary work force to his plant, Lowell established an innovative labor program. He hoped his program would prove an alternative to the system of child labor that had long been in use in Britain and also prevailed in New England textile mills. Called the Lowell System, or the Waltham System, farm girls and young women who came to work at the textile factory were housed in supervised dormitories or boardinghouses and were provided with educational and cultural opportunities. Lowell believed that by providing safety in the workplace, comfortable living conditions, and a socially positive living and working environment he could ensure a steady supply of labor.

Lowell expanded his manufacturing interests, establishing larger mills on the Merrimack River in present-day Lowell, Massachusetts (a town named in his honor). But in the 1830s and 1840s the Lowell System faltered. Increased competition in the textile industry (which was the model for other industries of the day) forced factory owners to cut wages and lengthen hours to stay profitable and meet production demands. In 1834 Lowell cut his workers' wages by 25 percent; the workers responded by staging a strike and organizing the Factory Girls Association, a labor union. But the union's efforts were unsuccessful. Two years later the "Lowell girls" struck again when their housing rates were raised; again the strike failed, as workers found themselves unable to make ends meet and were back on the job within a month.

Conditions deteriorated and in 1845 Lowell workers formed the Female Labor Reform Association, which joined forces with other Massachusetts laborers to force government to legislate improved work conditions in the state. The lobby helped to pass laws that limited work hours, but textile mills continued to ignore the legislation. The arrival of the Irish in Lowell, beginning in 1846, also contributed substantially to the demise of the Lowell System of Labor. With unskilled labor available and willing to work for low wages, the system was no longer needed. By the 1850s the Lowell System was a failed experiment. New England farm girls were replaced by immigrant women who were willing to work for longer hours and lower wages.

See also: Francis Cabot Lowell, Rhode Island System of Labor, Spinning Mills, Textile Industry, Women in the Workplace

LUKENS, REBECCA

Rebecca Lukens (1794–1854) became a pioneer in U.S. industry largely against her will. With the sudden death of her father and her husband, only a year apart, Lukens inherited one of the first iron manufacturing firms in the United States. She became a successful businesswoman in the iron industry in a time when few women worked outside the home, let alone in industrial manufacturing. Her legacy is her firm, which was renamed Lukens Iron Works (and later Lukens Steel) in 1859, honoring her pioneering life and her industry.

Rebecca Webb Pennock Lukens was born in 1794 in West Marlboro Township, Chester County, Pennsylvania. She was the daughter of iron manufacturer Isaac Pennock. She enjoyed a happy childhood and grew up in a Quaker household that emphasized discipline and learning. She attended two private academies, where she received a good education. Her favorite subjects were French and chemistry. In later years she described her own childhood as "wild, happy, and joyous."

While Rebecca was at school, her father Isaac started an iron mill in Chester County known as the Federal Slitting Mill. He extended his interests by purchasing the Brandywine Mill in Coatsville, Pennsylvania. Her father was quite successful at operating both mills.

In 1813 at age 19 Rebecca married 27-year-old Quaker doctor Charles Lukens, and they returned to live at her parents' home. Charles Lukens abandoned medicine to become a partner with his wife's father in the Federal Slitting Mill under the new name of Pennock and Lukens.

Rebecca Lukens and her husband moved their growing family to the Brandywine area and leased the Brandywine ironworks from Pennock. Lukens foresaw the wide use of steam power and was aware of the superior quality of "charcoal iron" for withstanding the high pressures of steam boilers. He undertook to adapt the Brandywine mill for the rolling of charcoal iron boilerplates to be used in ships and wood burning locomotives. This was a new departure for the iron industry in the United States. The mill's first big order was for iron plates to gird the first metal hull ship in the United States, the steamship *Codorus*, launched in

1825. But it was also during this year that Lukens' husband suddenly died.

While her husband had requested that his wife carry on the mill, Rebecca Lukens was almost bankrupt from the expenses incurred in expanding the mill for the making of charcoal iron. In addition, her husband died without leaving a clear will and the inheritance of the Brandywine ironworks was legally ambiguous. Compounding her difficult situation, Lukens' father had died the year before and she was without his advice.

Facing these difficulties while she took care of a newborn child, Lukens assumed total responsibility for the ironworks. Through her father and husband she had learned much about the techniques employed in iron manufacturing. While her brother-in-law Solomon took charge of operating the mill Lukens managed and controlled the commercial end. She bought supplies, set prices, made contracts, and studied legislation that might affect her business. She faced all the problems of building a major industrial supply business and supporting a family.

Transportation of the finished iron was difficult. Rough roads and teeming rivers were always a problem. Water was often a difficulty, since the mill was run by waterpower—when the water ran low the mill had to be shut down. Lukens also faced serious litigation related to her ownership of the Brandywine mill at her mother's death in 1844. After several difficult but successful lawsuits there was a final decree that Lukens make heavy payments to the estate. In return she was granted total legal ownership of the Brandywine Iron Works in 1853.

Despite continuing problems and increased competition Rebecca Lukens made a success of her business. The opening of railroads near her mill solved her transportation problems and allowed her to expand her market. Additionally, her iron plates became known throughout the United States because of their high quality and consistency.

By the age of 59 Rebecca Lukens had a net worth of \$60,000. She settled her husband's debts, paid the balance due to the Pennock estate, and rebuilt her mill. Three years later she made her son-in-law a partner in the business and went into semi-retirement because of failing health.

The Brandywine Iron Works continued to flourish. After Rebecca's death in 1854 the Iron Works was renamed the Lukens Iron Works in her honor. She was a pioneer of the industry and built the firm nearly from its infancy. The renamed Lukens Iron Works produced steel for over a century. In 1957, 600,000 tons of steel

plates were manufactured by Lukens at the same mill site as the one fought for and saved by Rebecca Lukens.

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LUMBER INDUSTRY

Lumber was probably America's first industry. The first sawmill was constructed in 1608 in Jamestown, Virginia, to meet the lumber needs of the colonists. Since an abundant supply was generated in the first year that the sawmill was operational, Captain John Smith managed to export a shipment of lumber and related products to England.

For the early American settlers, lumbering remained essentially a local business. Transporting logs and lumber to another settlement was a difficult and unprofitable undertaking. Trees were cut in the winter when the hard packed, frozen ground provided a hard, smooth surface to transport the logs to nearby springs and lakes. The logs remained there until the spring thaw and then were floated to the sawmill by loggers. This seasonal approach to logging provided winter employment to many farmers, allowing them to cut down the trees that would shade their crops during the spring and summer.

During colonial times, New England was the center of this industry. As the population of the United States grew, so too did the demand for lumber. Soon the industry had expanded to include Pennsylvania and New York. By the second half of the nineteenth century, the lumber industry gradually made a westward and then southward move. White pine was now being cut in Michigan, Wisconsin, and Minnesota. Long timbers for use as masts on ships, originally produced in Maine,

Lumber Industry



Lumberjacks use the aid of tractors to load these redwood trees onto trucks that will carry them to a sawmill. Technological advancements expanded the logging season and added to the success of the lumber industry.

were now also beginning cut in Oregon and Washington. Southern forests provided oak for warships like “Old Ironsides,” and lumber by-products such as tar and turpentine were produced from the pine forests of the Carolinas. The primary use for wood, however, remained as a practical and economical fuel source.

During the Industrial Revolution, immense growth experienced by the United States increased the need for lumber and for a technology that could supply it cheaply and quickly. The steam engine satisfied that need by making the sawmills less dependent on water and weather. The steamboats could transport wood products rapidly and travel against the current. Steam also replaced water wheels as an internal power source for sawmills. Up to this point most of the rivers that were used to transport the logs had also powered the sawmills. During the usually harsh winters these waters were frozen, and the wheels were useless. The steam engine allowed sawmills to operate year-round and gave sawmill owners the freedom to locate their businesses as far as they wished from the flowing rivers on which they were previously dependent. The ability

to build a sawmill in any location allowed for expansion into the West.

Since this industry was based solely on the existence of trees, it created a unique situation. Trees provided a renewable resource—unlike oil, coal, or other sources of fuel—as well as useful items such as furniture and building materials. Lumber became the basis for a multidisciplinary and diversified industry that could produce a variety of products. This can best be explained by defining the lumber industry as the “production and harvesting of trees for various uses.” The lumber industry mainly refers to the businesses that processed trees into lumber products. This industry promoted the establishment of other industries to convert timber into fuel, chemicals, pulp, paper, and other products.

The development of tools needed to cut and process lumber developed with the growth of the lumber industry. Saws were produced in many types and sizes, from smaller, lighter, hand-held models to large, industrial band saws used in factories. The advent of thinner

saws made with high-grade steel that permitted a smaller kerf (cutting groove) reduced the amount of sawdust produced—boosting the efficiency of not only lumberjacks, but of lumber mills as well.

As the lumber industry (aided by technology) grew, it became apparent that the seemingly endless supply of timber could disappear. In 1895 the United States government created the Division of Forestry. One of its first decisions (in 1897) was to authorize forest reserves. By the late 1990s forestland ownership was divided into four different categories.

First, private non-industry lands owned by farmers and other individuals provide living areas, small amounts of food, and sources of private income. Corporations make up a small portion of this category as well. For example, businesses such as power companies “give back” land used in the past, converting these into recreational areas such as privately owned parks designed for public use.

Second, federally owned and protected national forests make up of millions of acres of mostly untouched wilderness and preserves. These massive areas are off-limits to the lumber industry and provide safe habitation for wildlife. Federally owned lands provide other environmental needs as well. Trees provide a majority of the Earth’s oxygen and consuming carbon dioxide; this action leads directly to cleaner air and a safer environment.

Third, local governments provide public lands as well. In some cases the land was donated to local governments by philanthropists, giving cities and towns the privilege of having an area of forest wilderness to use for recreational and other purposes.

Fourth, private industrial lands maintain appropriate logging techniques, conservation, and the protection of wildlife while operating commercial lumber

business. Enterprises such as the U.S. Timber Company attempt to plan for the years ahead by practicing conservation measures and maintaining tree farms so that harvested forests can be replanted. The Division of Forestry monitors such companies. Between two and three billion trees are reforested in the United States each year thanks to these efforts. This large number is planted so that the amount of trees grown are greater than the number of trees harvested, lost to disease, and consumed by parasites. Technology has evolved to the extent that an estimated 99 percent of all tree by-products are used.

In the late 1990s the chief lumber producing countries were the United States, Russia, Canada, Japan, Sweden, Germany, Poland, France, Finland, and Brazil. The United States and Russia accounted for more than 40 percent of the world’s annual production of lumber at the end of the twentieth century.

See also: Weyerhaeuser

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MAIL-ORDER HOUSE

A mail-order house is a retailer that offers goods for sale through catalogs, which, along with the ordered merchandise, are delivered via the mail service. The mail-order business was pioneered by retailer Montgomery Ward and Company, founded in 1872 in Chicago when American merchant Aaron Montgomery Ward (1843–1913) set up shop over a livery stable and printed a one-sheet “catalog” of bargains. Midwestern farmers, hurt by low farm prices and rising costs, were a ready market for the value-priced goods, which were shipped by rail to rural customers. Initially called “The Original Grange Supply House,” Montgomery Ward and Company offered 30 dry goods priced at one dollar or less and provided special terms of sale for Grange members. (The National Grange was an association of farmers throughout the United States.) Aaron Ward bought merchandise directly from wholesalers. Since he did not maintain a store building, his overhead was low. By 1876 Ward’s catalog had grown to 150 pages; in 1884 it was 240 pages and offered nearly 10,000 products, including household items (such as furniture, cutlery, and writing paper), farm implements (such as harnesses and tools), and fashions (such as ready-made apparel and parasols). Ward offered customers “satisfaction or your money back.” In 1886 American Richard W. Sears (1863–1914) entered the mail-order business, opening operations in Minneapolis, Minnesota. He moved the business to Chicago the following year and sold it in 1889. In 1893 he joined with Alvah C. Roebuck (1864–1948) to found Sears, Roebuck and Company. The Sears catalog, which soon consisted of hundreds of pages and thousands of items, became popularly known as the “Wish Book.”

Montgomery Ward and Sears Roebuck were aided by the U.S. Postal Service’s expansion into remote areas: Beginning in 1896, mail could be delivered via the RFD, Rural Free Delivery. In 1913 parcel post was added to the Postal Service’s offerings, further benefiting the mail-order houses and their growing lists of

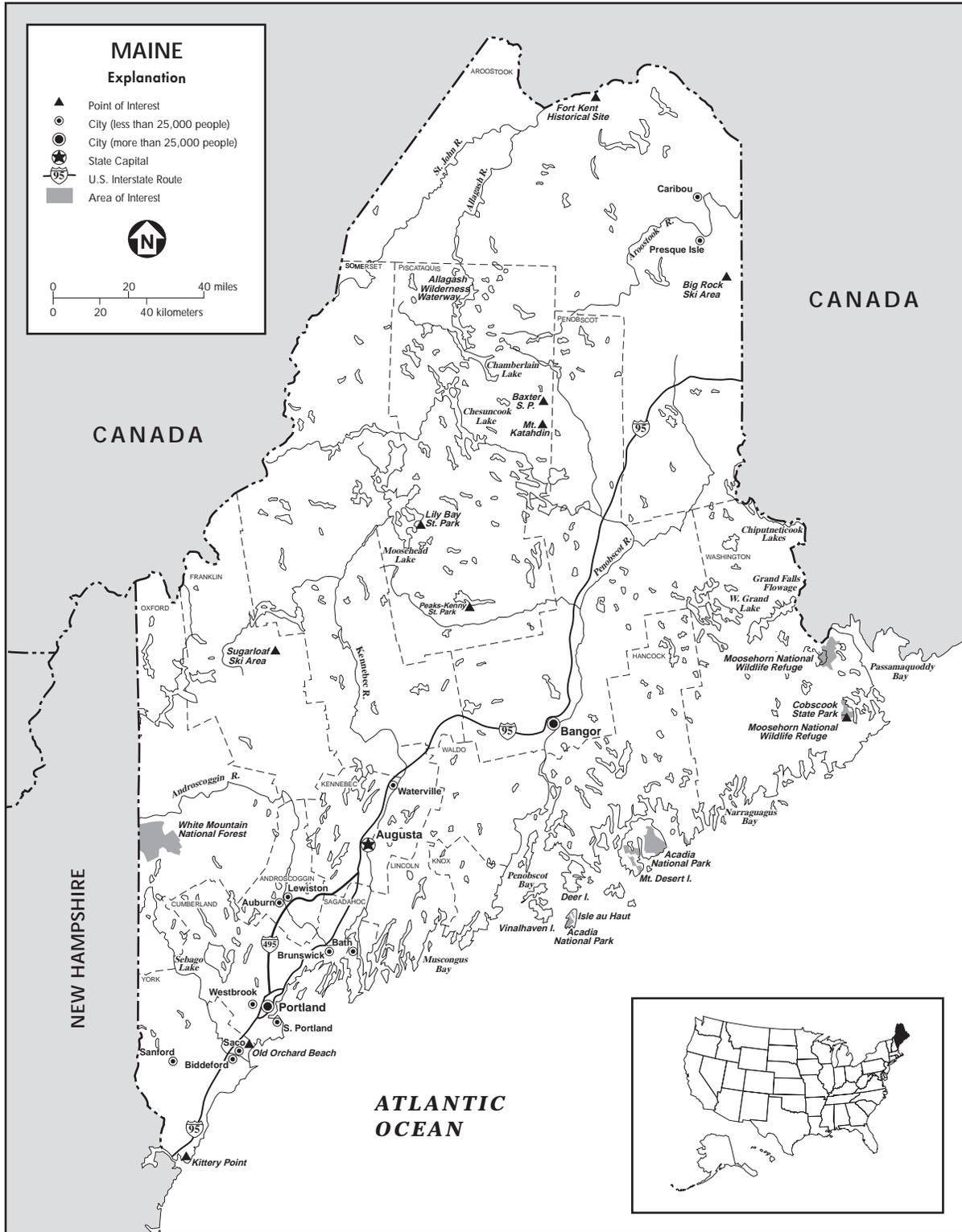
customers. Montgomery Ward and Sears Roebuck offered to the rural United States more than merchandise; the mail-order houses were farm families’ link to the greater consumer society emerging at the turn of the century. Regardless of geography, rural Americans could purchase “store-bought” goods—manufactured goods that were mass-produced in factories. Mail-order houses offered customers convenience because customer purchases no longer had to be deferred for the next trip to a town. They also offered variety, as catalogers catered to a nationwide customer base and on-hand inventory included a multitude of products. Finally, they offered low prices—the mail-order houses bought merchandise at reduced rates from wholesalers. Fashions were no longer restricted to middle- and upper-class city dwellers with access to department stores. Rural customers became aware of new styles each time the Montgomery Ward and Sears Roebuck catalogs were delivered, which, by the early 1900s, was twice a year.

Though both Montgomery Ward and Sears Roebuck exited the mail-order business to concentrate efforts on their chain store retail operations later in the century, they set the standard for modern mail-order houses through their early policies addressing merchandise returns, competitive pricing, flexible payment methods, and shipping terms.

***See also:* Chain Store, Department Store, Montgomery Ward, Retail Industry, Sears Roebuck**

MAINE

A look at any map of Maine will confirm that the settlement of the state occurred on the coast and the rivers, with large areas in the center and the north still largely wilderness. Independent and sometimes wary of outsiders, Maine “down-easters” first developed their fishing resources and later moved into paper and



State of Maine.

textile manufacturing. Never among the most prosperous states in the nation, Maine remains a major producer of paper and wood products, an important location for ocean commerce and fisheries, and a popular destination for tourists.

In the early 1600s English expeditions first came to exploit the rich Maine coastal waters. By 1630 about a dozen English settlements existed along the coast and on several islands. An English joint stock company received the first grant of territory between the Merrimack and the Kennebec rivers in 1622. In the late 1640s the Massachusetts Bay Colony began to absorb settlements in the territory, gaining control of the whole area in 1691. The economy of Maine was based almost entirely on fishing, trading, and use of its forests. One major early industry was the preparation of the white pine masts used by the Royal Navy. Maine remained a part of Massachusetts until 1820, when by terms of the Missouri Compromise, it came into the United States as a free, not a slave, state.

Like the rest of New England, Maine began industrialization between 1830 and 1860, as shoe factories and textile mills sprang up on the state's rivers. Many young farm women came to the mill towns to earn additional income for their deprived families during the heyday of the textile mills. Papermaking also grew in importance; by 1900 Maine was one of the nation's leading papermaking states. The first railroad, the Atlantic & St. Lawrence, was completed in 1853 and connected Portland with Montreal, Canada. By 1900 several more railways, among them the Bangor and Aroostook, the Boston and Maine, the Canadian Pacific, and the Maine Central, crisscrossed the state.

**[TO A MAINE NATIVE, THE] NONNATIVE
SIMPLY COMES FROM OUT-OF-STATE . . .
SINCE ANYWHERE THAT ISN'T MAINE IS
MUCH OF A MUCHNESS AND A PRETTY POOR
EXCUSE OF A PEA PATCH TO BOOT.**

Louise Dickinson Rich, *State o' Maine*, 1964

Shipbuilding was another Maine industry which grew rapidly in the mid-nineteenth century. Maine builders provided many of the stately clipper ships, which carried prospectors and settlers around Cape Horn to California. Lumbering was centered on the Penobscot River at Bangor, which was a freewheeling boomtown from the 1830s through the 1850s. Land speculators rushed into the young state during this time, hoping to turn big profits on cheap land and the promise of wealth.

According to historian Charles E. Clark, the economic history of Maine between the 1860s and the

1890s mirrored economic trends in the nation as a whole, with a particular Maine slant. Entrepreneurs, like the "robber barons" who were building industries and railroads after the American Civil War (1861–1865), came to Maine and made the paper industry their domain. Immigrants came down from Quebec, Canada, looking for work and added their own ethnic flavor to the culture. The entrepreneurs soon began to exploit Maine's abundant water and lumber resources. After the discovery that wood pulp could be substituted for rags in paper manufacture, the paper industry grew rapidly. Smaller companies were absorbed into larger ones, notably the International Paper Company and the Great Northern Paper Company. Often owned largely by interests outside the state, these large concerns controlled river traffic, generated their own power, and owned their own tracts of lumber.

Slowly, pioneer farmers began to settle the more northern regions of Maine, following patterns like those in the settlement of the American West. The Maine potato became a staple crop in the state, and by 1880 several starch mills were built to make even more use of this abundant crop.

In spite of its many natural resources, Maine has suffered economically because of its limited access to a national transportation network. In addition, a curious law passed in 1929 forbid Maine from selling its easily accessible waterpower outside the state, and in 1935 Maine refused to cooperate with a proposed federal water reclamation project similar to the one created by the Tennessee Valley Authority. Today Maine ranks only thirty-seventh in personal income among all states, ranking last in New England. In comparison to those in other states, Maine has no truly large cities; Portland, the largest, had a population just over 65,000 in the 1990s.

While Maine at the end of the twentieth century was not highly industrialized or urbanized, it would be difficult to find a state that benefited more from tourism, which yearly generated about 40,000 jobs, added almost \$3 million to the economy, and was the state's largest employer. In fact, around 50 percent of Maine's economy in the late 1990s, including the tourist industry, was service-oriented. Some of the first tourists who trekked to Maine established wealthy summer colonies in coastal villages like Ogunquit, York Harbor, Boothbay, and Bar Harbor. In the 1990s Maine offered beaches, sailing, craggy coastlines, fishing, hunting, winter sports, and abundant public lands for all kinds of recreation. Its foremost attraction was Acadia National Park, off its central coast, which attracted nearly three million visitors yearly in the mid- and late 1990s.

Manifest Destiny

A relatively small part of the state's economy is devoted to agriculture. Agriculture and food processing industries, however, contribute over \$1 billion annually to the state, and Maine produces more food crops than any other New England state. In addition to ranking first in New England in potato production, Maine leads the world in the production of blueberries, with 25 percent of the total blueberry crop. Milk, apples, and maple syrup are also important Maine products.

Industry occupies less than one-third of Maine's economy but is still a significant sector. In the 1990s, papermaking remained the top industry in the state, followed by transportation equipment manufacture and lumber and wood production. Ninety-five percent of all of Maine's forests are privately owned, primarily by the paper industry. Maine lobster remains the most important fishing product; some of the larger fishing ports are in Portland, Boothbay Harbor, and Rockland. To encourage industrial and recreational projects, the state works through the Finance Authority of Maine to offer such incentives as tax-exempt bonds and loan guarantees for small business. A State Development Office provides assistance for existing and prospective businesses.

See also: Paper Industry

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MANIFEST DESTINY

The doctrine of Manifest Destiny emerged in the United States in the early 1800s; by the 1840s it had taken firm hold. Manifest Destiny was a rallying cry for expansionism and it prompted rapid U.S. acquisition of territory during the 1800s. Adherents to the doctrine believed that the United States had a God-given duty and right to expand its territory and influence throughout North America.

Territorial acquisitions under the doctrine began in 1803, with the purchase of Louisiana Territory from France. In 1819 Florida and the southern strip of Alabama and Mississippi (collectively called the Old Southwest) were acquired from Spain in the Adams-Onís Treaty. In 1845 Texas was annexed after white settlers fought for and declared freedom from Mexico, then formed the Republic of Texas and petitioned the Union for statehood. In 1846 the western border between Canada and the United States was agreed to lie at 49 degrees north latitude, the northern boundary of what is today Washington state. In 1848, by the Treaty of Guadalupe Hidalgo, the U.S. secured New Mexico and California after winning the Mexican War (1846–1848). In 1853 southern Arizona was acquired from Mexico in the Gadsden Purchase. With the 1853 agreement over Arizona the United States had completed the acquisition of the territory that would eventually become the contiguous United States of America.

FIFTY-FOUR FORTY OR FIGHT!

Expansionist slogan during President James K. Polk's administration, 1845–1849

The fervor of Manifest Destiny was perhaps best illustrated by the expansion into Oregon Country, which was settled by the United States and Canada under the Convention of 1818. The territory began at 42 degrees north latitude (the southern boundary of present-day Oregon) and extended north to 54 degrees 40 minutes north latitude (the recognized southern boundary of Russian America, or what is today Alaska). In the presidential election of 1844 candidate James K. Polk (1845–1849) used the slogan "Fifty-four Forty or Fight" to gain the vote of the expansionists: They insisted U.S. rights to Oregon Country extended north to latitude 54 degrees 40 minutes. Polk promised he would acquire the territory—even if it meant a fight with Britain. After he was elected, Polk settled the dispute with Britain and the boundary was set at 49 degrees north, securing the territory that is today Washington, Oregon, and Idaho, and parts of Montana and Wyoming.

The expansionist doctrine was again invoked as justification for the Spanish-American War (1898), which was fought over the issue of freeing Cuba from Spain. Spain lost the war, and its empire dissolved. Cuba achieved independence (though it was occupied by U.S. troops for three years). By the close of the nineteenth century Manifest Destiny had resulted in U.S. acquisition of the outlying territories of Alaska, the Hawaiian Islands, Midway Islands, the Philippines,

Puerto Rico, Guam, Wake Island, American Samoa, the Panama Canal Zone, and the U.S. Virgin Islands.

See also: Alaska Purchase, Expansionists, Gadsden Purchase, Louisiana Purchase, Oregon Country Cession, Texas Annexation, Westward Expansion

MANN-ELKINS ACT

Congress passed the Mann-Elkins Act in June 1910. It amended the Interstate Commerce Act of 1887, expanding the Interstate Commerce Commission's (ICC) responsibilities to include the regulation of telephone, telegraph, and cable companies. The new law declared such companies to be common carriers subject to ICC regulations.

The 1910 act also strengthened the ICC's enforcement of regulations regarding short-haul versus long-haul rail rates. The legislation was one in a series of laws passed by the federal legislature during the 1900s to broaden the jurisdiction and increase the power of the Interstate Commerce Commission. The laws originally gave the agency control over interstate rail rates and practices. The 1910 bill was partly sponsored by Representative James Robert Mann (1856–1922) of Illinois. Mann had also sponsored earlier legislation (1903) to increase the ICC's authority.

When the bill was brought before Congress in 1910 President William Howard Taft (1909–1913) succeeded in amending it to include a provision for a special court to supervise the activities of the ICC. The Mann-Elkins Act was hotly debated in Congress, but passed as amended. The experiment of the Commerce Court, however, proved a failure. In 1912 both houses of Congress voted to abolish the court, which had tried to interfere in the ICC's investigative powers. The U.S. Supreme Court reversed many rulings of the Commerce Court. Congress therefore felt that the special court had exceeded its jurisdiction. President Taft vetoed the congressional legislation that would have dissolved the judicial body.

In January 1913 judge Robert Archbald was impeached and convicted by the Senate for improprieties committed while holding office at the Commerce Court. Suspicions long-held by lawmakers that U.S. Commerce Court judges could be open to influence by the very companies they were charged with overseeing were borne out. Congress moved again to disband the Commerce Court. In October 1913 newly elected President Woodrow Wilson (1913–1921) signed legislation

abolishing the Commerce Court. Other provisions of the Mann-Elkins bill remained intact.

See also: Interstate Commerce Act, Interstate Commerce: Regulation and Deregulation

MARCUS, STANLEY HAROLD

Stanley Marcus (1905–) was president of the Neiman Marcus retail department store chain from 1950 to 1975. Involved in the company since 1926, he continued the family tradition of providing high-quality products at reasonable prices. Marcus turned a local Dallas store into an internationally respected retailer with 30 stores nationwide.

Stanley Harold Marcus was born in Dallas, Texas, on April 20, 1905. He was the eldest son of Herbert Marcus, one of the founders of the Neiman Marcus department store, and Minnie Lichenstein Marcus. Stanley Marcus was the eldest of four sons. He was raised in Dallas and attended Forrest Avenue High School. From there, he went East to prestigious Harvard University. He graduated in 1925 and received his Master's in business administration from Harvard's Business School in 1926.

Retailing was a Marcus family affair. In 1907, when Stanley Marcus was only two years old, Herbert Marcus, Sr., along with Stanley's aunt and uncle, Carrie Marcus Neiman and Al Neiman, founded Neiman Marcus. Young Stanley spent his childhood playing among the clothing and display cases of his family's Dallas store.

ONE THING I LEARNED VERY EARLY IS THAT A VALUABLE SALESPERSON IS EASILY WORTH THREE TIMES WHAT YOU PAY THE AVERAGE SCHNOOK.

Stanley Marcus

Upon returning from Harvard in 1926, Marcus went to work at the store. Al Neiman had just retired, and the elder Marcus needed his son's help. Stanley Marcus started work as a floor man in Neiman Marcus' apparel departments. It was not the career he had envisioned for himself; he had wanted to be a book publisher. His father and aunt insisted he join the family business, but promised that his creative energies would not be stifled.

In November 1932, Stanley Marcus married Mary Cantrell. They had three children. After Mary Marcus' death, Stanley Marcus later married his second wife, Linda, in 1979.

During Stanley's first year at Neiman Marcus, his creativity was put to use. He pioneered Neiman Marcus' weekly fashion shows, the first by an American department store. The store became famous for these shows, and it was their first step into the world of high fashion. Stanley Marcus also introduced the Neiman Marcus Fashion Exposition. Under his guidance, Neiman Marcus became the first specialty store to advertise in national magazines. These were the first of many promotional visions that Stanley Marcus brought to life. Over time, his marketing genius became legendary.

By 1928, Stanley Marcus was an executive. He became director, secretary, and treasurer of Neiman Marcus, as well as the sportswear merchandise manager. At this time, the United States was beginning its plunge into the Great Depression (1929–1939). Most of the country saw poverty on previously unknown levels and countless businesses closed. Retail establishments like Neiman Marcus were particularly hard-hit, as Americans struggled to put food on their tables and gave up fashion and decor. Amazingly, Neiman Marcus only had two years of small losses during the Depression, the only losses in the company's history.

In September 1930, oil was discovered in several large oil fields in east Texas. This created wealth for many Dallas families and increased business for Neiman Marcus. During the Depression, Marcus noticed that many of the Southwest's wealthiest continued to travel to New York or Paris to purchase their clothes. This was a market Marcus wanted to catch. He arranged a lunch with the famed publisher Conde Nast (1837–1942). At this meeting, Marcus announced that he wanted to advertise Neiman Marcus in Nast's fashion magazines. He easily convinced Nast, who until then had only accepted advertising from New York stores, and soon Neiman Marcus advertisements were found in *Vogue* and other couture magazines.

In 1938, Stanley developed the Neiman Marcus awards, "the Oscars of Fashion." The awards were presented annually for distinguished service in the field of fashion. Early honorees included Christian Dior in 1947 for "The Look." The same year saw designer Norman Hartnell of London honored for designing Princess Elizabeth's wedding gown.

World War II (1939–1945) involved the entire Marcus family. Stanley Marcus served as director on a three-state regional board of the Smaller War Plants Corporation. He was also chief of the clothing section of the textile, clothing, and leather branch of the War Production Board in early 1942. His brothers joined the armed services. All of the Marcus brothers returned to work for Neiman Marcus at the conclusion of the war.

After the war, Stanley's marketing savvy, combined with Neiman Marcus' legendary quality merchandise and customer service, continued the store's growth. His national advertising campaign continued as Marcus worked to present Neiman Marcus merchandise in an irresistible light. By 1949, the specialty store's charge accounts numbered about 100,000. Neiman Marcus could claim customers throughout the United States and many parts of the world. That same year, French ambassador Henri Bonnet presented Stanley with the Chevalier Award of the Order of the Legion of Honor for his contributions to French industry and commerce by influencing the sale of French fashions.

Patriarch Herbert Marcus Sr. died in 1950. At this time, Carrie Neiman was named chairman of the board, Stanley Marcus became president and chief executive officer, and brother Edward Marcus became executive vice president.

Stanley Marcus was among the most visible of those family members associated with Neiman Marcus, with a strong presence throughout the company's operations. Marcus made the Neiman Marcus catalogues famous. Designed to promote the company's mail order business, the first catalogue appeared in 1915. Stanley Marcus' most famous marketing strategy was his 1960 creation: his and hers gifts in the Neiman Marcus Christmas catalogue. The response was tremendous, stimulating sales and strengthening Neiman Marcus' place as an internationally known retailer. "His and Hers, the Fantasy World of the Neiman Marcus Catalogue," Marcus said, "did more to establish our catalogue than any other idea. We had His and Hers submarines for \$18,700 each. Hot air balloons at \$6,850 each. We had His and Hers camels. His and Her airplanes. Matching Chinese junks that we headlined, 'Junk for Christmas, \$11,500.' We sold eight." This was quite a difference from Neiman Marcus' first Christmas catalogue in 1915, a six-page, five by six inch list of Christmas gift ideas.

Marcus' philosophy was that a successful retailer stays ahead by fighting standardization, "by selling what he believes in, not just what he thinks can make him money." From that point, success becomes a question of high-quality salesmanship. "One thing I learned very early is that a valuable salesperson is easily worth three times what you pay the average schnook," he told *Inc.* magazine. "Because you never know what that schnook is costing you in lost sales. Why do you think that you have to have so many department stores in a mall these days? It's not because their merchandise is so different. It's because each of

them does such a poor selling job that they survive just taking up each other's unsatisfied customers. A store with good sales people wouldn't let that happen."

Despite the store's purchase by Carter Hawley Hale Stores, Inc. in 1969, Stanley Marcus stayed involved with the day-to-day operations of Neiman Marcus and remained visible as a business leader in the Dallas community. Marcus was named as executive vice president of the company's specialty store division. He retired in 1974 with the title chairman emeritus.

He continued to be active in his retirement, and served as a consultant in the retail industry. Marcus has written three books, *Minding the Store* (1974), *Quest for the Best* (1979) and *His and Hers* (1983). He also wrote a weekly editorial column for the *Dallas Morning News*, as well as numerous articles on fashion and retailing for well-known publications, including *Atlantic Monthly* and *Fortune* magazines.

Even in the mid-1990s, Marcus, in his nineties, continued to give public lectures around the country. Narrowcasting, the business he co-founded, is a marketing service which gathers information on the shopping habits of America's wealthy. Critics still continued to view his analyses of the current market as cutting edge.

Despite his work responsibilities, Stanley Marcus stayed busy in Dallas' civic and cultural communities. He was a member of the Salvation Army Advisory Board, the American Council for Judaism, the Civic Federation of Dallas, the Greater Dallas Planning Council, the Dallas Health Museum, and the Dallas Historical Society. National organizations to which he belonged included the American Heritage Foundation, the National Commission of Public Schools, and the American Trade Association for British Woollen, Inc., as well as the American Retail Federation. As American Retail Federation chairman, Marcus developed policies for an organization representing over 500,000 U.S. retail stores. He also served as an alumni advisor to Harvard University.

Stanley Marcus is a retailing legend; he lived by the credo "the customer is always right." Customer service and quality were his passion and through that passion, he turned a local Dallas specialty store into an international giant whose name is synonymous with distinction.

See also: Department Store, Retail Industry

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MARKET

A market exists when a buyer and a seller exchange money for a product or service in a transaction in which neither person is forced into the exchange. Markets can be as simple as children selling lemonade for a nickel or as complex as the international trade in cars, steel, or telecommunications.

The most important question in any market is the setting of the price. Economists since the days of British economist Adam Smith (1723–1790) have noted that prices tend to fluctuate with supply and demand. If, for example, a farmer offers his crop of wheat for sale at a given price and no one buys, she or he will lower the price to try to attract buyers. On the other hand, if there is a scarcity of the product, sellers will be able to charge more for it. In this way prices are set for thousands of products in many markets every day.

The free flow of information is essential to the efficient operation of markets. If a buyer knows that cars are cheaper at one dealership than another, she or he will buy at the less expensive dealership. But if this information is not available, the buyer may spend more money than necessary. This would leave less money to spend on something else, and thus markets would be less efficient. Information, then, is essential, whether passed by word of mouth, newspaper advertisements, or other means. Sellers sometimes try to restrict such information or scheme to keep prices high. Economists refer to such schemes as price-fixing or collusion, and governments generally outlaw such practices.

Economists also believe it is important that governments don't unduly restrict the operation of free markets with burdensome taxes or regulation. Some regulation may be necessary; for example, some regulations protect the health and safety of workers. But when governments restrict the sale of a commodity, such as automobiles, to a single state-controlled brand at an artificial price, then economists say such a market is no longer free. Markets in the former Soviet Union were not free, which is why an illegal market in food and other essential goods and services flourished side by side with official ones. Economists call these illegal markets the underground economy or black markets. Such markets tend to spring into existence in any country whenever government taxes or regulations restrict the sale or supply of a product.

See also: Price, Supply and Demand

MARKET REVOLUTION (ISSUE)

The market revolution was simply the transition from subsistence economy or barter economy to using money to buy and sell things. This, in turn, transformed the way that people looked at things: from useful objects into commodities with prices attached to them. Except in the case of slavery, among the things that now wore price tags was human labor. The populations of the countryside now included a growing stratum of agricultural laborers who, like their urban counterparts, worked for wages. To the extent that the market revolution penetrated the countryside, however, with cash crops like tobacco and cotton, those who did not own land could often rent it. Those tenant farmers might rent the land by paying the landowner in money or in shares of the crop. But even though the process of production involved various combinations of cash, barter, and sharecropping, the whole system rested on the fact that the crop was eventually sold on the market. Otherwise there would have been no reason to grow crops beyond what was needed to subsist. The market revolution absolutely revolutionized the lives that it touched. The changes that it wrought even extended to the religious sensibilities expressed by the people whose lives were disrupted by the market revolution.

At the beginning of the nineteenth century the United States was still primarily an agrarian nation. Agriculture dominated the lives of people whether they were large planters or small farmers. Most small farmers practiced subsistence farming, making whatever was needed for themselves and their families. Because

the shipment of produce was costly and time-consuming, only farmers near ports grew cash crops. The market revolution grew out of this primitive economic regime. Prior to the market revolution, the transportation revolution established the trade corridors that gradually corroded the culture of subsistence farming.

The roads, canals, rivers, and, eventually, the railroad tracks that made up the transportation revolution spurred the market revolution. Self-sufficient farmers became involved in the market little by little: selling eggs, growing cash crops for sale, and relying on industries for the goods—like clothing or the fabric to make clothing—that were formerly produced at home. More people became involved in non-agricultural businesses, which helped to diversify the U.S. economy. By 1860 almost 40 percent of U.S. citizens no longer relied directly on farming for their living. With economic expansion and improvement in transportation the population began to move westward, opening up the interior of the continent. By 1850 almost half of the U.S. population lived outside of the original thirteen states.

The cities grew rapidly. In 1820 only 12 cities had populations over 5,000. By 1850 there were 150. By 1860 over 20 percent of the U.S. population lived in urban centers (towns over 2,500 people), which was up from nine percent in 1820. The Northeast was the most urbanized area in the nation with one-third of its population living in cities. In the South cotton fed a strong, rural agricultural economy. Only one-tenth of the South's population lived in urban areas.

Although some economists see a period of *laissez faire* economics during the market revolution, the federal government nonetheless remained a potent force in the economy. Nowhere was this more clearly seen than in banking. The federal government established the First and Second Banks of the United States as central banks with effective power to regulate commercial banks chartered and licensed by state governments. The existence of a "national" or "central" bank brought relative regularity to the circulation of currency and the funding of enterprise. It also, however, provoked anxiety and skepticism on the part of ordinary citizens as well as politicians like Andrew Jackson, who distrusted concentrations of economic or political power.

Echoing the anxiety of many Americans regarding the financial and speculative aspect of the market revolution was the fear and despair of the slave population of the South in the face of the demand on their labor to feed the cotton-based industrial revolution in

England and the textile producing mill towns of the Northeastern United States. The exploitation of slave labor was based on cotton, rice, and tobacco as cash crops. This required the market revolution and the conversion of subsistence agriculture into cash-crop agriculture.

The market revolution also transformed the culture and the religious life of the United States in the period between the Revolution and the Civil War. What had been a rural, traditional society was now undergoing profound change. The market revolution sped up change. It brought uncertainty and anxiety and it evoked the thinly repressed insecurity of evangelical Protestantism. The question: “What must I do to be saved?” now reverberated in a great many questions of everyday life. People were moving. Jobs were being lost. Slave families were being broken up as the men were being shipped off to new and more fertile plantations along the Mississippi River. Trades were being “degraded” as various forms of capitalist enterprise found cheaper ways to produce the goods that the artisan class had formerly made. Women who had made the candles or the homespun clothes that the family had worn now bought those items in the cross-road store. They were losing their roles and the feeling of equality with men that the shoulder-to-shoulder labor of the subsistence homestead had afforded.

This pervasive and multi-faceted insecurity on the part of displaced populations who were undergoing the trauma of separation from traditional society expressed itself in the religious rhetoric of the age. The camp-meetings of the Second Great Awakening—with the itinerant preachers and the amateurs preaching from tree stumps and the emotional outpouring of sinners all looking for a second chance—served to heal some of the wounds of a population going through the market revolution.

See also: Bank War, Laissez Faire, Slavery, Subsistence Agriculture

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MARSHALL PLAN

Between 1948 and 1951 the European Recovery Program—or as it is commonly called, the Marshall Plan—restored post-war Western Europe’s agricultural and industrial productivity by providing nearly \$15 billion in U.S. economic assistance. The plan is named after Secretary of State George C. Marshall, who proposed it in a commencement speech at Harvard University on June 5, 1947.

George C. Marshall (1880–1959) gained military recognition in World War I (1914–1918) as the chief tactical officer of the first American division to go into action in France. He was named chief of staff of the U.S. Army in 1939, making him a four star general and the head of the army throughout World War II (1939–1945). During the war, he planned the amphibious invasions of North Africa and of Normandy, France; his achievements were heralded by the leaders of the United States and its allies. Marshall retired from the army in November 1945, but in 1947 President Harry S. Truman appointed him secretary of state.

IT IS LOGICAL THAT THE UNITED STATES SHOULD DO WHATEVER IT IS ABLE TO DO TO ASSIST IN THE RETURN OF NOMINAL ECONOMIC HEALTH IN THE WORLD, WITHOUT WHICH THERE CAN BE NO POLITICAL STABILITY AND NO ASSURED PEACE.

George C. Marshall, Harvard University commencement speech, *History Today*, June 5, 1947

Shortly after his appointment, Marshall attended a conference in Moscow with British, French, and Soviet leaders to discuss Germany and Austria’s future. Europe was physically and economically devastated in the wake of World War II; food, fuel and raw materials for production were in desperately short supply. Businesses had been destroyed through loss of capital, nationalization, or physical obliteration, and confidence in local currencies was badly shaken. Observing the economic collapse of Europe and recognizing the

Marshall Plan

Soviet Union's intention to take advantage of that collapse to spread communism across Europe, Marshall returned from the conference determined to restore the European economy.

On June 5, 1947, during a commencement address at Harvard University, Marshall stated, "It is logical that the United States should do whatever it is able to do to assist in the return of nominal economic health in the world, without which there can be no political stability and no assured peace. Our policy is directed not against any country or doctrine but against hunger, poverty, desperation and chaos. Its purpose should be the revival of a working economy in the world so as to permit the emergence of political and social conditions in which free institutions can exist." Marshall proposed that European nations determine their needs and suggest a plan for American economic assistance for their recovery.

In response to Marshall's announcement, sixteen Western European countries met in Paris a month later to form the Organization for European Economic Cooperation and to assess and agree on their needs. Although Marshall had claimed that the plan was "not directed against any country or doctrine," from the start the United States attached conditions to their aid that would be unacceptable to the Soviet Union. Thus, while the Soviet Union and the Eastern Europe countries under its control were invited to participate, the Soviet Foreign Minister walked out of the talks. The Western European nations eventually drafted a request for \$16 to \$22 billion to stimulate economic recovery by 1951.

Back in the United States, the Marshall Plan was debated in Congress. To ensure its passage, Marshall worked closely with congressional committees and made promotional speeches throughout the United States. Congress agreed to Truman's \$17 billion request to aid Europe. In April, 1948, Truman signed an act that established the Economic Cooperation Administration (ECA) to administer the program. The ECA's primary goals were to elevate European economic production, support European currency, and assist with international trade. Its other intention was to restrain the spreading Soviet influence in Czechoslovakia, France, and Italy. Paul G. Hoffman (1891–1974) was appointed ECA's chief administrator. Later that year the participating countries—Austria, Belgium, Denmark, France, West Germany, Great Britain, Greece, Iceland, Italy, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, Turkey, and the United States—signed the agreement that instituted the Organization for European Economic Cooperation (later called the

Organization for Economic Cooperation and Development) as the head coordinating agency.

The Soviet Union strongly opposed the Marshall Plan and refused to participate; a few other Eastern European countries criticized or ignored it. The Soviets prevented Poland and Czechoslovakia from participating, despite their desire to do so. Stalin accused the United States of trying to use its money to lure Eastern European nations away from Soviet influence. He ordered all Communists to resist U.S. imperialism and established the Cominform, an international Communist information bureau. Stalin's most drastic response to West Germany's participation in the Marshall Plan was the 1948–1949 Berlin blockade, an unsuccessful attempt to force the United States and its allies to evacuate West Berlin.

Completed in 1951, the Marshall Plan greatly contributed to the economic restoration of Europe. At its end, nearly \$15 billion in recovery aid had been channeled into Western Europe. Many countries' agricultural and industrial productivity was higher than they had been before World War II. His efforts in preventing famine and political chaos through the Marshall Plan earned George C. Marshall a Nobel Peace Prize in 1953.

Some revisionist historians have contested that the Marshall Plan did not demonstrate American altruism, arguing that assistance to Europe prevented the United States from falling into its own economic decline by providing a market for U.S. capital goods. According to revisionists, the Marshall Plan also let the United States rebuild the Western European economy to mirror the American economy, providing a more compatible environment for U.S. investment.

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MARYLAND

Maryland's natural harbor on Chesapeake Bay, its moderate climate, and its adaptability for agriculture made it a desirable place for settlement in colonial days. The manner of settlement was very different from places like Virginia or Massachusetts. Unlike many other colonies, Maryland was established with an almost feudal system in which the land was considered the property of the English lord who governed it—a proprietary colony. Maryland also had a higher proportion of Catholic settlers than most other colonies and experienced a higher proportion of religious wrangling. Its position as a slaveholding state which did not secede from the Union also set it apart from southern states during the Civil War (1861–65). In modern times, the state has thrived by creating a diversified economy that includes industry, maritime interests, agriculture, and the service sector.

The first Europeans to penetrate into the land which later became Maryland were the Italian Giovanni da Verrazano (1480–1527) and the Spaniard Lucas Vazquez de Ayllon in the sixteenth century. The first explorer of Chesapeake Bay, an area that would become vital to the commerce of Maryland, was Captain John Smith (1580–1631), who was leader of the colony that was established in Jamestown, Virginia. Smith's map of the Chesapeake was used for many years and was an important tool in the settlement of the area. By the time the European explorers arrived, Native Americans had established permanent settlements in Maryland, where they cultivated corn (maize), vegetables, tobacco, and other crops.

The territory was given as a proprietorship by England's King Charles I (1600–1641) to George Calvert (1580–1632), a favorite of the English court. Lord Calvert had resigned his position at the court because his Catholic religion prevented him from holding public office in England. Since the colony of Virginia also wanted the land, it opposed the king's decision, but Calvert prevailed. Later he left the land to his son, Cecilius, who is better known as Lord Baltimore (1605–1675). He named the region Maryland after the queen consort of Charles I, Henrietta Maria of France. This land grant encompassed not only the area that later became Maryland, but also Delaware, part of Pennsylvania, and the valley between the north and south branches of the Potomac River.

As a sole proprietorship, the colony of Maryland was fully under the control of Lord Baltimore, who derived his income from the quitrents, which were

money payments that took the place of feudal duties, like military service. The settlers paid them as a kind of rent for the land. Baltimore's financial obligations to the king were minimal. The colony's early years were marked by feuding between Puritans and Roman Catholics. The feuds were settled only when Benedict Leonard Calvert (1606–1647), the fourth Baron of Baltimore, embraced the Protestant faith and was granted proprietary rule.

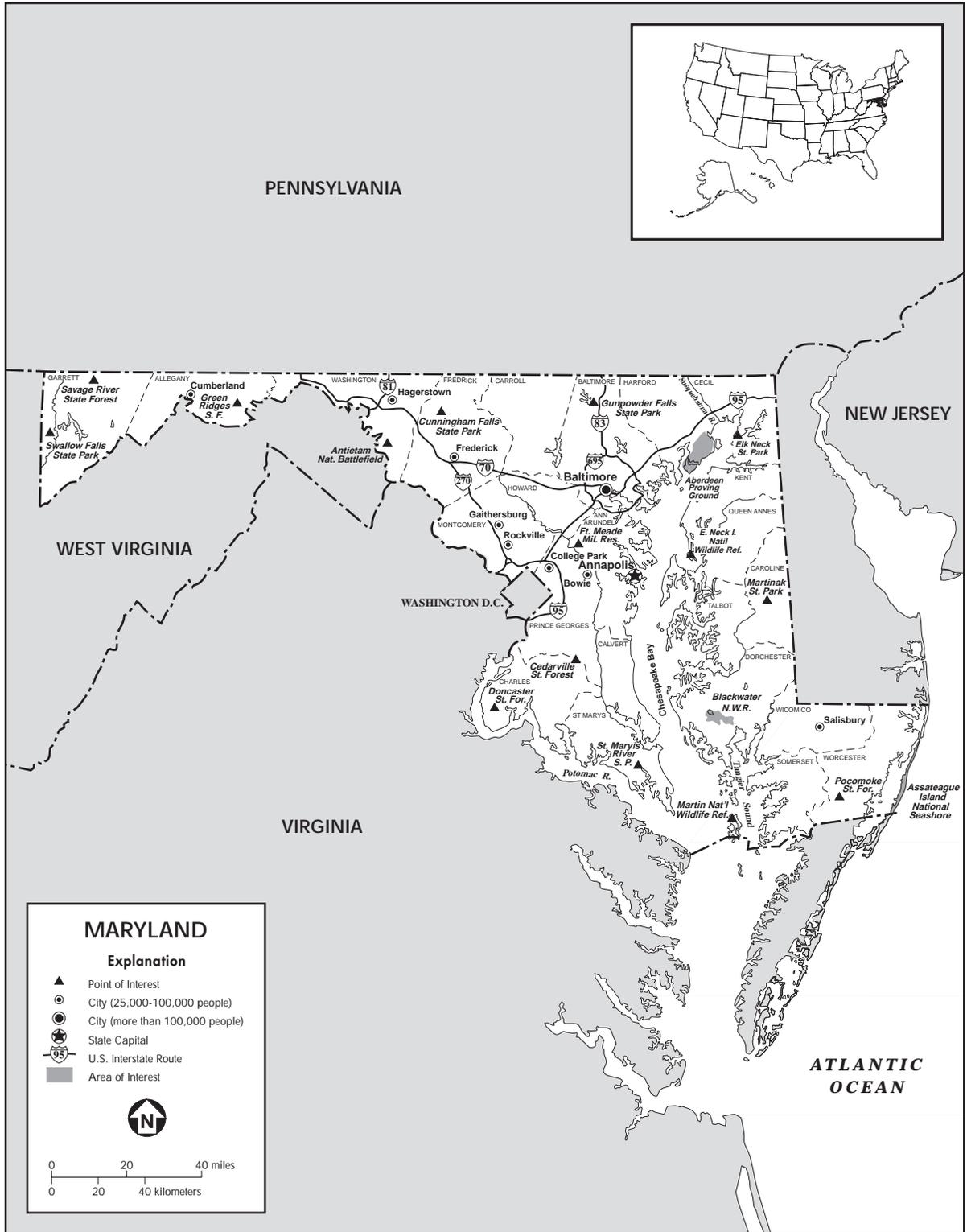
Maryland was a somewhat reluctant participant in the American Revolution (1775–1783) but finally sent 20,000 soldiers to fight in the war. It was the seventh state to ratify the federal Constitution. Maryland provided the home for the Continental Congress in two cities, Baltimore and Annapolis, before the permanent capital was established in Washington, DC. Maryland's first state constitution favored owners of large rural estates over people who owned no property.

Tidewater and southern Maryland provided the state's main staple crop, tobacco. It was grown with the help of slave labor and indentured servants. German immigrants in western Maryland helped develop the wheat economy. The city of Baltimore was founded in 1729. The city prospered because of its magnificent harbor, which provided access to the import and export trade. Shipbuilding also grew rapidly in the Baltimore area. During the War of 1812 (1812–1814) many naval and military operations took place in the area, and Francis Scott Key wrote the Star-Spangled Banner during the British siege of Fort McHenry in Baltimore harbor.

Baltimore harbor provided the first transportation access to Maryland; but other networks developed in due time. The first national highway was known as the National Road (now U.S. Route 40). The highway began at Cumberland in 1811, providing access to Ohio within seven years. The Delaware and Chesapeake Canal opened in 1829, linking Chesapeake Bay and the Delaware River. The Baltimore and Ohio Railroad opened in 1828, soon providing the first passenger train to Washington, DC, and Harpers Ferry, Virginia (now in West Virginia). The line extended to St. Louis by 1857 and precipitated the growth of freight service, which helped Baltimore grow into a metropolis. The Pennsylvania Railroad began providing service to northern cities in the 1850s.

Maryland did not support secession in the Civil War but remained one of the border states that still harbored many southern supporters. In spite of its sympathy to the South, in 1864 the Maryland legislature voted to abolish slavery, which caused a problem

Maryland



State of Maryland.

after the war, since its economy had been based on slave labor. It was estimated that the value of Maryland's slaves in 1860 approached \$35 million. Tobacco plantations in Prince Georges and other southern counties were hit hard by abolition. Tobacco never made a full recovery as a staple crop. Truck farms grew instead, helped by the proximity to water and rail transportation. The Maryland legislature even resorted to an advertising campaign to help economic development. In 1867 it commissioned a pamphlet titled *A Succinct Exposition of the Industrial Resources and Agricultural Advantages of the State of Maryland*.

The economy did recover, and enabled Maryland to participate in the rebuilding of the south. The state's economic base shifted gradually from agriculture to industry, led by shipbuilding, steel-making, clothing manufacturing, and shoemaking. The state's economic success allowed for philanthropy. Millionaires who had made their fortunes between the Civil War and World War I (1914–1918) endowed cultural and educational institutions. Banker and financier Johns Hopkins (1795–1873) founded Johns Hopkins University. Merchant and banker George Peabody (1795–1869) financed the Peabody Conservatory of Music; and Enoch Pratt (1808–1896), a manufacturer and merchant, endowed the Pratt Free Library.

The city of Baltimore was the industrial center of the state. By 1890 its population had grown to 434,000, employing people in manufacturing and mechanical industries, trade, transportation, and personal and professional services. The city attracted a variety of ethnic groups, especially African American descendants of slaves. But there were a large proportion of Germans and Irish as well. Baltimore developed its ethnic neighborhoods like many other cities during the Gilded Age. The neighborhoods were filled with low-paid factory workers, who often worked in local sweatshops that manufactured men's clothing.

World War I provided another boost to Maryland's economy; but soon the Great Depression of the 1930s brought hardship to many people. The depression spelled the end of the political career of longtime Democratic Governor Albert C. Ritchie (1876–1936). His successor Harry W. Nice was a Republican. However, Nice supported the New Deal program of Democratic President Franklin D. Roosevelt (1933–1945). Like most of the nation, Maryland was only brought out of the economic doldrums by the manufacturing boom created by World War II (1939–1945). The shipyards of Bethlehem–Fairfield and Maryland Drydock in Baltimore had to hire an additional 12,000 employees in 1942 to keep up with war demands. The

Martin Company, which manufactured aircraft, added 6,000 employees. People in search of good wages swarmed to the city, not only from Maryland itself, but from Appalachia and the South.

During the latter part of the Depression, Maryland became the site of an experiment in city planning. The experiment resulted in the creation of "New Towns." One of the towns was Greenbelt, Maryland, designed as a conveniently arranged, pleasant place to live, with proportional representation from all kinds of ethnic and religious groups. Later a developer named James Rouse (1914–1996) built the village of Cross Keys in northwest Baltimore along similar lines. He also began to plan for the city of Columbia in Howard County. Columbia, which was begun in the mid-1960s, was planned as a cluster of villages, each with a collection of shops and strategically placed schools. Businesses and industrial parks flanked the village centers. Life in Columbia was never as idyllic as its planner had imagined it, but despite some difficulties during the 1970s the city continued to thrive.

The state of Maryland grew by 13.4 percent during the 1980s, well over the national average of 9.8 percent. The expansion of U.S. government is in part responsible for the growth. Many federal workers have settled in Prince Georges and Montgomery counties, Maryland suburbs of Washington, DC. The headquarters of the Social Security Administration is located in Baltimore. The most significant economic improvements during the 1980s and 1990s, however, were undoubtedly related to the economic redevelopment of Baltimore. The Charles Center development, the renewed Inner Harbor, the World Trade Center, the National Aquarium, and the new Baltimore Oriole Park at Camden Yards created a boom in retailing and hotels. These improvements brought hundreds of thousands of people to the city. The state suffered somewhat from the recession of the 1980s but has increased employment in the service sector. That gave Maryland the fifth highest state income in the country during the mid-1990s. The state ranked sixth in per capita income in 1996.

See also: **Baltimore and Ohio Railroad, Colony (Proprietary), National Road, Tidewater, Tobacco**

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MASS PRODUCTION

Prior to the nineteenth century manufacturing was largely hand-fitted. The artisan worked with the individual product—for instance, a farm wagon—and by using shims or a mallet, he would “make it fit.” If production involved machining metal, the machine tolerances would be loose. The system “worked” but the production process was inefficient, repair was chancy, and the price of labor—labor with the right “touch” for making things fit—was high.

In the late eighteenth century, standardized manufacturing transformed production technique. This development was called the American System of Manufactures. First introduced in the firearms industry (especially at the Springfield, Massachusetts federal armory) by inventor Simeon North, the American System was employed in producing pistols for the U.S. government. The parts were machined to set tolerances so that they were interchangeable. Standardization saved time and money in production and made possible the repair of a broken product.

The American System, however, was not yet mass production although the two systems shared the concepts of division of labor and close machining and interchangeability of parts. Mass production also introduced a more efficient organization of the workplace as well as the application of more powerful tools in production. Efficiency in the workplace included the innovation of the assembly line and the time-and-motion studies of Frederick W. Taylor’s “Scientific Management.” “Taylorism” forced the worker to adopt the most efficient way to do his job. Improved productivity through power tools included the introduction of electric or compressed air power tools and, in more recent times, automated welding robots. All this utterly transformed the factory as a space to work.

Perhaps the most significant difference between mass production and the earlier American System, however, was the enormous production goals of mass production. The best example of this is the Ford Motor Company. The assembly time for a single Model T

went from 150 minutes in 1913 to 26 1/2 minutes in 1914. One important difference was the installation of the chain-driven assembly line. Production climbed from 13,380 Model T Fords in 1909 to 585,388 in 1916. The economies of scale associated with such production goals meant that Ford could afford to pay his workers better wages (the five-dollar day) and to cut the price of the car. A Model T dropped in price from 950 dollars in 1909 to only 360 dollars in 1916. In doing this, Henry Ford forever changed the nature of American society.

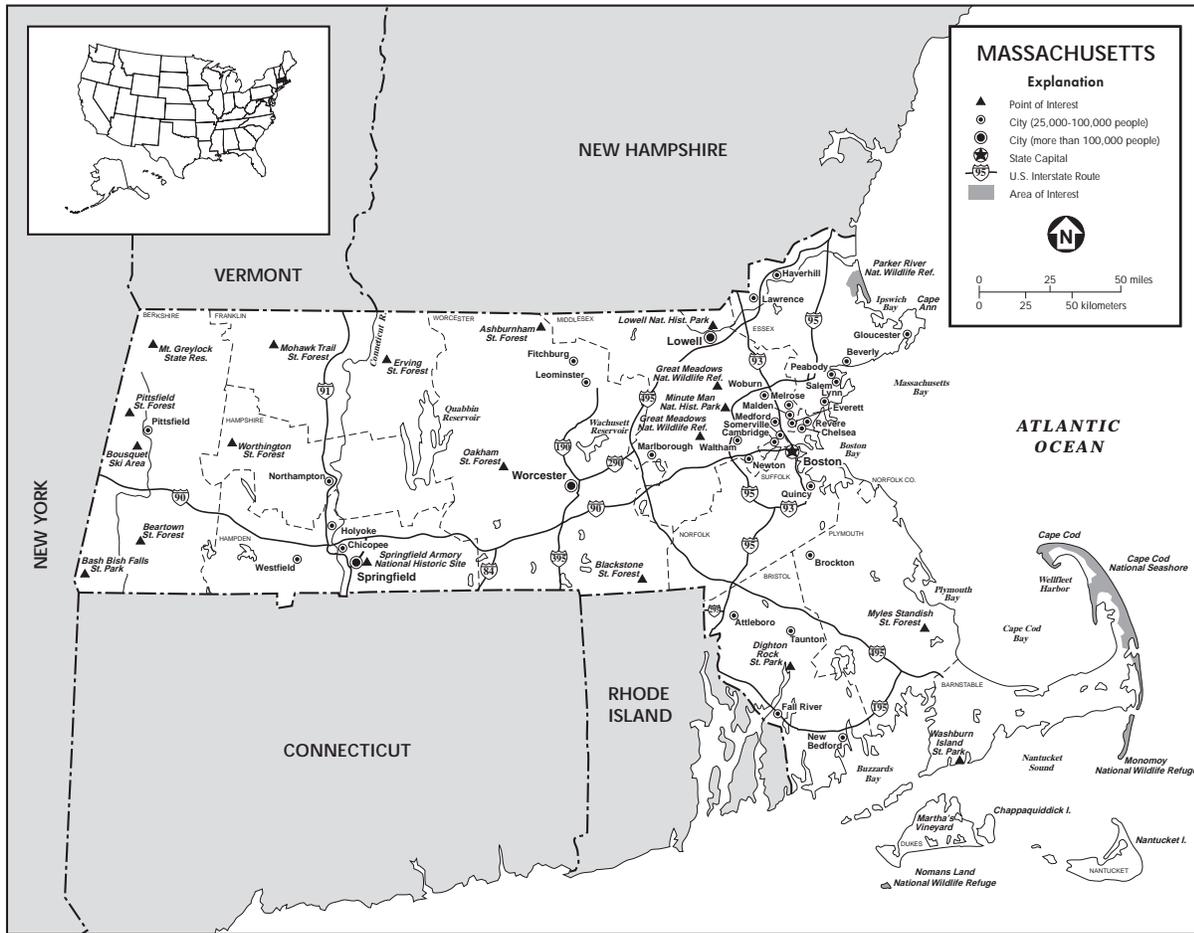
See also: American System of Manufactures, Assembly Line, Henry Ford, Frederick W. Taylor

MASSACHUSETTS

The first Europeans to exploit resources in the state of Massachusetts were fishermen who came from England, France, Portugal, and Spain in the mid-sixteenth century. They went ashore to process their catch; soon a flourishing fur trade was established with Native Americans. Religious persecution later drove a group of English Puritans who wished to separate from the Church of England to the New World in 1620. They settled in a Massachusetts village, which they named Plymouth. In 1630 a non-Separatist Puritan group settled to the north in the Massachusetts Bay Colony. The group was headed by patriarch John Winthrop (1588–1649). Winthrop believed strongly that the material success of the new colony would be a visible sign of God’s blessing. Between 1630 and 1640 around 20,000 English people settled in Massachusetts.

Migration of the English to Massachusetts slowed around 1640, because in that year a civil war brought Puritans to power in the mother country and removed religious persecution as a reason for immigration. Towns like Salem, Gloucester, Marblehead, and Boston, however, afterward remained important centers of the fishing industry; but as time went by, fishing and fur trading began to decline. As the supply of valuable beaver skins was being exhausted, the settlers turned to farming the rocky soil as means of sustenance. In the face of white encroachment upon the land, Native American tribes steadily declined, and many were wiped out in King Philip’s War (1675–1676). As a sign of European dominance, Plymouth and the Massachusetts Bay Colony were merged in 1692 by royal decree.

Settlements spread across the colony in the eighteenth century. By 1730 Boston reached a population of 15,000. The city soon became a center of shipping and commerce. It also evolved into a hotspot of political



State of Massachusetts.

unrest, since colonists were becoming more and more dissatisfied with tight political and economic controls imposed by the British. The cry of “taxation without representation” accompanied resentment caused by British control of trade and political rights. In 1773 the citizens of Boston expressed their frustration by dumping tea into the harbor. By 1775 the time was ripe for the beginnings of the American Revolution (1775–1783) in Lexington and Concord.

Massachusetts required some adjustments after the defeat of the British. The Shays’ Rebellion (1786–1787) occurred when central and western farmers challenged the power of eastern commercial leaders; but the rebellion ultimately failed to change the status quo. Massachusetts went on to become the sixth state of the Union in 1788. The Federalist Party soon became dominant in Massachusetts. They represented the governing commercial interests.

By 1800 it became evident that an agricultural economy was not viable in Massachusetts. In addition to inhospitable, rocky soil, land was depleted of its

resources. For years farmers had paid little attention to conservation. More and more farmers moved westward to find better land and better opportunities. The Erie Canal made it easier for western farmers to find markets in the East. Massachusetts began to look toward other economic horizons. For a time the whaling industry in Nantucket and New Bedford was the most profitable in the nation. With the decline of the whaling and fishing industries the state also became a center for the textile industry. That was especially true in the mill towns of Waltham, Lowell, and Lawrence. The mills were originally built because of the unavailability of British textiles during the War of 1812 (1812–1814). Mills flourished since there was ample waterpower available on Massachusetts rivers.

The best-known of the mills was at Lowell. The “Lowell system” included a large capital investment and the concentration of all processes in one plant under a unified management. It specialized in a kind of coarse cloth easily worked by unskilled workers. Most of the workers were young women from surrounding

Massachusetts

farms who came to supplement their families' meager incomes. They worked from sunup to sunset for very low wages. The well-designed Lowell community provided supervised housing and activities for the girls. Other mill towns copied this paternalistic system. Yet by 1840 Lowell mirrored other mill towns in its overcrowded, dirty conditions.

One positive development in the 1840s was that Massachusetts enacted the nation's first child labor law. It allowed a maximum 10-hour day for children under 10. While this law may seem inadequate by today's standards, it was quite progressive in an era when children were routinely exploited in the workplace.

Other industries that sprouted up in Massachusetts during that period included the manufacture of metal products, leather goods, whale products, and shipbuilding. Shoe factories were particularly prominent. Although most of the shoe factories fled to other states Massachusetts remained the center of shoe workers' unions for a long time to come. By 1850 steam engines were produced in Massachusetts. A network of railroads that was begun in 1826 helped open new areas for industrial expansion. The American Civil War (1861–1865) spurred industrial growth, which was also helped by the many immigrants who flocked to Massachusetts from northern and southern Europe and from French Canada.

As one of Massachusetts' major urban areas, Boston faced a major challenge in the mid-1840s, when a potato famine precipitated a mass migration from Ireland. These desperately poor immigrants were willing to take any menial job in order to survive, but they were greeted in their new country with a widespread disdain that was based upon ethnic and religious bigotry. After 1865, however, the Irish became politically powerful as mainstays of the Democratic Party and economically successful throughout the state. They helped Massachusetts become one of the most industrialized states in the nation by the end of the nineteenth century. The family history of President John F. Kennedy (1917–1963) is a good example of the rags-to-riches stories of some Irish immigrants.

Conflicts between immigrants and their descendants, and the entrenched Republican Yankee conservatives in Massachusetts continued to plague the state into the new century. Class conflicts were largely responsible for a devastating strike of immigrant textile workers in Lawrence in 1912. The various factions eventually learned to accommodate one another. According to historian Richard D. Brown, there was a

“pragmatic willingness” to accept diversity and, “halt-ingly, people adjusted to the multiethnic, urban, industrial character of Massachusetts.”

The Great Depression of the 1930s nearly devastated Massachusetts. Unemployment in some localities reached as high as 40 percent. Massachusetts embraced Franklin D. Roosevelt's (1882–1945) efforts to stimulate the economy, but only World War II (1939–1945) brought any real increase in employment. The state's economy began to revive around 1950. While many of the old industries and mill towns were in decline, high-technology businesses began to develop in the suburbs of Boston. Industries oriented toward electronics, computers, and defense systems sprang up. That led to an increase in service sector businesses like banking, insurance, health care, and higher education. White-collar employment in the middle-class suburbs was on the rise.

By 1989 Massachusetts was again in a serious economic decline. It lost 14 percent of its jobs in three years. The general recession of the early 1990s was aggravated by a collapse in the real estate market in the late 1980s. Employment in construction dropped 44 percent between 1988 and 1991. Wholesale and retail trade lost 100,000 jobs. Voters blamed then current governor Michael Dukakis for the state's economic woes. In 1990 they elected Republican William Weld as the new governor. Weld then privatized a number of state operations in an effort to economize. By the mid-1990s the state's economy was improving greatly. Per capita income reached third place in the nation by 1995. Local industries like software and mutual funds led the upturn in the economy. The fishing industry was still the eighth largest in the nation in 1995 though not as important to the state's economy as it once was. Tourism was also important to the state, bringing in well over \$8 million annually. Boston, Cape Cod, Martha's Vineyard and Nantucket, and the Berkshire Mountains were popular vacation spots.

At the state level the Department of Economic Development continued making attempts to promote business, increase employment, and generate economic activity. In 1993 the Massachusetts Economic Development Incentive Program (EDIP) was launched to aid existing and new businesses. It provided 34 Economic Target Areas (ETAs) in the state. The Target Areas, along with local initiatives, provided attractive incentives to prospective businesses.

See also: Boston Massacre, Boston Tea Party, Francis Cabot Lowell, Lowell System of Labor, Shays' Rebellion, Samuel Slater, Spinning Mills, Whaling Industry

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MAYA

The Maya were American Indians who settled in southern Mexico and in Central America. Their territory covered Mexico's Yucatan Peninsula, Belize, much of Guatemala, and parts of Honduras and El Salvador. Originating in the region about 1000 B.C., the Maya developed a highly advanced civilization which reached its height during the Classical Period, A.D. 300-900. At its peak, the Mayan population numbered some fourteen million people who lived in agricultural communities and in the city-centers in Honduras (Copan), Mexico (Palenque, Uxmal, and Chichen Itza), and Guatemala (Piedras Negras, Uaxxactan, and Tikal). The capital was at Tikal (population 50,000), which was a center of education, economics, science, and religion. Mayan accomplishments were numerous and many were unparalleled at the time. Engineers produced remarkable architecture including flat-topped pyramids, temples, and towers. Artisans created elegant sculptures, paintings, and murals. Scholars developed an original writing system, which was used to record astronomical observations, chronology, and history. Mathematicians developed a system more advanced than any European system of that time.

The Mayans supported themselves by using slash-and-burn agriculture. The vegetation was cut down and burned to clear the land and provide nutrients for the soil, which was then planted with crops, especially corn, beans and squash. The Mayans also developed advance systems of irrigation and terracing. Terracing involves the construction of horizontal ridges in a hillside as a means of increasing the arable (farming)

land. It also hindered soil erosion and evaporation. Though they used no beasts of burden, the Maya established a trade network that linked several Central American Indian groups and eventually extended into central Mexico, where the Maya exchanged goods with the Aztecs.

During the Post-Classic Period, A.D. 900–1546, the Maya were invaded by the Toltecs, whom they eventually absorbed. Rebellions and civil war as well as widespread famine dominated the century preceding the arrival of the Europeans. When the Spaniards arrived in the mid-1500s, the Mayan civilization was in decline. The Maya were conquered by the Spaniards and they became assimilated into the larger Hispanic culture that developed in the region.

See also: Aztec, Inca, Mesoamerica

MAYSVILLE ROAD BILL

Following the tumultuous presidential election of 1824 the nation's political factions realigned. The newly formed National Republicans led by John Quincy Adams (1767–1848) and Henry Clay (1771–1852) advocated aggressive federal promotion of national economic development. Internal capital improvements and the use of protective tariffs constituted the core of their policies. Their support came from Northeastern manufacturers, Southern agricultural leaders, and others who stood to benefit from the development of a commerce infrastructure. Many of their advocates were from the cosmopolitan upper class.

In contrast, supporters of Andrew Jackson (1767–1845) and John C. Calhoun (1782–1850) were much more diverse. Jackson was a popular military hero fresh from victories in the War of 1812 (1812–1814). He carried a populist banner, aligning many common citizens and “plain folk” behind him. Jackson defeated Adams in the presidential race in 1828.

During this period the United States still suffered from very poor overland transportation systems. A railroad network had not yet been built, and travel was essentially seasonal, since in many areas roads became mud quagmires during the winter months. Many people like Adams and Clay believed that the young nation's economy could not grow to support the emerging capitalist system without substantial improvements to the infrastructure.

At the beginning of his administration, Jackson's policies on transportation and other issues were not

Maytag Corporation

well formulated. Calhoun and Martin Van Buren (1782–1862), who both competed to be Jackson's chief advisor, held very different views. When Van Buren finally won, he urged Jackson to oppose federal financing of intrastate public works projects. Van Buren believed a growing trend to fund such projects could deplete the federal treasury by encouraging legislative practices of logrolling and pork barrel projects. (Log rolling was the combining of several distinct project funding bills, each unlikely to pass on their own, into a single piece of legislation to increase their chances of success.) Van Buren feared the fiscal affairs of the federal government would become a mess with numerous improvement projects arising across the country.

Acting on Van Buren's advice, Jackson raised constitutional issues regarding commitment of federal funds for specific internal state improvements in his first annual message to Congress in December, 1829. Jackson proposed providing states with blocks of federal funds when surpluses occurred, and having the states allocate the funds to specific projects themselves. He believed that paying off the national debt took precedence for the federal government. Jackson based his position on the political philosophy of strict constructionism. (Strict constructionism meant that any unclear terms appearing in laws or the Constitution should be given their exact and technical meaning. Individuals must not attempt to expand a law through exploring implied meanings.)

The political battle over funding internal improvements came to the national forefront in 1830, when Congress passed a bill sponsored by Jackson's bitter political foe Henry Clay. The bill authorized a \$150,000 federal purchase of stock in the Maysville, Washington, Paris, and Lexington Turnpike Road Company. The company proposed a 60-mile road from Maysville, an inland port on the Ohio River, to Clay's hometown of Lexington. The project lay entirely within the state of Kentucky.

On May 27 Jackson vetoed the bill, maintaining that the road had no connection with any existing improved transport system and that it was fully within a single state. Jackson argued that the proposed bill required an unconstitutional use of federal dollars. The veto decision was highly unpopular with many in the newly established Democratic Party, which Jackson led, including those in the Ohio Valley who supported federal aid for canals and roads.

Jackson's veto was instrumental in establishing long-term federal policy limiting the use of federal transportation funds to interstate projects as well as harbors and river improvements serving foreign trade.

No longer did Congress provide sizable federal expenditures for intrastate canals and roads. Jackson's stance on pioneering a sound fiscal policy concerning public works was one of the most important ideological contributions of his presidency. The only large road project funds approved by Jackson while he was president were for continued construction of the interstate Cumberland Road connecting Cumberland, Maryland with Illinois. Jackson approved funds for it four days after the Maysville Road veto.

See also: Federalism, Andrew Jackson

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MAYTAG CORPORATION

The Maytag Corporation was started in Newton, Iowa by Frederick Louis Maytag and three partners in 1893 to produce threshing machine band-cutters and self-feeder attachments. The company soon began to produce other pieces of farm machinery, not all of it top quality. The Maytag corn husker, called the Success, caused the partners many problems because of its poor quality, and farmers often called Maytag personnel out to their fields to fix the Success. By the time Maytag bought out his partners in 1907 he had learned his lesson; a Maytag product would always be dependable.

Maytag built his first washer in 1907 to bring his agricultural equipment company through the slow-selling season as well as to fill the growing need for home-use washing machines. Home washing machines were already on the market, but Maytag wanted to make them more efficient. His first washer, called the Pastime, revolutionized washing. It had a cypress tub with a hand crank that forced the clothes through the

water and against corrugated sides. The washer was a hit, and Maytag continued to improve on it. In 1911 he brought out the first electric washing machine, and in 1914 he introduced the gas-engine Multi-Motor for customers without access to electricity. The first aluminum washer tub was brought out in 1919, and the Gyrofoam entered the marketplace in 1922. This revolutionary washer was the first with an agitator at the bottom of the tub instead of the top. This change allowed for the elimination of friction, making it the first washer to clean with only water action. Sales of this machine pushed Maytag from the 38th largest U.S. washing machine company to first place.

At this juncture the farm implement portion of the business was discontinued. L.B. Maytag, son of the founder, became president of the company in 1920. Under his direction the company began to market nationally. In 1925 Maytag incorporated and was listed on the New York Stock Exchange. By 1927 Maytag had produced one million washers.

During the Great Depression (1929–1939) Maytag held its own; the company even made money. During World War II (1939–1945), Maytag shut down normal operations and devoted itself to producing special components for military equipment. In 1946 the production of washers started up again, and in 1949 the first automatic washers were produced in a new plant built for that purpose. In 1946 Maytag began marketing a line of ranges and refrigerators made by other companies to be sold under the Maytag name.

The appliance industry grew rapidly during the 1950s, fueled by the postwar consumer boom. Maytag first entered the commercial laundry field at this time, manufacturing washers and dryers for commercial self-service laundries and commercial operators. During these years full-line appliance producers began targeting Maytag's market. Full-line operators such as General Electric, Whirlpool, and Frigidaire provided washers and dryers, refrigerators, stoves, and other appliances. Maytag was much smaller than the full-line producers. It limited itself to the manufacture of washers and dryers, which it marketed with ranges and refrigerators built by other companies, and established its reputation as a premium brand.

The ranges and refrigerators Maytag had been marketing with its washers and dryers were dropped in 1955 and 1960 respectively, but the company soon reentered the kitchen appliance field with its own portable dishwasher in 1966 and a line of food waste disposers in 1968. Maytag created a U.S. icon in 1967 when the Maytag "lonely repairman" appeared in advertising for the first time. The character was lonely

because Maytag appliances were supposedly so reliable they never needed repairs, and helped to solidify Maytag's reputation for the dependability of its products.

Laundry equipment sales peaked in 1973, and by the late 1970s more than 70 percent of U.S. households owned a washer and dryer. The lifetime of such equipment was 10 to 12 years, often longer for Maytag. A turning point came in 1980 when Maytag decided to become a full-line producer, eventually selling a wide range of major appliances rather than just washers, dryers, and dishwashers. This diversification was achieved through a series of acquisitions. By the late 1990s Maytag sold washers, dryers, ovens, refrigerators, and dishwashers under both premium brands (Maytag and Jenn-Air) and mid-to-lower price value brands (Magic Chef and Admiral). The Maytag brand was also used on coin-operated and commercial laundry equipment. The company also sold Hoover vacuum cleaners and other floor care products in North America; Dixie-Narco vending machines and glass-front coolers; and commercial ovens, fryers, and charbroils for the food service industry under the brand names of Blodgett Ovens, Pitco Frialator, MagiKitch'n, and Blodgett-Combi Ovens.

See also: Agricultural Equipment Industry

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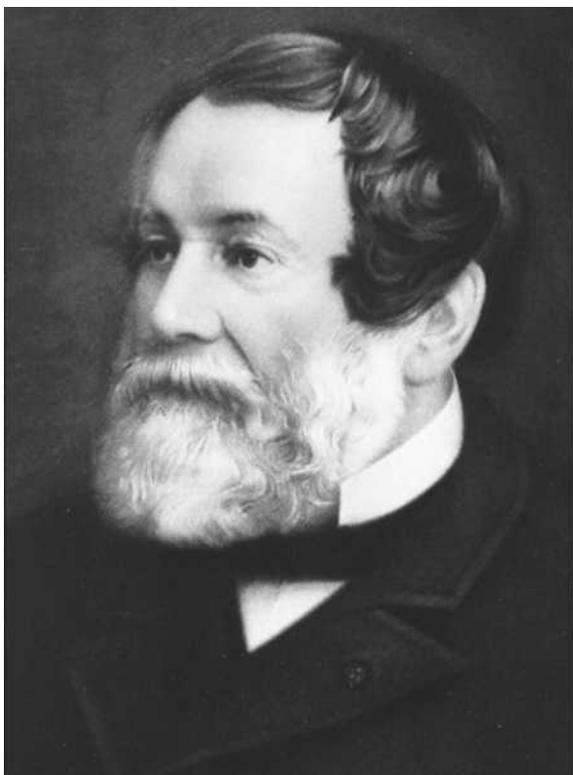
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MCCORMICK, CYRUS HALL

Born in Virginia on February 15, 1809, Cyrus McCormick (1805–1884) obtained a grammar school education and assisted his father in the operation of a 1,200-acre grain and livestock farm. While working on



Cyrus H. McCormick.

this farm McCormick invented a mechanical reaping machine that greatly decreased the amount of time it took to harvest wheat. He first developed his reaper in 1831 and spent the next 10 years perfecting it, making only a few, which were used on his father's farm.

By 1843, after bankruptcy and several unsuccessful attempts at a variety of business pursuits, McCormick finally decided to concentrate on making his fortune by producing and selling his reaping machine. In 1847 he moved to Chicago, the heart of U.S. agricultural trade, and opened a factory to manufacture his reaping machine. Though he was having problems renewing the patent on his reaper, he nonetheless organized a mass-production system in his factory, investing heavily in labor-saving machinery to aid his work force.

McCormick offered many incentives to farmers to buy his reaper. He provided deferred payments similar to credit loans and offered money-back guarantees on his product. He advertised everywhere and conducted numerous personal demonstrations of his reaping machine. These demonstrations were usually enough to convince farmers to buy it. On average, a farmer using a McCormick reaper could harvest 10 acres of wheat a day, compared to two acres without the reaper. McCormick also established a research department in his

business and hired a staff to systematically improve his products. He paid good wages to his workers, and was one of the first large manufacturers of his era to negotiate with the labor unions.

By 1856 McCormick had accumulated over \$1 million in profit from his operations, and continued to earn \$300,000 annually. He also began investing heavily in Chicago real estate, increasing and diversifying his personal wealth. McCormick sold 250,000 reapers and mowers in Europe, and with much of his European profits he invested in U.S. railroads and South American mining interests.

McCormick devoted most of his life to work, and did not marry until age 49. His main interests outside of work were his religion and the South. McCormick was a devout Presbyterian, his main relaxation activity was discussing theological issues with Presbyterian clergymen. He lavishly gave to the Presbyterian church from the fortune he made in business. McCormick was a southerner by birth, and supported the cause of the Confederacy throughout the American Civil War (1861–1865).

Cyrus McCormick served as the head of his company until his death in 1884, at the age of 75. In his life he was rewarded with personal fame and awards from many governments for his worldwide contribution to agriculture. After his death, his son Cyrus McCormick, Jr. assumed control of the McCormick Harvesting Machine Company. In 1902 the company merged with four other companies and became the International Harvester Company, which later became Navistar International Corporation.

See also: **Agricultural Equipment Industry, McCormick Reaper**

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The McCormick Reaper, invented by Cyrus Hall McCormick in 1834.

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MCCORMICK REAPER

Reapers were machines developed in the early 1800s to help farmers harvest grain. The first commercially successful reaper was built in 1831 by Virginia-born inventor Cyrus Hall McCormick (1809–1884), who patented it in 1834 and first sold it in 1840 in Virginia. The McCormick reaper was horse-drawn and sharply reduced the amount of manual labor required to harvest grain. It worked in this way: a straight blade (protected by guards) was linked to a drive wheel; as the drive wheel turned, the blade moved back and forth in a sawing motion, cutting through the stalks of grain, which were held straight by rods; the cut grain stalks then fell onto a platform and were collected with a rake by a worker. The device increased average production from two or three acres a day to ten acres a day.

McCormick's reaper was soon in wide use, and the inventor was on his way to becoming an industrialist. In 1847 he moved his business to Chicago, the heart of the expanding Midwestern farm market, where he could transport his machines via the Great Lakes and connected waterways to the East and to the South. Within five years McCormick's business became the

largest farm implement factory in the world. As production continued to rise, consumption kept pace: In 1850, for example, U.S. wheat-flour consumption reached 205 pounds per capita, up from 170 pounds in 1830. Sales and distribution of McCormick's equipment increased further during the 1850s as Chicago became a center for the nation's then-expanding rail system.

Because the reaper replaced as many as eight to ten workers, many historians believe the invention played an important role in the outcome of the American Civil War (1861–1865): Farmers in the North had more widely adopted the machinery, allowing more farmhands to go into battle while wheat production continued. The North's superior manpower was critical to Union victory.

In 1879, Cyrus McCormick's business became the McCormick Harvesting Machine Company, with the inventor himself as president (until 1884, when he was succeeded by his son). The reaper was improved over time: in the 1850s a self-raking feature was added, further reducing the amount of labor required to harvest grain; in the 1870s, McCormick introduced a binder, which bound the sheaves of grain and dropped them to the ground to be collected. In the late 1800s the reaper (or harvester) was joined with another invention, the thresher, which separates grains from the stalks. The new reaper-thresher machine was called a combine. Today's combines still use the basic features

present in McCormick's revolutionary 1831 invention. His company later became International Harvester (1902) and today is known as Navistar Corporation.

See also: Agriculture Equipment Industry, John Deere, Cyrus McCormick

MCGRAW-HILL COMPANIES

The McGraw-Hill Companies encompass educational, financial, business, governmental, and professional publishing and information services. In the late 1990s it was the world's largest educational publisher and its overall revenues were more than three billion dollars annually.

John A. Hill and James H. McGraw were nineteenth century publishers of magazines which served industry and reported on technological progress. As the United States changed from an agrarian to an industrial society, there arose a growing market of technicians interested in the practical application of science to various facets of daily life. In 1909 the heads of the book departments at Hill Publishing Company and McGraw Publishing Company agreed to a merger of the two book departments. A coin toss decided the name of the new company, The McGraw-Hill Book Company, and the new president, John A. Hill. The company was housed in McGraw Publishing's building in New York City.

Although the magazine publishing operations of the two companies remained separate for a while, in 1917 a more complete merger of the McGraw and Hill interests took place when John A. Hill died at age 57. The McGraw-Hill Publishing Company was established as the world's biggest technical publisher, and the book company became its subsidiary.

World War I (1914–1918) brought an increased demand for technical publications, especially engineering books in radio communication, aviation, and other areas directly related to the war effort. In one instance McGraw-Hill supplied 150,000 technical books to the U.S. Army for shipment to France in a matter of days.

McGraw-Hill expanded rapidly during the 1920s, forming a college department in 1927 and entering the field of business books and magazines with the purchase of the A.W. Shaw Company of Chicago in 1928. One of Shaw's monthlies, the *Magazine of Business*, was turned into a weekly that eventually became *Business Week*, one of McGraw-Hill's best-known publications.

In 1930, despite the stock market crash of 1929 and the ensuing Great Depression (1929–1939), McGraw-Hill established four new magazines. That year the company also opened a West Coast office and entered trade book publishing with a new imprint, Whittlesey House, named after James McGraw's father-in-law. A new office building in New York was commissioned and first occupied in 1931. By 1933, however, the company was forced to make deep cuts in personnel and salaries and it had to sell off its printing machinery. The company recovered later in the decade with the help of bestsellers from Whittlesey House, business books, and the establishment of a vocational-education department in 1930. James McGraw, Jr., became president and chairman, and by 1937 profits were more than one million dollars.

During World War II (1939–1945) McGraw-Hill's paper needs received special priority because its technical publications were important to the war effort. Especially important were its special training manuals used in the accelerated training of the men and women joining the armed forces. Many dealt with radio and electronics and continued to be successful after the war. The company also increased its international activities, opening a book-export department and a foreign language-translation office. In 1944 McGraw-Hill acquired the Embassy Book Company Ltd. of Toronto, later renaming it the McGraw-Hill Company of Canada, Ltd. and then McGraw Ryerson. The World News Service was begun in 1945.

After the war Curtis G. Benjamin became president of McGraw-Hill's book company and developed the text-film department, which provided audiovisual materials for educational institutions. The company also published several large multi-volume series in such fields as aviation and radar that grew out of government-financed projects. Another major project begun in the late 1940s was the publication of eighteenth century Scottish author James Boswell's manuscripts, with the first of a projected 40 volumes appearing in 1950. In 1950 the company achieved a major commercial success with *Betty Crocker's Picture Cook Book*.

Building on these successes, McGraw-Hill established several new divisions and added others through acquisitions in the late 1940s and early 1950s. In 1949 it purchased Gregg Publishing Company, which became the business-education department. In 1950 a technical writing division was created to produce specialized materials for government and industry. A medical publishing department was established in 1945, but it was not until McGraw-Hill acquired medical publisher Blakiston Company from Doubleday in 1954

that it would capture a major share of the medical market. The international division, established in 1946, contributed greatly to the company's growth in the 1950s, with book exports trebling and profits coming in from the international sale of text-films, filmstrips, and foreign language rights.

The McGraw family continued to run the company in the 1950s, with John McGraw, Jr.'s brother, Curtis, succeeding him as president. When Curtis died unexpectedly in 1953, another brother, Donald C. McGraw, became president. During the decade McGraw-Hill acquired several companies from Warren C. Platt and began three major encyclopedia projects: *The McGraw-Hill Encyclopedia of Science and Technology*, the *Encyclopedia of World Art*, and the *New Catholic Encyclopedia*. By 1959 revenues exceeded \$100 million.

Between 1960 and 1965 overall sales of the book company doubled, contributing 39 percent of the parent company's overall revenue. In 1961 McGraw-Hill acquired the F.W. Dodge Corporation, an information provider to the construction industry. The general book division was created in 1962 by merging the company's industrial, business, and trade book divisions, and in 1963 the book company entered the school textbook market by acquiring Webster Publishing Company.

A major reorganization took place in 1964, when the book company and the F.W. Dodge Corporation merged with the parent company to form McGraw-Hill, Inc. Now there would be a single parent company with three operating divisions: book publishing, magazines and news services, and the Dodge group of construction industry information services. Following the reorganization, McGraw-Hill made several acquisitions, including the California Test Bureau (educational publishing), Shepard's Citations, Inc. (legal publishing), and Standard and Poor's Corporation (financial information services). Internationally the company expanded into Mexico in 1967 and into Japan in 1969.

During the 1970s McGraw-Hill was headed by Shelton Fisher, president and CEO, who had succeeded Donald McGraw in 1968. His goal was to transform McGraw-Hill into a dynamic media giant. He expanded the company internationally into Canada, Brazil, and India; he also bought television stations from Time Inc. and moved the company into a new world headquarters in New York in 1972. Later in the decade he became chairman of the parent company, with Harold McGraw, Jr., becoming president. When Fisher retired in 1974, Harold McGraw, Jr., became chairman in addition to his other positions.

At the end of the 1970s McGraw-Hill was a healthy, well-managed conglomerate. Its several operating divisions included book and publications companies, information systems, Standard and Poor's Corporation, and the McGraw-Hill Broadcasting Company. Overall revenues in 1978 exceeded \$761 million. In 1979 American Express attempted a hostile takeover, offering \$830 million for the company's stock. Concerned about the integrity of its editorial independence, McGraw-Hill successfully defended itself even when American Express increased the offer to nearly one billion dollars.

The company attempted to strengthen its management by appointing Joseph L. Dionne to the newly created position of vice president of operations. When Harold McGraw, Jr., retired in 1983 as president and CEO, Dionne succeeded him. Harold McGraw, Jr., remained as chairman until 1988. Meanwhile, another generation of McGraws was being groomed to run the company.

During the 1980s McGraw-Hill entered the electronic information marketplace, making available in computerized form much of the information supplied by the company's news service, magazines, Standard and Poor's, Dodge, Platt, and Shepard's. The company entered computer publishing by acquiring three computer magazines, *Byte*, *Unixworld*, and *LAN Times*, and purchasing Osborne Books.

The company also underwent a change in focus under Fisher's direction, switching from a media-based organizational structure to a market-oriented structure consisting of 14 market-focused operating groups. McGraw-Hill acquired Random House's college division for more than \$200 million in 1988. Then in 1989 it entered into a joint venture with Macmillan, creating the Macmillan/McGraw-Hill School Publishing Company that combined the elementary, secondary, and vocational education businesses of both companies. McGraw-Hill would buy out Macmillan's interest in the joint venture in 1993. At the end of the 1980s McGraw-Hill's overall revenues were approaching two billion dollars annually.

In 1990 the company introduced the first customized publishing system that allowed professors to design their own textbooks. Later in the decade this electronic textbook publishing system was acknowledged as the leading U.S. custom book publisher with 18.5 percent of the market. By 1993 the company was taking in almost \$2.8 billion in revenue, with its Educational/Professional unit accounting for 42 percent and the Financial Services unit accounting for another 48 percent of the company's net income. The

Medicaid

company's third unit was Information and Media Services.

McGraw-Hill unveiled a new corporate identity program in 1995 changing its name to The McGraw Hill Companies, Inc. The slogan of the campaign announcing their name change was, "Keeping the world up to speed." It was a remarkable year for the company. Its stock price hit a record high; *Business Week's* circulation surpassed the one million mark; the company's Web site was launched; and numerous new products and ventures were announced. Revenues topped \$2.9 billion and net income rose nearly 12 percent to \$227.1 million.

After leading the company for 15 years, Joseph Dionne retired in 1998 as president and CEO; however, he remained as chairman. He was succeeded by Harold (Terry) McGraw III, son of Chairman Emeritus Harold McGraw, Jr. With the company's leadership back in the McGraw family and with more than a century of history, McGraw-Hill could well claim to be one of the premier publishers in the world.

See also: Publishing Industry

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MEDICAID

Medicaid is a large social welfare program operated jointly by the federal and state governments. A 1965 amendment to the Social Security Act of 1935 created the program, which allows low-income individuals access to medical care.

How does it work? The federal government provides money to the states. The states then add funding

of their own to this amount and administer medical programs for the poor in compliance with federally established standards.

Before Medicaid developed, health care for the poor was very limited and came from a variety of sources, including hospitals, charities, and state and local governments.

What type of care can a Medicaid patient receive? A Medicaid recipient may obtain treatment from five different categories of care: inpatient hospital services, outpatient hospital services, laboratory and x-ray services, skilled nursing home services, and physician services.

Initially, Medicaid recipients were able to select their own doctors and hospitals, but because of a large increase in medical expenditures, states now direct Medicaid recipients to certain health plans that attempt to control costs and quality of care. As a result, only approved medical care providers, including physicians, nursing homes, and hospitals are entitled to receive Medicaid payments for their services.

In 1995, there were about 30 million Medicaid recipients.

See also: Medicare, Social Security Act

MEDICARE

The Medicare program provides health and hospital insurance to disabled persons and those age 65 and older. It was first proposed by President Harry Truman (1945–1953), but wasn't enacted as policy until President Lyndon Johnson (1963–1969) included it in one of his Great Society proposals in 1965.

Effective since 1966, Medicare was first managed by the Social Security Administration. In 1977, its operations were transferred to the newly created Health Care Financing Administration, where it remains today. Unlike the social welfare program Medicaid, Medicare does not place an income requirement on individuals who receive its services. To be eligible for Medicare, one must be disabled or be age 65 or older.

The Medicare program has two components: a hospital insurance program and a supplementary medical insurance program. The hospital insurance program covers reasonable and medically necessary treatments in a hospital or nursing home. It is funded through a 2.9 percent Social Security tax on employers and workers. The money generated from this tax is placed into a trust fund for use by the Medicare program.

The supplementary medical insurance program is a service offered to individuals who sign up for it with a monthly insurance premium, which, in addition to tax revenue contributions from the federal government, funds the program. Under the supplementary medical insurance program, an individual pays the monthly premium and a small annual deductible fee for medical costs.

While there are limitations as to what Medicare will pay for (no routine physical examinations, for example), most physicians accept Medicare patients. All health care providers accepting Medicare patients must meet state and local licensing laws and standards to qualify for Medicare reimbursements for their services.

Medicare assisted about 37 million people in 1995, spending \$178 billion for their care. Under current laws, the year 2002 should see a rise in Medicare spending to \$345 billion. Since the 1980s debate about the program has risen. With the quality of medical care increasingly improving, life expectancy also increases. This means Medicare will be taking care of people for a longer period of time.

The program experienced a surplus in the 1980s and 1990s, but its future in the twenty-first century is uncertain. Medicare expenditures are expected to increase more rapidly than tax revenues. As the costs of medical treatment increase and the number of Medicare recipients rise with the 2010 retirement of the post-World War II baby boom generation, the program faces great financial and systemic strain.

See also: Great Society, Medicaid

MEDIUM OF EXCHANGE

A medium of exchange is money or any other agreed upon item used in the sale of goods and services. Whether the product being sold is a hamburger, a new car, or a movie ticket, something must be given to transfer value from the buyer to the seller. In modern economies, money serves this purpose. In more primitive economies or in special circumstances other mediums of exchange may develop. In prisoner of war camps, for example, cigarettes have served as a medium of exchange, with inmates trading food or other desired goods for a given number of smokes. For a market to operate efficiently, everyone must agree on the medium of exchange. Early in the history of the United States, banks and not the government issued paper money, and there were endless disagreements over whether one bank's notes would be accepted at

another bank or in another state. Finally, to avoid such confusion, the government began to issue the nation's money, which is now used as a medium of exchange for virtually all transactions. It is important to note that credit cards and personal checks are not really a medium of exchange, but merely a stand-in for the real medium of exchange, which is money.

MELLON, ANDREW

In the 1920s Andrew Mellon (1855–1937) was one of the richest men in the United States through his investments in many industries, including aluminum, coke, oil, and steel. In that decade he became an influential member of the government, serving as Secretary of the Treasury for 12 years during the administrations of Warren G. Harding (1921–1923), Calvin Coolidge (1923–1929), and Herbert Hoover (1929–1933).

The fourth son of millionaire Pittsburgh banker Thomas Mellon, Andrew took over his father's business when he was in his twenties and steadily expanded it until the family bank became the leading financial institution for industry in the Pittsburgh area. In 1889 Mellon granted a loan for the manufacture of aluminum to the Pittsburgh Reduction Company, which had acquired the patent for processing aluminum alloys by electrolysis. The process had been discovered by Charles Martin Hill in 1886 and permitted the extraction of aluminum from bauxite at a relatively low cost. Until that time aluminum was expensive to produce and used only for costume jewelry. With this new procedure the price fell dramatically so that commercial aluminum production was now practical. Mellon was able to use his financial leverage to take over Pittsburgh Reduction, and his shrewd business practices enabled him to control all aspects of marketing and production. By 1907, when the Pittsburgh Reduction Company changed its name to the Aluminum Company of America (Alcoa), the corporation had a monopoly in North America and an important share of the world market.

(ANDREW MELLON IS) THE MOST POWERFUL MAN IN THE WORLD TODAY. . . HE HAS DOMINATED THE FINANCIAL, ECONOMIC AND FISCAL RELATIONS OF THE UNITED STATES FOR THE PAST FIVE YEARS.

John Nance Garner, Vice-President (1933–1941), 1927

In 1901 oil was discovered in quantities that had not been seen before at a salt dome named Spindletop near Beaumont, Texas. The well had been drilled by

Mercantilism (Issue)

the J.M. Guffey Petroleum Company of Pittsburgh, which had been financed by a \$400,000 loan from the Mellon bank. Because of the size of the find, Guffey soon asked for more money to exploit it properly. Mellon agreed but demanded 40 percent of the stock in return. He was favorably impressed with Spindletop's massive production but not with the waste and rapid depletion of the oil reserves, which were exhausted in only two years. So Mellon bought out Guffey's interest and in 1907 replaced him as president with his nephew William L. Mellon. They renamed the corporation the Gulf Oil Company.

In 1920 Mellon underwrote a \$1.5 million deficit in the National Republican Committee's campaign fund, and in compensation President Harding appointed him Secretary of the Treasury. He was considered one of the most important cabinet members in the 1920s, and his unqualified affirmation of capitalism dominated Republican thought. He advocated high tariffs and cuts in government spending and corporate taxes. In his view, low taxes would free up money that could be invested in business and industry to create jobs and improve the economy.

In 1926, after Congress passed the Mellon Plan, a package of legislation that embodied his economic principles, both industrial production and the stock market soared, and his prestige was never higher. He was called "the greatest Secretary of the Treasury since Alexander Hamilton." He became a candidate for president in 1927 but lost the Republican nomination to Herbert Hoover, who kept Mellon as his Secretary of Treasury after his election in 1928.

Mellon's prestige fell dramatically after the Wall Street crash of 1929. He along with Hoover and Coolidge were blamed for the disaster, and Mellon appeared foolish when he predicted that the depression would come to a swift end. Although he overcame an attempt to impeach him in 1932, Mellon resigned his position that year to become ambassador to Great Britain. After the election of President Franklin D. Roosevelt (1933–1944), he became a private citizen, but he continually had to return to Washington to answer questions about his administration of the country's finances. Andrew Mellon died of a stroke, while visiting his daughter in 1937.

Not usually given to philanthropy, he left his art collection and enough money to build an art gallery to the government. Constructed of white Tennessee limestone, the National Gallery of Art, which is sometimes called the Mellon galleries, is one of the most attractive buildings to grace the capital mall in Washington D.C.,

and it houses one of the nation's most important art collections. It opened in 1941.

Mellon left a mixed reputation. On the one hand, he was a banker with an extraordinary ability to make sound investments and so created a diversified fortune that continued to grow with the country. He was influential in establishing the aluminum industry and in opening the Texas oil fields. His bank was also important in financing heavy industry during an important period of its development. He was one of the three richest men in the country when he entered politics at age 65. During the 12 years that he was Secretary of the Treasury, his influence over the nation's economy was enormous. He represented business interests at a time when their prestige was at their highest. But when the country fell on hard times, the unfettered capitalism that he had advocated was then considered a ruthless economic system, and he became the personification of all the evils associated with it. Opinion of him has subsequently mellowed, so that one may see his faults as also the faults of his age and still appreciate the creativity and enterprise with which he conducted his affairs.

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MERCANTILISM (ISSUE)

Mercantilism was a set of economic ideas followed by many northern and western European countries from the sixteenth to the nineteenth century. These included Portugal, Spain, France, the Netherlands, and England. By the nineteenth century, however, mercantilism was considered discredited as an economic theory. Although it began as a rather vague

collection of economic ideas, it was continually refined, elaborated, and modified over time. By the eighteenth century it had shifted from a loosely enforced set of commercial laws to a tightly regulated imperial policy, especially throughout the British Empire.

At the core of mercantilism was the belief that foreign trade could be made to serve the interests of the government and vice versa. The prime objective was the acquisition and retention of as much money (gold and silver) as possible. The state needed gold and silver to wage war. Mercantilism was a form of economic warfare between competing nations. European monarchs realized that in order to secure their political positions and compete with their rival monarchs in other nations they could no longer rely solely on an increase in tax rates. They had to increase their tax base. To do so, many nation-states turned to increased trade and the establishment of colonies.

In the mercantilist system colonies were expected to help the mother country achieve a favorable balance of trade, favorable specie inflow, economic self-sufficiency and an export surplus. Colonies were expected to supply products which would otherwise have to be obtained from non-imperial sources, generate exports by the production and sale of products in high demand outside the empire, and provide a market for the mother country's exports. The mother country would provide the colonies with centralized governmental control of the economy, as well as naval and military protection.

The English laws that systematized these developments for North America were enacted over a century and were built around a series of Navigation Acts beginning in 1651. They were given a comprehensive form in 1696. They confined the transport trade within the Empire to British or colonial ships, required all exports from Europe to the colonies to be shipped via England (and vice versa), and specified a list of goods that could not be shipped to European ports (other than England). These included sugar, cotton, tobacco, indigo, wool, naval stores, rice, furs, and copper. By the mid-seventeenth century, the colonies were prosperous and were encouraged in their prosperity by credits from home. The plantation colonies especially fitted nicely into the mercantilist system because the economies of the South and Britain naturally complemented one another. Britain carried the burden of colonial defense and gave colonial goods and ships protection abroad. From the early eighteenth century until 1763 the colonial policy was on the back burner, as England concentrated on a series of wars with France. The casualness of imperial administration and enforcement soothed points of disagreement and where discord continued, laws were tacitly evaded. Systematic smuggling was

confined mainly to tea and molasses. For the most part the mercantile system provided easy credit, assured commercial markets, and brought economic prosperity to colonies and mother countries alike.

English intervention in the economy in order to serve national interests produced financial and strategic advantages to the colonies. By giving the colonies the bulk of the shipping rights on trade with England, British mercantilism benefited the colonies. Mercantilism inevitably brought trade disputes with other countries, which in turn often degenerated into military struggles.

Mercantilism had its critics. In 1776 economist Adam Smith (1723–1790) in his *Wealth of Nations* defined a country's wealth in terms of labor and not money. Smith advocated the free play of individual enterprise and free trade. Historians such as George Bancroft (1800–1891) condemned mercantilism as the source of foreign policy. He concluded that the Navigation Acts and mercantilism in general were the basic causes of the American Revolution (1775–1783).

Many colonists realized that England looked on them purely for their economic role under mercantilism. They also realized that their own prosperity was largely the result of mercantilist policies. As British statesman and political philosopher Edmund Burke (1729–1797) declared, “the Act of Navigation attended the colonies from their infancy, grew with their growth and strengthened with their strength. They were confirmed in obedience to it even more by usage than by law.”

Twentieth century historians such as Lawrence A. Harper and O. M. Dickerson disagreed with Bancroft that the Navigation Acts presented a great impediment to colonial trade. They argued that the real bitterness among American colonists after 1763 was aimed at British customs and revenue collectors, stamp officials, and enforcement agents. They had a distaste not for mercantilism but for their role in a reorganized empire that emerged after the end of the French and Indian Wars (1754–1763) in 1763. In particular, they objected to the taxation policy. Overzealous officers, racketeering practices, seizures, and new bonding regulations among other things were what brought hostility from colonists.

See also: Navigation Acts, Adam Smith

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Mercenaries

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MERCENARIES

Mercenaries are soldiers for hire. They differ from a normal army to the extent that mercenaries fight only for money, or for anyone who will hire them, and not out of allegiance to a flag or their homeland. Sometimes “mercs,” as they are also known, will sell their services as individual warriors. At other times a government in need has hired entire armies. The use of mercenaries has a long history. The practice dates back at least to ancient times. Ancient Egyptians and Babylonians used mercenaries. Greeks served as mercenary soldiers in Hellenistic states. In the late Roman Empire, emperors hired tribes from the outer regions of the empire to fight their battles. In the decades since World War II (1939–1945) mercenaries have fought post-colonial wars in Africa, cocaine wars in South America, and from the deserts of the Middle East to the jungles of Asia. The typical mercenary is a former soldier who took up fighting for pay after his own army no longer needed him. Defeated German soldiers from World War II served as mercenaries in many small wars around the globe. The collapse of the Soviet Union saw many former Russian soldiers plying their trade as mercenaries. Sometimes dictators with an unruly population may hire mercenaries rather than risk arming their own people. The British army has a long history of loaning out its soldiers to former colonial nations to train and command local armies. Former U.S. Army soldiers have also served as mercenaries. There seems little doubt that mercenaries will

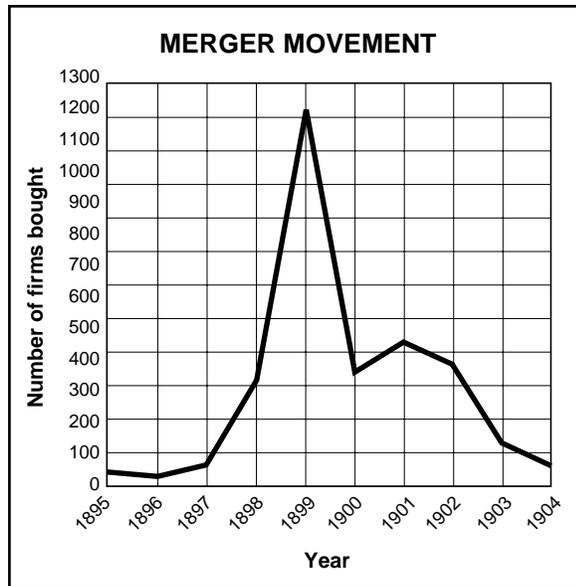
continue to see a demand for their services in a world so rife with conflict.

MERGER

A merger is the joining together of two or more companies. The usual goal of a merger is to increase market share, diversify into new products or markets, gain improved efficiency, or eliminate a competitor. Mergers usually take one of three forms: one business may merge with another through purchasing its assets; the merging companies may form a completely new company that acquires the assets of both firms (a “consolidation”); or the two companies may exchange stock with each other (known as “a pooling of interests”). When the acquired company resists the merger, it is referred to as a “hostile takeover.” Mergers that occur between two companies in the same industry are known as “horizontal mergers,” and when one company acquires a customer or supplier it is known as a “vertical merger.” When the merging companies are in two different industries, the resulting company is known as a “conglomerate.”

In U.S. history, mergers have generally occurred in spurts and usually when the stock market is enjoying strong “bullish” growth. The first major merger period occurred between 1895 and 1904, when the expansion of the U.S. railroad network made it possible for firms to combine and serve a truly national market for the first time. Between 1892 and 1902 more than 2600 U.S. firms were swallowed up by mergers, and in roughly the same period the 100 largest U.S. companies used mergers to increase in size by a factor of four. In 1901 the American Can Company was formed through the merger of no less than 120 companies. The next big merger period occurred in the late 1920s, when the emergence of radio and the truck presented new opportunities to create national markets through radio advertising and local distribution.

The merger boom of the 1960s peaked in 1968, when the 200 largest U.S. corporations acquired 1.6 percent of the entire manufacturing assets in the U.S. economy. Because of the federal government’s successful attempts to prevent companies from forming monopolies many of the mergers of the 1960s took the form of conglomerates. A fourth period of intense merger activity began in the early 1980s and continued into the 1990s. The driving force behind these mergers were technological advances, global competition, and the deregulation of industries, such as the airline industry, that had once been closely supervised by the federal government.



The first major merger period in American history reached a high point in 1899.

MERRILL, CHARLES EDWARD

As cofounder of Merrill, Lynch stockbrokerage firm in 1914, Charles E. Merrill (1885–1956) launched a Wall Street dynasty that would long outlive him. Building on the slogan “Bring Wall Street to Main Street” he designed his business around middle-class investors, not stock exchange insiders. By the time of his death in 1956 his firm had offices in 106 cities across North America; the firm has continued to grow ever since.

Charles E. Merrill was born on October 19, 1885, in Green Cove Springs, Florida, the son of Dr. Charles and Octavia Wilson Merrill. His father, a local physician, also owned a drug store where Merrill worked as a boy in addition to having a paper route. Merrill attended a preparatory school affiliated with Stetson University and was later sent on a partial athletic scholarship to Worcester Academy in Massachusetts. He attended Amherst College in Massachusetts from 1904 to 1906. He left Amherst without graduating and returned to Florida where he dabbled in newspaper journalism at West Palm Beach’s *Tropical Sun*. Later in life he commented that the job provided him with “the best training I ever had; I learned human nature.”

After one year of law school at the University of Michigan Merrill abandoned plans for a legal career and went to Mississippi to play baseball for a minor league team during the summer of 1907. When the season ended he moved to New York City to look for work and his first job was in the office of the Patchogue

Plymouth Mills in Patchogue, New York. Here what Merrill acquired “turned out to be the equivalent of a university course in general and credit finance, cost accounting, and administration, in particular.” This training would be invaluable to his future success.

The skills Merrill learned at his early jobs enabled him to become one of the most innovative leaders in the field of financial services. With a sound understanding of business practices, which he obtained during his two years with Patchogue Mills, he went on to a job on Wall Street. Merrill joined George H. Burr and Company in 1909. The company’s owner had heard of Merrill’s abilities and he wanted the young man to take charge of Burr’s newly created bond department. Merrill promptly hired Edmund Lynch, a Johns Hopkins University graduate whom he had met at the 23rd Street YMCA, to handle sales.

Merrill’s strategy for attracting new customers was to use direct mail solicitations. He concentrated on informative and accurate information rather than the exaggerated claims and misleading statements that were the norm at the time. This emphasis on honesty was to remain one of Merrill’s chief concerns throughout his career. Clear, honest information appealed to a broad customer base, he reasoned, and “having thousands of customers scattered throughout the United States is infinitely preferable to being dependent upon the fluctuating buying power of a smaller and perhaps on the whole wealthier group of investors in any one section.”

Under Merrill’s leadership Burr’s bond department quickly became a success. The company soon expanded into underwriting (guaranteeing) equities. In 1912 the company sponsored a \$2 million stock offering in the Kresge chain stores. Chain stores were a new concept at the time, and this project began Merrill’s career-long involvement with this retail innovation.

In 1913 Merrill left Burr to become sales manager at Eastman, Dillon and Company and a year later he founded his own small securities firm, Charles E. Merrill and Company. Within six months he had taken on Edmund Lynch as a partner: Merrill, Lynch was born. The partners began by underwriting two chain stores, McCrory Stores and Kresge, the latter being an account Merrill lured away from Burr. With the public receptive to buying stock in this emerging business, Merrill soon made his first fortune. He accepted stock warrants as part of his fee and sold these when they increased in value.

World War I (1914–1918) had begun by this time, and Merrill joined the U.S. Army as a first lieutenant in the air corps. After the war Merrill returned to his firm

to oversee its period of greatest expansion. The U.S. economy was booming in the 1920s. Many Americans had bought war bonds, familiarizing them with investing; they were now ready to expand to corporate ventures. Merrill's emphasis on straight advice for a broad range of middle-class customers was well-suited to this new business climate. Merrill, Lynch grew rapidly. In 1919 Merrill hired the first bond saleswoman on Wall Street, Annie Grimes, and in 1924 he expanded the company's office hours, opening early and closing late, to better serve customers.

Merrill, Lynch continued to focus on the expanding chain store industry. About half of the company's underwritings in the 1920s were retailers such as J.C. Penney, National Tea, Kresge, and McCrory. In 1921 the company entered the movie business when it took over a studio, Path Exchange. Merrill, Lynch later sold the studio to Cecil B. deMille and Joseph Kennedy (father of the future president). With the profit from the sale of Path Exchange the company acquired the southern California food chain Safeway Stores. Merrill subsequently built up and expanded Safeway, merging it with another western chain. Merrill next founded *Family Circle* magazine, the first magazine distributed through supermarkets.

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ONE SECTION.**

Charles Merrill

As the American economy continued to boom through the 1920s, Merrill grew increasingly concerned. In 1928, over a year before the infamous stock market crash that sent the country into the Great Depression, he sent a letter to customers recommending they get out of debt. He persuaded his partner to reduce the company's vulnerability in the event of a sharp decline. When the stock market crashed in October 1929 Merrill, Lynch survived. Merrill became highly respected for his ability to foresee market trends.

In January 1930 Merrill, Lynch left the brokerage business and turned over its accounts to E. A. Pierce and Company. The firm then focused on underwriting and individual banking, specializing in chain stores. By 1931 Merrill had built Safeway up to the third largest food chain in the country; he was also its largest stockholder. The firm's growth continued through the

decade, but then, on a vacation trip in 1938, Edmund Lynch died unexpectedly. Without his partner Merrill had to reexamine his business focus and in 1940 he went back into the brokerage business and merged Merrill, Lynch with E. A. Pierce and Company. The next year another merger created Merrill Lynch, Pierce, Fenner, and Beane, the world's largest brokerage house.

New Deal legislation also affected the public perception of Wall Street. During the 1930s the federal government created the Securities and Exchange Commission to monitor the stock brokerage industry. New laws imposed fines and jail terms on those convicted of financial fraud. Merrill wholeheartedly supported these reforms and he was instrumental in influencing other brokerage houses to adopt his firm's direct practices.

During the 1940s Merrill was at the forefront of change in the investment industry. He coined the phrase "Bring Wall Street to Main Street" in 1941 to attract small investors to the stock market. He printed ads and pamphlets that contained his characteristically honest information and he insisted on professionalism among his own employees. He provided business education for his employees and paid them a straight salary rather than one based on commissions. These strategies boosted public confidence in the company and enabled Merrill, Lynch to continue its astronomical growth.

After suffering a heart attack in 1944 Merrill withdrew from active management of the firm, but he continued to direct strategy and long-term planning for the company. With partner Win Smith, Merrill instituted additional changes by recruiting younger, better-educated brokers and providing them with training in accounting and commercial banking. He also published the booklets "Hedging: Insurance Policy or Lottery Ticket" and "How to Read a Financial Report," and he ran informative ads in the country's leading newspapers.

In 1954 the New York Stock Exchange launched a new plan for moderate-income individuals who wished to make small, regular investments in the stock market. Merrill, Lynch became the largest institutional supporter of this Monthly Investment Plan (MIP). After one year Merrill, Lynch had almost half of all MIP accounts, and within a few years the firm maintained the vast majority of MIP accounts. By the time Merrill died in 1956 his firm had 107 partners in 106 cities, and it employed over 4,600 people and handled almost 300,000 active customer accounts. The firm then became Merrill, Lynch, Pierce, Fenner and Smith; in the late 1990s it continued to be the world's biggest brokerage.

Merrill's innovations in the field of financial services led to far-reaching changes both in the way Americans invested and in the way they spent money. Before Merrill established his brokerage firm, stock market investments were only for the elite or the unscrupulous. Average Americans had no idea of how the stock market worked and they distrusted Wall Street—for a good reason. Many brokerage houses kept the “best” information only for their wealthiest customers and they tried to lure others with exaggerated claims and deceptive promises of profits. Merrill, however, provided accurate figures and honest information tailored to the needs of average Americans. One of his first acts when he reentered the brokerage field in the 1940s was to issue a pamphlet that stated “The interests of our customers MUST come first.”

Merrill, Lynch became a leader in the dissemination of investment information. The company published a bi-weekly magazine, *Investor's Reader*, and it was the first to make full public disclosures of its operations and holdings, as well as the investments of its partners. As Martin Mayer wrote in *Wall Street: Men and Money*, “Merrill brought in the public [to Wall Street] not as lambs to be fleeced but as partners in the benefits.”

The rapid growth of chain stores, in which Merrill was also instrumental, profoundly affected the U.S. economy. Before the introduction of these giant chains most Americans shopped at small, mom-and-pop style stores that operated with a small volume and charged higher prices. Because chains could operate on an economy of scale they could offer a greater selection of goods at lower prices. The growth of chains became such a threat to smaller retailers that the California legislature passed a tax on chain stores, which would have absorbed about 20 percent of Safeway's net income. Confident that consumers wanted the better prices and selection that chains could offer, Safeway management urged that the issue be put to a popular vote. In a 1936 statewide referendum voters in California repealed the tax. The message was clear: consumers wanted chain stores. Merrill later remarked, “If ever I get to heaven, it will be because I helped lower the price of milk by a penny a quart in Los Angeles.”

Merrill used a substantial part of his wealth to further the principles by which he had made his fortune. In 1945 he created the Merrill Foundation for the Advancement of Investment Knowledge, which awarded grants to institutions such as Massachusetts Institute of Technology, Brookings Institute, and the Wharton School of Finance. He donated 95 percent of his \$25 million estate to churches, hospitals, and colleges. A large portion of this estate supported colleges and

universities in the South that served African American populations. In 1951 he donated his 16-acre estate in Southampton, Long Island, to Amherst College which became the Merrill Center of Economics. In 1953 Merrill endowed a chair of medicine at Harvard University in honor of heart specialist Dr. Samuel A. Levine, who had treated Merrill for his heart condition.

In 1947 Merrill was named as the only representative from the securities industry in a poll of 50 outstanding business leaders. He received an honorary M.A. degree from Amherst College in 1933 among other honorary degrees from the University of Michigan in 1945, John B. Stetson University in 1946, Amherst College in 1948, Kenyon College in 1949, and a degree from New York University in 1950.

Charles Merrill married three times: first to Eliza Church in 1912, with whom he had a son and a daughter; to Helen Ingram in 1925, with whom he had a son, (they divorced in 1937); and to Kenta Des More (their marriage lasted from 1939 to their divorce in 1952). Merrill spent his last years at his home on Merrill's Landing in Palm Beach, Florida where he died on October 6, 1956.

See also: Chain Stores, Dow Jones Industrial Average, Stock Market, Stock Market Crash of 1929

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MESA VERDE

Mesa Verde, in southwestern Colorado, is the site of well-preserved ancient American Indian ruins. Here in the 1200s A.D. the Anasazi Indians (also called Cliff Dwellers) built their dwellings into the sides of a

plateau. The area was named Mesa Verde (which is Spanish meaning “green table”) because the stone cities were carved into the sides of the mesas (flat-topped hills) in a region noted for its forests of junipers and pines. The multi-storied dwellings were built for protection from raiding tribes: the inhabitants could retract access ladders in case of attack. The largest and best known of the ruins is the Cliff Palace, which contains more than 200 rooms and was probably inhabited by two to three hundred people at a time. Balcony House and Spruce Tree House are other large, multi-family dwellings.

A National Park since 1906, Mesa Verde provides a historical record of the ancient American Indians who occupied the area for hundreds of years. Nomadic peoples had moved onto the mesa top by the sixth century. As they made the transition from a hunting-gathering life style to an agricultural one, they moved from underground pit houses to the cliff dwellings. Over hundreds of years their culture became increasingly sophisticated. No longer involved in the time-consuming practice of following the herds for sustenance, the Anasazi turned their attention to crafting pottery, making decorative textiles, building kivas (underground ceremonial structures), and carving their homes in the rocky sides of mesas. The settlement at Mesa Verde was empty by 1300. Twenty-four years of low rainfall and increasingly hostile raids wiped out the Anasazi Indians who lived there. The site was first seen by white settlers in 1859.

See also: **Anasazi, Pueblo, Southwestern Indians**

MESOAMERICA

Mesoamerica is a geographic term for the area that extends from northern Mexico through Central America to the Isthmus of Panama. In prehistoric times this area was predominately settled by the Aztec and Maya Indians who built flourishing empires. Spanish explorers arrived on the coast of Mesoamerica in the early 1500s and eventually made their way inland, where they encountered the native peoples. The explorers conquered both the Aztec and the Maya by the mid-1500s. Mesoamerica was brought under the control of the Spanish crown and it formed a substantial portion of the viceroyalty of New Spain. The seat of colonial control was established at Mexico City.

See also: **Aztec, Maya, New Spain (Viceroyalty of)**

MESTIZO

A Mestizo is a person of American Indian and (usually white) European ancestry. The word comes from the Spanish and means “mixed,” but it can also refer to a person of French-Indian, Portuguese-Indian, or Dutch-Indian heritage. A race of Mestizos emerged in Latin America by the mid-1500s and changed the character of the region. Historian Arturo Rosales wrote (in *The Hispanic-American Almanac*, 1993) that in central Mexico the “sexual appetite of the Spaniards led to numerous liaisons with the native women. . . . The consequence was a large progeny of children who were half Spaniard and half Indian.” By 1821, and the end of colonial rule of Mexico, the possible variations of Mestizo numbered more than 100. Mestizo populations spread northward from Mexico during the colonial era. They also emerged elsewhere, as Europeans arrived in new territories around the world and subjugated native populations. In Latin and North America Mestizos entered the rank-and-file of armies and were wage laborers who worked in mines and in the fields. It was a race that was created and, during colonial times, dominated by European incursion.

See also: **New Spain (Viceroyalty of)**

MEXICAN BAIL-OUT

In December 1994, as Mexicans watched their currency’s buying power plummet 40 percent, President Ernesto Zedillo stunned world-wide financial markets by devaluing the peso. Zedillo blamed the crisis on his predecessor, Carlos Salinas, who had attempted to get Mexico out from under mounting foreign debt and national poverty by launching reforms that slashed triple-digit inflation, dismantled trade barriers, and opened the Mexican economy to foreign investment.

Part of Salinas’ anti-inflation strategy was to tie the value of the Mexican peso to the U.S. dollar so that the value of the peso would not fall, and investments in Mexico would be safe. Since the beginning of this policy in 1988, investors in the United States and other countries poured \$50 billion into Mexico. But with the passing of the North American Free Trade Agreement (NAFTA) in 1994, rising U.S. interest rates lured foreign investors to favor the dollar over the peso. To keep the peso’s value on par the Mexican government was forced to use its foreign currency reserves to purchase pesos. Mexico’s \$30 billion foreign exchange reserves plummeted while the government spent as

much as \$1 billion a day. By December 19, reserves had dropped below \$10 billion, with no end in sight.

By this time Zedillo, the new president, decided that devaluing the peso was the only way to end the situation. This was a drastic step to take, however, sure to cause turmoil in Mexico's economy. Zedillo did not prepare to deal with this impact very well. At first he denied that devaluation was in the works, and then, without unveiling a plan to counter the economic impact, Zedillo announced on December 21 that devaluation would happen. Foreign investors stunned by the news dumped Mexican stock, pushing the peso down even further. The peso's value relative to other currencies plummeted 70 percent.

The number of American investors in Mexico and the amount that they invested prompted U.S. President Bill Clinton (1993–) to attempt to bail out the Mexican government. He originally proposed a plan with \$40 billion in U.S. loan guarantees, but Congress refused to authorize that amount. Undaunted, Clinton unveiled an alternate rescue plan that would “save” Mexico by letting Zedillo's government take money from the U.S. Treasury Department's Exchange Stabilization Fund, which was designed to help America's “friends” out of temporary currency crises. The Exchange Stabilization Fund had traditionally provided assistance for very short periods of time, usually less than a year. But under Clinton's bail-out plan, the White House allowed the Mexican government to withdraw at least \$2.5 billion from the fund, with repayment schedules stretching out from 10 months to 10 years.

Clinton's original \$40 billion plan consisted only of loan guarantees that might never have been activated. His new plan was a mix of guarantees and immediate loans and was therefore more risky. To minimize the risk, he required that Mexico agree to divert proceeds from oil exports to the Federal Reserve Bank of New York in the event of a default, and demanded that Mexico pay fees to offset the risks of the loans and guarantees.

Clinton's plan was certainly not without its critics. Some charged that it would benefit only large, rich investors in Mexico, doing little for the Mexicans themselves and nothing for the average American. They questioned why Clinton was willing to lend billions to a foreign government without a vote of Congress, when thousands of investors within the United States lost money and were never offered bail outs. Surely, they claimed, \$20 billion in additional loan guarantees to domestic inner-city investors would have provided more benefits to Americans at home. Detractors also focused on the risk involved in the

loans. They contended that in order for Mexico to pay back the loans on time it had to succeed at many difficult tasks, including lowering its account deficit, controlling its money supply, privatizing more state companies, suppressing internal rebellion, and insulating its central bank from political interference.

The Clinton plan went into action despite these objections. While supporters conceded that there was no question Clinton took a risk with the loan, they believed that it was justified for two reasons. First, Mexico's problems always had a way of becoming those of the United States, through increased influxes of illegal immigrants, for instance, or through a decline in an otherwise mutually beneficial trade. Second, the Mexican government had been increasingly edging its way toward economically responsible policies, and needed to be encouraged to continue.

Three years before its deadline Mexico repaid its loans from the United States in total with interest. Clinton supporters hailed the achievement and argued that the amount repaid by Mexico amounted to about a half-billion dollars more than the United States would have made if there had been no loan at all.

However economists viewed the situation, most agreed that as of the end of the twentieth century approached, Mexico was still not entirely out of trouble. They felt that more reform along free market lines would be necessary if Mexico was to become a major creator of jobs, products, services and wealth, all of which its growing population badly needed. Still, most acknowledged that the situation had been successfully stabilized, and that recent progress in Mexico was unmistakable.

See also: General Agreement on Tariffs and Trade, International Monetary Fund, Free Trade

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Mexican Cession (1848)

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MEXICAN CESSION (1848)

The Treaty of Guadalupe-Hidalgo was the peace treaty between the United States and Mexico that officially ended the Mexican War (1846–1848). The conflict lasted until the treaty was signed on February 2, 1848, in Guadalupe Hidalgo, a city in south central Mexico near Mexico City. The core of the treaty defined the "Mexican Cession," the territory that Mexico was obliged to cede to the United States as a result of the war.

The Mexican War was the culmination of a series of conflicts between Mexico and the United States. These included the 1836 War of Independence of Texas from Mexico, the 1845 annexation of Texas by the United States, and the claims of United States citizens for monetary damages against the Mexican government. (A group of citizens of the United States claimed they had been injured and their property had been damaged during the civil strife that followed Mexico's 1821 war of national liberation against Spain.) In addition, the Mexican and U.S. governments disagreed over the southern boundary of Texas. The Mexicans contended that the Nueces River was the boundary, while the Texans claimed that the dividing line was further south and west, along the Rio Grande River. Another important source of conflict was the determination of the United States to acquire California. California was a Mexican province where, by 1845, about 700 United States citizens had settled. The United States claimed that if it did not annex California the territory might come under French or British rule.

To this must be added the racial and cultural tensions that developed between these mid-nineteenth century descendants of Spanish and English colonization.

Centuries of subjugation of Indian people by the Spanish had produced the rich cultural and racial amalgamation of the Mexican people. The Spanish influence was communicated through a network of Catholic missions that spanned what is now the southwestern United States. These Catholic missions were also centers of economic life. Gradually, as Mexico developed its own social structure, the Catholic missions were replaced as the focus of economic and social life by large *haciendas*, the seat of a nascent Mexican aristocracy.

This aristocracy of ranchers and farmers led the Mexican Revolution against the Spanish in 1821. After the revolution, in the interest of economic development of its northern, thinly settled provinces, the Mexican government invited settlers to Texas. The Mexican land-owners who were already there engaged in agriculture and ranching until the influx of Anglo-Americans in the 1830s and, in California, especially after the gold rush of 1849. This influx of North Americans turned out to be a disaster, not only for the Mexican nation during the Mexican-American War, but also for the individual Mexican land-owners in Texas and California. Their land was simply taken from them.

Thus it was with some sense of injured pride that Mexico broke off diplomatic relations with the United States when the U.S. annexed Texas in 1845. President James K. Polk (1794–1849) sent General Zachary Taylor (1784–1850) across the Nueces river to enforce U.S. claims on Texas' southern boundary. President Polk dispatched John Slidell, a Louisiana politician and trader, to accompany the invading army with instructions to purchase the land in dispute. He offered \$5 million for New Mexico and \$25 million for California. The Mexican government refused to discuss this proposal. As a result, General Zachary Taylor advanced to the mouth of the Rio Grande River, 120 miles south. The Mexican government sent troops across the Rio Grande saying that Taylor was engaged in an act of aggression. President Polk proclaimed that the Mexican army had invaded United States soil and, on May 13, 1846, Congress declared war on Mexico.

In a distinct improvement over their record during the War of 1812 (1812–1814), the armed forces of the United States performed well during the war. Contending with rugged terrain and logistical problems, the U.S. force of 14,000 prevailed over the Mexican military force. They occupied Mexico City in September, 1847.

In light of this military success President Polk began to set his sights on annexing all of Mexico. An obscure, low level U.S. agent, Nicolas Trist, scuttled this ambitious goal when he negotiated the treaty of Guadalupe-Hidalgo for the U.S. side. President Polk was outraged when he learned that Trist had secured only the original U.S. demands. Still in the Treaty of Guadalupe-Hidalgo Mexico lost nearly one million square miles of land—almost one-half of its territory. This territory, termed the "Mexican Cession," included land that makes up the states of California, Nevada, New Mexico, Utah, Arizona, Texas, and parts of Colorado and Wyoming. The Mexican government received \$15 million and the promise that the United States would settle all claims of its citizens against

Mexico. These claims amounted to more than \$3 million. The Mexican citizens in this acquired territory were presumed to be legal U.S. citizens unless they vacated the area or registered as Mexican citizens within a one-year time frame. The treaty also granted the citizens in this area religious freedom, property, and civil rights. Article IX stated that Mexican citizens in this territory “shall be incorporated into the United States of America, and admitted as soon as possible, according to the principles of the Federal Constitution, to the enjoyment of all the rights of citizens of the United States. In the meantime, they shall be maintained and protected in the enjoyment of their liberty and property, and the civil rights now vested in them according to the Mexican laws.”

In light of the delicate balance in Congress between the slave states and the wage-labor states, the acquisition of this land from Mexico re-kindled the debate in Congress over slavery. Southerners hoped to enlarge the territory that would enter the union as slave states. Anti-slavery northerners feared that very outcome. For that reason many northerners from both parties opposed the war with Mexico. The Mexican cession thus played a part in the nation’s drift towards the Civil War.

See also: Manifest Destiny, Sun Belt, Westward Expansion

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MICHIGAN

Strategically located on four of the Great Lakes, the state of Michigan was carved out of the old Northwest Territory. Before the advent of good roads and waterways it was known as a remote, wild place full of dense forests. By the mid-1800s, however, when settlers cleared the land and began to make it habitable, Michigan represented what historian Bruce Catton

called the “great American feeling of being en route to the unknown, to something new.” With a forested, still somewhat undeveloped area in the north, the state now owes much of its economic health to its own industrialized south, particularly to the automobile industry headquartered in Detroit.

In the 1600s the French were the earliest explorers of present-day Michigan, among them Etienne Brul and Jean Nicolet. Father Jacques Marquette established trading posts at Sault Ste. Marie and St. Ignace. Antoine Laumet de la Mothe Cadillac also established the settlement which later became Detroit. In this period Native Americans such as the Hurons, the Miamis, and the Potawatomis were important fur-trading partners with white settlers.

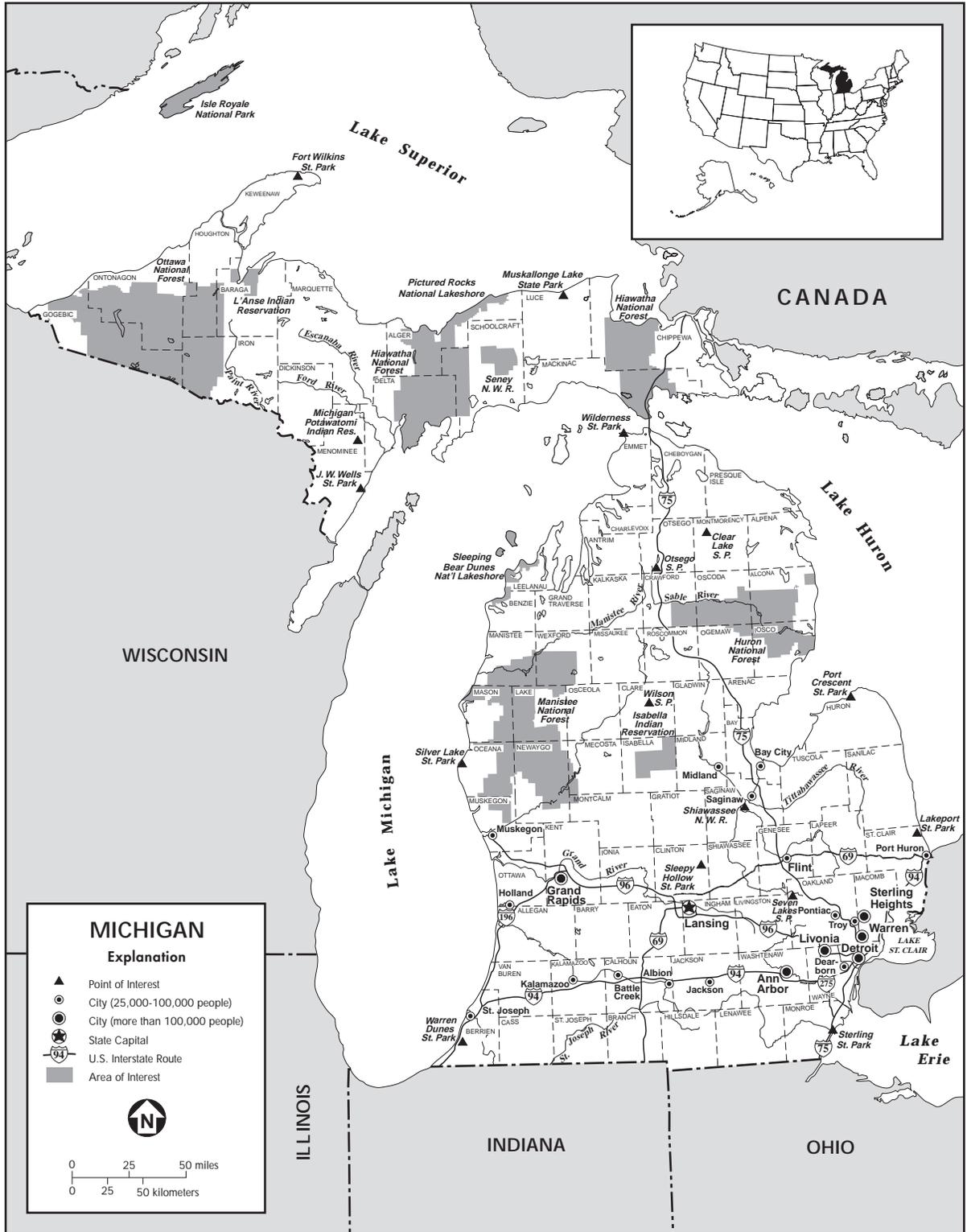
The fur trade, however, did not really encourage the growth of Detroit or Michigan. The area Ottawa chief, Pontiac, led several tribes in an uprising against the British. Pontiac’s Conspiracy (1763) succeeded in capturing many British garrisons and the fort at Detroit, but as the Indian tribal alliance weakened the British were able to regain their holdings. The populace in what would later become Michigan sided with the British during the American Revolution (1775–1783), fearing that a massive influx of American settlers would destroy the fur trade as land was cleared for farming. Although Americans had nominal control of Michigan by terms of the Treaty of Paris after 1783, the British continued to occupy the territory for 13 years. A part of the new Northwest Territory, the region came into full U.S. possession in 1796.

IT IS NOT POSSIBLE TO TELL THE STORY OF [MICHIGAN] WITHOUT PUTTING THE INTERNAL COMBUSTION ENGINE, THE RUBBER TIRE, AND THE WHITE DESERT-RIBBONS OF THE CONCRETE HIGHWAY ON TO THE CENTER OF THE STAGE.

Bruce Catton, *Michigan: A Bicentennial History*, 1976

During the War of 1812 (1812–1814) the region became a center of battles between the Americans and British, who refused to accept American sovereignty over the area. The territory was finally in the hands of the United States in 1814. The opening of the Erie Canal in 1825 marked the beginning of a push to settle southern Michigan territory by allowing an inexpensive, convenient route from New York City to Michigan. As the fur trade diminished, so did the value of the Native Americans to the non-indigenous population, and gradually most Indian lands were ceded to the federal government. A few tribes stayed on reservations within the territory. Following the “Toledo War”

Michigan



State of Michigan.

of 1835, (which settled the question of whether Toledo would be part of Michigan or Ohio) Michigan territory was granted the upper peninsula in exchange for land that it had claimed in northern Ohio. Michigan was granted statehood in 1837.

As the fur traders had feared, farmers soon began to clear land in Michigan. By 1850, 85 percent of the population in the lower peninsula was dependent on farming in some way. Soon northern areas of Michigan were also being exploited for their vast timber supplies, as well as for their rich mineral deposits. Millions of tons of iron ore were extracted near Marquette and Houghton in the upper peninsula, and copper was mined on the Keweenaw Peninsula. The transportation of iron ore and copper to markets in south Michigan and development of the rest of the country was facilitated by the opening of a canal in 1855 to bypass rapids at Sault Ste. Marie.

At first transportation routes in the state were primarily on Lakes Michigan, Superior, Huron, and Erie, each of which touched Michigan. The first railroad was chartered in Michigan in 1830, but until after the American Civil War (1861–1865), railroad construction was slow in the state compared to other states. Until automobiles came into widespread use in the 1920s, many interurban lines connected cities in southern Michigan. In fact, most mass transportation was decimated by the advent of the automobile until public transit systems began to make a comeback in the 1970s with the help of the federal government. A boon to transportation in the state was the opening of the Mackinac Bridge in 1957, connecting the lower and upper peninsulas. In addition, the St. Lawrence Seaway, opened in 1959, brought many oceangoing ships to Michigan ports.

As timber and minerals began to be depleted in the late nineteenth century, industry took on new importance in the state. The city of Battle Creek became the center of the cereal industry with the establishment of the Post and Kellogg companies. Dow Chemical and Upjohn also became major producers of chemicals and drugs during this period. Grand Rapids produced furniture, and Kalamazoo had paper mills.

However, the automobile industry became the real lifeblood of Michigan. Just after the turn of the century the first “horseless carriage” in the state was produced by Ransom E. Olds, followed by the first Cadillac and the first Ford. William Durant made General Motors a success; Henry Ford produced the first Model T in 1908 and introduced the first assembly line several years later. The Chrysler Corporation was established in 1925.

As more and more people bought new automobiles, more concrete highways were being built, producing an even higher demand for automobiles. In the 1930s, however, when the nation’s economy collapsed during the Great Depression (1929–1939), over half of Michigan’s factory workers were unemployed. This desperate situation, along with ineffective management by Republicans at the state and national levels, helped to precipitate the rise of labor unions in the state. In 1936–1937 the massive sit-down strike staged by the United Auto Workers (UAW), an affiliate of the Congress of Industrial Organizations (CIO), signaled the growing strength of unions in the auto industry. By 1941 the UAW had organized the entire industry and the state, as a whole, had become pro-union. The population of Michigan, moreover, was increasingly centered in its cities, primarily in Detroit and the southern part of the state. As industry took over the economy, the northern two-thirds of the state lost population and became increasingly economically depressed.

Due to the strong influence of unions in Michigan, politics was dominated by the Democratic party, until Republicans captured the state House in 1962. They held on to power until 1982, when Michigan was seized with a serious recession, causing more than 15 percent unemployment in the state. The recession’s effect on the auto industry was devastating. American car makers had not foreseen that the public was losing interest in large, gas-hungry vehicles. In addition, Japanese car companies were making serious inroads into the American car market. The Chrysler Corporation was granted a \$1.2 billion federal grant to avoid bankruptcy in 1979, thousands of autoworkers left the state, and many auto-related industries closed their doors. The state’s tax base was reduced, causing massive reductions in the state budget in 1983.

This downturn, of course, was due to the state’s heavy dependence on the auto industry. By the late 1980s, as the industry slowly began to recover, attempts were being made to diversify the economy. The number of factory workers dropped by 30 percent in the ten years after 1970, while new jobs were created in the engineering and technology fields as companies turned to more automation. At the same time, the service and wholesale-retail sectors began to grow. The state government, General Motors, and the UAW all applied significant funds to job retraining programs. Still, by the mid-1990s, the manufacture of transportation equipment was still the most important industry in Michigan; 28 percent of all U.S. automobiles were still being produced in the state, but the unemployment rate was decreasing steadily.

Microsoft Corporation

Despite the economic ups and downs that the state had experienced, it remained a favorable location for workers. Strong labor unions, which count over 24 percent of all workers and 34 percent of factory workers as members, have kept wages and benefits high. The per capita income in 1996 was nearly \$25,000, ranking Michigan sixteenth among all states. Next to manufacturing, agriculture is the most important sector of the economy, ranking 20th in the nation in income. Attractions such as the Great Lakes, inland lakes and forests, and historic sites such as Dearborn's Henry Ford Museum and Greenfield Village also make tourism very important to the economy of Michigan.

See also: Automobile Industry, Chrysler Corporation, William Durant, Erie Canal, Henry Ford, General Motors, Model T

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MICROSOFT CORPORATION

Microsoft Corporation, the world's largest software developer, began in 1975 as a partnership between two young men, William H. Gates, 19, and Paul Allen, 21. Gates was a sophomore at Harvard University and Allen was employed by Honeywell when they saw a mockup of the Micro Instrumentation and Telemetry Systems (MITS) Altair, the first personal computer, pictured on the cover of *Popular Electronics*. They decided to write a BASIC Interpreter for the Altair and demonstrate it to MITS, which was located in Albuquerque, New Mexico. It was the first computer language program written for a personal computer.

In July 1975 Microsoft signed a contract with MITS that allowed the hardware company to use and market the BASIC software but Microsoft retained ownership of the computer language. It was a contractual relationship between a software developer and a hardware manufacturer that became a model for future

software licensing agreements. Allen joined MITS as its director of software development.

By the end of 1976 Gates had dropped out of Harvard and had four programmers working for Microsoft in New Mexico. Allen left MITS in November and in March 1977 Allen and Gates formed an official partnership. Believing that microcomputers would grow in popularity, Gates set about convincing large corporations of the industry's future, licensing BASIC to Fortune 500 companies such as General Electric, NCR, and Citibank, among others. Microsoft licensed BASIC for the newly introduced Apple II, Radio Shack's Tandy computer, and the Commodore PET and TRS-80. It also began selling single copies of BASIC.

Microsoft then developed two other programming languages, FORTRAN (1977) and COBOL (1978), for the control program of microcomputer CP/M, which was one of several operating systems then available. Several hardware firms chose CP/M machines for their new computers and Microsoft became the leading distributor for microcomputer languages. In 1978 Microsoft had revenues of \$1.4 million and 13 employees.

On January 1, 1979, Microsoft moved its offices to Bellevue, Washington (Allen and Gates were both Seattle natives), becoming the first microcomputer software company in the Northwest. Having recently established an international sales office in Japan called ASCII Microsoft, the company began working closely with NEC and other international computer manufacturers in the development of their products. By the end of the year Microsoft expanded its service to Europe. International sales would prove to be a significant source of revenue to the company over the years.

In 1980 the company had revenues of \$7.5 million and 40 employees. Steve Ballmer, who had formerly worked with Proctor and Gamble, was hired as Gates's first assistant. He had the responsibility of establishing policies and procedures in the financial, organizational, and resource allocation areas. Meanwhile microcomputer technology was growing rapidly and with each new advance Microsoft was there to provide a computer language. It furnished versions of BASIC and FORTRAN for Intel's new 16-bit chip and developed a soft card for the Apple II, the top-selling microcomputer at the time, that enabled it to use CP/M and Microsoft BASIC. This was Microsoft's first hardware product.

In 1980 IBM decided to enter the microcomputer market, and it hired Microsoft to develop a computer



An aerial view of the Microsoft Corporation world headquarters in Redmond, Washington.

language and operating system for its machines, which were introduced to the public in 1981 as the IBM Personal Computer (PC). The operating system used for the IBM-PC was called MS-DOS, short for Disk Operating System. It would become an international industry standard, eventually replacing the CP/M operating system.

In 1981 Microsoft reorganized as a privately held corporation called Microsoft, Inc., with Gates as president and chairman and Allen as executive vice president. After recovering from a lengthy illness Allen would leave Microsoft in 1983. Meanwhile Steve Jobs and Apple had developed a revolutionary new microcomputer, the Macintosh. Microsoft became the first major company to develop products for the Macintosh when it was introduced to the public in 1984.

The microcomputer market began to explode in the early 1980s. The entry of IBM changed the image of microcomputers from that of a hobbyist's toy to a serious business machine. Microsoft's revenues jumped from \$24.5 million in 1982 to \$50.1 million in 1983 to \$97.5 million in 1984, and the growth would continue in the coming years. In 1983 Microsoft introduced its first mouse, its first full-featured word processing program, Word, and Windows. Windows extended the features of MS-DOS by providing users with a graphical user interface (GUI). Although IBM would not adopt Windows for its interface, Gates convinced

many manufacturers of IBM-compatible computers to adopt Windows. Retail versions of Windows became available two years later. During that year Gates met Jon Shirley, formerly with Tandy Corporation, and hired him to join Microsoft as president and chief operating officer.

Microsoft went public in 1986 after moving its headquarters to a new corporate campus in Redmond, Washington. With shares introduced at \$21, the initial public offering raised \$61 million. A year later, Microsoft shares were trading around \$85, making Gates a billionaire at age 31. During 1987 Microsoft introduced several new products, including Windows 2.0, Microsoft Bookshelf on CD-ROM, the spreadsheet program Excel for Windows, and a new operating system jointly developed with IBM called MS OS/2. In 1988 Microsoft inched past rival Lotus Development Corporation to become the number one software vendor.

Microsoft's revenues surpassed the one-billion-dollar mark in 1990, with international sales accounting for more than half of that. The company had more than 5,600 employees. During that year Microsoft introduced Windows 3.0 with its largest marketing campaign in the company's history to date. Within a year Microsoft shipped four million copies to 24 countries in 12 languages. By 1993 there were more than 25 million registered users. Microsoft was also branching out into other areas of software, including desktop

Microsoft Corporation

publishing and network servers, and the Federal Trade Commission (FTC) began investigating the company for possible anti-trust law violations.

In 1992 Microsoft created a three-person office of the president to replace Michael Hallman, who resigned as president after one year. The three members of the office were Mike Maples, head of the Worldwide Product Group; Steve Ballmer, head of Worldwide Sales and Support Group; and Frank Gaudette, head of Worldwide Operations Group. Gates was also recognized this year when he was awarded the National Medal of Technology for Technological Achievement by President George Bush (1989–1993).

Microsoft shipped several new products in 1993, including the network operating system Windows NT, MS-DOS 6.0, Microsoft Mouse 2.0, software for children, and Encarta, the first multimedia encyclopedia designed for a computer. In June the last copyright infringement claims made against Microsoft by Apple were dismissed, settling a lawsuit begun in 1988. *Fortune* magazine named Microsoft the “1993 Most Innovative Company Operating in the United States.” Revenues for the year were \$3.75 billion, and the company had more than 14,000 employees.

Microsoft celebrated the release of Windows 95 in August 1995 with several special events. More than one million copies were sold to retail customers in the first four days. Toward the end of the year Gates detailed Microsoft’s commitment to supporting and enhancing the Internet by integrating it with the PC platform. In November the final version of the Microsoft web browser Internet Explorer 2.0 for Windows 95 was released and made widely available for downloading at no charge to licensed users of Windows 95. Revenues for 1995 were \$5.9 billion, and the company had about 17,800 employees.

As the world embarked on the information superhighway in 1996 Microsoft was committed to providing a full range of tools for both Internet and intranet publishing. In January it acquired Vermeer Technologies, Inc., whose main product was FrontPage, a tool for creating and managing Web pages without programming. The company made several organizational changes during that year, creating an interactive media division to focus on interactive entertainment and information products and an executive committee to replace the office of the president. In July 1996 MSNBC, a 24-hour news and information cable network, debuted as the result of a joint venture between Microsoft and NBC News. MSN, the Microsoft Network, was reorganized to offer content on the World Wide Web.

During 1997 Microsoft strengthened its commitment to Internet services by acquiring WebTV Networks for \$425 million in stock and cash and releasing Internet Explorer 4.0. WebTV allowed consumers to access the Internet through their television sets. During the year Microsoft also purchased 11.5 percent of the cable company Comcast Corporation for a cost of \$1 billion. The company also announced an alliance with struggling Apple Computers and purchased a \$150 million stake, giving Apple much-needed financial support. Microsoft’s revenues for 1997 were \$11.4 billion, and the company had more than 22,000 employees.

Microsoft again came under the scrutiny of the U.S. Department of Justice and in October 1997 the firm was charged with violating a 1994 consent decree. One of the key issues was Microsoft’s bundling of its Internet Explorer with Windows, which competitors such as Netscape and Sun Microsystems considered anti-competitive and monopolistic. Informational hearings were held before a congressional committee, and the case went to trial in 1998.

In 1998 Microsoft acquired several Internet-related companies, including Hotmail, a free e-mail service that would become a component of MSN, and Firefly, an Internet start-up that had developed software to give users customized Web site views and protect their privacy. The company’s long-awaited reorganization was announced in March 1999. The company was divided into five major groups to better reflect its core customers: 1) a new consumer and commerce group including MSN.com and Internet properties; 2) the business enterprise division; 3) the consumer Windows division; 4) a new business productivity group; and 5) a separate home and retail products division for consumer-targeted products such as games, input devices, and reference products. A new 14-member team to be led by Gates was formed to replace the smaller executive committee.

See also: Computer Industry, William Gates, Internet

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MIDDLE PASSAGE

Middle Passage is a term from the colonial slave trade. It refers to the trans-Atlantic journey millions of black Africans were forced to make from Africa’s west coast to the Caribbean, where they were sold to plantation owners. The trip was called the Middle Passage because it was the middle leg of the trade triangles that had developed early during the colonial period. These routes were established in the early 1500s by the Spanish and Portuguese, who imported slaves from Africa to work on sugar plantations in the New World. Early in the next century the English, French, and Dutch also began using slave labor in their American colonies.

The Middle Passage was a brutal trip which often lasted several months. Because the slaves were viewed as little more than a commodity, captains would often carry as many as their ships would hold. Conditions were deplorable: Slaves were transported in chains, cramped quarters, and filth. They were not provided with adequate food or exercise, and many died at sea. How many people endured the atrocities of the Middle Passage is unknown. Most estimates place the number at about 10 million. Of that total, an estimated six percent were shipped to the North American mainland.

In 1833 the great antislavery movement in Great Britain reached culmination in the abolition of slavery throughout the British colonies. In the United States the slave trade was prohibited in 1808, but possessing slaves was still legal—and profitable. Illegal trade in slaves continued until Britain stepped up the enforcement of its antislavery law. Britain conducted naval blockades and surprise raids off the African coast, and effectively closed the trade. Slavery officially came to an end after 1870, when it was outlawed throughout the Americas.

See also: Abolition, Slavery, Triangular Trade

MIGRANT WORKERS

Migrant workers are simply persons whose work routine includes relocation across or within national boundaries on a fairly frequent basis. They usually work at temporary jobs. Often they are seasonal workers employed in the agricultural sector of the economy. In that case the demand for their labor is determined by the growing cycles, as in the case of Mexican farm workers. For decades these workers—called *braceros*—moved across national borders in routine violation of laws that authorities largely overlooked because of the need for their labor. Migrant workers may also be non-seasonal, highly paid workers called upon to do highly skilled or particularly dangerous work like putting out oil derrick fires. They may be the combine crews in the Great Plains, moving south to north, harvesting the wheat as it ripens. Or they may be the thousands of tradesmen of various descriptions who follow the building boom from one part of the country to another.

On the other hand, “Okies,” people from Oklahoma who left their farms in the dust storms of the 1920s and 1930s and made the trek to California, were workers who were migrating, rather than migrant workers. Immigrant Turkish workers in Germany—living and working for years in the host country without ever breaking from the Turkish culture—are also not migrant workers. Nor are workers in the transportation industry. Airline stewardesses and truck drivers are not migrant workers even though moving about defines the job that they do.

The United States experienced the largest influx of immigrant workers between 1890 and 1914 when 15 million foreign citizens entered the country, mostly from eastern and southern Europe. In the history of American immigration, approximately one-third of these immigrant workers moved back to their home or on to other countries—“birds of passage,” in the colorful words of one immigration historian. If these workers were seeking permanent employment they were immigrant workers, rather than migrant workers.

Migrant workers, like other workers, stimulate the economy in two ways. First, they take hard, undesirable, low wage jobs, thereby minimizing the employers’ costs. Second, they buy things and increase the size of the consumer population, thereby increasing demand. At the same time, jealousy and fear sometimes separates migrant workers from other Americans who objected that jobs were being lost to the newly available cheap labor.

See also: Cesar Chavez, Anti-Immigration Laws, Immigration, United Farm Workers

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MILITARY INDUSTRIAL COMPLEX (ISSUE)

Is the relationship between the armed forces and the industries that provide them with weapons a safeguard or a threat to world peace and the American democracy? Perhaps no other issue has raised as much concern over the coalescence between economic and political forces as the military-industrial complex, which today has formed a matrix of government spending, foreign initiatives, and ideological commitments.

In 1948 President Harry S. Truman (1945–1953) submitted the second largest peacetime budget in American history to Congress, justifying it as necessary to meet the threat of totalitarianism in the world. The budget came to \$39.6 billion, with around \$18 billion earmarked for military spending and international affairs. Such spending created a new industry in the United States devoted to the production of weapons for the Pentagon. This industry, which became known as the military-industrial complex, became one of the largest industries in the United States and a crucial part of the economy. In a pattern similar to World War II (1939–1945) mobilization, entire corporations were supported solely by government spending. Unlike World War II, however, there was no end in sight. As long as the Soviet Union continued to exist there was a reason for military spending, even during peacetime.

Within the government, the voices of both private business and the military have only grown stronger since the turn of the century. While on the eve of World

American makers of plowshares could, with time and as required, make swords as well. But now we can no longer risk emergency improvisation of national defense; we have been compelled to create a permanent armaments industry of vast proportions . . . Yet we must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society.

President Dwight D. Eisenhower, Farewell Address, January 17, 1961

War II the relationship between the two was often one-sided and seemed perpetually set against one another, by the 1970s private business and the military developed a formal and comfortable relationship of mutual support. Since the 1950s especially, military calls upon national resources have vastly increased and, for the most part, leading corporations have been the principal beneficiaries of that demand. While payrolls, research grants, and political influence were large enough to ensure a consensus for the system during the mid- to late-twentieth century the whole complex has been underwritten by a popular and almost unassailable anticommunist ideology. But some conservatives fear that the military-industrial complex keeps military spending at a level higher than that dictated by the strict needs of national defense. They claim it leads to economic dislocation at home and dangerous tensions abroad, and that the separate parts of the military-industrial complex will prove to be countervailing forces.

While the conjunction between economic and political forces may have been new during the Truman and Eisenhower eras, its roots lay deep in the mandates of Progressive reform which attempted early in the century to rationalize the U.S. economic system and integrate it with public policy. Even so, it was not until World War I that close ties among the military, the civilian government, and businessmen were formalized. Between 1914 to 1916, the federal government's efforts to mobilize people, raw materials, production plants, and transportation proved slow and incompetent. In August 1916, the task of planning mobilization was entrusted to the Council of National Defense (CND), which worked through the National Defense Advisory Commission (NDAC). In 1917, the CND was replaced by the War Industries Board (WIB) and under its auspices American industry was organized into commodity committees. These committees set prices, priorities, allocations, and other controls and

mobilized under their own rules. Meanwhile, the military was torn by its own internal conflicts and competition and was in no position to plan the civilian economy. While business was organized along commodity lines, the military was organized along operational lines, and the two proved to be opposing. Answerable to neither a central planning agency within the military nor to the WIB, each military branch entered the market with large orders geared toward its own needs, plus necessary surpluses. In 1918, Bernard Baruch (1870–1965) took over the leadership of the WIB and was given enough authority to force the cooperation of the military. Throughout the rest of World War I, businessmen and military leaders worked closely, and usually harmoniously, to fill the needs of the wartime economy.

During the inter-war years the military and business leaders met regularly to draw up plans for economic mobilization in case of war. Meanwhile, the government facilitated coordination between the two and left military tactics to the military and the economy to business leaders. The result was a series of industrial mobilization plans drawn up between 1930 and 1939. In the end, the military realized the degree to which it was dependent on the cooperation and capacity of business for the materials it needed, while business became more aware of what the present and future needs of the military might be for supplies of all types. In 1933, President Franklin D. Roosevelt's (1933–1945) attempt to plan for economic recovery after the Great Depression adapted the scheme of the WIB for his short-lived New Deal program, the National Industrial Recovery Administration.

In 1940, the coming of actual mobilization after so many years of planning, unleashed a torrent of expenditures that dwarfed those of both World War I and the New Deal. Altogether, some \$315.8 billion was spent during the war, with the War Department accounting for \$179.9 billion and the Navy Department for \$83.9 billion. In the end, a vastly inflated program of government spending and its heavy concentration in a few large corporations, like General Motors, Ford Motor Company, Chrysler Corporation, Bethlehem Steel, General Electric, United States Steel, Du Pont Chemical, and AT&T became the standard policy for the wartime economy.

As World War II was winding down, the alliance between the Soviet Union and the United States, brought together by a common foe, Adolph Hitler (1889–1945), was deteriorating. Tensions between the two nations had existed since the Russian Revolution of 1917, and within a few years after World War II the

two powers were engaged in a Cold War. But while the government had been involved in coordinating a mutually supportive relationship between the military and business during World War I and World War II, the Cold War dramatically changed this policy. The policy of "containment" committed the United States to a peacetime military-industrial complex for the first time in American history. For the next 45 years there would continue to be a large standing army with inflated defense expenditures, and large corporations supplying the equipment and supplies.

But with the coming of the Cold War, many leading military and industrial leaders who had previously enjoyed a highly successful and lucrative wartime system of military-civilian cooperation during World War II, sought to preserve these advantages in the demobilization period. During World War II, both groups had kept one eye focused on the postwar period. In the military the desire to keep up budgets and the desire of the Army Air Corps for independent status fueled the arguments that the country should never again find itself unprepared for hostilities, and that the country was bound to honor new and global peacekeeping responsibilities.

Continuing the cooperation that existed between the military and civilian businesses during World War II was considered necessary to meet these new global peacekeeping responsibilities. The nation's new course began with careful consideration to the potential pitfalls. President Dwight D. Eisenhower (1953–1961) cautioned in his farewell address (1961) that though it was important for the country to have a strong national defense in times of peace as in times of war, the development of a military-industrial complex was not without its dangers. "In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist."

For the next three decades after World War II, huge military spending and a closely linked program of foreign aid combined to prime the pump of U.S. prosperity as no combination of domestic social programs had ever been able to do. Military expenditures ranged from \$37 billion in the mid-1950s to just over \$79.1 billion in 1969. The bulk of spending was done directly by the military for research and material and certain large firms were the beneficiaries of the funds. In 1969, Lockheed Aircraft Corporation received the largest single share, more than \$2 billion, McDonnell Douglas with \$1 billion and General Electric with \$1.6 billion.

Minimum Wage Law

The Vietnam War (1964–1975) brought orders rolling in as the Air Force and Navy sought to replace planes damaged in combat, marking a peak in aerospace production. The industry had its share of valleys as well. Erratic defense budgets saw sudden buildups during the Korean War (1950–1953) and after the Sputnik launch, but just as sudden drops occurred in the mid-1950s and directly before the Vietnam War (1964–1975).

The scientific component of military technology had also grown significantly since World War II. The closer relationship between the military and business was paralleled by a similar closeness with scientists mostly housed in the big universities. By 1961 some 77 percent of all government spending for research and development was coming from the military.

In the 1990s, contrary to initial expectations, the military-industrial complex survived the end of the Cold War. It reorganized itself with a series of military-industry mergers encouraged and subsidized by the administration of President Bill Clinton (1993–). The “Big Three” weapons makers—Lockheed Martin, Boeing, and Raytheon—acquired a total of \$25 to \$38 billion in Pentagon contracts in the mid to late 1990s. If they continue to receive federal monies, these new military-industrial companies will earn billions more in the years to come. The Clinton administration’s five-year budget plan for the Pentagon calls for a 50 percent increase in weapons procurement, from \$40 billion per year in 1989 to over \$60 billion per year by 2003.

How best to defend the United States in the post-Cold War period remains a hotly debated topic. Some critics argue that on issue after issue—from expanding NATO, to deploying the Star Wars missile defense system, to rolling back restrictions on arms sales to foreign regimes—the arms industry has launched a concerted lobbying campaign aimed at increasing military spending and arms exports. They argue that these initiatives are driven by profit and pork barrel politics. Others claim that these measures are forward-looking and will create a safer, more democratic world.

See also: Cold War, Vietnam War, War Industries Board, World War I, World War II

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MINIMUM WAGE LAW

A minimum wage law is a piece of legislation that prevents businesses from hiring workers for hourly wages that fall below a specified level. The first minimum wage laws were passed in Australia and New Zealand in the 1890s. In 1912 Massachusetts became the first U.S. state to pass a minimum wage law, and in 1918 Congress authorized the Wage Board to set minimum wage levels for female workers in the District of Columbia. Five years later, however, the U.S. Supreme Court ruled in *Adkins v. Children’s Hospital* (1924) that minimum wage laws violated the Fifth Amendment of the Constitution because they infringed on the freedom of businesses and workers to form contracts as they saw fit. The three dissenting justices claimed that Congress did have the constitutional power to correct social injustices. In 1933 in the depths of the Great Depression (1929–1939), President Franklin D. Roosevelt (1933–1945) convinced Congress to pass the National Industrial Recovery Act (NIRA), which gave the newly formed National Recovery Administration (NRA) the authority to establish national minimum wages. Although several states had passed minimum wage laws by the mid-1930s hope for a lasting federal law seemed doomed when the Supreme Court ruled in 1935 that the NRA was unconstitutional.

Two years later, the Supreme Court unexpectedly reversed its decision and gave states the constitutional right to establish minimum wage laws, setting the stage for the Fair Labor Standards Act (FLSA) of 1938. The FLSA set the national minimum wage at 40 cents an hour, an amount that was increased in 1949, 1956, 1961, 1968, 1974, 1991, 1996, and 1997. The 1997 increase brought the minimum wage to \$5.15, which was estimated to affect about 10 million U.S. workers. Some economists have argued that minimum wage laws have an unintended negative effect on the employment rates of the poorest segments of society, many of whom are minorities. These critics argue that raising minimum wage rates encourages businesses to rely more and more on automation to reduce their labor

costs, which discourages them from hiring unskilled workers who might otherwise find jobs if the minimum wage were lower.

See also: Fair Labor Standards Act, National Recovery Administration

MINNESOTA

The highly publicized 1998 election of Reform Party candidate Jesse Ventura to the governor's seat came as no surprise to those who had studied Minnesota history. With a long tradition of protest politics and a disdain for power monopolies, the state has always steered an independent course. Situated in the heart of the American prairie and supplied with many natural resources, Minnesota was able to parlay its independent spirit into great economic success. From its wheat fields to its iron ore ranges and timber lands to its large industrial belts, Minnesota represented the economic diversity to which most of the country aspired.

Europeans who first came into the territory that is now Minnesota were witness to numerous confrontations between the Dakota and Ojibwa Indians who inhabited the territory. In the mid-1600s French explorers, fur traders, and missionaries sent back the first reports from the region. American and British explorers also came to the area, vying with the French for influence. After the French and Indian War (1754–1763) the part of Minnesota east of the Mississippi was ceded to Great Britain. In 1762 France ceded the land west of the river to Spain. British activity in the region continued until the U.S. Congress banned British fur trade there after the War of 1812 (1812–1814). The American Fur Company headed by John Jacob Astor (1763–1848) replaced a British company at Grand Portage, a center for inland trade.

FROM OUT OF THE PAST OF EXPLORATION AND EXPLOITATION, OUT OF BOOM AND BUST TIMES, OUT OF THE EXPERIENCES OF PIONEERS AND IMMIGRANTS, AND OUT OF THE HERITAGE OF INDUSTRIALIZATION AND THE TRADITION OF PROTEST POLITICS HAS COME THE MINNESOTA THAT IS NOW.

William E. Lass, *Minnesota: A Bicentennial History*, 1977

The eastern part of Minnesota (east of the Mississippi) became part of the Northwest Territory in 1787. Most of the western part of the territory was acquired by the United States through the Louisiana Purchase in 1803. The Red River Valley was ceded by a treaty with

England in 1818. The American Fur Company continued to prosper on the upper Mississippi until treaties with the Ojibwa and Dakota Indians transferred large parcels of their land to the federal government in 1837. Unlike pioneer settlers fur traders had developed a profitable partnership with the Indians, one which was threatened by this action. The treaties opened up the territory to lumbering, farming, and settlement. Settlements such as Marine and Stillwater on the St. Croix River and St. Anthony (later Minneapolis) sprang up around the lumbering industry. St. Paul was a trading center at the head of the Mississippi.

In 1849 Minnesota became a territory, and by 1857 it had more than 150,000 inhabitants. It became the 32nd state of the Union in 1858. Minnesota supported the Union in the American Civil War (1861–1865). But during that period the state faced a more serious internal challenge from disgruntled Dakota Indians who waged a war on white settlers in 1862. Following the pattern of white western conquest both the Dakotas and the Ojibwas were eventually moved to reservations.

The first railroad joined St. Paul and St. Anthony, a flour-milling center, in 1862. Later rail routes connected the state with Chicago and the Red River Valley. Immigrants from the east and from northern Europe, especially Scandinavia and Germany, started coming to Minnesota in great numbers. They established farms and grew produce that was carried back east on the trains. Large-scale farming developed along with small farms, particularly for the wheat crop; 70 percent of all farms were planted with wheat by 1870.

Farmers suffered occasional natural disasters such as drought. They felt themselves injured also by high railroad rates and a general deflation. Agrarian discontent became part of the tradition of protest politics in the state. The National Grange of the Patrons of Husbandry was the first national farmers' organization which had its origins in Minnesota beginning in 1867. It had great influence on state politics in the 1880s. In 1890 another farm-oriented activist party called the Populists (or People's Party) helped elect John Lind Governor of Minnesota. Labor organizing was also strong in this period. As the Minnesota Federation of Labor gained power it succeeded in getting a landmark Workmen's Compensation Act passed in 1913. This laid the groundwork for the Farmer-Labor Party.

Aside from third parties the so-called Progressive Movement had other manifestations in Minnesota. Rural residents feared the power of big business, especially the railroad industry. An angry public outcry was heard in 1901 when railroad barons James J. Hill

(1838–1916) and Edward Harriman, with help from banker J. P. Morgan (1837–1913), formed the Northern Securities Company. The company merged the Northern Pacific, Great Northern, and Chicago and Burlington railroads, virtually monopolizing railroads in the state. Governor Samuel Van Sant had his attorney general sue the company and led other Midwest governors in condemning the company. When President Theodore Roosevelt (1901–1909) instituted a federal suit against the company in his first action as a “trust-buster,” the Northern Securities Company was broken up.

The lumbering industry in Minnesota prospered greatly in the decades following the American Civil War. It reached a peak in 1899. As it shipped some of the logs by rail and even more by water down the Mississippi, Minnesota supplied tons of lumber to the country, particularly the growing areas of the Great Plains states. Minneapolis became a sawmill center. In combination with flour mills and railroads sawmills helped the city’s population swell to well over 150,000 by 1890. The combined population of Minneapolis and its “twin city” St. Paul grew to over 250,000. Lumber was also shipped from Duluth, which owed its prosperity to its position at the starting point of the North Pacific Railroad.

Duluth also became a major Lake Superior port after the discovery of iron ore in the northeast Mesabi and Vermilion ranges. After the 1880s eastern cities and industries began to grow. After a short boost to the economy produced by World War I (1914–1918) an economic downturn afflicted the state. Since Minnesota forests had been depleted of their resources lumbering shifted to the Pacific Northwest. An agricultural depression also caused several flour mills to move to Kansas City and Buffalo, New York.

Minnesotans adapted to the changes by planting corn, soybeans, and sugar beets in addition to the traditional wheat crop. Canning and meat packing had become important industries in the early part of the twentieth century; by the late part of the century food processing plants such as Green Giant, Libby, Del Monte, and General Foods shipped more manufactured products than any other industry in the state.

Like the rest of the nation Minnesota was plunged into a depression in the 1930s. The governor during this period was Floyd B. Olson, a reform politician who championed the poor farmers and laborers and supported the policies of President Franklin D. Roosevelt (1933–1945). This period marked the first time that Minnesota departed from a nearly unbroken history of

Republican domination. In 1944 the populist Farmer-Labor Party merged with the Democrats and began a new chapter of reform in Minnesota under the leadership of Hubert H. Humphrey (1911–1973). Humphrey would later become Mayor of Minneapolis, U.S. senator, and vice president.

In the ensuing decades other manufactured products like business machines, computers, and electronic components added to the state’s economic base. After the high-grade iron ore produced by the state was depleted new processes were instituted to extract iron from low-grade ore. This caused concern about environmental damage to Lake Superior. A sign of the changing demographics in the state was that the urban population of Minnesota exceeded its rural population for the first time in 1950.

Minnesotans experienced some economic challenges in the late 1980s and into the 1990s. An important environmental concern was addressed in 1980 when the Reserve Mining Company was forced to end the dumping of taconite (low-grade iron ore) wastes, thought to be carcinogenic, into Lake Superior. Other companies such as the Minnesota Mining and Manufacturing Company have been forced to clean up hazardous waste sites. Natural disasters also put a strain on Minnesota’s economy. A drought plagued the state in 1988 and severe flooding of the Mississippi in 1993 and the Red River in 1997 devastated the lowlands.

The state maintained its economic health through diversification with increasing attention to service industries such as real estate, insurance, and finance. Tourism also became increasingly important to the state as millions of travelers, fishermen, and hunters came to enjoy the state’s many scenic and recreational areas. Farming remained important to the state as well; in 1995 Minnesota ranked seventh in the nation by farm income. The state’s proximity to the Mississippi River, the Great Lakes, and the St. Lawrence Seaway continued to make Minnesota a major marketing and distribution center for the upper Midwest. The state’s per capita personal income in 1996 was over \$25,000, ranking it ninth in the nation.

See also: *Mississippi River, Plains Indians, Populist Movement, Saint Lawrence Seaway*

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MINT ACT

The U. S. Congress passed the Mint Act on April 2, 1792, to establish the country's first mint at Philadelphia, Pennsylvania. The ineffectual Articles of Confederation (1781) had given each state the right to mint its own coins. To ensure the stability of the monetary system, the U.S. Constitution (adopted in 1788) revoked that right, declaring the federal government the sole issuer of currency in the nation (metal or paper money). The Mint Act was the necessary follow-up to the Constitution's proclamation that the federal government alone would "coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures." The Congressional legislation made the dollar the basic unit of money and adopted the bimetallic standard, meaning that both gold and silver became legal tender (an official medium of payment) in the United States. Laws fixed the value of each metal in relation to the other.

American inventor David Rittenhouse (1732–96) was appointed the first director of the U.S. Mint, an office he held from 1792 to 1795. Rittenhouse had been active in state politics and served as treasurer of Pennsylvania (1777–89). The Mint Act authorized coins in three denominations—the copper cent (or penny), the silver dollar, and the gold eagle. The coinage was based on Thomas Jefferson's (1743–1826) decimal system, which he had proposed when he was a member of the Continental Congress (1783–85).

For decades after the Mint Act, U.S. coins circulated along with foreign coins in the states. The federal government determined the exchange rate based on how much precious metal was present in foreign coins. But in 1857 Congress approved a law removing foreign coins from circulation.

For many years the \$10 gold eagle was the highest denomination of U.S. coin. In 1933 the government took gold out of circulation; the precious metals present in other coins was also reduced through later Congressional legislation. Today gold and silver coins



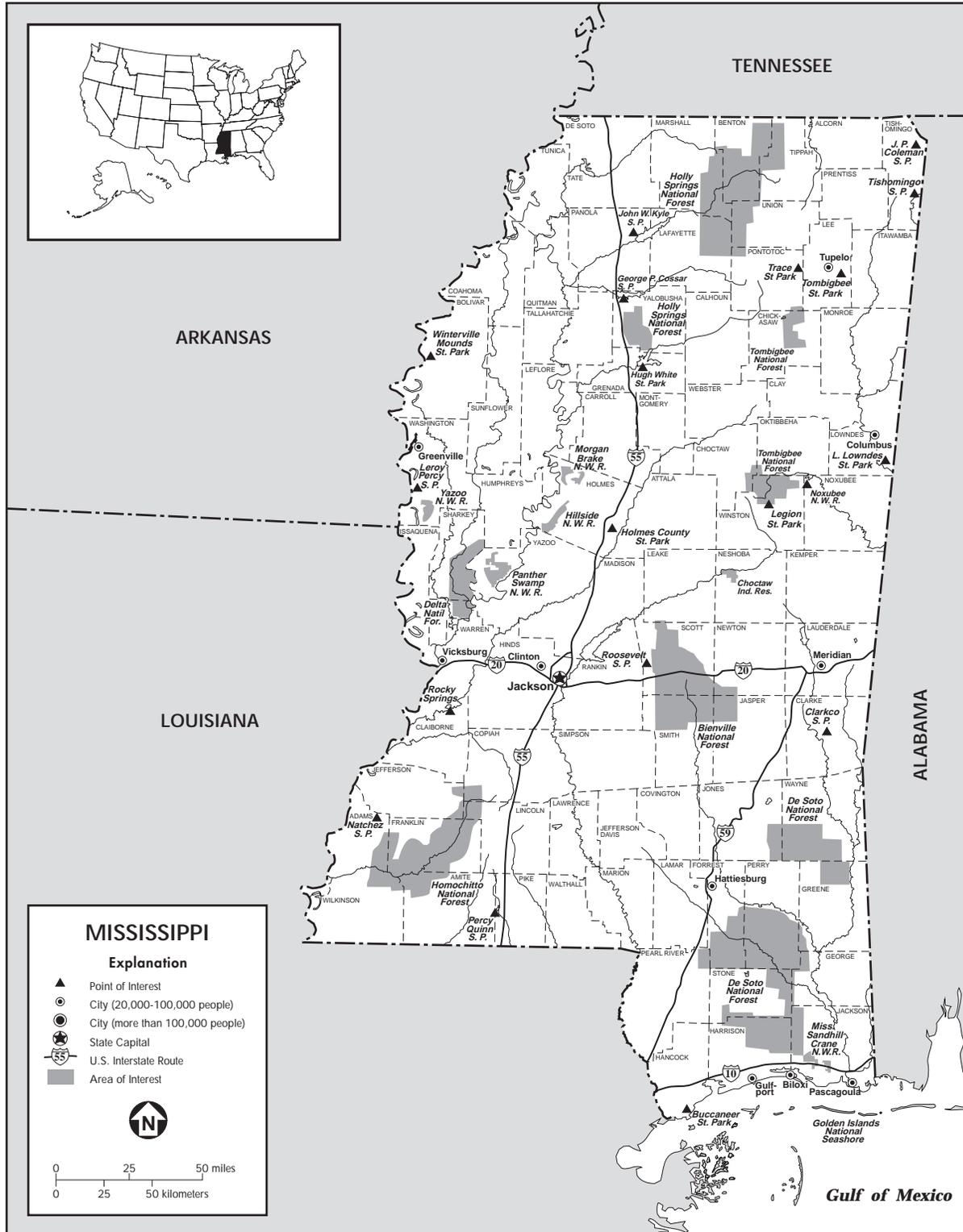
A worker at the U.S. Mint in Philadelphia displays freshly minted one dollar coins bearing the likeness of Susan B. Anthony, an early twentieth century suffragist.

are minted as commemorative issues for collectors. Silver and gold bullion (bars or ingots) are minted for sale to investors.

See also: Bank of the United States (First National Bank), Currency, Thomas Jefferson, Money

MISSISSIPPI

The words "Mississippi" and "delta" are closely associated in the public's mind with Mississippi history. The delta region indeed dominated the cotton-growing economy that was the mainstay of life in the state for many decades. Contemporary Mississippi, however, has diversified its economy and now has a significant industrial sector. In the late 1990s, the state continued to struggle to bring itself out of a past which



State of Mississippi.

Mississippi

has often placed it last among all states in per capita income.

The Spanish explorers who came to the region of Mississippi with Hernando de Soto in 1540–1541 did not find the wealth they sought and soon lost interest in further exploration. A Frenchman, Robert Cavelier, Sieur de la Salle, explored the lower Mississippi Valley in 1682. He discovered the mouth of the Mississippi River, naming the whole region Louisiana in honor of his king, Louis XIV. The French soon established settlements at Biloxi Bay, Mobile, Natchez, and New Orleans. The area changed hands several times, first from the French to the Spanish in 1762. In 1763 Spain ceded the portion east of the Mississippi to England, but the Spanish recaptured West Florida during the American Revolution (1775–1783). Spain relinquished its hold on the Natchez region, ceding it to the United States in 1795.

The U.S. Congress reorganized the Mississippi Territory in 1798. Alabama, originally part of Mississippi, became a separate territory in 1817. After many settlers from the South, Mid-Atlantic, and New England states had migrated to Mississippi to farm its rich alluvial soil, Congress made it the twentieth state in 1817.

Mississippi was a true frontier territory prior to the American Civil War (1861–1865): It was freewheeling, violent, and full of aggressive adventurers. Joseph G. Baldwin, a Virginia lawyer who came to Mississippi, described the speculative furor of the period: “Money, or what passed for money, was the only cheap thing to be had. . . . Credit was a thing of course. To refuse it. . . were an insult for which a bowie knife were not a too summary or exemplary means of redress. The State banks were issuing their bills by the sheet. . . .”

When Mississippi became a state, the northern two-thirds of the region was still dominated by Native American tribes. During the presidency of Andrew Jackson (1829–1837), treaties ceded most of this land to the United States and sent Native Americans off to the Oklahoma Territory. Although an aristocratic planter economy grew up around the Natchez area, large plantations did not dominate the whole economy prior to the war. Mississippi society was instead governed by an alliance of large and small landowners. An indication of the importance of slavery to the state’s economy was that slaves comprised 52 percent of the population and whites only 48 percent by the end of the 1830s.

The opening of the fertile lands of northern Mississippi caused an inrush of settlers and a flurry of land speculation. The cotton economy, with its slave

workforce, came to dominate the state. The land was rich and the cotton economy made many planters wealthy, but the work was hard and life was monotonous in Mississippi. Aside from church and the general store, there was little in the way of recreational or cultural institutions. Jefferson Davis, the President of the Confederacy, came from a family which in one generation had risen from poverty in Kentucky to affluence, social standing and political preeminence in the new land of Mississippi.

After the election of Abraham Lincoln in 1861, Mississippi was the second state to secede from the Union in an attempt to preserve the slave system as the mainstay of the state’s economy. During the Civil War, Mississippi was at the center of much of the action. Much political, social, and economic turmoil followed the war under the governance of Reconstruction (1865–1877) Republicans. After the Democrats successfully regained power in 1875, the bitter memories of Reconstruction caused Mississippi whites to institute a system that repressed the rights of former slaves even further.

The prime cotton-growing country in Mississippi was always the fertile Yazoo-Mississippi Delta, located in the northwestern part of the state. Because of persistent flooding problems, this area did not become a plantation economy until after the Civil War. Planters along this section of the Mississippi, according to historian John Ray Skates, “drained the lands, built the levees, and cleared the forests, [achieving] some of the grandiose style of their prewar Natchez counterparts. Here the plantation system still dominates, in recent times with machines and chemicals rather than sharecroppers.”

Economic stagnation plagued Mississippi from the postwar period into the 1940s. Black sharecroppers on the cotton farms fared nearly as badly as they had under slavery. Many white small farmers were also driven into sharecropping; in 1890, 63 percent of Mississippi farmers were tenants. During this period the practice of leasing convicts to private plantations was also widespread, adding yet another layer of poor and underprivileged workers to the economy. For some of these leased convicts life was possibly harder than it had been under slavery. With a nearly totally agrarian system, the state exported raw materials and had to import most of its manufactured goods. Many former planter-aristocrats dominated state government and all tried to keep the blacks in an inferior position. Fearing a return to Reconstruction and exhibiting deep-set prejudices, whites above all succeeded in maintaining their political and economic domination.

The Great Depression of the 1930s (1929–1939) made things even worse in the state, bringing Mississippi's poor farmers to desperation. Cotton sank to five cents a pound in 1932, while one-fourth of the state's farmland was given up for nonpayment of taxes. Although federal agricultural payments begun during the New Deal helped to hasten the end of tenant farming, had World War II (1939–1945) not brought economic relief to Mississippi, the state might have headed for disaster. Armed forces personnel who came into the state helped to lift it out of its provincialism. Industrial growth and increased mechanization of agriculture finally began to bring Mississippi into the twentieth century. Between 1941 and 1945 the per capita annual income in Mississippi rose from \$313 to \$627, and more and more citizens began to retire their debts. At the same time many African Americans, encouraged by reports of better economic conditions elsewhere, began to move out of the state to find higher-paying jobs.

The waterways of Mississippi have always been vital to its development. The Mississippi, the largest commercial river in the country, links the Gulf of Mexico to many inland river states. The Tennessee-Tombigbee canal, completed in 1984, links the Tennessee and Ohio rivers with the Gulf. The state has two deepwater ports, Gulfport and Pascagoula; other ports include Biloxi and Port Bienville.

By the 1980s Mississippi was an industrial state, and cotton was no longer the only important agricultural product. Agricultural production was now dominated by cotton, rice, soybeans, and cattle. Mississippi had survived the dark days of segregation and the upheaval of the civil rights movement. Its leaders had finally recognized that the inequalities built into a segregated system did not tend to attract the kind of industries the state sought. By the mid-1960s manufacturing was providing more jobs than agriculture, in part because of a weak labor movement and low wages. In the 1970s many of the low-paying industries such as the garment and wood product trades were de-emphasized in favor of heavy industries manufacturing products like transportation and electronics equipment. In spite of the state's economic strides in the last few decades of the twentieth century, Mississippi remained poor in the late 1990s. In 1996 it ranked 50th among all states in per capita personal income, at only \$17,471, and nearly 24 percent of the population fell below the federal poverty level. In 1995–1996, however, the per capita income growth rate was ranked fifteenth in the nation.

See also: **Civil Rights Movement, Mississippi River, Plantations, Sharecropping**

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MISSISSIPPI RIVER

The Mississippi River is a principal United States river. It originates in central Minnesota and flows southeast and then south, eventually reaching Louisiana where it pours into the Gulf of Mexico. States lying west of the Mississippi are Iowa, Missouri, and Arkansas, Louisiana, and Minnesota; to the east are Wisconsin, Illinois, Kentucky, Tennessee, and Mississippi. The river is 2,340 miles (3,765 kilometers) long. With the Missouri River, the Mississippi forms the world's third-longest river system. It is navigable by ocean-going vessels from the Gulf to Baton Rouge, Louisiana. North of that location, it is navigable by barges and towboats as far as Minneapolis, Minnesota.

The mighty Mississippi was first sighted by explorers in 1540–41 when Spaniard Hernando de Soto (1500?–42) ventured through the southern region. In 1672–73 the Mississippi's upper reaches were seen by French-Canadian explorer Louis Jolliet (1645–1700) and French missionary Jacques Marquette (1637–75). In 1682 French explorer Sieur de La Salle (1643–87) investigated the lower part and claimed the entire region for France, naming it Louisiana in honor of King Louis XIV (1638–1715).

After 1763, at the end of the French and Indian War, (1754–63), the river became the boundary between British possessions to the east and Spanish possessions to the west, and the river itself was ceded to Spain. Disputes between Spain and the United States over the waterway were settled in the Pinckney Treaty (1795). With the Louisiana Purchase (1803), the river passed into American control.

Missouri

In 1811 the steamboat era began on the Mississippi River. Traffic along the Mississippi sped the development of the nation by providing access to the interior territories. St. Louis, Missouri; Memphis, Tennessee; and New Orleans, Louisiana, all flourished as a result of riverboat traffic. In the imagination of most U.S. citizens, the romance of the Mississippi as a steamboat waterway is probably best captured by Missouri-born writer Mark Twain (1835–1910) in his novel, *The Adventures of Huckleberry Finn* (1884).

See also: Louisiana, Missouri River, Natchez Trace, New Orleans, Pinckney Treaty, Steamboats, Steamboat Act of 1852

MISSOURI

Access to the Mississippi River and Missouri's central location helped that state's early economic development. The state's fertile land, abundance of lead, and assortment of wild game beckoned thousands of settlers eager to make Missouri the hub of activity in the west. The first inhabitants of what is now known as Missouri were Native American tribes. French fur trader Louis Jolliet and Father Jacques Marquette, a missionary, paddled down the Mississippi River, Missouri's eastern boundary.

The first settlers found the land was rich with deer, beaver, otter, and buffalo; their skins could be traded for other necessary goods. In the 1720s more French people immigrated to the area and established a community near St. Louis, eventually they built the first trading post in 1764. Lead was discovered in the area and a mine was opened near Fredericktown. The French settlers were self-sufficient and grew their own crops, built their own log cabins, and made their own cloth.

In 1762 France ceded its North American land, including Missouri, to Spain during the French and Indian War (1754–1763). When the English were expelled from the Ohio valley area south of Canada as a result of the Revolutionary War, Spain and the United States became neighbors on either side of the Mississippi River. In the 1790s Spain offered free land to Americans who settled in Missouri. People began migrating from eastern states; many brought their slaves with them.

After French leader Napoleon Bonaparte forced Spain to return the Louisiana Territory to France in 1800, the French threatened to exclude the Americans from traveling on the Mississippi River to trade their goods. The issue was pressing and President Thomas

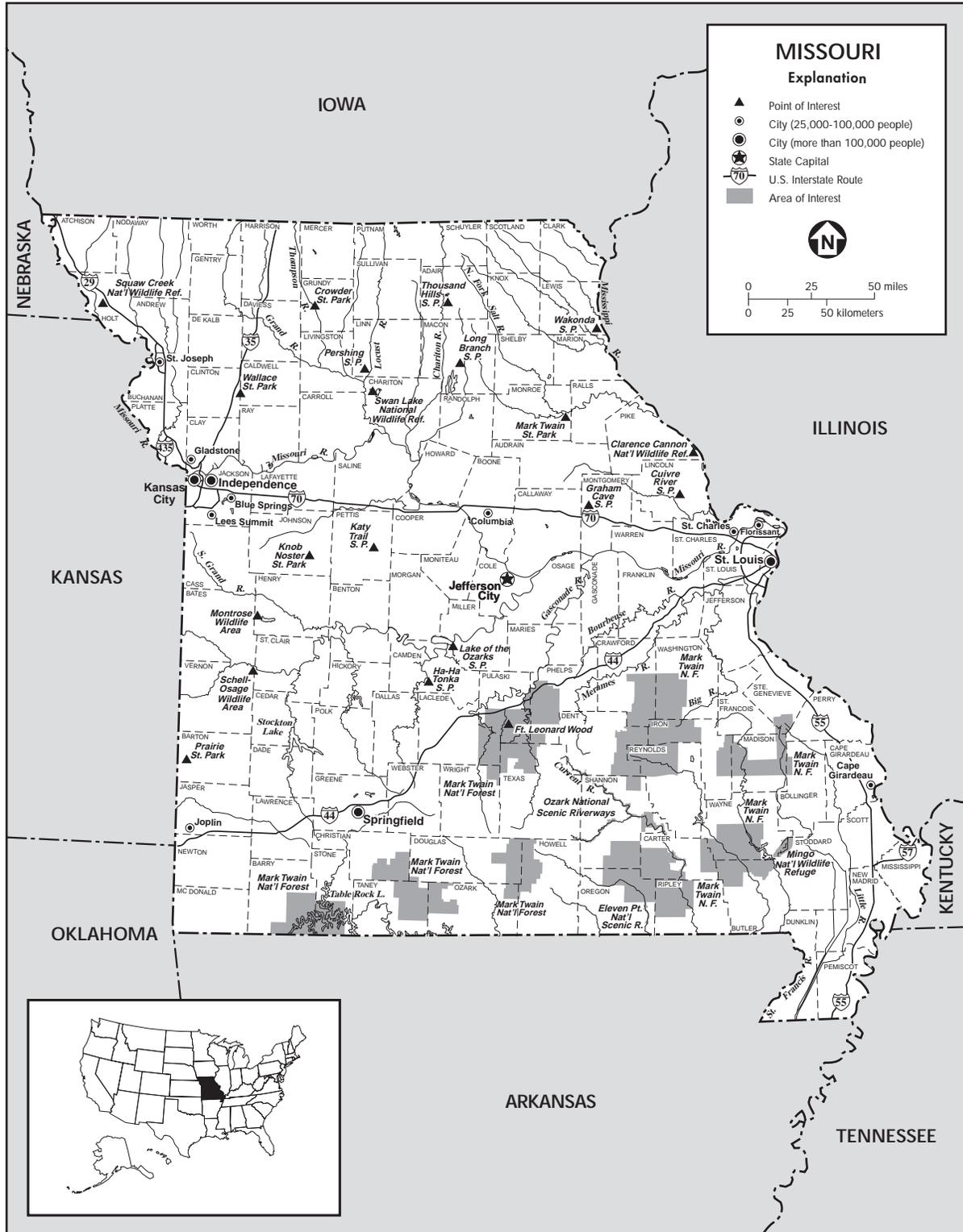
Jefferson (1801–1809), who had been one of France's strongest supporters in the United States, now prepared to go to war with France. The right to ship goods on the Mississippi was crucial, in Jefferson's eyes. The Napoleonic wars in Europe, plus a slave rebellion in Haiti, took Napoleon's attention away from the United States, however, and Jefferson offered to purchase the Louisiana territory from the French leader as a way to resolve the crisis. The deal was consummated and Missouri formed part of the newly purchased Louisiana Territory for \$15 million. The expanse of land purchased was so large that it was eventually carved up to become Missouri and 14 other states.

Once in 1811, and twice in 1812, earthquakes rocked southeast Missouri. Growth slowed in that area; however, the rest of Missouri flourished. In 1812 a section of the Louisiana Territory was renamed the Missouri Territory. That same year William Clark, of the Lewis and Clark expedition, was elected governor. More people continued to migrate to the fertile and rolling hills of Missouri to establish farms that produced a wide range of crops including corn, wheat, cotton, hay, tobacco, rice, and grapes. As these settlers took over more of the land, Native Americans were eventually pushed out.

Missouri was granted statehood in 1821. During the first half of the 1800s, the development of major transportation routes opened up the west. In 1819 the first steamboat traveled up the Mississippi River carrying flour, whiskey, and sugar. In 1821 the Santa Fe Trail, 800 miles in length, led from Independence, Missouri all the way to Santa Fe, New Mexico. Goods such as wool, tools and mirrors were traded for silver, mules, furs, and horses. In 1841, travelers could follow the Oregon Trail for 2,000 miles from Independence to Oregon. As the transportation system grew, small frontier towns developed along the river and trade routes.

In the mid-1840s, Irish immigrants came to Missouri after suffering failing potato crops in Ireland. These Irish settlers worked the railroads and labored in the towns. A few years later a large number of Germans immigrated to Missouri to make homes in the St. Louis area.

Between 1852 and 1870 the railroad system in Missouri was expanded to meet the demands of the towns. The railroads received grants of federal land along the tracks. It was a profitable acquisition: the railroads sold the land to farmers and the farmers paid to have their goods shipped to markets via the railways. Missouri's railroads opened up new markets in the east for the state's wheat, corn, and other products and also offered easy transportation for easterners who were



State of Missouri.

Missouri Compromise

moving west. By 1860 more than one million people lived in Missouri. The state's economy flourished.

After the American Civil War (1861–1865) more railroads were laid in Missouri. The railroads transported more settlers to Missouri and continued to open new markets for Missouri's commercial products: crops, iron, and beer.

In the 1870s the fur trade and steamboat traffic declined due to competition from the railroads. The state's economy shifted to industry. Factories drew people from rural areas to the cities. By 1900 St. Louis was the country's fourth-largest city and was called the "Belle of the New World." Urbanization continued—between 1880 and 1970, Missouri's rural population declined from three-fourths to less than one-third of the state's population.

In 1904 about 20 million people attended the world's fair in St. Louis, a celebration to mark the one-hundredth anniversary of the Louisiana Purchase. Fair attendees could feast on the world's first ice-cream cones and the world's first hot dogs. They also had the chance to see the first motion picture, wireless telegraphs, and automatic dishwashers. The Olympic Games also took place in St. Louis that year.

In 1929, The Great Depression (1929–1939) hit the United States. Many farmers and workers lost their jobs. But the start of World War II (1939–1945) helped end the Depression as Missouri produced bombers, landing craft, and explosives. Missouri contributed more than \$4 billion worth of supplies to the war effort by the time it was over.

Between 1950 and 1990 the population of St. Louis dropped by more than half. In the 1970s the population of Kansas City also dropped. People and businesses were moving to the suburbs. Those who stayed in the cities were poor. The cities undertook major renewal projects that tackled problems like air pollution, traffic congestion, and crime. In the 1980s millions of government funds were used to renovate apartments and houses.

In 1989 industry was booming as St. Louis was home to many major companies. McDonnell Douglas Corporation made military aircraft, commercial jets, and electronic equipment. Anheuser-Busch, the world's largest brewery, had its headquarters in St. Louis. Chrysler, Ford and General Motors all had assembly plants in or near St. Louis and Kansas City. Missouri was second only to Detroit in automobile production. Other major manufacturers were Monsanto, Hallmark, and Ralston Purina. Each year, more than 60 new

companies opened in Missouri and created thousands of jobs.

Missouri produced more than 85 percent of the nation's supply of lead and was a leading producer of lime, barite, zinc, cement, and copper. Missouri's mines added about \$1 billion to the state's economy each year. Forestry, another natural resource, was the source for nearly 2,000 industries which produced items such as charcoal, lumber, and barrels.

In 1993 devastating floods required that over half the state be declared a disaster area. Damage to the state was estimated at \$3 billion.

In 1998 Missouri's sources of income included manufacturing, farming, trade, tourism, services, government, and mining. While automobiles and aerospace manufacturing were the state's leading industries, soybeans, meat and dairy products were the most important agricultural goods.

In 1995 an estimated 9.4 percent of the state's residents lived below the federal poverty level. Personal income per capita was \$22,864 by 1996.

See also: Missouri Compromise, Missouri River

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MISSOURI COMPROMISE

Between 1815 and 1850, the politics of the United States became increasingly sectional. The question of slavery dominated the issues dividing the new republic. An increasing number of northerners viewed slavery as morally wrong and insisted that government abolish the system, while most southerners viewed slave labor as essential to their economic prosperity—and to that of the nation.

Both the North and the South looked to the newly settled western territories to expand their interests. In 1818 when the Territory of Missouri (part of the Louisiana Purchase of 1803) applied for statehood, there were 11 free states and 11 slave states, giving

both sides equal representation in the U.S. Senate. (Because of their populations, the free states dominated the U.S. House of Representatives.) Congress began debating the question of whether to admit new states as free or as slave states. In an effort to preserve the delicate North-South political balance, Congress agreed to the Missouri Compromise in 1820.

The Missouri Compromise provided for Maine to be admitted to the Union as a free state, Missouri as a slave state, and designated as free territories north of the Louisiana Purchase (the present-day southern border of Missouri), with the exception of the state of Missouri.

By the 1850s the issue of the extension of slavery had become very controversial. In 1854 the federal legislature again considered the problems of organizing and admitting new states to the Union. This time the Kansas Territory was under consideration. In another compromise, the territory was carved up to form two states, Kansas and Nebraska, and the slavery status of each would be decided by popular sovereignty (the voters in each state). The Kansas-Nebraska Compromise also repealed the anti-slavery clause of the Missouri Compromise, which had pronounced the northern territories free. Violence ensued, especially in Kansas where anti-slavery and pro-slavery adherents squared off in a series of deadly skirmishes, deepening the North-South schism. In 1857 the U.S. Supreme Court's decision in the case of *Dred Scott* (1795–1858), a slave who had sued for his freedom on the basis of having traveled with his owner in the free territory north of the 36th parallel, declared the Missouri Compromise unconstitutional.

See also: Abolition, Louisiana Purchase, Dred Scott Case, Slavery, Tallmadge Amendment

MISSOURI RIVER

The Missouri River is the longest river in the United States. It flows for 2,466 miles (3,968 kilometers). Its source lies in the Rocky Mountains of southwestern Montana; the river is formed by the confluence of the Jefferson, Madison, and Gallatin rivers at Three Forks, Montana. From there the Missouri flows east and southeast, ultimately joining the Mississippi River about 10 miles (16 kilometers) north of St. Louis, Missouri. The Missouri River flows through Montana, North Dakota, South Dakota, Nebraska, Iowa, Kansas, and Missouri. From the Mississippi River, the Missouri is navigable by barges and towboats west and north as far as Sioux City, Iowa. Above Sioux City the water

flow is controlled by a series of dams in a project authorized by the U.S. government in 1944. When the water is high the river is navigable to Great Falls (northeast of Helena), Montana.

In 1673 the mouth of the Missouri was passed by French-Canadian adventurer Louis Jolliet (1645–1700) and French missionary Jacques Marquette (1637–75) as they explored the upper part of the Mississippi River. The Lewis and Clark expedition of 1804–06 followed the Missouri for much of the journey to the Pacific Ocean.

During the first two decades of the 1800s, the river provided a chief transportation route for the western fur trade, which relied on keel boats to move goods along the river. In 1819 steamboat traffic began on the waterway, carrying pioneers to the rugged West. Riverboat traffic declined with the expansion of the cross-continental railroads at the end of the nineteenth century. Much of the region through which the Missouri River flows—the interior plains—was the last frontier to be settled in America.

See also: Fur Trade, Louisiana Purchase, Lewis and Clark Expedition, Mississippi River, Steamboats

MITCHELL, JOHN

In 1870 John Mitchell (1870–1919) was born in Braidwood, Illinois, a coal-mining village. Orphaned at age six, Mitchell had a difficult childhood. Frustrated and largely penniless, he spent his teenage years laboring as a miner in Colorado and Wyoming. Through this experience, Mitchell came to believe that coal miners, and all working people, could obtain a better and more secure life by organizing labor unions to address their concerns with employers. Mitchell grew up to become one of the most respected yet controversial labor leaders in the United States in the early twentieth century.

In 1890 he was one of the founders of the United Mine Workers of America (UMWA). Later, in 1898, Mitchell won public acclaim as UMWA president. He pursued the organization of labor by using a moderate approach to relations between workers and employers. His conservative style rejected confrontation and class conflict as counterproductive. In his two books, *Organized Labor* (1903), and *The Wage Earner* (1913), Mitchell wrote that the prosperity of workers and employers were inseparably linked together, and harmonious relations between these two groups were best for both.

Model T

As more Americans joined labor unions in America, open conflict between unions and employers became more common. Mitchell's theories of harmony between business and labor began to seem naive and unrealistic. American labor was headed in the direction of greater militancy and Mitchell's ongoing associations with businessmen caused a decline in his popularity. He was seen as a pawn of business and a conservative manipulator of union growth. In 1908, despite his reputation as an effective union organizer, the union he founded asked him to step down as president.

Mitchell later tried to pursue his theory of "business-labor harmony" by serving as head of the National Civic Federation (NCF) Trade Agreement Department. (The NCF was an organization comprised mainly of employers and business owners.) But, by 1915, the UMWA insisted he leave the NCF. The UMWA continued to see Mitchell as a collaborator with business and as an unreliable representative of union causes. In 1915 Mitchell became chairman of the New York State Industrial Commission, where he mediated labor issues until his death in 1919.

Arguably, the unions were correct about Mitchell's growing conservatism. He died a millionaire, having grown wealthy through investments in coal mining, the railroad industry, and the steel industry. Many unions came to despise him as a betrayer of union principles, but coal miners remained loyal because of the help he gave them as a labor organizer in the early days of his career. John Mitchell was an inspiration to the early labor movement in the United States, and his policies of mediation and cooperation have, in the long run, triumphed.

See also: Labor Movement, Labor Unionism, United Mine Workers

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MODEL T

The Model T was an automobile introduced by the Ford Motor Company in 1908 and manufactured until 1927. The automobile's enormous success has been the source of extensive analysis and commentary by historians, sociologists, economists, business writers, and pop culture experts. The Model T has been credited with not only changing the United States but also defining it. When Ford Motor Company founder and president Henry Ford (1863–1947) unveiled the prize Model T in October 1908, he hailed it as "a motor car for the great multitude."

The product lived up to the promise. The internal combustion vehicle had been in production in the United States only since the 1890s; but in the decade preceding the Model T's debut, manufacturers and consumers alike came to regard the "horseless carriage" as a luxury item. It was custom-made for wealthy U.S. citizens. Ford had conceived a different and better idea, as the company would advertise throughout the century: a car that was simple to operate, easy to service, comfortable, and affordable.

The Model T had a wooden body on a steel frame. It had a four-cylinder, twenty-horsepower engine, tank capacity of ten gallons (in the "touring sedan") or sixteen gallons (in the "runabout"), and a completely enclosed power plant and transmission. It was also lighter than other models. Through large-scale production based on a system of interchangeable parts the Model T took 728 minutes (just over 12 hours) to build and sold for \$850, lower than the price of other automobiles. It was, however, still beyond the reach of the average American consumer.

Nevertheless, in the year the new car was introduced 17,000 Model Ts were purchased by U.S. consumers. Ford improved production methods to increase the number of cars produced and lower the cost; sales steadily rose. The company made an extraordinary offer, when it paid its workers for an eight-hour day a wage of five dollars a day, twice the amount other factory workers were earning. Ford explained that this was merely good business practice. By raising the wages of his factory workers Ford enlarged the potential market for his Model T.

In 1914 Ford implemented the moving assembly line to optimize. Each job had one "best way" of being



A 1921 vintage Model T.

accomplished. The moving assembly line brought unprecedented efficiency to manufacturing. Assembly time per car dropped to just 90 minutes. That year the Ford plant in Highland Park, Michigan produced almost 250,000 Model Ts. To keep up with ever-rising demand operations were sped up and capacity increased to the point when in 1925 Ford produced one Model T every ten seconds. That year the car retailed for just \$295, making the so-called “Tin Lizzie” (or the “Flivver”) accessible to working class families.

Ford’s innovative Model T brought mobility within the reach of the average person in the United States. It was a reliable, no-nonsense, mass-produced automobile, manufactured on a moving assembly line. It changed the consumer mindset to view the car as a necessity. In 1927 Ford retired the Model T so the company could respond to consumer demand for cars with better performance, power, and styling. By then the company had turned out 15 million Model Ts.

See also: Automobile (Origin of), Automobile Industry, Henry Ford, Ford Motor Company, Mass Production

MOLASSES ACT OF 1733

In an ongoing effort to control commerce in its North American colonies, the British Parliament passed the Molasses Act in 1733. It imposed heavy duties on any molasses, sugar, or rum imported by the colonies from non-British West Indies (islands in the Caribbean).

The American colonists had a substantial appetite for rum. They consumed it at a rate of nearly four gallons a year for every man, woman, and child. By the time that the act was passed New England distilleries had developed into a successful industry. They bought most of their raw materials (molasses and sugar) from the French islands in the West Indies. The French islands offered cheaper rates than the British islands. Thus Parliament was prompted to pass the Molasses Act to protect its sugar industry.

Smugglers evaded the law by transporting African slaves to Spanish colonies where they were traded for sugar and molasses. These goods were then sold to New England distillers. The smugglers used the profits to buy more African slaves, establishing one of many

triangular trade routes that proved lucrative in colonial times.

In 1764 British Parliament passed the Sugar Act to replace the Molasses Act of 1733. The legislation cut by half the per-gallon duty on sugar and molasses imported into British colonies from non-British islands in the West Indies. The Sugar Act also provided for British customs officials to be sent to America where they would work with colonial governors to enforce the law.

See also: **Sugar, Sugar Act, Triangular Trade**

MOLLY MAGUIRES

In 1854 Irish American coal miners in eastern Pennsylvania organized a secret society called the Molly Maguires to wage a campaign of violence against mine owners and operators. The name of the group came from a society in Ireland that used physical force to fight ruthless landlords. The miners were determined to defeat their oppressors at all costs. Their numbers grew and in the decade following the American Civil War (1861–1865) the Molly Maguires were active both as agitators and assassins. In 1875 the group incited a coal miners strike. The strike was broken by the detective work of Irish American James McParlan (1844–1919). McParlan was a Pinkerton guard hired by Philadelphia and Reading Coal and Iron Company to infiltrate the Molly Maguires. He revealed the identities of gunmen responsible for the deaths of nine mine company foremen. Several members of the secret society were arrested, tried, and convicted in 1876. They were hanged for their crimes in 1877.

U.S. sympathies for the plight of the miners were diminished by the headlines proclaiming the terrorist activities of the Molly Maguires. The society dissolved by 1877. Their presence however was long felt in the anthracite coal fields of Pennsylvania, where company police monitored activities in the mines and effectively intimidated many miners from organizing.

See also: **Coal Industry, Pinkerton, United Mine Workers (UMW)**

MONETARY THEORY

Monetary theory holds that a government can manage the level of economic activity by controlling interest rates and the amount of money in circulation. In general, pumping more money into the economy leads to more buying and selling; shrinking the money

supply leads to less economic activity, possibly even a recession. A tight monetary policy is one that involves higher interest rates and limits the amount of new money going into circulation. An easy or loose monetary policy involves lower interest rates and more money entering circulation. The government agency responsible for the money supply in the United States is the Federal Reserve Board. The Federal Reserve tries to regulate the nation's economic activity by closely watching over the money supply. It has the power to raise or lower interest rates and to control the money supply. Lowering interest rates tends to stimulate the economy; raising interest rates tend to dampen economic activity. Economists often debate the merits of monetary policy. There is no question that too tight a monetary policy can cause an economy to falter. Some historians say the Great Depression (1929–1939), the worldwide economic crisis of the 1930s, was worsened by the government's tight monetary policy of the era. But too loose a monetary policy can also create problems by leading to inflation.

See also: **Interest, Money**

MONEY

As trade and economies increased, barter—the exchange of goods or services in return for other goods or services—was replaced by money. Money is a convenient social invention used to facilitate the exchange of goods and services. Contemporary money takes the form of paper or coins made from durable metals such as nickel, copper, silver, or gold. The first uses of money, however, took a slightly different form. Early items used as money include shells, stones, cattle, and cigarettes.

What is accepted as money from one time to another may vary according to what the society accepts as its medium of exchange. Ancient agricultural societies may have placed more value in cattle than copper, and thus cattle could become accepted as payment for goods or services. Most modern societies use paper and metal coins as their medium of exchange. At the birth of the United States, when the new nation was governed under the Articles of Confederation, the issuing and printing of money was not centrally controlled. Each state printed its own money and there was no guarantee that money from early Virginia would be accepted in Massachusetts. This created problems in the early republic as the states engaged in interstate commerce. The production of money in the United States was eventually centralized under the federal government.

Internationally, nations use different monetary currencies. As in the early days of the United States, the different currencies affect trade. Rather than convert the world to one monetary system exchange rates are established, for example, to convert U.S. dollars to British pounds. This allows nations engaged in international trade to easily purchase goods and services worldwide.

WHAT IS ACCEPTED AS MONEY FROM ONE TIME TO ANOTHER MAY VARY ACCORDING TO WHAT THE SOCIETY ACCEPTS AS ITS MEDIUM OF EXCHANGE.

At the end of the twentieth century money was not just paper and coin. Money was plastic and consumers could charge items to a credit account, which they then paid for through another form of money, a check. In addition, the advent of computers and electronic communication allowed banks to begin electronic transfers of money, making it possible to move money from a bank account in Los Angeles, California, to a bank account in Zurich, Switzerland, within a matter of hours—all without the hand-to-hand exchange of paper or coin.

See also: **Currency, Exchange Rates, Specie, Wampum**

MONEY SUPPLY

Money supply is the total quantity or volume of money circulating in the economy. Some economists define it narrowly as the total value of coins, paper currency, traveler's checks, and checking account balances at any given time. This definition of the money supply is called "M1." The broader definition of money supply, "M2," adds savings accounts and money market mutual funds. Money supply can also be defined as "M3," which combines M1 and M2 and adds other types of savings deposits and money market funds. At the end of 1998 the total amount of M2 in the United States economy was about \$4.4 trillion, while M3 was at \$6 trillion.

At about the same time as the United States was being founded, economists were discovering that an economy's money supply had a direct effect on prices and economic growth. The Coinage Act of 1792 defined the value of the U.S. dollar in terms of silver and gold, but after major gold discoveries in the 1830s and in 1849 gold began to replace silver as the standard by which the dollar was defined. The first and second

Banks of the United States (1791–1811 and 1816–1836, respectively) tried to control the money supply by making sure that U.S. banks had enough gold on hand to back up the paper bills that they printed and issued. The money supply, however, grew enormously during the American Civil War (1861–1865), when the government began printing "greenbacks" that weren't backed up by gold or silver. By 1879 the dollar was back on the gold standard, and when world gold supplies increased between 1897 and 1914, so did the U.S. money supply.

When the Federal Reserve was created in 1913 it was given the power to control the money supply by increasing or shrinking the amount of currency circulating in the economy. Despite this power, in the early 1930s the Federal Reserve failed to increase the money supply enough to keep the economy from contracting. The resulting Great Depression (1929–1939) led economists who supported the Keynesian economic theory to reject the traditional idea that an economy's health depended on how the money supply was managed. They instead believed that economic growth had to be managed through fiscal policies such as taxation and government spending.

The combined inflation and recession of the 1970s (called "stagflation") convinced a new generation of economists that ineffective government attempts to "fine-tune" the economy through fiscal policy and inconsistent changes in the money supply did not work. Because of these new economic theories in the 1980s, the Federal Reserve began to change the way it reacted to inflation. When inflation rose one percent, the Federal Reserve would raise interest rates 1.5 percent rather than the less aggressive 0.75 percent it would have applied in earlier years. This bolder approach to controlling the money supply was much more effective in controlling inflation. As a result, even though the economy boomed from 1982 through the 1990s inflation remained mild.

See also: **Bank of the United States (First National Bank), Bank of the United States (Second National Bank), Federal Reserve System, Gold Standard, Greenbacks, Money**

MONOPOLIES (ISSUE)

The American Civil War (1861–1865) made it possible for men of varying degrees of ability to become wealthy overnight. During the postwar decades these new fortunes were used for the exploitation of natural resources and for industrial development. Men such as Andrew Carnegie (1835–1919) and John

D. Rockefeller (1839–1937) became folk heroes, although in Rockefeller's case, there were also many who feared and despised him. Few laws regulated competition and few taxes were levied on their profits. In time some of these men exerted considerable influence on their state legislatures and on their senators. Even the philosophy of the age was tailored to their needs. Social Darwinism applied the biological concept of survival of the fittest to human society and decreed the successful businessman the fittest of all. Eventually, the Progressive movement confronted some of the more unsavory practices of the business elite and the corrupt politics of the time. The first faint indication that a change in conditions might be close at hand came in 1887 with the passage of the Interstate Commerce Act followed a few years later by the Sherman Antitrust Act in 1890.

Even in a period when business predominated there were certain activities that alarmed the public. The financial manipulations of Rockefeller, for example, indirectly affected the lives of millions who came to fear his company while admiring his personal life. Rockefeller's Standard Oil Company was the first trust or monopoly. It effectively controlled the petroleum refining industry by 1879. Other large combinations followed suit, so that by 1890 large companies controlled the production of such products as whiskey, sugar, and lead, and dominated the nation's railroads. The combinations used their size to exploit markets to the fullest.

In 1889 Kansas became the first state to enact antitrust legislation and the regulatory effort spread across the South and West. Within a year at least 14 other states and territories had enacted similar laws. Pressure mounted for the federal government to take action since individual states were powerless in dealing with the greatest offenders, the trusts and monopolies which were interstate in scope. Both major political parties incorporated antitrust planks in their platforms for 1888, but neither rushed to submit appropriate legislation at the next congressional session. Many Senators may have preferred to ignore the matter, but they were forced to act because of the public clamor and the gentle prodding of President Benjamin Harrison (1889–1893). The result was the passage of the Sherman Antitrust Act in 1890.

The Sherman Antitrust Act had deficiencies that were becoming evident at the turn of the century. One major problem was that the act did not define what a trust or monopoly was. The lack of such a definition left the interpretation of the law up to the judicial branch of the government, and the result was confusion and contradictory court cases. Moreover violation of

the Sherman Antitrust Act was only considered a misdemeanor, an offense for which punishment was not serious enough to deter those who saw their interests served by monopolies.

With the accession of Theodore Roosevelt (1933–1945) into the presidency the antitrust movement gained momentum, even though Roosevelt believed it was important to distinguish between good trusts and bad trusts. To Roosevelt good trusts benefited the public with their infusion of capital and products into the economy, while bad trusts consisted of greedy financiers interested only in profits at the general public's expense. Early in his presidency Roosevelt realized that the monopoly situation had reached a critical point and that something had to be done. In 1902 Roosevelt's administration brought suit against the giants of the railroad industry and the "Beef Trust."

The Supreme Court ordered dissolution of the Morgan-Hill-Harriman railroad holding company in the Northern Securities Case (1904), and in the case of Swift and Company vs. United States (1905), the Supreme Court enjoined the "Beef Trust" from engaging in collusive price fixing activities. In 1906 and 1907 Roosevelt had the Justice Department bring suit against the American Tobacco Company, the E.I. Du Pont Chemical Corporation, the New Haven Railroad, and the Standard Oil Company. The Supreme Court ordered the dissolution of the American Tobacco (1910) and Standard Oil (1911) companies. Between 1890 and 1905 the Department of Justice brought 24 antitrust suits while the Roosevelt administration brought suit against 54 companies. The administration of President William Howard Taft (1909–1913) later prosecuted 90 antitrust cases.

Despite many successful prosecutions during his administration Roosevelt realized that the trust problem would not be resolved by judicial review and that a more organized approach was needed. To regulate business Roosevelt specifically advocated a commission similar to the Interstate Commerce Commission, one that had jurisdiction over all businesses engaging in interstate commerce, not just railroads. Big business interpreted this additional governmental regulation as borderline socialism and in response argued for laissez-faire policies. Realizing that big business would invoke any means necessary to avoid regulation, Roosevelt maintained that his idea was not meant to "strangle" business but only regulate trusts, and that legitimate businesses need not be concerned. Roosevelt's proposal was partially implemented in 1913 when the Departments of Commerce and Labor were separated. On October 15, 1914, Congress passed and President Woodrow Wilson (1913–1921) signed the Clayton

Antitrust Act which was designed to strengthen the Sherman Antitrust Act of 1890 by fully codifying specific illegal antitrust activities. The Clayton Act forbade a corporation from purchasing stock in a competitive firm, outlawed contracts based on the condition that the purchaser would do no business with the seller's competitors, and made interlocking stockholdings and directorates illegal. It also contained provisions designed to make corporate officers personally responsible for antitrust violations. The Clayton Act also declared that labor unions were not conspiracies in restraint of trade, thus exempting them from provisions of the bill. This pleased Samuel Gompers, the head of the American Federation of Labor (AFL) so much that he called it "labor's Magna Carta." To carry out and enforce the Clayton Act and the Sherman Act, Congress created the Federal Trade Commission in a related measure.

The Clayton Act proved to be an enduring piece of legislation, and it has been strengthened a number of times since its passage. Just after its passage, however, the antitrust movement began to fade away. Late in 1914 Wilson stated that he believed federal regulation had gone far enough. The president viewed the Clayton Act as the concluding act in the antitrust movement.

The large corporations did not suffer as much from regulation as might be thought. In many ways, the regulatory authority that the government imposed on business made it more difficult for new companies to break into competition with the big companies. Thus, the main thing that they feared and that they formed monopolies to avoid—"ruinous competition"—was killed in its crib by the very regulation that was passed to put a collar on the monopolies.

Many historians have contended that although the antitrust movement reached a natural decline, World War I (1914–1918) further undermined it. War mobilization required coordinated efforts from the leaders of many industries. Economic concentration and collusive efforts were necessary and accepted for the war effort. Some economic historians contend that the Clayton Act actually promoted economic concentration. The Clayton Act clarified illegal actions, thereby helping to eliminate some monopolistic activities, but in so doing it allowed business combinations and trusts to engage in collusive activities not specifically prohibited. By codifying illegal behavior, some historians believe that Congress tacitly sanctioned other collusive activities designed to reduce chaotic competition and ensure stability. Large corporations such as General Motors and the Du Pont Chemical Company grew much larger just immediately after the Clayton Act and especially during the war effort.

Desire for further antitrust reform was rekindled when the Robinson-Patman Act of 1936 and the Miller-Tydings Act of 1937 both supplemented the Clayton Act by attempting to protect small business from wholesalers that practiced price discrimination and by establishing "fair trade" price floors on numerous items. In 1938, Congress created the Temporary National Economic Committee to hold hearings on the issue of antitrust. Attorney General Thurman Arnold reinvigorated federal antitrust prosecution. Arnold brought a number of antitrust suits, notably against General Electric and the Aluminum Company of America. Like the earlier antitrust effort of the Progressive Era, this campaign lost its strength and direction as a result of foreign policy concerns and economic mobilization for a war effort.

There were some important antitrust cases after World War II (1939–1945) as well. In 1945 the Aluminum Company of America was found to be in violation of the Sherman Antitrust Act. In 1948 the federal government forced a number of major U.S. film studios to divest themselves of studio-owned theaters. In 1961 the Supreme Court ordered the Du Pont Company to divest itself of its holdings in General Motors Company. In 1967 the Federal Communications Commission ordered the American Telephone and Telegraph Company (AT&T) to lower its rates. In 1982 after eight years of battling a private antitrust suit in federal court AT&T agreed to be broken up, and a number of rival long-distance communication companies came in to challenge AT&T's control over the market.

In 1950 the Celler-Kefauver Act extended the Clayton Act by tightening prohibitions on business mergers that lessen competition and lead to monopoly. In 1976 Congress passed the Hart-Scott-Rodino Act or Concentrated Industries Act. This was a mild reform law that attempted to strengthen provisions of existing antitrust laws. Monopolistic behavior clearly remained a factor of U.S. economic life while federal prosecution of anti-competitive mergers and acquisitions became rare.

See also: Clayton Anti-Trust Act, Interstate Commerce Act, Northern Securities Case, Sherman Anti-Trust Act, Tobacco Trust, Trust-Busting

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Antitrust Act in 1914 and the Robinson-Patman Act in 1936. The Federal Trade Commission, established in 1914, regulates unfair methods of competition in interstate commerce.

Occasionally a privately owned service is deemed so essential by the U.S. government that it will be shielded from antitrust laws or it will be regulated by the government. These are called natural monopolies. In the United States these primarily include public utilities, such as gas, electricity, natural gas, and water. By 1998 competition was introduced into the electricity and natural gas market through deregulation.

See also: Clayton Anti-Trust Act, Sherman Anti-Trust Act, Natural Monopoly, Tobacco Trust, Trust-Busting

MONOPOLY

Monopoly is a market or industry controlled entirely by one seller or firm that produces a product for which no close substitutes exist. The monopolist sets the price of its product and generally produces just enough to ensure plump profits. Although prices are normally higher than in a competitive market, monopolies are still disciplined by market forces. It does not benefit the monopolist to raise the price so high that no one can purchase it or to produce a product that is not in demand. A pure monopolist will examine the different prices and quantities it can sell in terms of the corresponding production costs incurred. Whatever price-quantity combination yields the highest profit will be chosen.

Very few cases in the American economy exist where a single seller enjoys full control of the supply of any one economic product. Few monopolies start off as such unless they own a copyright or patent. A business can become a monopoly by buying up the competition or driving competitors out of business. In addition, a monopoly may develop if production of a product requires specific skills.

The most common and effective barrier preventing monopolies is legal restriction. Nineteenth-century Americans considered competition essential for the democratic way of life. They looked to the legal system to block private accumulation of power or “trusts” which they perceived could threaten democratic government. In 1890 Congress passed the Sherman Antitrust Act “to protect trade and commerce against unlawful restraint and monopoly.” To strengthen and complement the 1890 act, Congress passed the Clayton

MONROE DOCTRINE

The Monroe Doctrine, the foundation for U.S. foreign policy in the western hemisphere throughout most of its history, was declared on December 2, 1823, by President James Monroe (1817–1825) in his annual message to Congress. In the first two decades of the nineteenth century the remarkable success of movements for independence in Spanish America set the foundation for the Doctrine. By the end of 1822 Spain was driven from its major colonies in North and South America by nationalist insurgencies. European powers now remained in control of only Belize, Bolivia, and the Guianas. But, fearing that European powers might move to restore Spain to its colonies, the Monroe administration felt compelled to issue a formal declaration regarding U.S. policy.

Four principles formed the Monroe Doctrine. The Americas were no longer to be considered objects for future colonization or control by any European power. The political systems of the European powers were alien to the United States and any attempt to export it to the Americas would be considered dangerous to American interests. The United States would not interfere with the existing colonies or dependencies of the European powers. Finally, the Monroe Doctrine reaffirmed that the United States would not take part in the wars of the European powers.

Great Britain earlier had prodded the Monroe administration to make a similar but joint declaration on preserving the independence of the new Latin American republics. Under the influence of John Quincy Adams (1767–1848), Monroe rejected the idea,

reasoning that the United States would then be cast as the junior partner of Britain, overshadowed by its vastly superior naval power. Furthermore, the motives of the United States diverged significantly from those of Britain. The British were intensely interested in expanding their already valuable trading links with independent Latin America—ties that would be jeopardized if Spain and its mercantilist policies were restored. Although Monroe was certainly aware of the commercial value of Latin America, he placed security and ideological considerations above economic interests when he framed his declaration.

Although the Monroe Doctrine declared unilateral U.S. protection over the entire Western Hemisphere, the United States did not have the military or economic muscle to support such an ambitious policy at that time. Not surprisingly the European powers ignored the Doctrine when it suited them. However, by the end of the American Civil War (1861–1865), the United States had considerable military and economic resources at its disposal. In the first major application of the Monroe Doctrine, U.S. forces massed in 1867 on the Rio Grande River to support U.S. demands that France abandon its puppet regime in Mexico, headed by the Hapsburg prince, Maximilian. France eventually complied, marking a significant victory for U.S. coercive diplomacy.

ALTHOUGH THE MONROE DOCTRINE DECLARED UNILATERAL U.S. PROTECTION OVER THE ENTIRE WESTERN HEMISPHERE, THE UNITED STATES DID NOT HAVE THE MILITARY OR ECONOMIC MUSCLE TO SUPPORT SUCH AN AMBITIOUS POLICY AT THAT TIME. NOT SURPRISINGLY THE EUROPEAN POWERS IGNORED THE DOCTRINE WHEN IT SUITED THEM.

The Maximilian affair demonstrated that the fortunes of the Monroe Doctrine were closely linked to the expansion of U.S. power. Indeed, as American industrial development and trading and investment ties with Latin America grew in the latter half of the nineteenth century, the United States became more willing not only to enforce the Monroe Doctrine, but also to add to its self-assumed rights and responsibilities. Latin America's subservience to the United States was amply demonstrated in 1904, when President Theodore Roosevelt (1901–1909) developed the Roosevelt Corollary to the Monroe Doctrine.

In the late nineteenth and early twentieth centuries political, economic, and social instability plagued much of Latin America. In these perilous conditions, durable

and enforceable economic transactions between Latin American and European parties often foundered. Latin American politicians frequently treated European investors capriciously, while European traders and bankers often cheated or exploited their Latin American customers. The European powers increasingly intervened to resolve disputes involving their nations, as when the dictator of Venezuela refused to honor debts owed to European citizens. In response, Germany and Britain blockaded Venezuelan ports and attacked Venezuelan harbor defenses and naval assets. Such incidents were the proximate cause of Roosevelt's decision to revise the Monroe Doctrine, although it is true that the American president was already disposed to expand American power whenever and wherever possible.

The Roosevelt Corollary, which was included in a message to Congress in December 1904, reiterated that the Monroe Doctrine forbade European intervention in Latin American affairs. However, Latin American states had to honor their obligations to foreign nationals and governments. Roosevelt declared that the United States would act as hemispheric policeman, forcing Latin American governments to put their economic houses in order and pay their debts, eliminating the need for European intervention. Over the next three decades, U.S. forces took control of the governments and customs houses of the Dominican Republic, Haiti, and most of Central America. Although this forceful intervention produced a measure of economic and political stability to the region, it aroused increased and intense resentment among the local populace, which viewed the Monroe Doctrine and the Roosevelt Corollary as pretexts for the pursuit of U.S. interests in the region.

The presidential administrations of Herbert Hoover (1929–1933) and Franklin Roosevelt (1933–1945) responded to brewing anti-U.S. nationalism. In 1930 the Hoover administration renounced the Roosevelt Corollary by declaring that the Monroe Doctrine did not justify U.S. intervention in the domestic affairs of Latin America, however turbulent they might be. For his part, Roosevelt withdrew American military forces from Central America and the Caribbean, replacing troops with the “Good Neighbor Policy.”

None of these new policies had an immediate and substantive impact on the U.S. tendency for unilateral intervention in Latin America. Rather, they marked a change in U.S. strategies and rhetoric. Thus when the Cold War began the United States moved to combat Soviet subversion in the region, both real and imagined. The United States sponsored a failed invasion of

Cuba (1960); engineered the overthrow of democratically elected governments in Guatemala (1954) and Chile (1973), and trained and armed counter-revolutionary forces in Nicaragua.

When the end Cold War and the collapse of the Soviet Union (1991) removed the strategic rationale for intervention, U.S. policy began to move away its long-standing commitment to unilateralism. As the U.S. contemplated armed intervention in Haiti in 1994 to restore democratic government, it sought formal authorization from the United Nations. This dramatic embrace of multilateralism reflected the increased efforts of the United States during the 1990s to pursue both its ideals and its interests through international institutions, both regional (the North American Free Trade Agreement) and global (the United Nations, the General Agreement on Trade and Tariffs, etc.) The question that remained unanswered at the beginning of the twenty-first century was whether the unilateralism of the Monroe Doctrine will revive—in whole or in part—if multilateralism failed to meet perceived American goals in Latin America.

See also: General Agreement on Trade and Tariffs, James Monroe, North American Free Trade Agreement

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MONROE, JAMES

James Monroe (1758–1831) came from a family of small planters in Westmoreland County, Virginia. He spent two years pursuing a classical education at William and Mary College (1774–1776) but left before graduation to fight in the American Revolution (1775–1783). He served as a lieutenant in the Third Virginia Regiment, and was wounded in the Battle of Harlem Heights (September 16, 1776). He fought again at White Plains (October 28, 1776), and suffered a serious wound in the battle of Trenton (December 26, 1776). There, General George Washington (1732–1799) promoted him to the rank of captain for ‘bravery under fire.’ After recuperating from his injuries he returned to fight in the battles of Brandywine and Germantown, Pennsylvania, in the fall of 1777 and again at Monmouth, New Jersey (June 1778). Because of an oversupply of officers he resigned his commission and returned to Virginia to serve in the lower house of the legislature.

In 1782 Monroe was elected to the Virginia House of Delegates and served as a member of the Continental Congress (1783–1786). He practiced law for a short time but, after the Constitution came into force in 1788, he won election to the U.S. Senate. There, Monroe became a persistent critic of President George Washington’s administration (1789–1797). He charged that the federalist leadership of Alexander Hamilton and George Washington was out to enrich commercial and financial interests and was insufficiently sympathetic to farmers. He accused the federalists of passing coercive legislation, such as the Alien and Sedition Acts. In this and in his unabashed support of the French Revolution he found agreement with Thomas Jefferson (1743–1826) and James Madison (1751–1836) and became a member of the Democratic Republican Party.

After the United States fought the British to a standstill in the War of 1812 (1812–1814), the country entered a period of relative tranquility. Monroe was elected fifth president of the United States in 1816 and presided for two terms, during what is now called ‘the era of good feelings.’ During this period, President James Monroe’s (1817–1825) diplomatically adept Secretary of State, John Quincy Adams, negotiated a number of treaties and agreements with other countries. The Convention of 1818 extended the northern border between the United States and British Canada along the forty-ninth parallel, from the Lake of the Woods in present day Minnesota to the Rocky Mountains in the west. Another important diplomatic accomplishment was the 1817 agreement between the United

States and British Canada to restrict the number of each nation's warships on the Great Lakes. This was called the Rush-Bagot Treaty.

The most reknown diplomatic initiative of the Monroe administration was also suggested by Secretary of State John Quincy Adams. This was the Monroe Doctrine. This declaration, which the president articulated in his annual address to Congress in December 1823, warned European nations to refrain from further colonizing, or exploiting instability which might develop in the new nations in the Western Hemisphere. American "rights and interests," according to the Monroe Doctrine, dictated that newly emerging countries in the Americas were not in the future to be interfered with by any European powers. In exchange for this freedom from European intervention in the Americas (both North and South), the United States promised to not become involved in the internal affairs of Europe. Given the relative weakness of the United States as a military power prior to the American Civil War (1861–1865), this was a promise that was easy to keep.

The Monroe Doctrine addressed not only the relationship between the United States and Europe, it also announced a special relationship between the United States and Latin America. The United States would oversee and protect Latin America against European and other foreign invaders. It would also pursue commerce and capital investment with the less developed nations of Latin and South America. The Monroe Doctrine was used as justification for a U.S. policy of military intervention in the "banana republics" of Central and South America. The United States often intervened when the leaderships of these countries appeared ready to become less accommodating to American foreign investment or military interests.

At the end of Monroe's last term of office, political factions emerged in a four-way presidential race which ended in the election of John Quincy Adams (1825–1829) as the sixth president of the United States. On the occasion of Monroe's death in 1831, Adams credited Monroe with stabilizing the nation.

Monroe died in 1831. He was a courageous soldier and a determined partisan of liberty (although, like his colleagues Madison and Jefferson, he did not extend this principle to freeing his slaves). Monroe is best known for the Monroe Doctrine and for other diplomatic expressions of the new nation's nationalism during his presidency.

See also: Monroe Doctrine

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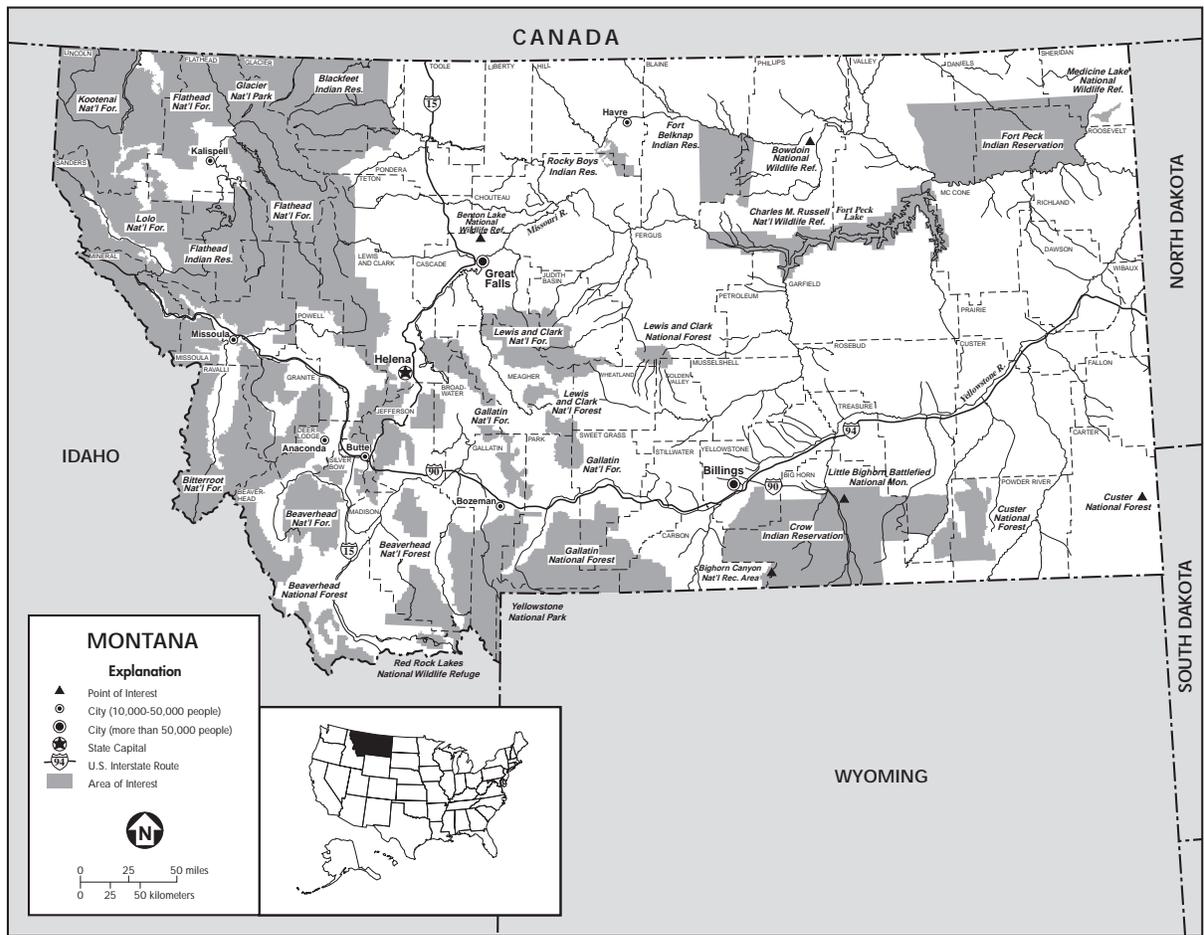
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MONTANA

Nicknames for Montana reflect the wonder and significance of the state's natural resources—the basis for its growth and prosperity. Familiar references such as "Big Sky" and the "Treasure State" come from appreciation for the state's expansive views and rich supply of minerals.

It is thought that the first white explorers to Montana were French traders and trappers from Canada who migrated in the 1700s. In 1803 when President Thomas Jefferson (1801–1809) orchestrated the Louisiana Purchase, the deal included land west of the Mississippi River which includes land now known as Montana. Jefferson sent the Lewis and Clark expedition to explore the new area and record their findings for the rest of the world.

In 1805 Meriwether Lewis and William Clark, along with French trapper Toussaint Charbonneau and his Shoshoni wife, Sacagawea, reached the Yellowstone River near the boundary of North Dakota. They traveled through present-day Idaho, Oregon, and Washington to the Pacific Ocean where they completed their mission. During the trip they encountered a handful of men who were hunting animals and trading furs with the Indians. Their expedition cleared the way for the first American trappers, traders, and settlers to find their way to Montana. In 1807 Manuel Lisa, a Spanish trader, formed the Missouri Fur Company and established the first trading post in Montana, and others rapidly followed. The Pacific Fur Company, the American Fur Company, and the Rocky Mountain Fur Company became important trading companies in the northwest.



State of Montana.

The fur trade dominated Montana’s economy until 1858, when gold was discovered in southwest Montana. By mid-1862, a rush of miners from the gold fields of California, Nevada, Colorado, and Idaho had migrated to the state. The biggest gold discovery was in Alder Gulch near Bannack in 1863. Miners flocked to the gulch, which led to the development of Virginia City and Nevada City. A contemporary newspaper wrote, “thousands of tenderfeet were wildly filing claims.” Alder Gulch gave up \$10 million worth of gold in one year. Other areas of Montana also proved to be rich in gold and with each gold discovery, a town instantly sprang up. The temporary gold boom brought the state’s first substantial white population and an increased demand for government. Bandits robbed and killed miners on the roads. When Montana became a territory in 1864 the legislature was better able to govern the area.

As more settlers migrated westward, they occupied land previously owned by the Indians. Between 1863 and 1876 many battles, most notably the Battle of

the Little Bighorn, or Custer’s Last Stand, took place. The bloody battles eventually brought about the surrender of several Indian tribes who were subsequently confined to reservations.

In 1864, gold was discovered in the hills around Butte and by 1875 silver was discovered there as well. The Travona Silver Mine was soon opened and Butte became known as “Silver City” for the next 10 years. In 1881 one of the richest copper mines was discovered in the hills of Butte—the place became known as “the richest hill on earth.” By the 1890s copper was the state’s most important mineral and Butte became the industrial center of Montana.

By 1866 the first Long Horn cattle were brought to Montana from Texas and by the mid-1870s sheep also grazed the countryside. In 1886, approximately 664,000 head of cattle and nearly a million sheep grazed Montana’s land. Between 1880 and 1909, the state prospered as construction of a railroad system helped open new markets for the livestock and mining industries.

The railroads also allowed farmers to migrate to Montana. Between 1900 and 1920 the population grew from 243,329 to 548,889. In 1889, after several attempts, Montana's bid for statehood was approved by Congress.

Farmers from all over the country as well as Germany and Scandinavia migrated to Montana in the early 1900s planting flax, oats and wheat. Land claims grew from one million acres in 1909 to 93 million acres in 1922. Farmers were able to get good prices for their wheat until a drought ravaged Montana's farm country in 1917. Many could not sustain their farms and left the state for more hospitable soil. In 1920 thousands of grasshoppers descended on the land eating any seeds or grass that were left. Periods of drought and rain over the next 10 years forced the farmers to diversify their crops to suit the climate and use farm machines which helped turn a profit once again.

As the Great Depression (1929–1939) hit the United States the demand for minerals and agricultural products waned. By 1935 mines were closing and farmers were losing their land as one-fourth of Montana residents received financial assistance from the government. However, President Franklin D. Roosevelt's New Deal began to put people back to work in Montana constructing dams and roads and extending power lines.

With the start of World War II (1939–1945), Montana's economy began to thrive again as copper was in demand for use in weapons systems. The government bought wheat and beef from Montana's farmers and ranchers to provide rations for the troops. After the war, Montanans began to move from farms to cities as businesses grew. In the 1950s as well successful oil wells were developed in eastern Montana.

In the 1970s Montana's petroleum and natural gas were in great demand as a fuel shortage spread across the country. As energy companies started strip mining for coal, environmentalists took action. The Montana Strip Mine Reclamation Act and the Utility Siting Act were passed in 1973, increasing the tax on coal by 30 percent. Half the money was used to restore the land and community by building roads and schools and reviving areas devastated by mining.

In the 1980s the state's economy took a plunge. Copper prices dropped drastically, forcing many of Montana's copper mines to close. At the same time, falling oil prices meant less revenue from petroleum while a drought devastated the farming industry. As

a result, Montanans began to leave the state looking elsewhere for better economic opportunities. Between 1985 and 1989, the population decreased by 20,000 people.

The 1990s saw an upswing in the demand for minerals and manufactured goods, which led to a turn around in the state's economy. In 1991 about 26 percent of Montanans worked for the government, the largest employer in the state. Petroleum accounted for half of the mining income as the oil, gas, and coal industries also experienced growth. Gold, silver, copper, lead, and zinc were produced in Montana. Other goods such as aluminum, gemstones, phosphate, limestone, gypsum chromite, barite, clay, sand, and gravel also generate revenue for Montana. As well farmland covered about 25 percent of the state, and wheat—the biggest crop in Montana—was exported to other countries. Revenue from livestock accounted for two-fifths of Montana's farm income. In 1996 per capita personal income was \$19,047 and in 1995, only about 15.3 percent of the population lived below the federal poverty level.

See also: Louis and Clark Expedition

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MONTGOMERY WARD AND CO.

Montgomery Ward and Co., Incorporated had its origins in the 1860s, when young Chicago native Aaron Montgomery Ward saw that he could undercut rural retailers by selling directly to farmers through mail orders and by delivering via the railroad. After a false start in October 1871, when the Great Chicago Fire destroyed his inventory, Ward and two partners sent out their first mailing in the spring of 1872. This was the world's first general merchandise mail-order catalog.

Montgomery Ward and Co.

Orders trickled in and Ward soon bought out his partners, who were discouraged by the slow pace of business. Late in 1872 he got a break. The Illinois Grange, a farmers' organization, named Ward its purchasing agent. This gave Ward access to Grange mailing lists and meetings, and greater credibility with farmers. He began titling Montgomery Ward price lists with the phrase Original Grange Supply House.

As the business grew Ward needed more capital and more help. Late in 1873 his brother-in-law, George Thorne, put five hundred dollars into the firm and became an equal partner. The two men made an effective team. While Ward had the inspiration for the business, George Thorne was a practical day-to-day manager.

Montgomery Ward's primary customers were farmers who needed new industrial tools and farming equipment that were expensive or hard to find outside of cities. In these early years, his best-selling product was the sewing machine, and the catalog was filled with pumps, feed cutters, cane mills, corn shellers, threshers, saws, grinders, and engines.

As postal rates fell Montgomery Ward stepped up advertising in newly popular magazines. Through publications such as the *Prairie Farmer* he told farmers to query him for catalogs with penny postcards. The spring catalog for 1874 had 32 pages. That fall it was expanded to 100 pages. By the end of 1874 sales topped \$100,000.

Increased sales of \$300,000 in 1875 allowed Montgomery Ward to increase service. A satisfaction-guaranteed-or-your-money-back policy was instituted in 1875, and the catalogs began rating merchandise as good, better, or best. Montgomery Ward also counseled customers to band together and split fixed freight costs.

During the 1880s competition in the form of major department stores began to enter the catalog field. Jordan Marsh and Co., John Wanamaker, Sears Roebuck and Company, and Carson, Pirie, Scott and Co. all began or resumed mail-order operations. However, Montgomery Ward was still the biggest and most popular. Its 240-page 1883 catalog listed 10,000 items. In 1884 Ward bought the *Farmer's Voice* weekly newspaper to use as an advertising vehicle. In 1886 William C. Thorne, George Thorne's eldest son, increased the size and circulation of the catalog, leading to a boom in orders. By 1888 Montgomery Ward's sales reached \$1.8 million. To cap off the decade Aaron Ward and George Thorne turned their partnership into a corporation in 1889.

In 1900 Montgomery Ward built a new office headquarters at Michigan Boulevard and Madison Street in Chicago. Sales that year were \$8.7 million, trailing behind Sears's \$10 million as competition between the two Chicago firms grew more intense.

The U.S. Postal Service's initiation of a parcel post system in 1913 gave mail-order business a boost. Montgomery Ward made \$3.4 million on 1915 sales of \$49 million as a boom period began. But in September 1920 a financial panic hit, and prices began to fall. Sales dropped to two-thirds of their 1919 level. Losses for 1920 totaled \$10 million.

By 1922 the economy rebounded. The retail market was beginning to displace the mail-order system as the automobile changed the way people in the United States shopped. Montgomery Ward somewhat belatedly entered the retail sector in 1926. That year the company opened its first freestanding retail store in Plymouth, Indiana. The success of this store and the continuing weakness of the mail-order sector led Montgomery Ward to announce that it would open stores in rural towns with populations of 10,000 to 15,000. Ward had 531 stores operating by the end of 1929, but the stock market crash in October of that year, followed by the Great Depression (1929–1939) curtailed further expansion plans and led to the closure of 147 poorly performing stores.

The early years of the Depression were difficult for Montgomery Ward but by 1934 the company turned the corner and returned to profitability. That year the company also began taking telephone orders. In 1939 Montgomery Ward made a public relations coup when a Ward copywriter wrote a booklet about a little red-nosed reindeer named Rudolph, which became a Christmas classic. The booklet was included in millions of catalogs.

From the 1950s onward Montgomery Ward was in an almost constant struggle for survival. By the mid-1950s Montgomery Ward had already fallen well behind Sears Roebuck, whose sales were three times greater. Traditional retailers such as Montgomery Ward and Sears Roebuck also saw competition grow fiercer with the entrance of discount chains such as Wal-Mart into the marketplace. Ownership of the flagging retailer eventually fell into the hands of Mobil Corporation in 1976. Twelve years later, however, the largest management-led leveraged buyout in U.S. history at the time (\$3.8 billion) transformed Montgomery Ward into a privately held company. Declining profitability led the company to file for Chapter 11 bankruptcy protection in mid-1997 and placed its future in serious doubt.

See also: Chain Store, Department Store, Mail-Order House, Retail Industry, Sears Roebuck and Company

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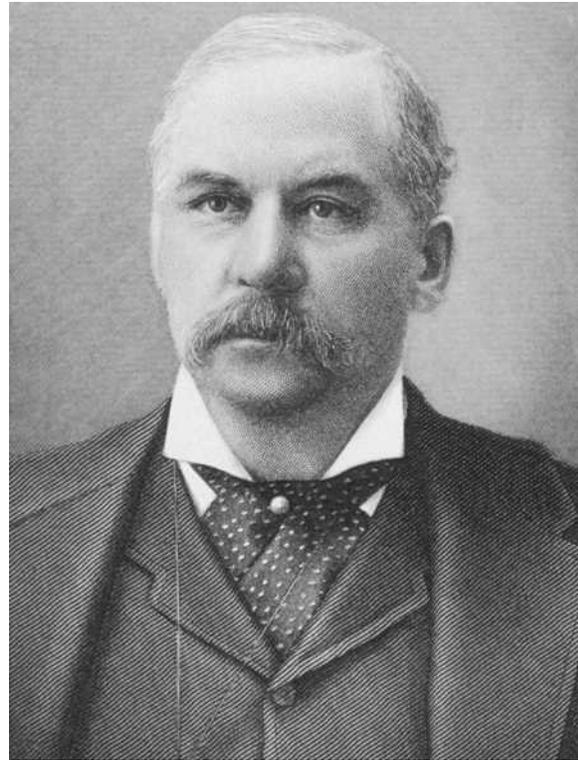
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J. P. Morgan.

MORGAN, JOHN PIERPONT

John Pierpont Morgan (1837–1913) was probably the most important and powerful business investment banker in U.S. history. Morgan played a major role in the rescue of the U.S. government in 1893 and 1907, when the United States experienced major economic downturns. However, Morgan's most enduring achievement was probably the crucial role he played in the creation of the United States Steel Corporation.

Morgan was the son of international banker Junius Morgan. He graduated from the famous English High School in Boston and then studied for two years at the University of Gottingen, Germany. He later graduated from Harvard University.

In many ways John walked in his father's footsteps, succeeding his father in most of the senior Morgan's business enterprises. Like his father Morgan made large gifts to educational institutions and to the arts. He became a great collector of art and books, and later in life donated many of his valuable art collections to U.S. libraries and museums. He also was famous as a yachtsman, defending the America's Cup in international yacht races on several occasions.

John entered his father's banking house, The George Peabody Co., in London. A year later his father secured

a position for him in New York with Duncan, Sherman and Co., the U.S. agents for the George Peabody firm. Then, at the age of 23, Morgan founded his own company, the J. Pierpont Morgan and Co., to serve as a special agent for the London Peabody Company. And by age 26 Morgan became a member of a firm struggling for financial control of the Albany and Susquehanna Railroad. After his success in this enterprise Morgan grew significantly in personal status within the banking community. He became known as a voice for stabilization in an age noted for its wild and fiery business sectors.

Morgan's motive was to guarantee high profits by stunting competition. His first major effort to create business monopolies during this time was his financial supervision of the reorganization of the railroad industry on the East Coast of the United States. This effort was often dubbed "Morganization." By the beginning of the 20th century Morgan made U.S. railways into a vast inter-related empire.

Morgan financed General Electric and consolidated the railroad industry. Toward the end of his career he negotiated with Carnegie Steel in his greatest economic achievement, the creation of the world's largest steel company, United States Steel. It was the first billion-dollar corporation in the United States.

Though the steel industry became the backbone of business growth in the 20th century its growth did not come easily. Internal conflicts emerged between individual steel manufacturers, and the ups and downs of the U.S. economy almost crushed the industry. In 1911 the presidential administration of William Howard Taft (1909–1913) filed suit against U.S. Steel for possible monopoly practices and illegal business manipulation. Federal committee investigations in 1912 revealed that Morgan's partners held 72 directorships in 47 major corporations in the United States. This may have been admirable as a business achievement, but it was also illegal.

Morgan was one of the few truly vital people of his time. He brought together the financial economics of Europe and the United States. He linked those who had money with those who needed it for the enormous industrial development of the United States that began during the middle of the 19th century. As a result of having so much power and money, he was frequently seen as either a force of great good or the source of great evil in the business world. A few months after his appearance as a defendant in the federal business trial, J. P. Morgan died in Rome, Italy, a broken revolutionary force in U.S. industry.

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MORITA, AKIO

Akio Morita (1921–), as a co-founder and later chairman of the Sony Corporation, gave to the general public a revolutionary array of inventive electronic products during the last half of the twentieth century. Worldwide, he introduced consumers to products like

the hand-held transistor radio, the video cassette recorder (VCR), the Walkman portable cassette player, and the Diskman portable CD disk player. He not only became one of the most influential businessmen in the world, he also helped to establish Japan's reputation after World War II (1939–1945) as a source for high quality, innovative, and reliable products.

Morita was born in 1921, the first son of Kyusaemon and Shuko Morita, in the small Japanese village of Kosugaya. If Morita had followed in the traditional family occupation of his father and his ancestors, he would have been the fifteenth generation heir to his family's 300 year-old *sake* brewing business, manufacturing an alcoholic beverage made from fermented rice and widely used by the Japanese.

The young Morita, however, was not interested in the family business. He instead developed a passion for improving electronics and sound reproduction. Presumably he was influenced early in his life by his mother's love for Western classical music, which she imported into the household with American-made RCA Victrola records. Recordings were then made out of heavy, clumsy, and easily-broken 12-inch diameter discs, imprinted with fine grooves that had to be tracked by a tiny needle as the discs revolved at 78 revolutions per minute. The sound quality was crude, and the music was often mixed with the sounds of scratches which inevitably accumulated on the discs after use.

Morita became so interested in new electronics, and with improving the qualities of sound, that he almost flunked out of school because of his disinterest in anything other than electronics. His family convinced him to persist in his studies, and he later entered the prestigious Eighth Higher School as a physics major.

Rather than be drafted into World War II (1939–1945), Morita entered Osaka Imperial University, agreeing to serve in the navy after graduation. In 1944 he was commissioned as a lieutenant in the engineering corps of the Japanese Imperial Navy. He worked on projects involving guided weapons and night-vision gun sights. There he met with Masura Ibuka, a brilliant electronics engineer 13 years his senior. They became best friends and together eventually co-founded Sony Corporation.

After World War II, Morita and Ibuka created the Tokyo Telecommunications Engineering Corporation with only \$500. Begun with 20 employees and a shared rented office in a burned-out Tokyo department store, the company made electronic equipment—amplifiers,

voltage-measuring devices, and communication devices—for the Japanese Post Office. It was the beginning of an electronics revolution, and an electronics empire.

The business grew slowly, but in 1953, Morita decided to buy the rights to the transistor, a miniature electronics circuit that had been developed by the American company Bell Laboratories. The patent was owned by another American company, Western Electric. At that time, transistors were thought to be impractical for most consumer products, except for use in hearing aids. Morita's purchase of the patent would prove to be the basis for a revolution in modern consumer electronics. With this patent, Morita and Ibuka began to use the transistor in ways that transformed the world of electronics, sound, and television. Within two years, the partners created for commercial consumer use the AM transistor radio. In another two years, they began to produce the pocket-sized transistor radio, the AM-FM transistor radio, the first all-transistor television set, the all-transistor video tape recorder, and the small-screen portable battery-operated television set.

In 1958 Morita changed his company's name to Sony Corporation, because it was easy to pronounce, and Morita himself moved to New York City to set up an office for United States operations. Sony became the first foreign-owned business to offer stock for sale in the United States; in 1970, Sony became the first Japanese company to be listed on the New York Stock Exchange.

During the 1960s and 1970s the Sony Corporation continued to introduce to the public several new transistorized inventions: the first inexpensively priced home video recorder, the color video tape recorder, video tape for color video recording, and the first battery-operated portable video recorder and camera. All of these inventions came to the marketplace produced with extremely high quality. Morita's business helped change the reputation of Japanese businesses for making cheap, poor-quality consumer items. The Sony brand name stood for the creation of transistorized innovations of all kinds, for high quality, and for reliable consumer products. Morita felt he had, among other things, taken the shame out of the label "Made in Japan."

Morita had indeed realized his childhood dream to improve the quality of sound reproduction. The use of CD digital technology eliminated the old-fashioned records his mother used and replaced the scratchy-sounding vinyl discs with a CD technology that reproduced sound almost flawlessly. The Sony Corporation,

with Morita's genius for innovation and selling, created an entirely new electronics environment during the last half of the twentieth century.

During the 1980s and early 1990s, Morita wrote two books dealing with careers in business and international business trade: *Made in Japan* (1986) and *The Japan That Can Say No* (1991). In 1994, Morita retired from the Sony Corporation at age 73, after suffering a debilitating stroke which had confined him to a wheel chair.

See also: Sony Corporation

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MORRIS, ROBERT

Robert Morris (1734–1806), possibly America's wealthiest man in the earliest years of the Republic, died penniless and in disgrace. Known as the "financier of the American Revolution," Morris played a role in the highest circles of the new American government, but he spent three years near the end of his life in debtor's prison.

Born in Liverpool, England, on January 31, 1734, Morris emigrated to the American colonies at age twelve. His father, a British tobacco merchant and a part-time resident of Maryland, died from a cannon misfire in a shipboard accident, leaving his son, a teenager, with a small estate.

Morris came under the care of a Philadelphia merchant, Charles Willing. When he also died, Morris and Willing's son, Thomas, formed Willing, Morris and Company, a trading company with three ships and contacts in Spain, Portugal and the West Indies. In the years immediately preceding the American Revolution (1775–1783), the firm traded wheat, flour, tobacco, and other products in a triangular route between Europe, the West Indies, and America.

Through Willing, Morris, and Company, Morris became one of the wealthiest men—if not *the* wealthiest man—in the American colonies. He did not immediately support the revolutionary cause against the British, though he had opposed Britain's levying of additional taxes under the Stamp Act of 1765 and had signed the Non-Importation Agreement opposing it. In June 1774 he became a member of the Pennsylvania Committee of Safety and a delegate to the Continental Congress, where he was named a member of the Select Committee on Trade. Hoping that a way would be found to avoid war with Britain, he did not sign the Declaration of Independence immediately but waited until several weeks after the historic document had been adopted.

KNOWN AS THE “FINANCIER OF THE AMERICAN REVOLUTION,” MORRIS PLAYED A ROLE IN THE HIGHEST CIRCLES OF THE NEW AMERICAN GOVERNMENT, BUT HE SPENT THREE YEARS NEAR THE END OF HIS LIFE IN DEBTOR'S PRISON.

In his capacity as chairman or member of several trade-related congressional committees, Morris was in charge of provisioning the Revolutionary Army. He blatantly used the office to his own advantage, selling to the new government material from companies he formed himself. Morris stayed on in Philadelphia when the war forced the Congress to vacate the city in December of 1776 and, during that time, acted with some courage in his role as the army's provisioner. He became banker for the Committee of Commerce in 1777, signed the Articles of Confederation as a Pennsylvania delegate the next year, and became chairman of the Congressional Committee on Finance. Morris left the Continental Congress in November of 1778 to attend to his private business affairs but remained in the Pennsylvania Assembly.

As a member of the Continental Congress, Morris became even wealthier. He used inside information and his network of international connections to profit himself. As a key part of his income, he maintained a very lucrative privateering operation: a state-sanctioned commercial venture wherein pirates seized the ships of enemies. Between 1775 and 1777, the Secret Committees on Trade and Commerce, headed by Morris, spent \$3.3 million. Of this amount Morris and his associates pocketed \$846,000.

Yet, historians differ about whether Morris was a scoundrel or a hero. In 1781 George Washington (1732–1799) urged Morris to reenter the national government as superintendent of finance. The war was still

underway and the new nation's money was virtually worthless, but Morris had the nation operating on a hard-money basis before the end of the war, a formidable accomplishment. Funds that Morris was able to borrow from France, supplemented with money from his own pocket, made it possible for Washington to move his armies from New York to Yorktown, where the British general, Cornwallis, surrendered.

Morris resigned his position as superintendent of finance when the states refused to agree to his taxation policy and blocked the national financial system he advocated. He turned his attention to land speculation and such ventures as turnpikes, iron works, and trade with China. Acting on credit, he bought huge sections of western New York and Virginia. He spent \$1 million on the first stage of building an ostentatious mansion in Philadelphia. Suddenly, the bottom fell out of the land speculation business. Many individual investors and land companies failed. Morris, whose fortune was vastly overextended, was never able to recover. He was confined in debtors prison for three years until his release in 1801 and died, five years later, still destitute.

See also: American Revolution, Stamp Act, Triangular Trade

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MORSE, SAMUEL FINLEY BREESE

Samuel F. B. Morse (1791–1872) is best known as the inventor of the telegraph and the code used to



Samuel Morse with his telegraph.

transmit messages on it. On May 24, 1844, he sent the very first telegraph message—“What hath God wrought?” His invention revolutionized communications, making it possible to transmit messages across long distances with almost no delay. The telegraph facilitated westward expansion and the development of industry across the continent and it helped to forge a sense of unity in a young nation.

Samuel Finley Breese Morse was born in Charlestown, Massachusetts, on April 27, 1791, to Jedidiah Morse, a clergyman, and his wife, Elizabeth Breese Morse. The oldest of three boys, he grew up being called “Finley.” Morse’s grandfather had been president of Princeton College and his father was known throughout New England as a fervent Calvinist preacher.

At age seven Morse was enrolled at Phillips Academy in Andover, Massachusetts. Like his father before him, he went on to attend Yale College. While there, he began painting miniatures on ivory. He enjoyed it so much that he considered pursuing a career in art. But his parents were very religious and did not approve. Thus, after graduating from Yale in 1810, Morse found a job in a bookstore in his native Charlestown.

Morse continued to paint, however, and eventually his work came to the attention of two of the country’s most respected artists, Gilbert Stuart and Washington Allston. Impressed by the admiration of his son’s work, Jedidiah Morse finally allowed the young

man to accompany Allston on a trip to England to study painting at the Royal Academy in London. Samuel Morse returned to the United States in 1815 with dreams of painting grand murals of heroic scenes. But there was no market for that kind of art at the time, so Morse had to settle for a career as a portrait painter, in which he enjoyed a fair amount of success. Of all his works, two in particular stand out. Both are portraits of France’s Marquis de Lafayette that were painted in 1825 in Washington, DC. In 1826 Morse helped establish the National Academy of the Arts of Design, an organization aimed at helping artists obtain commissions and at improving the public’s taste in art. He served as its first president from its founding until 1842.

Having garnered a fair share of praise and recognition by the early 1820s, Morse settled in New York City and married a young woman named Lucretia Walker. But tragedy struck in quick succession. He lost his wife in 1825, his father in 1826 and his mother in 1828. Grief over their deaths ultimately propelled him in a new direction.

To aid in his recovery from a profound state of grief, he sailed to England in 1829 for an extended stay in Europe. During his return voyage to the United States in 1832, he became acquainted with an eccentric inventor named Charles Thomas Jackson. The two men passed the time aboard ship discussing Jackson’s ideas regarding electromagnetism, a subject Morse had first heard about while a student at Yale.

WHAT HATH GOD WROUGHT?

Samuel Morse’s first telegraph message, May 24, 1844

According to Jackson, electrical impulses could be carried great distances along wires. Morse reasoned that if this were true, “and the presence of electricity can be made visible in any desired part of the circuit, I see no reason why intelligence might not be instantaneously transmitted by electricity to any distance.” He soon began sketching plans for a device that might be able to perform such a task.

Upon his return to the United States, Morse resumed his painting career and began teaching painting and sculpture at the University of the City of New York. However, he continued to mull over the question of how to send and receive electromagnetic signals by wire. Not only did he need to come up with an appropriate transmitter and receiver, he also had to devise the code that would enable users to create and then decipher messages. He invented a system in which

the long and short impulses could stand for letters and numbers.

Morse worked on his invention for a number of years without making much progress. Part of his problem stemmed from the fact that he was not a scientist and did not have the skill to implement his ideas. But then he met two men at the University of the City of New York who helped him tremendously. Leonard Gale, a chemistry professor, showed Morse how he could improve the electromagnet and battery for the working model of his telegraph. Gale's friend, Joseph Henry, offered additional assistance in the area of electromagnetism. Morse also received valuable help from Alfred Vail, whom he took on as a partner in 1837. Vail suggested several practical refinements to the telegraph device itself as well as to the code it used to transmit and receive messages.

In order to minimize the number of transmission lines per message, Morse had invented a code consisting of combinations of dots and dashes, each representing a single letter, number, or punctuation mark. A visit to a typesetting shop had helped him determine which letters were used most often, and to these he assigned the simplest code symbols. Complex codes were reserved for little-used characters. This marked the development of what would come to be known as Morse Code, the universal standard for communicating by telegraph.

Morse, who had abandoned his art career at this point, was aware that European inventors were also working on a telegraph device, and he was anxious to establish himself at the head of the line. By 1837 he was ready to conduct a public demonstration. Appearing before a select audience at New York University on September 2 of that year, Morse successfully presented his telegraph device. He then contacted federal government officials and suggested that further development work be supervised by the Post Office. But nothing came of his recommendation.

That same year Morse and Vail applied for a patent for the telegraph in both the United States and England. Morse also approached Congress for a grant to fund the construction of an experimental line from Washington, DC, to Baltimore. The American patent was approved in 1840 (the English one was rejected because a similar device had been introduced there earlier), but Morse could not convince Congress to appropriate any money for a telegraph line.

After a few years of frustration, Morse finally obtained a federal grant of \$30,000 to lay a telegraph

line from Washington to Baltimore. On May 24, 1844, he tapped out the first message, "What hath God wrought?" and thus launched a new era in communications. Morse then tried to interest the government in buying the rights to the telegraph for \$100,000, but Congress opted to leave it up to the private sector to finance and develop a system.

Morse and several partners formed the Magnetic Telegraph Company to lay telegraph lines themselves. Making money on the new technology proved difficult, however. According to Rosa Harris-Adler's article in *Canadian Geographic*, the company made only one cent in revenue during its first four days of operation and only \$193.56 during the first three months. Operating expenses for this same period were \$1,859.05.

Additional problems soon surfaced. Morse faced prolonged litigation over his patent rights as Charles Jackson and other scientists who had given the inventor advice demanded the recognition they felt they deserved. Neither side came out looking very good in court. While Morse stubbornly refused to give credit to the many people who had indeed contributed in some way to the development of the telegraph, a few scientists were strictly out to profit from his years of hard work. In 1854 the U.S. Supreme Court upheld Morse's patent rights.

Competitors were also quick to exploit the potential of the new invention. They soon began to establish rival telegraph companies throughout the country. Eventually, several small companies merged into the Western Union Corporation, which finally was able to make a profit on the telegraph. Morse's own company did not stand much of a chance in the face of such a rival, so in 1866 the Magnetic Telegraph Company also merged with Western Union.

In his later years Morse left the business world behind and turned his attention instead to politics and philanthropy. He even ran unsuccessfully for the United States Congress in 1854. His interest in scientific matters never waned, however, and in 1857 he teamed with Cyrus Field in a project to lay a transatlantic telegraph cable.

It is nearly impossible to determine the full extent to which the telegraph changed the way people lived. It was not so much because ordinary citizens made use of it on a regular basis; in fact, it was a rather expensive means of communication that mostly appealed to big business and government. But telegraph lines followed the westward expansion of the railroad across North America. They made it possible to communicate quickly

over vast distances and they linked far-flung settlements with population centers back east. This helped foster a stronger sense of national identity and underscored the need for more standardization and uniformity.

One significant consequence of the introduction of the telegraph was the creation of time zones in the United States and Canada. Before the invention of the telegraph, most cities kept their own time based on the position of the sun at noon. A standardized time schedule presented less confusion and less accidents.

Surveying and cartography also underwent some changes as a result of the introduction of the telegraph. Before the telegraph was invented, surveyors calculated longitude by chronometers that were shipped to key geographic points. Though chronometers were fairly accurate instruments at the time, the jostling involved in moving them could affect their precision by as much as 20 seconds a day. In 1849 astronomer William Bond of Boston invented a machine that attached chronometers to the telegraph. With this device astronomers could hit a telegraph key when they saw a star cross the meridian, passing the data along to other astronomers and thus improving longitude precision. As a result, maps showing boundaries and borders became more accurate.

By making distant communities feel less isolated from each other and the rest of the country, the telegraph also prompted greater political and social cohesion. People were better informed about what was happening at a national level and, consequently, they became more involved in influencing policy, mostly because they heard about events in a more timely fashion.

While the telegraph represented the first major breakthrough in mass communications technology, it was rapidly followed by the telephone (patented in 1876), television (first demonstrated in 1927), and eventually computers. Telecommunications has become a multi-billion-dollar global industry that connects people not only by telephone and television but also by cable, satellite, and the Internet.

Morse married for a second time in 1848 and had several children. He ran for Congress in 1854 but was not elected. Morse spent the last years of his life on his estate in Poughkeepsie, New York, surrounded by his large family. Many European nations honored him for his invention; in 1871 American telegraph operators erected a bronze statue of him in New York's Central Park. Morse was elected to the Hall of Fame in 1900, 28 years after his death.

See also: Standard Time, Telegraph

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MORTGAGE

The purchase price of a home is clearly more than what most individuals can pay with their available savings. Therefore they seek a home loan to finance the purchase. This home loan is called a mortgage. Home mortgage loans generally require a down payment of between five percent and 20 percent of the total purchase price. The remaining money needed for the purchase is the mortgage amount, usually borrowed from a lending institution. To purchase a \$125,000 home with a 20 percent down payment would require \$25,000 down and a \$100,000 mortgage loan. The borrower secures the mortgage with the real estate purchased. That is, the borrower promises to pay back the loan with interest; if she or he does not, the lender can foreclose or take possession of the house.

A mortgage loan is a long-term loan usually established for repayment in 15, 20, 25, or 30 years. Because the mortgage is over a long period of time, small changes in the interest rate (the percentage a borrower pays to a lender for using the funds) make a big difference in monthly payments and the total amount of payback. For example a typical 30-year \$100,000 mortgage would require monthly payments of \$878 at a fixed interest rate of 10 percent but only \$665 at seven percent. The total payback after 360 months (30 years) at 10 percent would be \$316,080. The total payback after 360 months at seven percent would be \$239,000.

Lenders basically offer three types of mortgages: fixed rate, variable rate, and graduated payment. For a fixed rate loan the interest and monthly payment remain the same for the length of the loan. For variable

Mound Builders

rate loans the interest rate varies annually according to the prevailing market rates, and monthly payments vary accordingly. The graduated payment option assumes young people generally have low incomes but high earning potential. The interest rate remains the same but monthly payments are adjusted to start out smaller and increase as earning increases.

Mortgage interest rates in the United States remained near five percent after World War II (1939–1945) into the 1950s. Rates began to rise in the 1960s, reaching 8.5 percent in 1970, 12 percent in 1980, and peaking in 1982 at 15 percent. As the national economy began to expand, rates dropped to 10 percent by 1991 and with continued expansion were quoted as low as 6.5 percent in 1998.

MOUND BUILDERS

Mound Builders were prehistoric American Indians, named for their practice of burying their dead in large mounds. Beginning about three thousand years ago, they built extensive earthworks from the Great Lakes down through the Mississippi River Valley and into the Gulf of Mexico region. These mounds, many of which survive today, consisted of several hundred tons of dirt, clay, and stone, and were built on a large scale in spite of the fact that the builders had no beasts of burden and did not use the wheel. The Adena people were one group of Mound Builders. They arose in the Ohio River Valley around 400 B.C. They were hunters and gatherers, and also fished. They settled in villages scattered over a wide area. The largest Adena mound is the Grave Creek Mound at Moundsville, West Virginia; it measures 900 feet (270 meters) in circumference and 70 feet (21 meters) in height. Scholars believe that as the Adena traded with other groups of American Indians, the practice of mound-building spread.

Other Mound Builders were the Hopewell and the Mississippian people. The Hopewell were hunters and gatherers but they also cultivated corn and squash. They settled in the Midwestern United States, where their burial mounds can still be found; the largest site is in Newark, Ohio. Objects such as shells, shark teeth, and volcanic glass discovered in the Hopewell earthworks reveal that they traded with distant tribes. This trade network collapsed about A.D. 500 and the Hopewell died out. The Mississippians, who settled in the Mississippi valley and in what is today the southern United States, were the only Mound Builders to have contact with the Europeans. Their culture

emerged about A.D. 700 and lasted into the 1700s. The Mississippians were farmers and raised livestock. In addition to their mounds, the largest of which is found at Cahokia, Illinois, they built cities, which were among the earliest in North America. Since many of their earthworks (c. 1200–1500) include temples atop the mounds, the Mississippians may have traded with the Indians of Mexico (such as the Aztec or Maya), and were influenced by them.

See also: Great Serpent Mound

MOVIES

Movies (short for moving pictures) are also called motion pictures or films. They were introduced in the United States in 1896 at a New York screening made possible by American inventor Thomas Alva Edison's (1847–1931) kinetoscope. The kinetoscope was a device for viewing a sequence of pictures on an endless band of film using a projector invented by Thomas Armat. It was not until the early 1900s that the technology was used for entertainment.

In 1903 American director-photographer Edwin S. Porter (1870–1941) made *The Great Train Robbery*, the first motion picture to tell a complete story. (Porter had earlier worked as a cameraman with Edison.) Produced by Edison Studios, the twelve-minute “epic” established a pattern of suspense drama that was followed by subsequent moviemakers. The age of the silent film was launched.

BY 1930 MOVIE HOUSES WERE ATTRACTING 100 MILLION VIEWERS A WEEK AT A TIME WHEN THE TOTAL POPULATION OF THE UNITED STATES WAS ONLY 120 MILLION AND WEEKLY CHURCH ATTENDANCE WAS LESS THAN 60 MILLION.

The popularity of movies escalated during the 1920s. Innovations in movie-making technology broadened the audience. In 1927 the first full-length talking picture was released, *The Jazz Singer*, starring vaudevillian Al Jolson (1886–1950).

The ever-improving technology of motion pictures and the advent of radio combined to spell the demise of vaudeville during the 1930s. By 1930 movie houses were attracting 100 million viewers a week at a time when the total population of the United States was only 120 million and weekly church attendance was less than 60 million. By 1932 all movies were talkies,



This artist's rendering attempts to capture the lure of the silent movie theatre when the only sound accompaniment was an orchestra pit.

and by the end of the decade all movies used technicolor, a trademarked method for making motion pictures in color.

With a theater in almost every town people in the United States flocked to the "picture shows." Hollywood images provided an escape from everyday life. As measured in total capital investment, motion pictures became one of the nation's leading industries. Like sports, amusement parks, and radio programs, movies were meant to appeal to everyone.

An increase in leisure time and a willingness by U.S. audiences to spend money on entertainment guaranteed movie houses would be well attended. Entertainment was no longer a singular experience; Hollywood movies shown in theaters throughout the country provided entertainment for a mass consumer audience.

See also: Amusement Parks, Baseball, Thomas Alva Edison, Radio, Vaudeville

MUCKRAKERS

Muckrakers emerged on the U.S. journalism scene around the turn of the nineteenth century. They were

journalists who sought out and exposed the misconduct of prominent people or high profile organizations. As crusaders for social change, muckraking journalists wrote articles not about news events, but about injustices or abuses, and corruption in the world of business and politics. Their aim was to bring such information to the attention of the U.S. public.

Politician Theodore Roosevelt (1858–1919) was the first to call controversial journalists "muckrakers." [This was a reference to a character in the then well-known book *Pilgrim's Progress*, by English preacher John Bunyan (1628–1688).] A muckraker was a person who rejected a crown for a muckrake, a tool used to rake dung.

Magazines such as *McClure's*, *Cosmopolitan*, and *Everybody's* published articles revealing abuses of power or negligent practices. These included the use of tainted meat by the meat packing industry, prostitution rings, fraudulent insurance, and corruption among city politicians. Proponents of this progressive journalism included magazine editor Lincoln Steffens (1866–1936), whose collected articles in *McClure's* were published as the book *Shame of the Cities* (1904). Writer and social reformer Upton Sinclair (1878–1968) also incorporated pointed criticisms of business

Multi-National Enterprise

and government into such topical novels as *The Jungle* (1906), *The Money Changers* (1908), and *King Coal* (1917). Author Ida M. Tarbell (1857–1944) penned a *History of the Standard Oil Company* (1904) which was then a scathing indictment of the U.S. petroleum business.

While the muckrakers were derided in their own time, their work succeeded in raising widespread awareness of social, economic, and political ills. This prompted a number of reforms, including passage of pure food laws and anti-trust legislation.

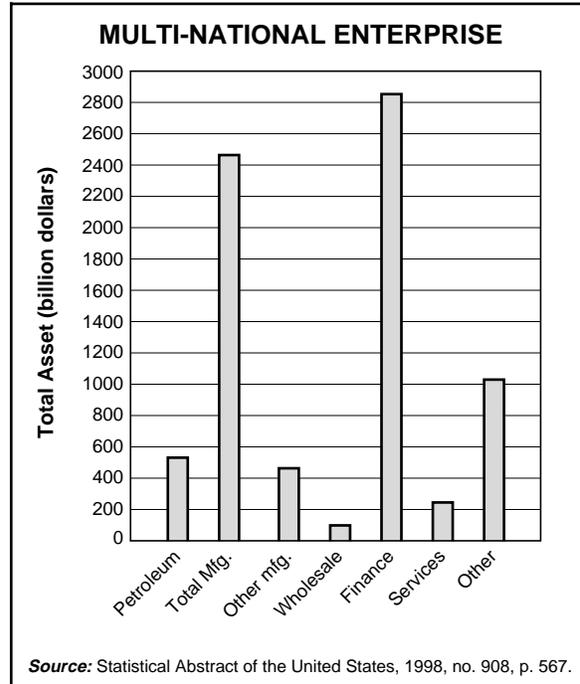
See also: Upton Sinclair, Social Gospel, Ida Tarbell

MULTI-NATIONAL ENTERPRISE

A multi-national enterprise is typically a business corporation whose operations literally straddle the globe. An example is PepsiCo. PepsiCo does not ship its famous product around the world directly from the United States. Instead, it produces Pepsi Cola in over 600 plants in 148 countries around the world. A multi-national enterprise typically has substantial portions of its total wealth invested in production facilities outside of its country of origin. Because of the expanded activities of these corporations, international banks have grown, allowing the monies of international enterprises to pass quickly over national frontiers to take advantage of favorable interest rate changes in multi-national banking operations. A multi-national enterprise considers the entire world to be its potential market, not merely for shipping its home-produced goods, but a market within which it may actually manufacture its product.

By selling products to world markets a multi-national enterprise is able to profitably take advantage of different business situations in various countries such as lower wages, lower tax and tariff rates, less business regulation, and other business-friendly incentives. In this way, a multi-national enterprise is able to produce its products in countries where the wages are lower, and to sell their products in countries where people can often afford to pay higher prices for it. The multi-national enterprise meets the international demand for products, resulting in business profitability and consumer satisfaction at the same time.

See also: General Agreement on Tariffs and Trade (GATT), Free Trade



The total assets of various U.S. multi-national companies. A U.S. multi-national enterprise owns production facilities and produces and sells products in countries outside the U.S.

MULTIPLIER

The multiplier is a conceptual tool used to capture the complicated process by which changes in spending affect a nation's income. It is based on the idea that a small change in spending can bring about a much larger change in income. Consider the following example as an illustration of how the multiplier works. Suppose an individual pays a gardener \$100 for a spring cleanup. The gardener saves \$10 of those \$100 but spends \$90 at the local hardware store for new tools. Of the \$90, the hardware storeowner saves nine dollars and spends \$81 on a golf club. The golf storeowner spends 90 percent of the \$81 (\$73) to take his family out to dinner. The \$100 that was originally spent was re-spent three more times and, in the process, was turned into \$344 of income to others. This process continues and ultimately \$100 of spending could lead to as much as \$1000 of income. In that case, the multiplier would be 10. The product of that computation is known as the multiplier effect.

The multiplier effect occurs throughout the economy on an immense scale. Suppose the economy is at less than full employment. Several large firms invest in new plants, workers are hired, new wages are paid, and new profits flow to the companies. The recipients of this income will save some income and spend a portion of it on goods and services. More income is thus

created for the suppliers of the goods and services. This process goes on *ad infinitum* and the total increase in national income ends up being many times larger than the initial investment.

The multiplier is a cornerstone of Keynesian economics, based on the theories of John Maynard Keynes (1883–1946). Developed at the time of the Great Depression (1929–1939), Keynesian economics deals with the need to stimulate aggregate, total demand to lower unemployment. The multiplier is used to estimate the impact new private investment, government spending, or tax cuts will have on national income.

The multiplier can work in both directions. For every dollar decrease in investment or spending, the level of national income will fall by much greater than one dollar. The Great Depression is an example of the multiplier in a downward cycle. By the late 1930s investment increased and the Depression ended with the mobilization of resources for World War II (1939–1945), which resulted in increased demand for goods and significant government spending. Thus, the multiplier works in a cumulative pattern, both expanding and contracting economic activity.

See also: Aggregate Demand, Keynesian Economic Theory, Supply and Demand, Unemployment

MUNN V. ILLINOIS (1877)

In *Munn v. Illinois* (1877) the U.S. Supreme Court upheld an Illinois law which regulated the owners of grain elevators, declaring that government interference was constitutional in areas “affected with a public interest” (*Munn vs. Illinois* 94 US 113). The Court created a confusing void, however, with a later decision in *Wabash, St. Louis and Pacific Railway Company v. Illinois* (1886). It declared state laws regulating interstate railroads were unconstitutional because they violated the Commerce Clause, which gives Congress exclusive regulatory power “with foreign nations, the several states, and with the Indian tribes” (Article I, Sec. 8). This decision eventually led to the establishment of the Interstate Commerce Commission in 1887.

Long before the creation of the federal regulatory body, the business practices of the railroads had given rise to a movement led by the National Grange. The Grange was a powerful association of farmers who protested railroad rate structures, citing them as discriminatory and unfair. They pressured state lawmakers into taking action. Midwestern legislatures yielded to the outcry, passing laws that established regulatory

commissions to monitor the practices of the railroads. In Illinois and Minnesota these commissions prohibited discrimination in rates and services, fixed maximum freight rates, and established standards of service. The bodies were also given the authority to enforce their standards.

When *Munn vs. Illinois* came before the Supreme Court in 1877, the issue of state regulation was raised. The Supreme Court upheld the power of the state to impose standards on businesses “clothed with a public interest.” This decision was often later cited in support of other Granger laws that were passed, primarily in Midwestern states, to curb unfair business practices of the railroads. Ultimately the states found it difficult to enforce their laws on carriers that moved between states. The creation of the Interstate Commerce Commission in 1887 resolved these problems, placing responsibility for the regulation of interstate business transportation firmly in the hands of the federal government.

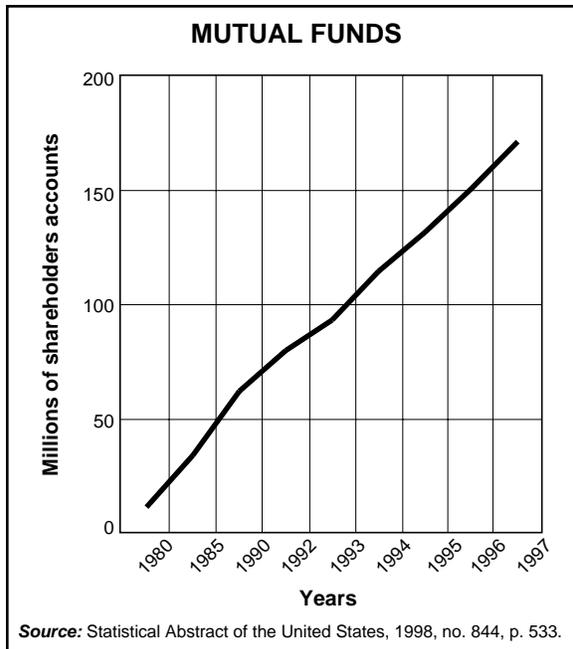
See also: Interstate Commerce Act, Interstate Commerce: Regulation and Deregulation, National Grange, Wabash, St. Louis and Pacific Railway Company vs. Illinois

MUTUAL FUND

A mutual fund is a large, diverse group of stocks and/or bonds in which an individual may invest. There are three basic types of mutual funds. Money market funds invest in certificates of deposit, U.S. Treasury bills, and other low-risk, short-term securities that provide a safe, low-return alternative to checking accounts. The medium-risk bond and income funds invest in both stocks and corporate and government debt, with the goal of invest exclusively in the stock of corporations. The higher risk equity fund invests in the stocks of corporations and comes in all shapes and sizes. Mutual funds are also classified as “closed-end” (a fixed number of shares are sold to the public) and “open-end” (shares are sold to as many people as want them).

Low, medium, and high risk mutual funds each have many options for investment. One class of higher-risk funds is the aggressive growth equity fund, which may be suitable for an individual looking for a quick return on an investment. A less risky kind of mutual fund, the index equity fund, takes the process of picking stocks out of the hands of mutual fund managers and instead invests in companies listed in such stock market indices as the Standard and Poor’s

Mutual Fund



Mutual funds pool the investor's funds into portfolios based upon the desired type of investment and level of risk. This popular form of investment provides Americans with an alternate way to put money into the stock market.

500. Sector equity funds specialize in specific segments of the economy, such as telecommunications, biotechnology, or Internet stocks. While many opportunities exist for domestic investment, an individual can also look to the foreign markets as a place to invest money. International equity funds focus on the stocks

of non-U.S. companies and may be region specific, such as an Asia or Latin America fund.

Mutual funds first appeared in Europe in the nineteenth century and were well established in the United States by 1900. Not until 1924, however, did the first modern open-end mutual fund appear—it boasted forty-five stocks and \$50,000 in assets. The stock market crash of 1929 soured an entire generation on stock investing, however, and it took new government safeguards and the post-World War II (1939–1945) economic boom to convince U.S. citizens to return to stock investing. In the 1940s there were only about 80 mutual funds with assets of \$500 million. In 1948 one of the first sector funds, Television Funds, Inc., was launched; it was followed in 1953 by the first international mutual fund. The number of funds edged up to 100 in the 1950s, but by 1952 still only one-quarter of one percent of the U.S. population owned stocks. The first aggressive growth mutual fund appeared in the 1960s, and in the 1970s money market funds and bond and income funds became more common. Fueled by the beginning of one of the longest bull markets in U.S. history in 1982, the number of funds grew fivefold in the 1980s. By the late 1990s, the nation's 6,700 mutual funds owned 22 percent of the entire U.S. stock market and held assets of more than \$4.5 trillion.

See also: Bond, Investment, Standard and Poor's, Stock, Stock Market



NABISCO FOODS GROUP

In 1898 decades of amalgamation in the biscuit industry culminated in the merging of the mid-western American Biscuit Company, the eastern New York Biscuit Company, and the United States Baking Company to form the National Biscuit Company (NBC). The merger, comprised one hundred and fourteen bakeries, and was capitalized at \$55 million. The Chicago-based National Biscuit Company launched by lawyer Adolphus Green held the monopoly on cookie and biscuit production in the United States.

Adolphus Green began the process of standardization of every company product that could be nationally identified with Nabisco. Exact recipes and uniform standards were developed and used by all of the NBC bakeries. Green also initiated novel and unusual packaging in special protective containers for crackers. He commissioned an advertising agency to assist in promoting the company's products with illustrations. One of the world's best-recognized illustrated trademarks showed a rosy-cheeked boy dressed in a raincoat and galoshes clutching a box of biscuits. As a pioneer in advertising NBC spent seven million dollars in the early 1900s promoting and marketing company products.

In the early years of the twentieth century NBC expanded its line of cookies and crackers. Introduced in 1902, Barnum's Animal Crackers were colorfully packaged in a box resembling a circus cage filled with animals. In 1912 the company introduced Lorna Doone and Oreo, the latter eventually becoming the world's best-selling cookie.

The 1920s were a very prosperous period for NBC. In 1925, with the addition of several new bakeries, the company established its first foreign subsidiary in Canada. NBC expanded its product line to include pretzels, breakfast cereal, and ice cream cones. Diversification came about through acquisitions of other companies, including the purchase of the Shredded

Wheat Company (in 1928) and the McLaren Consolidated Cone Company, the world's largest manufacturer of ice cream cones.

The depression years (1929–1939) slowed company growth until 1931 when NBC took over the Bennett Biscuit Company. NBC concentrated on Bennett's most popular product line, Milk-Bone Dog Biscuits. Advertising "a dog's dessert" and its breath-sweetening properties boosted NBC's sales. In 1934 Ritz Crackers was launched as a new prestige product and was a huge success. Throughout the 1930s the company relied heavily on radio advertisements to promote NBC's products. Partly to reduce confusion, NBC changed its official trademark company name to "Nabisco."

Nabisco experienced troubled times in the years immediately following World War II (1939–1945). Many of the company's bakeries were outdated and required drastic renovating. With the rise of an energetic George Coppers as president in 1945, inertia gave way to an expansive new attitude. Within ten years \$150 million had been spent on renovations to Nabisco's antiquated bakeries. In 1958 the renovation and reconstruction culminated in the grand opening of an ultra-modern bakery and research center in Fair Lawn, New Jersey. The 1950s also marked the beginning of Nabisco's expansion overseas. Forming a manufacturing partnership with La Favorita Bakery in Venezuela and the Formosa Bakery in Mexico gave Nabisco a foothold in South America.

With Lee S. Bickmore at the helm in 1960, Nabisco accelerated acquisitions and overseas expansion. In 1961 and 1962 Nabisco acquired the Cream of Wheat Corporation, the French firm Biscuits Gondolo, the English bakery Frears, and New Zealand's largest biscuit firm, Griffen and Sons. In 1963 and 1964 Nabisco acquired Oxford Biscuit Fabrik of Denmark, the James O. Welch Company, makers of Junior Mints and Sugar Babies, and one of West Germany's largest confectioneries, Harry Trueller. Overseas acquisitions continued and, by the end of the 1960s, Nabisco was

Nader, Ralph

the leading manufacturer of crackers and cookies in the United States, Canada, France, and Scandinavia. Nabisco was also a major supplier to other European and South American countries.

The growth of Nabisco continued through the 1970s. Sales reached the one-billion-dollar mark in 1971, and by 1976, sales surpassed \$2 billion. The company made the first Asian investment by establishing a joint venture with Yamazaki Baking Company of Japan in 1970. In 1975 construction of a modern flour mill in Toledo, Ohio, and a computerized bakery in Richmond, Virginia coincided with the building of new company headquarters in East Hanover, New Jersey.

Inflation and soaring energy costs in the 1970s led Nabisco to consider a merger with another large food manufacturer. Early in 1981 Nabisco and Standard Brands announced plans to merge. By the end of 1981 the newly named Nabisco Brands, Inc. demonstrated its potential for growth by purchasing the LifeSavers Company for \$250 million. It also purchased a controlling interest in Mexican cookie firm Gamesa for \$45 million.

R.J. Reynolds, a worldwide manufacturer and distributor of tobacco, food, and beverage products, purchased Nabisco Brands, Inc. in 1985 for \$4.9 billion. This created the world's largest consumer-products company, with annual sales of more than \$19 billion. Later in 1985 R.J. Reynolds changed its name to R.J.R. Nabisco, Inc. In 1988 Kohlberg Kravis Roberts won a bidding war for Nabisco with a record \$24.5 billion in cash and debt securities. Kohlberg Kravis Roberts, along with the current president of Nabisco, Louis V. Gerstner, Jr., pledged to manage the company for the long run. Through the 1990s the Nabisco Foods Group (formerly Nabisco Brands, Inc.) experienced reorganization and downsizing, but the company still continued to acquire other food and snack-related firms.

See also: Advertising, Merger

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NADER, RALPH

By the 1960s Ralph Nader (1934–), a lawyer and social crusader, had become a symbol of the public's concern about corporate honesty and consumer safety. Largely beginning with the publication of his first book in 1965, *Unsafe At Any Speed: The Designed In Dangers of the American Automobile*, Nader started to aggressively attack the design problems of consumer products. His documentation linked faulty car designs to a staggering number of automobile accidents and legislation was enacted to protect consumers. This inspired Nader to continue his investigations and efforts at legislation, which eventually led to increased safety standards in mines, federal regulations to control environmentally hazardous oil and gas pipes, and a more intense regulation of meat quality.

Ralph Nader was born in 1934 in Winsted, Connecticut, the son of immigrant Lebanese parents. He graduated with highest honors from Princeton University in 1955, and then went to Harvard Law School, where he received his degree in 1958. After briefly serving in the U.S. Army, and following a period of personal travel, Nader opened a law office in Hartford, Connecticut. There he also joined the University of Hartford faculty, teaching history and government while pursuing his law practice.

YOU'VE GOT TO KEEP THE PRESSURE ON, EVEN IF YOU LOSE. THE ESSENCE OF THE CITIZEN'S MOVEMENT IS PERSISTENCE!

Ralph Nader

Nader became intensely interested in defective auto design largely through his law practice, where he dealt with auto injury cases. He became convinced that it was generally faulty design of automobiles, rather than driver incompetence, that led to the majority of automobile accidents. Certain that he had convincing statistics on his side, Nader began testifying before state legislative committees, and he frequently wrote magazine articles on the subject.

In 1964, when Nader was appointed as a consultant to the U.S. Department of Labor, he undertook a major study of automobile safety. Having all the data he needed, he left the Department of Labor in 1965 to write his first book, *Unsafe At Any Speed*. In March

1966, General Motors president James Roche admitted that his firm had Nader under surveillance in an effort to smear Nader with possible scandal. The admission received national television coverage and Nader became a public figure. Nader's book went on to become a national bestseller and prompted legislation proposals to regulate car safety, which ultimately became federal law in September 1965.

The mood of the country during the mid-1960s was dominated by progressive ideas and politics, and it was not long after the publication of his first book that Ralph Nader came to be known as the country's leading consumer advocate. Nader had made it his life's work to defend the public's well being. His relationship to business was often adversarial and critical. He often condemned businesses as overly profit-motivated and lacking in real concern for the safety of the consumer.

Nader's industry studies, including the coal mining, meat, poultry, and natural gas industries, all resulted in stricter health and safety laws. Nader also investigated hazards in the pesticide industry and alerted the public to the dangers of food additives, radiation from color television sets, and the excessive use of x-rays.

In 1996 Nader ran for the U.S. presidency as the Green Party candidate, winning support in popular polls. While running for president, Nader often summarized his philosophy, insisting: "You've got to keep the pressure on, even if you lose. The essence of the citizen's movement is persistence!" Nader was not elected president, and he continued to work for the consumer in the Progressive tradition. Though he remained a controversial figure, generally disliked by business, he was trusted by many consumers, and he persisted in his work for consumer advocacy and corporate accountability.

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NAPOLEONIC WARS, IMPACT ON THE U.S. ECONOMY (ISSUE)

The French Revolution (1789–1793) was a watershed in European history. It destroyed the French monarchy and established a republic, but it also divided France and threw much of Europe into turmoil. From the chaos of the Revolution, a general, Napoleon Bonaparte (1769–1821) emerged to lead the nation, first as a republican magistrate and finally as an emperor. He brought domestic tranquility to France, but his ambition and military genius embroiled Europe in a long and bloody conflict, the Napoleonic Wars (1803–1815), which only ended with Napoleon's defeat at Waterloo in 1815.

The strife disrupted both French and European trade, and even the economic position of the newly formed United States began to change drastically. As the Napoleonic Wars drained the energies of Britain, France, and the rest of Europe, America was free to develop its own economic potential. From roughly 1789 till the beginning of the War of 1812 (1812–1814), the United States went through two economic phases that were linked directly to the political factors associated with the wars in Europe.

As a result of the American declaration of neutrality during the French Revolutionary and Napoleonic Wars, the United States experienced a period of rapid growth in foreign trade. The declaration itself reflected domestic political divisions, since the United States was divided on whom to support. The Federalists tended to favor Britain while the Republicans favored France. This indecision was salutary for the nation's commerce, however, since the declaration established free trade, and overnight the restrictions of the old mercantilist system evaporated. As a neutral country the United States could claim unfettered trade with all countries, including Britain and France, and for the most part American ships were welcomed with open arms. American ships carried commodities from all over the world and distributed European manufactures in ports worldwide. Freight earnings boomed. In 1792, American shippers earned an estimated \$7.2 million. By 1796 these earnings had tripled to \$21.6 million and eventually peaked at \$42.1 million in 1807.

As income from the trade boom diffused throughout the economy, the United States experienced dramatic export-led growth. Between 1792 and 1795, U.S. exports doubled; they doubled again in 1801, and by 1807 were five times what they had been fifteen years earlier. Moreover, the rate of growth in foreign trade

far outstripped that of population. Per capita income from exports, shipping services, and ship sales averaged \$6.77 in 1792. In 1807, the per capita figure was \$22.76. This boom in American export trade reflected heavy European demand for re-exports (foreign goods repackaged in American ports), American cotton, (used to supply the British textile industry), and American food to meet European shortages. The growth did hit several temporary slumps: between 1797 and 1798 when an undeclared sea war with France produced a brief dip in export earnings, and also between 1801 and 1803 when the Peace of Amiens allowed European countries to resume peacetime trade activities. After 1803, the United States again experienced another period of rapidly expanding trade. But while scholars agree that the United States experienced increased prosperity during this period, they disagree over the role that export trade played in its growth.

Supporters of the position that an export-led economy led to significant increases in U.S. growth and prosperity also believe this prosperity laid strong foundations for further economic growth after 1815. Critics challenge this position, claiming that the costs associated with neutrality and export-driven expansion have been understated, and the benefits overstated. In addition to all the shipbuilding and freight rates involved in re-exports, critics also argue that the benefits realized by industries such as banking, insurance, and shipbuilding may have been smaller than previously assumed and concentrated only in northeastern ports.

The second U.S. economic phase linked with European affairs began in December 1807 with President Thomas Jefferson's (1801–1809) embargo on all trade with warring nations. This embargo caused America's foreign trade to collapse. In 1805, Napoleon's victories over Austria and Russia at Austerlitz made him temporary master over much of the European continent. Meanwhile, Britain's defeat of the French and Spanish fleets at the Battle of Trafalgar gave it control of the high seas. At the same time both Britain and France ceased to show much respect for neutral countries or the legitimacy of international laws, and both nations reaped havoc on American shipping interests.

In 1805, a British court ruled that goods from the French West Indies bound for Europe on American vessels, even though shipped by way of the United States, were subject to seizure. When the commercial provisions of Jay's Treaty of 1794 expired in 1807 and American diplomats were unable to negotiate a new agreement to President Jefferson's satisfaction, British interference with American shipping increased. Meanwhile, Napoleon challenged British policy with the

Berlin Decree of 1806 and Milan Decree of 1807, which closed European ports under his control to British goods and declared that neutral ships complying with British trade regulations would be confiscated. The United States was caught in the middle.

President Jefferson's solution was to resort to "peaceable coercion" with an embargo that banned all trade with Great Britain and continental Europe. Jefferson argued that Europeans, especially the British, were more dependent on U.S. exports, especially grain and cotton, than the United States was on European imports. As a result, U.S. foreign trade fell precipitously. Although trade did recover somewhat in the years following the embargo, it would not reach its former levels until the late 1840s.

During the War of 1812 (1812–1814), the British blockade of U.S. ports almost completely stifled export trade. The blockade followed a general worsening of American commerce, which had declined by almost one-fifth between 1807 and 1809. The embargo was repealed in March 1809, without achieving its goal of forcing the British to reverse their policies, but it may have been a blessing in disguise. While the unemployment and economic distress (especially in U.S. coastal areas) were undeniable, domestic industry did begin to grow. The nation realized if it were to continue to consume the products to which it had become accustomed during the recent period of heightened prosperity, the best course of action was to produce them itself. In 1807, seven new factories were opened in New England states. The next year twenty-six were chartered, eighteen of which were textile factories. The number increased steadily and accelerated during the War of 1812. The pace, however, slowed down after the war, and many of the mills went bankrupt in the following years. As a result both industrial labor and capital sought relief from the government through tariffs on imports.

Although its influence is more difficult to quantify than foreign trade and export growth, another important and perhaps more significant economic impact of the Napoleonic Wars was the Louisiana Purchase (1802). There were several reasons for Napoleon's sudden decision to abandon his imperial ambitions in America and concentrate instead on Europe. He suffered a major disaster in the French colony of San Domingo when his troops failed to suppress a slave insurrection there, and realized the 1802 Peace of Amiens, the treaty that he had hoped would end the European war, had settled nothing. A renewal of war between France and Britain was inevitable. Because of the sustained economic drain of war, Napoleon needed money. In a wise move, he realized that selling the

Louisiana Territory would raise capital for the war and avoid a concerted Anglo-American alliance between Britain and the United States.

As the beneficiary of Napoleon's strategy, the United States acquired the whole of the Mississippi River and its Western tributaries, some 828,000 square miles of territory, millions of acres of farmland, and a vast wealth of natural resources.

See also: Embargo, Jay's Treaty, Thomas Jefferson, Louisiana Purchase, War of 1812

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NAT TURNER'S REBELLION

Nat Turner was an American slave who led the only sustained slave revolt in U.S. history (August 1831). Turner was born on a large plantation in Southampton County, Virginia, on October 2, 1800. Through his mother, who had been born free in Africa, he acquired a passionate hatred of slavery. One of his master's sons taught him to read, and he became fanatically devoted to religious self-instruction. His loathing of slavery blended with his religious training to produce a heady and violent brew. Turner came to see himself as divinely ordained to lead his fellow slaves out of bondage, and he launched his uprising after an eclipse of the sun convinced him that the time to strike had arrived.

The revolt had a profound impact on Southern attitudes towards the "peculiar institution" of slavery. For many southerners it exploded the myth that the slave population was either content or at least congenitally unable to rebel against their inferior status. For other southerners the revolt confirmed in their mind the discontent of slaves and the ever-present menace of rebellion that could topple the southern socio-economic system.

On the night of August 21, 1831, Turner and seven other slaves attacked the local white population, and over the next two days 51 whites were killed during a vengeful march to reach the Dismal Swamp, where Turner's group intended to hide, regroup their forces, and attract supporters. En route the insurgents intended to capture the arsenal located in the county seat of Jerusalem.

The rebellion had little chance for success: only 75 African Americans (who were divided by dissent) joined Turner's cause. Virginia responded swiftly, and 3,000 militiamen combined with strong assistance from the local white population led to a swift end to the insurgency. Turner's supporters were soon killed or captured, as was Turner himself after a dramatic manhunt lasting six weeks. Shortly thereafter Turner was tried and hanged at the county seat of Jerusalem, which became a symbolic location for northern abolitionists.

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Nat Turner's rebellion hardened sectional animosities, making secession and the American Civil War (1861–1865) more likely. Galvanized by the Turner uprising, Southern congressmen sought to enact or strengthen existing national legislation supporting slavery, particularly the Fugitive Slave Act of 1796. In 1836 the House of Representatives enacted a gag rule

Natchez Trace

preventing the debate of anti-slavery petitions. It was later repealed after a long and acrimonious debate between northern and southern representatives. Southern congressmen also repeatedly demanded that free states restrict the activities of abolitionist societies. For their part abolitionist societies in the North stepped up their activities, and northern politicians felt increasingly vulnerable to abolitionist demands that they adopt strong anti-slavery stands.

See also: Civil War (Economic Causes of), Fugitive Slave Act, Slavery

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NATCHEZ TRACE

Natchez Trace was an old road, measuring more than 500 miles long (800 kilometers); it ran between Natchez, Mississippi, and Nashville, Tennessee. "Natchez" is derived from an Indian tribe, which lived in Mississippi during colonial times, and "trace" is another word for trail often used in the South. The trace was carved out during the mid-1700s by pioneers who followed old Indian trails from Natchez, situated on the bluffs above the Mississippi River, through present-day Mississippi and northwestern Alabama to Nashville, in north-central Tennessee. Traders would float goods on flatboats (barges) down the Mississippi River, later returning north via the trace. The city of Natchez became an important trade center and between 1798 and 1802, when it was the capital of the Mississippi Territory. In 1806 Congress authorized construction of a road to follow the trace, widening it to accommodate wagons, and making it a post road,

which was used to transport mail. During the early 1800s Natchez Trace was of great military and commercial importance. In 1938 it was made into a National Parkway.

NATIONAL ASSOCIATION OF SECURITIES DEALERS AUTOMATED QUOTATIONS (SYSTEM) (NASDAQ)

The National Association of Securities Dealers Automated Quotations system (NASDAQ) is a computerized communication system that provides the bid and asked prices of more than 5,000 over-the-counter (OTC) stocks that have met NASDAQ's registration requirements. Introduced in 1971 by the National Association of Securities Dealers (NASD), NASDAQ achieved a listing of more than 4,000 companies and an annual trading volume of over \$1 billion by the early 1990s. It is the second largest securities market in the United States in terms of share and dollar volume, but it is the largest in terms of the number of companies listed.

By late 1997, NASDAQ listed approximately 5,500 companies, compared to some 3,000 listed on the New York Stock Exchange. Even though NASDAQ has many more listed firms than the NYSE, market capitalization of NYSE-listed firms was greater, around \$8.7 trillion compared to \$1.95 trillion for NASDAQ-listed firms. NASDAQ is known as the market for smaller companies, and especially for technology firms. A large percentage of NASDAQ's market capitalization comes from technology companies.

See also: New York Stock Exchange, Over the Counter Market, Stock, Stock Market

NATIONAL BANK ACT OF 1863

The National Bank Act of 1863 was designed to create a national banking system, float federal war loans, and establish a national currency. Congress passed the act to help resolve the financial crisis that emerged during the early days of the American Civil War (1861–1865). The fight with the South was expensive and no effective tax program had been drawn up to finance it. In December 1861 banks suspended specie payments (payments in gold or silver coins for paper currency called notes or bills). People could no longer

convert bank notes into coins. Government responded by passing the Legal Tender Act (1862), issuing \$150 million in national notes called greenbacks. However, bank notes (paper bills issued by state banks) accounted for most of the currency in circulation.

In order to bring financial stability to the nation and fund the war effort, the National Bank Act of 1863 was introduced in the Senate in January of that year. Republican congressman from Pennsylvania Thaddeus Stevens (1792–1868) opposed the act; Secretary of the Treasury Salmon Chase (1808–73), aided by Senator John Sherman (1823–1900) of Ohio, promoted it. The bill was approved in the Senate by a close vote of 23 to 21, and the House passed the legislation in February. National banks that were organized under the act were required to purchase government bonds as a condition of start-up. As soon as those bonds were deposited with the federal government, the bank could issue its own notes up to 90 percent of the market value of the bonds on deposit.

The National Bank Act improved but did not solve the nation's financial problems—some of the 1500 state banks, which had all been issuing bank notes, were converted to national banks by additional legislation (that amended the original Bank Act and was passed June 1864). Other state banks were driven out of business or ceased to issue notes after the 1865 passage of a 10 percent federal tax on notes they issued (which made it unprofitable for them to print money). The legislation created \$300 million in national currency in the form of notes issued by the national banks. But because most of this money was distributed in the East, the money supply in other parts of the country remained precarious; the West demanded more money. This issue would dominate American politics in the years after the Civil War. Nevertheless, the nation's banking system stayed largely the same—despite the Panic of 1873—until the passage of the Federal Reserve Act in 1913.

See also: Federal Reserve Act, Greenbacks

NATIONAL BROADCASTING COMPANY INC. (NBC)

The National Broadcasting Company (NBC) debuted as a radio broadcast network on November 15, 1926, with a four-and-a-half hour music and comedy presentation. The show was broadcast from New York City over a network of 25 stations, and nearly half of the country's five million radio homes tuned in. NBC

was jointly owned by RCA, General Electric, and Westinghouse until 1932, when RCA bought out the other two owners.

It is hard to overestimate the importance of the first coast-to-coast radio broadcasts. The very first one took place on New Year's Day, 1927, when NBC broadcast the Rose Bowl football game. Other early highlights of NBC Radio included the first special events broadcast, when aviator Charles Lindbergh arrived in Washington, DC, on June 11, 1927; the radio coverage of national political conventions in 1928; the presidential inaugurations in 1929 and 1933; and President Franklin Roosevelt's (1933–1945) first soothing "Fireside Chat" to a worried nation, on a cold night in 1933.

Radio also unified the national culture and advanced the assimilation process of millions of immigrants who up to that point had existed within the bounds of their own national cultures. For the first time in the nation's history millions of people hundreds of miles apart had the simultaneous experience of listening to the new sounds of swing music, as "dance shows" brought this powerful music genre to the radio-listening public. Benny Goodman, Paul Whiteman, Tommy Dorsey, and, way down in Texas, Bob Wills and his Texas Playboys all became the pulse of the nation, which, thanks to radio, was now beating as one.

From the beginning, the demand among local radio stations for NBC's network service was high and the company split its programming into two separate networks, called the "red" and the "blue." In 1941 the Federal Communications Commission (FCC) ruled that no organization could own more than one network, and NBC sold the blue network, which became the American Broadcasting Company (ABC).

In 1939 NBC demonstrated television, a new invention, at the Chicago World's Fair, and began regular television programming from New York City. Television was made possible by the invention of the cathode ray tube in 1906. NBC founder David Sarnoff spearheaded RCA's research into "the art of distant seeing" through the 1920s and 1930s. In 1941 NBC obtained a commercial television license from the FCC for WNBT-TV, which became the world's first commercial television station.

World War II (1939–1945) slowed the growth of television, and programming was limited to a few hours a day during the war. NBC Radio broadcast on-the-scene reports from military bases and battle zones, and on D-Day, June 6, 1944, it provided continuous news coverage of the European invasion.



Color City, the control room of NBC's television studio in Burbank, CA.

Television began to expand rapidly after the war: the number of homes with television sets grew from 14,000 in 1947 to nearly a million in less than two years. Television networks began to expand news coverage. New weekly variety and drama programs were created, and popular radio shows were adapted for television. *Meet the Press*, beginning on radio in 1945, switched to television in 1947 and became the longest running show on television.

WHEN NBC ORGANIZED AND BROADCAST THE FIRST PRESIDENTIAL DEBATES IN 1960 BETWEEN JOHN F. KENNEDY AND RICHARD M. NIXON, THE FULL IMPACT OF TELEVISION ON POLITICS WAS FELT. THE WAY KENNEDY LOOKED ON TELEVISION WAS THOUGHT TO HAVE STRONGLY INFLUENCED THE OUTCOME OF THE DEBATES AND THE SUBSEQUENT ELECTION.

NBC started its television network with four stations and by 1951 it had installed regular coast-to-coast network service. Two programming mainstays were

introduced in the 1950s: *Today* (1952), an early-morning news and talk show, and *The Tonight Show* with Steve Allen (1954). In 1953 NBC introduced color television, presenting the first coast-to-coast color transmission. Later that year the FCC approved an RCA-backed standard for color compatibility, making it possible for people with black-and-white sets to receive network programs even if they were broadcast in color.

When NBC organized and broadcast the first presidential debates in 1960 between John F. Kennedy and Richard M. Nixon, the full impact of television on politics was felt. The way Kennedy looked on television was thought to have strongly influenced the outcome of the debates and the subsequent election. When Kennedy was assassinated in 1963, NBC provided an unprecedented 71 hours of coverage in which the whole nation once again participated in a national experience together and gave full vent to their grief. In 1964 NBC presented the first made-for-television movie, thus establishing a new genre of television program. During the 1960s NBC expanded its programming,

launching popular shows such as *I Spy*, which featured Bill Cosby as the first African American lead in a television series, *The Man from U.N.C.L.E.*, and *Rowan and Martin's Laugh-In*, among others.

During the 1970s NBC's most popular programming included blockbuster movies, family series such as *Little House on the Prairie*, the comedy series *Saturday Night Live*, and several popular miniseries.

NBC Television suffered a drop in ratings during the early 1980s. By replacing low-rated programming it managed to climb back to the number one spot in 1985. Popular shows introduced by programming chief Brandon Tartikoff included *Cheers*, *Hill Street Blues*, and *St. Elsewhere*. *Miami Vice* (1985) and *The Late Show with David Letterman* (1982) also helped lift NBC's ratings.

In 1986 General Electric Co. (GE) acquired RCA for \$6.4 billion and became NBC's parent company. Robert C. Wright was named to succeed Grant Tinker as NBC's president and chief executive officer (CEO). In 1988 NBC decided to leave their radio business, which had been struggling, and the company sold seven of its eight radio stations. In 1991 Tartikoff left NBC to head Paramount Pictures.

From NBC's early days as a radio broadcast network, sports programming had been an important component of its broadcasts. NBC dominated coverage of the Olympics in 1988 with its broadcast from Seoul, South Korea. It acquired the rights to the 1992 and 1996 summer Olympics and every summer and winter venue (except Nagano 1998) through 2008.

With cable television making more of an impact on television viewing habits, NBC began aggressively marketing the Consumer News and Business Channel (CNBC), to cable systems in 1988. CNBC began with a base of 10 to 13 million subscribers. It was originally conceived as a 24-hour all-business news channel, but consumer news was added to the mix before the channel launched in April 1989.

CNBC competed directly with Turner Broadcasting System's Financial News Network (FNN). In 1991 NBC acquired the bankrupt FNN for \$154 million, increasing CNBC's subscriber base to 40 million households. Political consultant Roger Ailes was named president of CNBC in 1993. Under his direction CNBC underwent a makeover with better graphics and interviews during the day and a variety of talk shows during prime time in the evening. New talk show hosts added in 1993 and 1994 included Charles Grodin, Tim Russert, and Geraldo Rivera.

By 1997 CNBC had become a cash cow for NBC, generating about \$120 million in revenues, a 33 percent increase over 1996. CNBC reached about 64 million households, or 90 percent of all cable subscribers. In 1998 CNBC's Wall Street coverage enabled CNBC to surpass CNN's viewership among 25- to 54-year-olds for the first time, even though CNBC reached 12 percent fewer households than CNN.

In 1996 NBC-TV and Microsoft joined forces to create MSNBC, an all-news cable channel designed to compete with CNN. When it debuted in July 1996, MSNBC enjoyed immediate distribution into nearly 20 million homes, with a goal of 35 million homes by 2000. It was distributed in Europe on NBC's Super Channel and CNBC, as well as in Latin America and Asia. As part of the joint venture, MSNBC Online would be launched via the Microsoft Network.

During nearly every season of the 1990s, including three consecutive seasons starting in 1995-96, the NBC television network was most-watched network in the United States. Comedy shows such as *Seinfeld*, *Frasier*, and *3rd Rock from the Sun* were complemented by popular drama and prime-time news programs. From 1993 through 1998 NBC reported double-digit gains in earnings annually, achieving \$5.2 billion in revenue and pretax operating profits of about \$1.15 billion in 1997.

NBC had also become stronger during the 1990s through strategic acquisitions and alliances. It owned 12 television stations reaching 26 percent of U.S. households. In 1993 it became an international broadcaster by purchasing a minority interest in Superchannel, a London-based pan-European satellite television service. In 1997 CNBC and Dow Jones entered into an alliance that was finalized in 1998 to share news-gathering and programming. In 1998 the company sold its one-third interest in the money-losing Court TV cable network to partners Time Warner and Liberty Media.

Throughout the decade other companies sought to purchase NBC from GE, but GE chairman John F. (Jack) Welch, Jr., turned them all down. Paramount offered \$4.5 billion for NBC in 1992, and then Walt Disney Co. made a bid of \$6 billion in 1994. Even media mogul Ted Turner attempted to negotiate an offer. After *Seinfeld* ended its nine-year run in May 1998 and NBC lost the network auction to televise National Football League games, reports began to surface that NBC was again up for sale. Possible buyers included Viacom, headed by Sumner Redstone, and USA Networks Inc., headed by Barry Diller.

National Debt (Issue)

In spite of such setbacks NBC was in a strong position at the end of the 1990s. It was the number one broadcast network. CNBC was a leader in business television, and the fledgling MSNBC was on track to break even by 2001. At the end of 1997 NBC president Robert Wright estimated NBC was worth about \$17 billion overall, with its cable assets worth about four billion dollars and NBC-owned television stations worth about \$7.5 billion. Following setbacks in 1998 outside analysts predicted NBC's earnings growth would flatten for the near-term future.

See also: Radio

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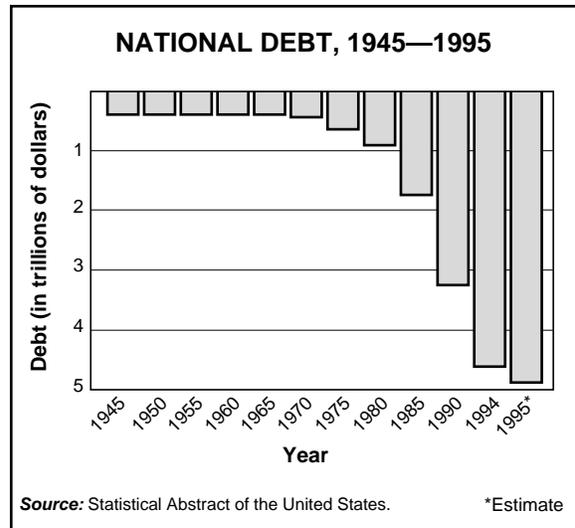
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NATIONAL DEBT (ISSUE)

The national debt is the amount of money owed by the U.S. government to its creditors, which may include private individuals, corporations, banks and other financial institutions, as well as foreign governments. As a result of better communications technology, improved information processing, and cheaper enforcement costs the ability of the federal government to collect taxes improved over the years. This made lenders more willing to fund the national debt and enabled the government to borrow at favorable interest rates.

The United States began its existence with a large (for the time) national debt of \$75 million. This debt was the result of a deliberate policy of the first Secretary of the Treasury, Alexander Hamilton (1755–1804). Hamilton wanted to secure the confidence of wealthy



The National Debt remained fairly constant until 1975. In 1980 it began to grow at an alarming rate, and became a major economic and political concern.

citizens in the new federal government, establish the government as a good credit risk, and provide a compelling rationale for constructing an effective federal tax system. With this in mind he convinced the U.S. Congress in 1790 to assume the debts incurred by the individual states during and after the American Revolution (1775–1783).

According to Hamilton, the funding and assumption of this debt served several purposes. One was to establish the credit of the United States among other nations. If the U.S. federal government voluntarily undertook to retire its debt the credit of the nation would be restored at home and abroad. With the repayment of the loans interest rates would be lowered. With lower interest rates investments in land, commerce, and industry would increase, and capital would multiply along with wages and jobs. Hamilton believed that, with responsible fiscal leadership, the day would not be long before economic dominance would soon pass from Great Britain to the United States—as indeed it did, but not for another one hundred and twenty years.

The South was especially hostile to Hamilton's vision of refunding and assuming the national debt. This was because many of the southern states had made substantial progress in meeting their financial obligations under the Articles of Confederation. New England states on the other hand favored funding and assumption because those states owed the largest portion of the states' collective debt.

Today we understand that the federal government has the ability to expand its own income through

borrowing money, printing money, and tax increases. Since the 1930s, however, the economic theories of John Maynard Keynes (1883–1946) brought the realization that retiring the debt should not be an automatic reflex. That is because the debt can help in the fight against depression. If, during a depression, the government borrowed money and invested it in government projects that created jobs and produced a ripple effect and stimulating secondary investment and employment (such as a restaurant near a factory), the economy might regenerate itself and pay off the debt. Keynes believed that government attempts to increase revenues and decrease expenditures during a depression worsened, rather than cured, the problem of widespread unemployment and underutilized industrial capacity. Keynes argued that government spending should be counter-cyclical, that it should move in the opposite direction to private consumption and investment. Keynes believed that during an economic downturn the government should increase its expenditure to compensate for the decline in private demand for goods and services. Conversely, during an economic upturn the government should decrease its expenditure to make room for productive investment and consumption. Thus, governments should increase the national debt during economic downturns and retire the debt during business cycle upturns.

Since the founding of the republic the main source of increasing the national debt has been war. Initially, the war debt was easily retired. Within twenty years of the War of 1812 (1812–1814) the United States government paid off its war debt of \$128 million. In World War I (1914–1918) the national debt underwent the first of several huge increases that would last through the end of the century. By 1990 the U.S. national debt soared to \$3.2 trillion. In the late 1990s some economists believed that the anti-Keynesian tactics of President Ronald Reagan's (1981–1989) administration only made matters worse. They point to for the fact that his economic recovery program combined tax cuts with increases in government spending, thereby increasing the U.S. national debt by almost \$1.9 trillion during his term. Proponents of Reagan's economics defend the administration's plan and the ensuing national debt on the grounds that a Congress controlled by the Democrats would not follow the president's wishes and dramatically cut domestic spending. They also argue that a high level of military spending was necessary to bring the Cold War to an end, and the tax cuts successfully stimulated the economy, as the stock market rose to record levels.

See also: Alexander Hamilton, John Maynard Keynes, Keynesian Economic Theory

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NATIONAL GRANGE

The National Grange of the Patrons of Husbandry (the Grange) was a fraternal society founded in Washington, D.C., in 1867. Its aim was to advance the political, economic, and social interests of the nation's farmers. The Grange was established by U.S. agriculturist Oliver Hudson Kelley (1826–1913). As a clerk for the Bureau of Agriculture, Kelley had toured southern farms and talked to farmers. The trip gave him a clear understanding of the problems faced by U.S. growers. When he returned to Washington he resolved to set up an organization to assist farmers by providing a forum for discussion and the dissemination of knowledge regarding new agricultural methods. Six of Kelley's associates joined him in forming the group, and the following year he traveled to his native Minnesota to set up the first local grange.

Granges were organized at the state, county, and local levels, with membership open to all farmers and their families. After suffering through deteriorating economic conditions during the 1860s, the severe downturn of the 1870s hit the nation's farmers even harder—agricultural prices dropped while operating costs increased. Farmers took action by setting up or joining granges. The groups set up cooperative stores, consolidated purchasing (to get the lowest possible price on agricultural equipment and supplies), and even established factories where farm machinery was produced. The number of granges reached their peak in 1875, by which time there were more than 21,000 granges and national membership climbed to 860,000.

Granges lobbied their state legislators to pass laws favorable to farmers, including the imposition of maximum limits on rail freight and warehousing rates. The so-called "Granger laws" were later overturned by the

National Industrial Recovery Act

U.S. Supreme Court, which ruled that any interference with interstate commerce was unconstitutional. The ruling helped pave the way for the government to establish the Interstate Commerce Commission (ICC) in 1887.

By the end of the 1870s the granges were in decline. Mismanagement of their interests and the pressure of competition forced most of their business initiatives to fold. Nevertheless the group did not completely disappear. Members of the Grange movement and other agrarians (including members of the Farmers' Alliances) joined the People's (or Populist) Party. Members of the national political party pursued initiatives favorable to farmers' interests. These included free coinage of silver, government issue of more greenbacks (paper currency that was first issued to finance the American Civil War, 1861–1865), a graduated income tax, direct popular election of U.S. senators, and passage of stringent anti-trust laws. Though the party itself was short-lived (it formed in 1891 and disbanded by 1908) its influence on U.S. politics was lasting. Many of its Populist initiatives were later made into law.

In the late-1990s the Grange had a total membership of about 300,000 organized in some four thousand local groups in 37 states. The Grange worked toward changing economic and political conditions to favor the nation's farmers and agricultural regions.

See also: **Agricultural Industry, Farmers' Alliance, Munn v. Illinois, Wabash (St. Louis and Pacific Railway) vs. Illinois**

NATIONAL INDUSTRIAL RECOVERY ACT

National Industrial Recovery Act (NIRA) was the centerpiece of President Franklin D. Roosevelt's (1933–1945) initial New Deal programs that were aimed at reversing the economic collapse of the Great Depression. Enacted by Congress in 1933 during the president's First Hundred Days in office, the NIRA was designed to improve standards of labor, promote competition, reduce unemployment, and increase consumer's purchasing power. As the legislation went through Congress, it met with much debate and passed by a slim margin of seven votes.

Title I of the act attempted to accomplish the goals of the NIRA by creating the National Recovery Administration (NRA) to establish codes of fair competition, which were rules governing the wages, prices, and

business practices of each industry. Representatives of firms in various industries joined NRA officials in drafting the codes. Although the codes were not intended to foster monopolies or discriminate against small business, applicable antitrust laws were temporarily suspended to prevent the NIRA from being challenged on grounds that it engendered unfair competition. Initially, the codes received wide public support, but over time that support diminished. Enforcement of the codes was limited, and the successes it did achieve, like the end of child labor in the textile industry, were eventually overshadowed by higher prices and limited production.

Title II of the act created the Public Works Administration (PWA) to award \$3.3 billion in construction contracts for public projects. The PWA oversaw an enormous number of such projects, including the construction of schools, hospitals, post offices, courthouses, water systems, roads, bridges, and dams. The NIRA also included provisions for increasing minimum wages, limiting the hours in a workweek, and recognizing the right of labor to unionize and collectively bargain with management. Among the PWA's biggest successes are the construction of the Triborough Bridge in New York City and the Hoover Dam in Arizona. Overall, the Public Works Administration completed 34,000 projects nationwide.

Three weeks before the NIRA's two-year expiration date in 1935, the U.S. Supreme Court unanimously declared the act unconstitutional. In the case of *Schechter Poultry Corporation vs. the United States*, the Supreme Court ruled that Congress had impermissibly delegated its legislative power to the National Recovery Administration. The NIRA ceased operations.

See also: **Great Depression, National Recovery Administration, New Deal**

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NATIONAL LABOR RELATIONS BOARD

The industrialization of the United States created new labor issues for the young nation. Mistreated and dissatisfied workers found ways to work together in an attempt to negotiate better arrangements for themselves with employers. The increased activism of workers, mainly in the form of unions, and the negative reaction by businesses to the union movement led the federal government to develop regulations for fair employment practices.

The National Labor Relations Act of 1935 (NLRA) is the core from which much of present day U.S. labor law stems. The NLRA has its roots in the Railway Labor Act of 1926 and the National Industrial Recovery Act. Until the Railway Labor Act of 1926 (RLA) workers were largely unprotected in the workplace. The RLA, as applied to the railroad industry, was enacted with the intent to avoid work stoppages by employees and lockouts by employers. It provided an alternative to these measures by way of negotiation, mediation, or arbitration.

The standards first devised by the RLA were expanded in 1933 under the National Industrial Recovery Act (NIRA). The NIRA was friendly to unions and employees. Under the NIRA, employees were granted the right to organize and bargain collectively through unions. Before the NIRA employees involved in union activity were treated harshly by employers and often faced firing for their union association.

Building on the standards set by the RLA and the NIRA, the National Labor Relations Act of 1935 established the National Labor Relations Board (NLRB). The board is an independent federal agency created with the primary purpose of enforcing labor law in the United States. It set regulations to prevent unfair labor practices by private sector employees and unions, who had taken advantage of previous federal protection under the National Industrial Recovery Act. It also maintained and extended protection of employees' rights to organize and to use union representation in negotiations with employers. Provisions were made for a secret ballot to determine whether employees wanted to maintain union representation.

Although the National Labor Relations Board is an independent federal agency that regulates U.S. labor, it can only act when officially requested in “petitions” (usually for an election) or “charges” (regarding unfair labor practices). The NLRB limits its involvement to cases that have a significant effect on commerce.

The National Labor Relations Act was an attempt to deal equitably with labor and management. Until it took effect, the laws shifted uncertainly from pro-business to pro-worker and pro-union, giving employers and workers at times too little protection or too few guidelines. The NLRA set a solid foundation on which industrial relations could be built.

See also: **National Industrial Recovery Act, National Labor Relations Act, Railroad Industry**

NATIONAL RECOVERY ADMINISTRATION

The National Recovery Administration (NRA) developed out of President Franklin D. Roosevelt's (1933–1945) New Deal initiative. The NRA was created under the National Industrial Recovery Act (NIRA) in 1933. The chief provision of the act was the creation of the National Recovery Administration. Modeled after the War Industries Board, the NRA oversaw the implementation of several core initiatives set out in the Recovery Act.

Among the initiatives was the establishment of business codes of fair competition, which were standards accepted by businesses and industries. The codes included provisions for minimum wages, voluntary union participation (neither encouraging nor discouraging union membership), and shorter work hours. The business codes regarding union participation resulted in a sharp increase in union membership. For instance, the United Mine Workers experienced a jump in membership from 100,000 to 400,000 less than a year after the NIRA became law. Businesses who followed the codes displayed a blue eagle and the motto “We do our part” to advertise their participation to the public.

WE DO OUR PART.

Motto announcing adherence to the NRA's business codes

Despite its strong start, the NRA began to lose public support. The business codes sometimes conflicted

with one another and were difficult to comply with. They tended to raise prices and limit production, which, during the hard times of the Great Depression (1929–1939), was the opposite of what the public wanted. In addition enforcement of the business codes was limited.

In 1936 the National Recovery Administration ceased to exist. It ended activity after the United States Supreme Court ruled that the National Industrial Recovery Act, which gave it birth, was unconstitutional on the grounds that the act overstepped the legislative and commercial powers of the federal government.

See also: Great Depression, National Industrial Recovery Act, New Deal, Franklin D. Roosevelt, War Industries Board

NATIONAL ROAD, BUILDING OF THE

The National Road, also known as the Cumberland Road, was the first great turnpike to run across the Appalachian Mountains and into the territory that was known as the Old Northwest (the modern states of Ohio, Indiana, Illinois, Michigan, and Wisconsin). The National Road was built with the intention of creating closer economic ties between the American west and the original thirteen colonies. At the time it was considered a state-of-the-art roadway. Its surfaces were graded to limit water damage and it was surfaced with gravel. Streams, rivers, and gullies were crossed with stone bridges, not the more common and less expensive wooden ones. Thousands of migrants moving westward to take advantage of new land and new economic opportunities used the National Road to move westward. It was the first major road to be built with federal funds and the largest single road-building project until the construction of the modern interstate highway system after World War II (1939–1945).

THE NATIONAL ROAD, ALSO KNOWN AS THE CUMBERLAND ROAD, WAS THE FIRST GREAT TURNPIKE TO RUN ACROSS THE APPALACHIAN MOUNTAINS AND INTO THE TERRITORY THAT WAS KNOWN AS THE OLD NORTHWEST (THE MODERN STATES OF OHIO, INDIANA, ILLINOIS, MICHIGAN, AND WISCONSIN).

Although different sections of the country (particularly in New England) had developed their own turnpike systems in the late eighteenth century, most of

the country was not well served by roads. The roads that existed were funded and built mostly by private corporations, who ran them as profit-making toll roads. Construction on the National Road itself did not begin until immediately after the War of 1812 (1812–1814). The road began at Cumberland, Maryland, but it was linked to the earlier Frederick Pike, which led to Baltimore on the coast. Construction continued steadily until 1818, when the road crossed the Cumberland Gap over the Appalachians and reached Wheeling, West Virginia. By 1838 the road stretched all the way to Vandalia, Illinois, and about mid-century it reached St. Louis, Missouri. Construction on the National Road was neglected after the American Civil War (1861–1865) in part because of the boom in railroad construction. It was revived as part of Route 40 in the early twentieth century, when increased automobile traffic highlighted the need for improved roads.

The National Road was a controversial project for several reasons. First, many people questioned whether the federal government was permitted by the Constitution to use its money on internal improvements. Most such internal improvements (such as the Erie Canal, which was built by the state of New York) were undertaken by local or state authorities. Congress had appropriated money to build a trans-national highway as early as 1802. In 1808 Albert Gallatin proposed a series of internal improvements including a number of roads. Even then, several presidents—notably James Madison (1809–1817) and James Monroe (1817–1825)—vetoed the road’s funding on the grounds that using federal money for internal improvements was not specifically allowed in the Constitution. Secondly, roads at the time were far less efficient for transport than canals or river traffic. Most of the profits that could be made were for shipping goods over short distances, usually at a rate of about 15 cents a mile per ton. Riverboats and canals, and in later decades railroads, were more cost-effective ways of moving bulky farm produce to markets. Third, the National Road was very expensive to build. At the peak of construction in the early 1820s, it cost more than \$13,000 per mile to build and maintain.

Despite its inefficiencies and expense, the National Road helped draw the young United States closer together. Farmers in the Great Lakes and Ohio River valley were able to ship their produce to markets in Atlantic ports rather than sending their goods down the Ohio and Mississippi Rivers to French or Spanish markets. Northern political support for western improvements also helped draw the two sections of the country closer together.

See also: Cumberland Gap, Economic Development (Federal Involvement in), Maysville Road

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NATIONALISM

Nationalism is a movement in which the citizens of a nation-state demonstrate a clear loyalty and devotion to the specific social, economic, and cultural interests of their nation, often to the exclusion of international interests. The predominant characteristic of nationalism is a sense of community among citizens of a nation based on a shared descent, language, and religion. Nationalism is also closely associated with the desire for national independence in a country that is under foreign domination. It was not until the eighteenth century that nationalism emerged as a distinctive movement. Before then, loyalty was usually pledged to either a ruling family or a religion.

Nationalism evolved through advances in technology, culture, politics, and economic circumstances. An increase in the education of the lower classes provided them with knowledge of their common history and culture beyond their villages and enabled them to identify themselves as members of a larger nation. With the development of industry and trade, cities and provinces were able to extend their economies outside of previous local geographic boundaries. By the nineteenth century, the Industrial Revolution helped spread economic development, which increased the middle class and led to a desire for representative government at the national level. Nationalistic symbols such as

holidays commemorating national events of historical significance also arose. In the United States, nationalism is essentially based on representative government and the concept of individual liberty as put forth in the *Declaration of Independence*.

See also: American Revolution, Imperialism

NATIVE AMERICAN POLICY

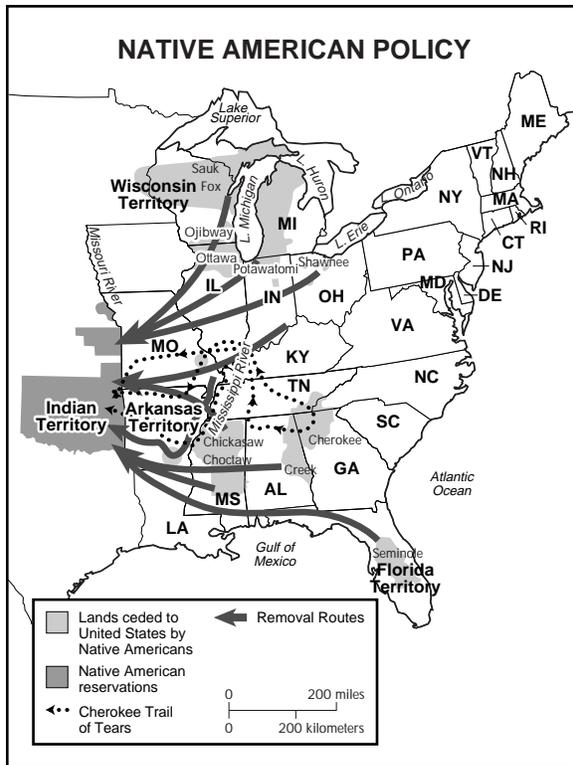
Federal Native American policy is considered by many to be an aberration in the U.S. legal system. By the 1990s more than two percent of U.S. lands were actually governed by Native American tribal governments. In the seventeenth century British and Spanish colonies began negotiating treaties with the New World's indigenous groups as sovereign (independent) political entities. The treaties served to acknowledge and affirm Native American ownership of lands used and occupied. The United States, as a successor of Great Britain, inherited this centuries-old European international policy. Thus, tribal sovereignty, recognized well before birth of the United States, became the basis for future U.S.–Native American relations.

With victory complete over Britain in the American Revolution (1775–1783), establishment of Native American policy was one of the first orders of business of the new fledgling government. A formative period of U.S. Indian policy lasted until 1871. The 1787 Northwest Ordinance, enacted by Congress, recognized existing Indian possession of the newly gained lands and established that only the federal government could negotiate treaties with tribes and acquire Indian lands. Sovereignty of tribes was explicitly recognized in the U.S. Constitution and authority for the federal government's legal relationship with tribes was identified in the Commerce Clause. One of the first acts passed by the first U.S. Congress was the Indian Trade and Intercourse Act of 1790 which reaffirmed the treaty policy and brought all interactions between Indians and non-Indians under federal control.

THE FEDERAL-INDIAN RELATIONSHIP IS LIKE NO OTHER IN THE WORLD. INDIAN TRIBES APPEAR TO HAVE THE SAME POLITICAL STATUS AS INDEPENDENT STATES; YET THEY SEEM TO BE FOREVER MIRED IN A STATE OF POLITICAL AND ECONOMIC PUPILAGE.

Vine Deloria, Jr., *American Indian Policy in the Twentieth Century*, 1985

Three Supreme Court decisions between 1823 and 1832, known as the Marshall Trilogy, reasserted the



This map shows the lands ceded to the U.S. by Native Americans, and the routes of removal to the western Indian Territories. U.S. Native American policy has vacillated between supporting Indian self-determination and forced assimilation.

tribal right of land possession and tribal sovereignty (meaning no state held legal jurisdiction within Indian reservation boundaries) and defined a moral trust responsibility of the United States toward the tribes. This trust relationship recognized tribes as “domestic dependent nations” yet held the United States responsible for their health and welfare. Later deliberation of Indian policy by the Court produced a reserved rights doctrine which recognized inherent tribal rights, but the Court also allocated “plenary” power to the United States. Plenary power meant that the United States held ultimate authority to unilaterally alter U.S.–Native American policy and terminate specific Indian rights. However, the trust relationship compelled a reasoned exercise of this power, to be used only to benefit Indian peoples. For resolving disputes over treaty interpretation, the “canons of construction” established that treaties should only be interpreted from the tribal perspective and, if ambiguous, judicial rulings should be in favor of the tribes.

Despite a seemingly favorable attitude on the part of the judiciary, in actuality Indian peoples suffered catastrophic loss of economies, lands, and life in the persistent push of white settlements westward. The

most grievous example was the 1830s removal policy under which the Five Civilized Tribes were forcibly removed from the Southeast to the newly created Indian Territory in what later became Oklahoma. The removal policy persisted with treaty-making in the West in the 1850s and 1860s. The western treaties created a reservation system in which the inherent rights of Native Americans would presumably persist. However, these treaties underscored the long standing tension between trust, responsibility, and a stronger force promoting white settlement and economic development. Some treaties also recognized aboriginal hunting, fishing, and gathering rights outside reservation boundaries to help perpetuate traditional economies. The treaties also implicitly established a unique system of water rights later recognized by federal courts. In 1871 Congress acted to end the treaty-making era, thus closing a chapter on the use of treaties to define U.S.–Indian relations.

An era of forced cultural assimilation followed from 1871 to 1930 in which U.S. Indian policy attempted to blend Native Americans into the dominant society. Believing the tradition of communally held property was a major barrier to Indian assimilation, Congress passed the General Allotment Act of 1887. The act authorized the Bureau of Indian Affairs (BIA) to divide up all Indian lands, allotting parcels of 160 acres to families and 80 acres to single individuals over 18 years of age. Individuals receiving the allotments became U.S. citizens. The hope was that when Indian people held their own property they would become farmers embracing an agrarian lifestyle. Tribal lands left over after the allotment process were considered “surplus” and sold to non-Indians. Much land went into forfeiture when many Indians could not pay taxes on their properties. In all, the policy was a further economic disaster reducing the tribal land base in the United States from 138 million acres in 1887 to 48 million acres in 1934. Much of the most agriculturally productive lands passed out of tribal control. In another assimilationist effort, all Indians became U.S. citizens through the Indian Citizenship Act of 1924, but the Bill of Rights did not apply to Indians because of tribal sovereignty.

By the 1930s, realizing the calamity of the allotment policy, U.S. policy swung back again to the recognition of sovereignty. The Indian Reorganization Act of 1934 ended the allotment process, stabilized tribal holdings, and promoted tribal self-government by encouraging tribes to adopt Western-style constitutions and form federally chartered corporations. Though many tribes rejected developing constitutions, they did

organize various governmental institutions during this period.

By 1953 U.S. policy began a significant move back to assimilation with termination policies. Through a House resolution, Congress voted to terminate recognition of a select group of tribes, ending the special trust relationship. Some reservations were terminated and the lands sold to non-Indians, thus taking away the economic base for the Indian communities. In addition, Public Law 280, also passed in 1953, expanded state jurisdiction onto tribal lands in selected states, diminishing tribal sovereignty in those areas.

With little sustained congressional support for termination policies, in the 1970s U.S. policy again took a dramatic shift back to a tribal government, self-determination era. The Indian Civil Rights Act of 1968 extended most of the Bill of Rights to Indian peoples and pared back some of the states' authorities granted in P.L. 280. Most importantly, the Indian Self-Determination and Education Assistance Act of 1975 encouraged tribes to assume administrative responsibility for federal programs benefiting Indian peoples, many of which were in health and education. Congress continued to pass acts empowering tribes including the American Indian Religious Freedom Act (1978), Indian Mineral Development Act (1982), Indian Gaming Regulatory Act (1988), and Native American Graves Protection and Repatriation Act (1990). Tribes could form their own governments, determine tribal membership, regulate individual property, manage natural resources, develop gaming businesses, collect taxes, maintain law enforcement, and regulate commerce on tribal lands.

Tracing the history of U.S.-Indian relations reveals that Native American policy is not actually a coherent body of principles, but an aggregate of policies derived from many sources over time. For more than 200 years, U.S.-Indian policy vacillated between periods of supporting tribal self-government and economic self-sufficiency and periods of forced Indian socio-economic assimilation into the dominant Western culture.

See also: Five Civilized Tribes, Trail of Tears

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NATIVE AMERICANS, TREATMENT OF (SPAIN VS. ENGLAND) (ISSUE)

When Christopher Columbus landed on the island of Hispaniola in 1492, he met natives there. When this was reported to Queen Isabella of Spain, she immediately decreed that the natives (Indians as the Spanish would call them) were her subjects and were morally equal to all her other subjects including the Spaniards themselves. They were to be treated humanely and not to be enslaved, and they were to be Christianized and Europeanized.

Columbus violated these decrees from the beginning and thus he created a tension between Crown policy and behavior in the field that endured throughout the colonial period. Columbus' first illegal act was to ship five hundred Indians back to Spain as slaves. When Queen Isabella heard of this, she immediately ordered that the Indians be freed and sent back to Hispaniola. Meanwhile, Columbus' men on the island had continued their practice initiated from the outset—of brutalizing Indians, who eventually rebelled. Those who survived the repression of the rebellion were treated as prisoners of war and were forced to work. For all practical purposes these Indians were slaves.

In addition to the enslavement of rebellious natives, Columbus initiated the practice of tribute. Under this system each Indian male was required to gather and turn in a certain amount of gold every ninety days. If he failed, the Indian was subject to a death penalty. Many ran away and even more died from exposure to

the microbes of European diseases for which they had no immunity. The subjugation of native peoples was also employed during the next twenty years on Puerto Rico, Cuba, and Jamaica and the results were the same. Indians virtually disappeared from the Caribbean Islands.

Indians who survived the initial invasion were required to work and to accept Christianity. If they refused, they could be forced to comply. Many did resist and a system was devised to deal with them. It was known as the *encomienda*. Under this system Indians were regarded as part of the land: When land grants were made to settlers, the native inhabitants became a part of the grant. As property of the landowners, they could be forced to work without being technically enslaved. At the same time they were to be converted to Christianity by the local priests.

Spanish churchmen took very seriously their obligation to Christianize the Indians. Some of them were appalled by the harsh treatment meted out to the Indians by many *encomenderos* and they demanded reform. One of these was a Dominican Friar, Antonio de Montesinos. As a result of his demands, the Crown promulgated the Laws of Burgos in 1512. These required that Indians were to be put into villages where they would live under supervision. They were to be baptized, given religious instruction, and encouraged to marry. They were to work for the Spaniards no more than nine months per year, and they were to be free and not mistreated.

The Crown also issued a document known as the *Requerimiento*, which was to be read to all Indians before the Spaniards could declare war on them. Written in Spanish or Latin, and thus unintelligible to the natives, *Requerimiento* was intended to inform them that they were about to become subjects of the Spanish Crown. If they submitted peacefully, all would be well, but if not, they would be attacked and enslaved.

Another priest who took the side of the Indians was Bartolome de Las Casas. He believed the Laws of Burgos were too weak and the *Requerimiento* was a travesty. He persuaded the government to appoint him Protector of the Indians and for a few years (1514–1517) he sought to employ a milder regime for the Indians. This did not work. The settlers obstructed Las Casas' efforts at every stage and the Indians continued to die. Facing a critical labor shortage, the Spaniards began to import African slaves in 1517.

Another important element of Spanish policy in the New World was the mission system. Beginning in the middle years of the sixteenth century, Spanish

priests, with the support of the Crown, began to establish supervised communities in frontier areas. A few priests would go into an area, learn the local Indian dialect, and begin to preach the gospel. They would persuade the Indians to build a village, accept Christianity, and settle into a sedentary life. The process was extremely dangerous and sometimes the friars lost their lives; however, they often succeeded.

The pattern established in the sixteenth century was essentially repeated again and again throughout the 300 years of the Spanish colonial period. One major feature of this policy was that it brought the whites and Indians together; it did not separate them. This, of course, led to intermingling and intermarrying and it soon produced a new class of people—the mestizos. Today, mestizos are the majority in most Latin American countries.

The English did not establish permanent settlements in the New World until more than a century after the Spaniards. The first two were Jamestown (Virginia) in 1607 and Plymouth (Massachusetts) in 1620. In both cases the Englishmen faced a problem that the Spaniards also encountered a century earlier: they had to determine how to evaluate the natives and how to deal with them.

The English lived in proximity to the Indians for some years. This intermingling, however, did not produce the same results as that of the Spaniards. The North American Indians did not die out as rapidly as their native peoples of the Caribbean and the English, who came in families, did not inter-marry with the Indians as frequently as the Spaniards. Like the Spanish priests who were appalled at the treatment of the Indians, some English observers also spoke out. Roger Williams, a Separatist Puritan who came to Massachusetts Bay in 1631, charged that the English had no right to occupy land that the Indians were already living on. For the most part, however, especially in New England, the colonists tried to recreate the villages that they had known in England and did not try to bring the Indians into their society or convert them to Christianity.

On the other hand, there were some similarities between the two experiences. Like the Spaniards, the British sought to enslave Indians without much success, and they also sought to Christianize them, although not nearly as diligently as the Spanish had. Under the auspices of the Society for the Propagation of the Gospel in New England, founded in 1649, and the Society for the Propagation of the Gospel in Foreign Parts, founded in 1701, the Puritans in New England attempted to persuade the Indians to accept

Christianity. Settlements known as “praying Indian” towns were established beginning in 1651. Eventually, there were as many as fourteen of these, with a population of around 1100 in Massachusetts alone. It is believed that there had been more of these settlements in other colonies.

However, the overall relationship between the British and Indians was a bad one. The two elements which it was based upon could not sustain cordiality: trade and land occupancy. In most cases the trade relation was based upon an exchange of furs for trinkets, firearms, and blankets. When the furbearing animals were depleted the Indians had nothing to exchange and they became embittered. As for land, the British frequently attempted to buy land from the natives, but the Indian concept of ownership and exchange of title was nothing like that of the Europeans. This difference led to misunderstandings which often resulted in conflict.

As in the case of the Spaniards and the Indians, so in the case of the British and the Indians, the pattern was essentially repeated again and again as the whites moved inexorably to the West. However, the pattern itself was different. Here it was a succession of trade, attempts to secure land, misunderstanding, and conflict. The result was that the Indians were generally in retreat after the first few decades of the colonial period, especially as the Indians learned that close association with the colonists was likely to result in sickness and death from European disease, like smallpox. Efforts to enslave the Indians were given up fairly early and the effort to Christianize them, although part of the agenda of the early period of colonization, never developed as extensively as it did in Latin America. The most important difference, however, was the absence of intermarriage.

See also: Native American Policy

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NATURAL MONOPOLY

Natural monopolies exist where control of an industry by one company is considered more efficient than having many small companies producing the same good or service. One large firm can produce goods or services at a lower per-unit cost, passing the savings on to the consumer. These savings in production costs are called economies of scale.

Examples of natural monopolies with economies of scale are electricity and natural gas utilities, (formerly) telephone companies, and transit companies supplying bus service to a locality. Resources would be duplicated and wasted if several electric companies supplied a city’s energy needs. Each firm would have to lay its own cables, repair its own lines, and have separate workers and offices. Similar difficulties would exist with gas and transit companies. To avoid such problems, the U.S. government allows natural or legal monopolies to operate by giving them the right to do business in a certain area free from the competition of other firms in the same industry. Although natural monopolies are often privately owned in the United States, they must accept government regulation. Generally, the government assumes the responsibility of setting prices and establishing quality of service by any monopoly that is allowed to operate. The regulatory activities are carried out at all levels, local, state, and federal. In other countries, many natural monopolies are nationalized, government-owned, and government-operated.

See also: Economies of Scale, Monopoly

NAVAL STORES

Naval stores are products used in the construction and maintenance of wooden ships, such as timber, tar, pitch, and resin. These materials are derived from conifers (evergreens) which early American settlers found to be plentiful in the colonies. Pine timbers were also used for masts. The abundance of pine in the

Navigation Acts

forests of New England and the Carolinas fostered a thriving colonial export business as well as a shipbuilding industry. Naval stores were a commodity of the triangular trade routes, since sea captains exchanged them for black slaves on the West African coast. Naval stores were also exported to England, a country that had exhausted much of its own forests and therefore relied on the colonial timber to maintain and sustain its fleets. Although England severely limited American imports after the American Revolution (1775–1783), naval stores remained among the few commodities that were exempt from the policy.

See also: American Revolution, Lumber, North Carolina, Slavery, South Carolina, Triangular Trade

NAVIGATION ACTS

Between 1645 and 1761 British Parliament passed a series of 29 laws intended to tightly control colonial trade, shipping, and industry to the benefit of English interests. The American colonists largely ignored these acts, which were intended to ensure that the British colonies in North America remained subservient to the mother country. The initial act of 1645 forbade the import of whale oil into England unless it was transported aboard English ships with English crews. Subsequent laws passed in 1651, 1660, and 1663 provided the basis of the Navigation Acts. The First Navigation Act (1651) resembled the legislation of 1645 but was more far-reaching. It stipulated that goods could only enter England, Ireland, or the colonies aboard English (or English colonial) ships. Furthermore colonial coastal trade was to be conducted entirely aboard English ships.

The Second Navigation Act (1660) reaffirmed that goods could only be transported aboard English ships and established a list of “enumerated articles” that had to be shipped directly to England. The intent was to prevent the colonies from trading directly with any other European country. England required the colonies to sell their materials directly to English merchants or pay duties on goods sold to other countries. The list of articles included sugar, cotton, tobacco, indigo, rice, molasses, apples, and wool. In 1663 Parliament passed the Staple Act, making it illegal for colonies to buy products directly from foreign countries; European countries would first have to ship their products to England or pay customs fees. Through the Navigation Acts England tried to establish itself as the gatekeeper of colonial imports and exports. But the laws were difficult to enforce and the colonists easily circumvented them. Smuggling was rampant: In 1684 Parliament

annulled the 1629 charter of the Massachusetts Bay Company. It charged that the colonists had violated English law by exporting tobacco and sugar directly to Europe and had thereby shown disrespect to the king. The laws nevertheless had little effect on the colonial economy, which grew at twice the rate of England’s during the period. The acts continued to be passed until the eve of the American Revolution (1775–1783).

See also: Indigo, Molasses Act, Rice, Sugar, Tobacco, Triangular Trade

NAVIGATION ACTS, ECONOMIC BURDEN ON THE AMERICAN COLONIES (ISSUE)

The economic burden of the Navigation Acts on the American colonies has been a subject of debate both among the eighteenth century colonists and among scholars in the twentieth century. The debate has mostly been over whether the economic burden of the Navigation Acts was sufficient to warrant the American Revolution (1775–1783).

The most important Navigation Acts were enacted in 1651, 1660, 1663, 1673 and 1696. They were expressions of the economic doctrine of mercantilism. This doctrine asserted that foreign trade was a form of economic warfare with other trading nations and that the winner in this war would be the nation that accumulated the most gold and silver. The role of colonies in the mercantilist system was subordinate to the “mother country.” They were to furnish staple foodstuffs and raw materials to the mother country as well as a market for the finished goods of the mother country. The most important Navigation Acts of seventeenth century England decreed that only colonial or English ships could trade with the colonies; that certain “enumerated” colonial products could be shipped only to England; that American exports to Europe had to pass through English ports, to be taxed; and that colonial goods shipped to England could not compete with English goods.

Some of these acts hurt colonial trade. Especially in the grain-growing middle colonies and the Chesapeake, there was consternation at the fact that the colonies could trade their main export staples only with England. They would have preferred broader market opportunities. And, given the many coves and inlets on the eastern seaboard, American merchants took the opportunity to smuggle goods and to trade with whomever would give the best price.

Thus the Navigation Acts presented both benefits and burdens to the American colonies. New England benefited from the monopoly in the shipbuilding and shipping industries. Because of the proximity to the forests of upper New England, Massachusetts shipyards already enjoyed lower costs than those in Britain and produced many ships for British merchants. Once built and on the water, the colonial ships fared well in the imperial trade, especially on routes between New England and the West Indies. American crews could be paid and dismissed at home ports while British ships at the same ports were forced to bear the expense of frequently idle deck hands.

The early decades of the eighteenth century were a period of “benign neglect” of colonial trade by Great Britain. The English government was preoccupied with a series of wars with France that grew out of commercial competition. Only after the conclusion of the expensive and exhausting “Seven Years’ War” (1756–1763), known in the colonies as the “French and Indian Wars” (1754–1763) did the English Parliament begin to re-examine the trading policy with its colonies.

After 1763 the English Parliament decided to force the colonies to pay their share of maintaining the British fleet which, in their view, spent much of its time defending the colonies. After the war British policy shifted from a loose commercial system to a tightly regulated imperial one. The new taxes that they attempted to impose—the sugar tax, the stamp tax, and the tax on tea—became the focus of contention between the colonies and the British authorities.

Whig historians such as George Bancroft (1800–1891) and Progressive historians such as Charles Beard argued that the economic burden of the Navigation Acts was considerable. These historians point to the central problem of indebtedness. Because of the chronic imbalance in colonial trade stemming from the Navigation Acts, they chafed under the colonial regime. Even wealthy colonies like Virginia and Maryland masked huge debts. Lesser planters borrowed from larger ones, who in turn were perpetually indebted to British “factors” (brokers). The Progressive historian Charles Beard concluded that it is “generally known the debts due to British merchants and other private citizens constituted one of the powerful causes leading to Revolution.”

More recent historians have re-examined the data and concluded that things were not all that bad. Robert Paul Thomas estimated that the gross burden of the administrative empire and the Navigation Acts on imports and exports was \$3.1 million in 1770 but that

the figure had to be weighed in light of the benefits of membership in the empire. Thomas estimated that the burden was approximately \$1.24 per person or two percent of colonial per capita income. But when this was set against the benefits and especially military and naval protection (\$1.775 million overall, and a little less than \$1 per person) the net costs were less than one million dollars, or about 41 cents per person in 1770. For Thomas as well as a growing number of scholars after him the Navigation Acts posed no serious financial hardship to the colonists. These scholars considered that if these were considered burdens they had been placed on political and ideological, not economic, scales.

Other colonies benefited also from the British policy of subsidizing the production of some colonial staples. The 1748 sixpence per pound bounty on indigo was decisive in boosting the indigo industry in South Carolina. But when the bounty disappeared after the American Revolution so did the industry. Likewise in North Carolina bounties on lumber and naval stores such as tar, pitch, and turpentine yielded cash payments somewhat greater than those on indigo. The general protection that the British markets offered also benefited all the colonies, even those who exported unsubsidized goods. Colonial exports received higher prices in Britain because competing non-imperial products bore special high tariffs.

But the Navigation Acts bore many burdens as well. Most imports and exports within and outside the empire were required to be routed through England first. For this reason colonists had to pay higher prices for most goods imported from the European continent and other non-imperial sources. The Navigation Acts required that roughly three-quarters of all colonial exports be shipped through Britain first. The result was that almost two-thirds of all colonial exports were subject to laws that reduced both export volume and price. Americans were forced to pay premium prices for protected English manufactures like lace and linen because they could not buy them from lower-cost continental sources. Meanwhile southern planters had to bear the costs of re-exportation, shipping, and lower prices when their tobacco and rice which was first shipped to England demanded higher prices on the international markets. Because other foreign vessels were excluded from imperial trade, colonists bore higher shipping costs as well. In the long run colonists paid higher prices and earned smaller incomes than they would have earned without the restrictions of the Navigation Acts.

See also: French and Indian War, Mercantilism, Navigation Acts, Stamp Act, Sugar Act

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NEBRASKA

Admitted to the Union as the thirty-seventh state on March 1, 1867, Nebraska is located in the western north-central United States, midway between the Atlantic and Pacific Oceans. Nebraska shares boundaries with South Dakota in the north, Kansas in the south, Iowa, Missouri, and the Missouri River in the east, and Wyoming and Colorado in the west. Nebraska is spread across 77,335 square miles, making it the sixteenth largest state. Its population of approximately 1.6 million people ranks thirty-sixth among the fifty states. Omaha is the state's most populous city, while Lincoln is its capital.

Nebraska was acquired by the United States in 1803 as part of the Louisiana Purchase. In 1804 the federal government commissioned Meriwether Lewis and William Clark to map the newly acquired territory, catalog its wildlife, and establish relations with local inhabitants. Lewis and Clark's expedition took them along Nebraska's eastern border. Two years later Zebulon Pike crossed southern Nebraska during his own expedition. These expeditions stimulated fur trade in the region, and the U.S. Army built a fort in Nebraska to protect traders from hostile Native Americans.

Native Americans grew more hostile as white settlers began encroaching upon their lands. The Indian Removal Act of 1830 opened land for white settlement in the Atlantic states by authorizing federal troops to relocate Native Americans from the southeastern United States to the so-called Indian Territory comprised of land in Nebraska, Kansas, and Oklahoma. Thousands

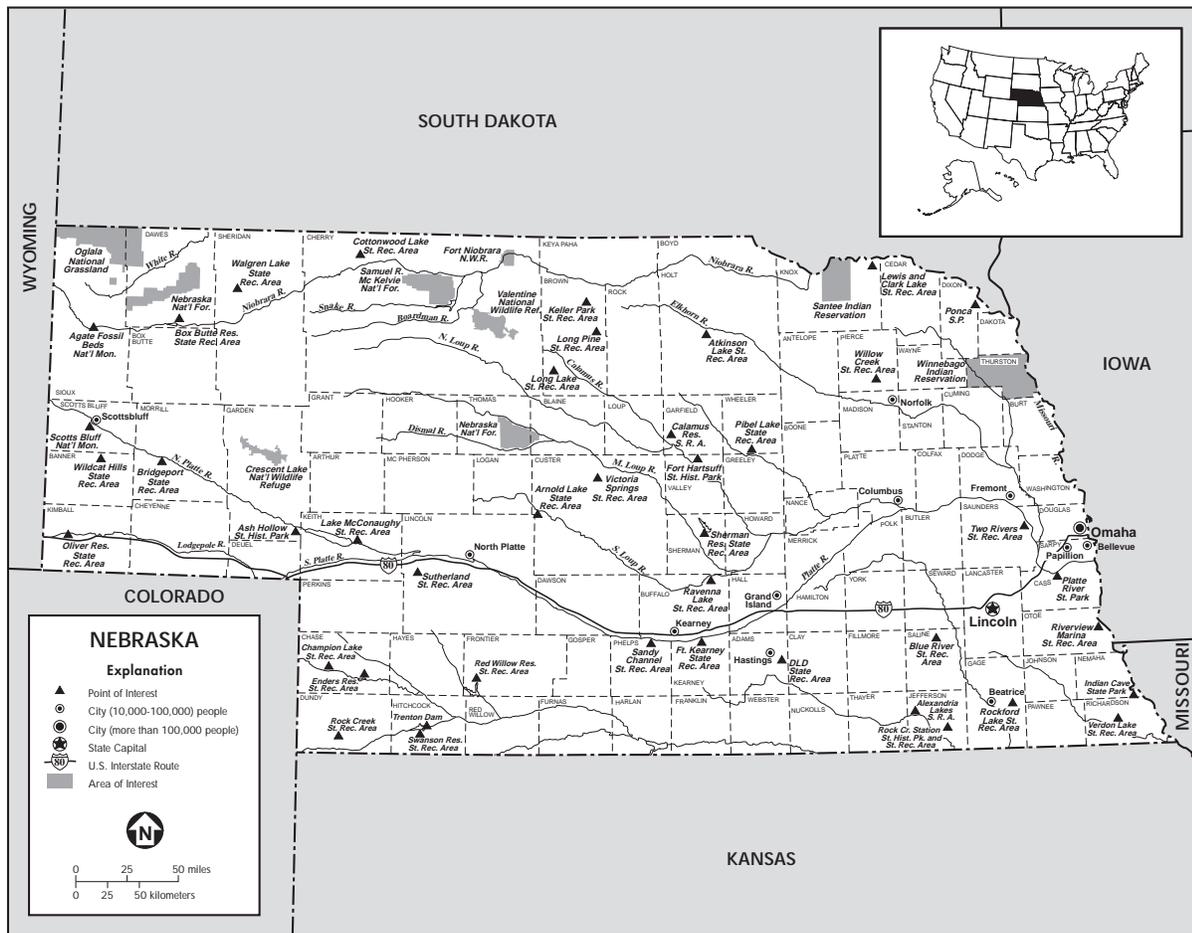
of Native Americans suffered great hardships as they were forcibly uprooted from their homelands and driven westward in what has become known as the Trail of Tears.

Native Americans were next forced to cede land for white settlement within the Indian Territory. In 1854 most Native Americans were excluded from eastern Nebraska, while the Sioux and the Cheyenne peoples remained in the western half. Skirmishes between the two tribes and federal troops broke out when the U.S. Army opened a trail to Montana that crossed Sioux and Cheyenne hunting grounds in the west. In 1869 Congress ratified a treaty agreeing to abandon the trail in exchange for the Sioux's promise to leave Nebraska and relocate their peoples to a reservation in what is now South Dakota.

But many Sioux refused to move, arguing that the federal government had deceived them into signing the treaty. Fighting resumed between U.S. troops and the two tribes. On June 25, 1876, General George Armstrong Custer (1839–1876) led a Seventh Cavalry attack against the Sioux camps of Sitting Bull and Crazy Horse on the banks of Little Bighorn in Montana. Custer and most of his cavalry were killed during the attack. However the army chased down Crazy Horse in northwestern Nebraska, where the Sioux leader surrendered. All but approximately 12,000 Native Americans were ultimately removed from Nebraska, with small numbers of Santee Sioux, Omaha, and Winnebago tribes remaining.

Nebraska also played a role in the events preceding the American Civil War (1861–1865). The 1854 Kansas-Nebraska Act created the territories of Kansas and Nebraska, and allowed the residents of each territory to decide for themselves whether to permit slavery. The act repealed the Missouri Compromise of 1820, which had outlawed slavery in the North. But following the act's passage Nebraska showed little interest in establishing slavery. However violence erupted in Kansas between slavery proponents and abolitionists. The slavery debate eventually divided the nation as a whole, leading eleven southern states to secede from the Union.

Nebraska voters rejected statehood during the Civil War, but narrowly approved a state constitution in 1866. In 1867 Congress admitted Nebraska to the Union over the veto of President Andrew Johnson (1829–1837), who contended that the state's admission process was unconstitutional. Two federal laws attracted settlers to the new state. The Homestead Act of 1862 gave 160 acres of land to families that resided in the



State of Nebraska.

state for five years and paid a nominal fee. The 1862 Pacific Railroad Act authorized construction of a transcontinental railroad passing through Nebraska. Huge tracts of land along the proposed railway were sold to settlers. The Union Pacific Railroad debuted in 1869 with an eastern terminus at Omaha. Nebraska's population swelled from 30,000 in 1860 to almost a million by 1890.

Most of the families that settled in Nebraska during this period were of European descent. Throngs of immigrants from Germany, Czechoslovakia, Ireland, and Italy made Nebraska their home in the late 1800s. A century later little had changed in the state's demographics. The 1990 census revealed that approximately 90 percent of Nebraska residents identified themselves as white persons descending from German, Irish, Czech, Swedish, or Danish ancestry. For the most part these ethnic groups have acclimated well within the state; they have formed closely-knit, thriving communities. However, during World War I (1914–1918) a number of German Americans in Nebraska had

their loyalty and patriotism questioned by state officials who feared they might be spies or saboteurs.

Once primarily a rural state, nearly two-thirds of Nebraska residents now live in urban areas. Yet 95 percent of the state's land is used for agricultural purposes, and close to one-half of the state's labor force work in farm-related fields. Known as the Cornhusker State, Nebraska produces 4 billion bushels of corn each year, second only to Iowa. It is also a leading cattle-raising state. But Nebraska's strong economy is bolstered by non-agricultural businesses as well. The state's tourism industry generates about \$2 billion a year in gross revenue, while the insurance, telecommunications, real-estate, and healthcare sectors help keep Nebraska's unemployment rate among the nation's lowest.

In terms of political institutions, the Cornhusker State's most distinctive feature may be the government's unicameral legislature, the only one of its kind in the United States. The single house has 49 senators

Netscape Communications Corporation

who are elected in even-numbered years to serve four-year terms without designation of political party. The state maintained a bicameral legislature for 68 years before amending its constitution in 1934. Voters hoped the amendment would rein in governmental spending during the Great Depression (1929–1939).

See also: **Kansas-Nebraska Act, Missouri Compromise, Railroad Industry**

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NETSCAPE COMMUNICATIONS CORPORATION

Netscape Communications Corporation was founded in 1994 as Mosaic Communications Corporation by James H. Clark (b. 1944) and Marc Andreessen (b. 1972). Clark, a former Stanford University professor who studied three-dimensional graphics, had started Silicon Graphics Inc. in 1982 (the company became famous for animating the dinosaurs in the movie *Jurassic Park*). Clark resigned from Silicon Graphics in February 1994.

Andreessen grew up with computers and wrote his first basic program when he was eight. As a 21-year-old undergraduate he was assigned to work on three-dimensional visualization software for the prestigious National Center for Supercomputing Applications at the University of Illinois at Champaign-Urbana. Together with six other computer specialists, he created a graphical user interface (GUI) for finding Internet sites. The GUI, called Mosaic, enabled users to find

A lot of us were rooting for Netscape. We didn't want to see it get downsized, restructured or swallowed up. Netscape wasn't just another Silicon Valley software company, any more than Apple is just another computer maker. Netscape stood for something grand, something transcendental and empowering. It gave people the tools to communicate their ideas cheaply or sell their stuff to anyone on the planet without going through middlemen, censors, gatekeepers, or even the IRS.

Joshua Quittner and Marc Andreessen, *Time*, December 7, 1998

sites without having knowledge of specialized programming languages. Mosaic was credited with making the Internet much more accessible. It was released on the Internet in January 1993; during its first 18 months of availability, the number of Internet users tripled and the number of sites grew a hundredfold.

Andreessen and Clark met when Clark sent Andreessen an E-mail message on the same day he resigned from Silicon Graphics. Clark was interested in using the Internet to carry interactive video. Two months later, in April 1994, Clark and Andreessen formed Mosaic Communications Corporation. Andreessen proposed creating a super program known as "Mozilla." While Clark provided four million dollars to set up headquarters in Mountain View, California, Andreessen led the development effort. After the University of Illinois objected to the use of the name "Mosaic," the company became Netscape Communications Corporation in November 1994.

In December 1994 the company shipped its new Web browser, Netscape Navigator. Jim Barksdale, formerly with AT&T's McCaw Cellular division and Federal Express, was hired in January 1995 to be the chief executive officer. Andreessen served as vice president of technology with the primary responsibility of overseeing product development.

In a somewhat controversial move, Netscape chose to give away its browser for free, perhaps following the model established by the University of Illinois with Mosaic. Interested users simply downloaded the software from the Internet via modem. The easy availability of Navigator created a lot of goodwill for the company among the Internet community, and it also established a base of users. Within four months an estimated 75 percent of all Internet users were using Navigator.

Netscape was making money from the sale of its web servers, supplying them to companies for \$1,500 to \$50,000. The high-priced systems enabled companies to create online or “virtual” stores where customers could view products and purchase them online with credit cards. It was a time when electronic commerce over the Internet was in its infancy, and Netscape was providing a key element that would help it achieve explosive growth in the coming years.

While one version of Navigator was available for free, an improved version with more features was offered for \$40. Netscape signed up resale partners, including Apple, AT&T, Hewlett-Packard, IBM, and others, and by 1996 the company was selling products in 29 countries. By early 1996 it had signed up more than 1,000 Internet service providers to distribute Navigator to their customers. Netscape Navigator featured an open architecture that enabled it to work with all kinds of computers and operating systems. The open architecture concept, known as TCP/IP (Transmission Control Protocol/Internet Protocol), was the same concept upon which the Internet was based.

Major companies also found that Netscape’s web servers could communicate easily with outside networks. These became servers of choice in corporate intranets. Netscape gained a 70 percent market share among the Global *Fortune* 100 companies in the lucrative intranet market.

Following the introduction of Netscape Navigator, the company was almost out of money. It received much-needed equity capitalization when it sold an 11 percent interest to a consortium of media and computer companies that included Adobe Systems, International Data Group (IDG), Knight-Ridder, TCI, and Times Mirror. Without having turned a profit, Netscape went public in August 1995. Its initial public offering (IPO) was one of the hottest of the 1990s, perhaps foreshadowing the skyrocketing prices of Internet stocks that would take place later in the decade. Netscape stock was first offered at \$28 a share; it was worth \$75 after one day of trading, and it peaked at \$171 on December 5, 1995. The company’s first-day market capitalization was \$2.2 billion.

Microsoft Corporation provided the first serious competition to Netscape Navigator when it introduced Microsoft Internet Explorer 2.0 in 1995. Earlier that year Microsoft had licensed Mosaic from Spyglass, Inc., which had obtained the rights to the Internet browser from the University of Illinois. Microsoft offered free downloads of Internet Explorer and bundled it with Windows 95. Over the next three years

Netscape’s share of the browser market would decline from a high of 80 percent to 40–50 percent. Barksdale would later accuse Microsoft of “unfair competition,” and he was the first witness called by the Department of Justice in its 1998 antitrust suit against Microsoft.

During 1995 the development of electronic commerce was hampered by the lack of a secure payment system that would enable customers to make credit card payments over the Internet. Netscape teamed with MasterCard to develop the Secure Courier encryption standard, while Microsoft and Visa joined forces to develop the Secure Transaction Technology. In January 1996 Netscape teamed with Verifone, the largest credit card transaction processor, to develop a credit card payment system for the Internet using the Secure Courier technology. In September 1995 Netscape suffered a security breach when two hackers at the University of California at Berkeley cracked the security code in Netscape Navigator. Netscape corrected the problem and posted warnings on the Internet. It also established a “Bugs Bounty” program, giving prizes to users who identified flaws and potential security problems with the software.

Netscape entered into several strategic alliances in 1995 and 1996. America On-Line (AOL), the nation’s largest provider of on-line services, agreed to offer improved Internet access for the users of Netscape Navigator. Both Netscape and Microsoft worked with Hewlett-Packard to develop a Hypertext Markup Language (HTML) that could be printed as seen on screen. Netscape also worked with Sun Microsystems Inc. on the development of JavaScript language, which allowed programs to be imbedded in web pages.

Netscape acquired software developer Callabra Software Inc. in January 1996 for \$108.7 million. Callabra’s main product was Share, a system that enabled simultaneous E-mail discussions and document sharing among network users. In February Netscape acquired Paper Software Inc. and its 3-D programs for the Internet. Since its founding in 1994, Netscape had enjoyed phenomenal growth, with sales rising from one million dollars in 1994 to \$81 million in 1995 and \$346 million in 1996. After reporting losses in 1994 and 1995, the company turned a \$21 million profit in 1996.

Netscape continued to form joint ventures in 1996 and 1997. Netscape and GE Information Services joined to develop electronic commerce software, with Netscape acquiring full ownership in November 1997 for \$56.1 million created Actra Business Systems. Together with Novell it established Novonyx, and

Nevada

Netscape and Oracle formed the joint venture Navio Communications Inc. to produce consumer-oriented Internet software. Oracle purchased Navio from Netscape for \$60 million in May 1997.

In January 1997 Netscape joined an alliance with Oracle, IBM, and Sun Microsystems to develop common standards for all of the company's software products. The NOIS alliance, as it came to be known, was seen as a response to Microsoft's growing dominance in several key sectors of the software market. Netscape also released Communicator, the successor to Netscape Navigator. During the year Netscape improved its position in the business software market by acquiring Digital-Style, which made Web graphics tools, and Portola Communications, which made messaging systems.

Although Netscape's annual revenues reached \$534 million in 1997, the company reported a surprising \$88 million loss. It laid off 300 workers. Almost immediately thereafter, reports began to appear that the company was for sale. The value of Netscape's stock had fallen dramatically. With \$261 million in the bank and no debt, it appeared to be a desirable takeover target. IBM, Oracle, Sun Microsystems, and AOL were all reported to be potential suitors.

In April 1998 Netscape acquired Kiva Software, strengthening its position in the web server market. Later in the year it acquired AtWeb, which provided automated Web site management and marketing services, and NewHoo, a directory-based search service. These acquisitions would enhance Netcenter, Netscape's portal to the Internet.

After nine months of takeover rumors, AOL announced in November 1998 that it would acquire Netscape for \$4.2 billion in a stock-for-stock transaction. After passing regulatory approval in March 1999, the transaction was completed, creating what *The Economist* called the "world's most powerful Internet company." As part of the deal Sun Microsystems would pay \$350 million to license AOL/Netscape software and sell \$500 million worth of servers to AOL/Netscape. With the acquisition, AOL now had two competing Internet sites, America Online and Netscape's Netcenter, both of which enjoyed extremely high traffic.

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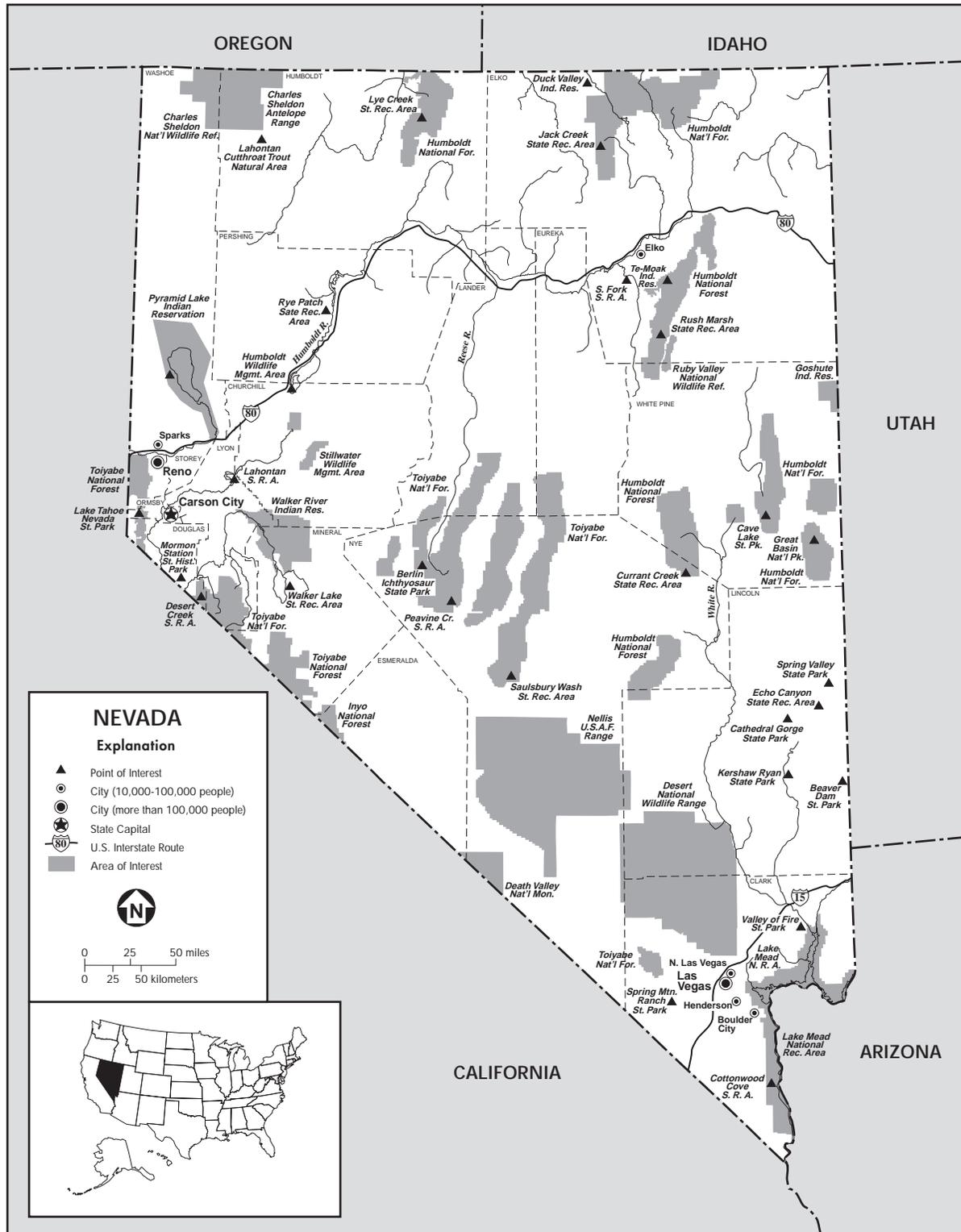
NEVADA

Nevada was one of the last areas of the United States to be explored because with its vast, dry deserts it was not thought to be worth anything. However, when gold and silver were discovered in the rich earth miners flocked to the area, cities were built, and the state flourished.

Explorers moving westward didn't reach Nevada until 1826 when Nevada was still a part of Mexico. Until then the land was largely ignored by Mexico and Spain, the owners before Mexico. In 1846 the United States went to war with Mexico to take over Nevada and other southwestern land. The United States won the Mexican War in 1848. The first town in Nevada, Genoa, was built up in 1851 around a trading post that was developed as a stop over for gold miners on their way to California.

The first detailed reports about Nevada came from John Frémont, who, with his famous guide, Kit Carson, explored Nevada from 1843–1844. Carson City, the state capital, and the Carson River are named for Kit Carson.

In 1859 miners flocked to Nevada after gold and silver were discovered there. Virginia City was developed near what was to become one of the biggest silver mines in the world, the Comstock Lode. The town had a reputation of lawlessness as bandits robbed stagecoaches, and gamblers tried to win miners' silver and gold. The state's development throughout the rest of the century was dependent on the Comstock Lode. When the silver and gold dwindled in the mine in the 1870s a 20-year depression hit the state. An effort to revive the economy called for encouraging mining by increasing the value of silver. Nevadans supported the movement for free silver coinage during the 1890s, and the Silver Party dominated state politics over the next ten years.



State of Nevada.

Nevada was admitted to the union on October 31, 1864 and enlarged to its current size in 1866. Towns sprang up near gold and silver mines around the state, which were so plentiful that the United States government opened a mint in Carson City, which operated from 1870 to 1893. By 1880 many of the mines were cleaned out, so Nevadans began cattle ranching as a substitute.

In 1900 the economy was revived as another silver mine was discovered in Tonopah and in 1902, two gold miners were founded and the town of Goldfield was built. Also, copper mines were discovered in eastern Nevada.

During the early 1900s settlers attempting to farm in Nevada had a difficult time trying to get water to irrigate their lands. In 1902 the Newlands Reclamation Act set aside federal funds for irrigation and by 1907 the project was finished. The irrigation project allowed farmers to grow crops in Nevada's western desert which previously was sand.

During World War I Nevada's beef industry provided rations for the troops. Then the Great Depression hit the country in 1929 causing banks, farms, mines, and factories to fail. However, in 1931 Nevada's economic health began to turn around as a federal public works project supported construction of the Hoover Dam, the Davis Dam and the Southern Nevada Water Project. These projects provided jobs, water and hydroelectric power for the state. Gambling also was legalized in the state. As a result, Las Vegas and Reno became major entertainment centers in the country as casinos and hotels were built.

After World War II started in 1941 Nellis Air Force Base was built near Las Vegas and a navy air base was built at Fallon. During the war the United States started manufacturing nuclear weapons and the first nuclear tests were conducted at the Nevada Test Site, just northwest of Las Vegas, in 1951. Nuclear tests have continued over the years however, since 1963 they are conducted underground.

Revenues from casino gambling grew as Nevada allowed large businesses to own casinos. Investors such as airplane manufacturer Howard Hughes built hotels and casinos in Reno and Las Vegas. In the 1950s gaming became the state's leading industry. New federal and state regulations were imposed on the casinos when it was revealed during the 1950s and 1960s that organized crime had gradually moved into the gaming industry, using casino money to finance narcotics and other illegal activity on the east coast.

As the number of casinos grew, the populations of Las Vegas and Reno exploded between 1970 and 1994 as the census in Las Vegas tripled and Reno's population doubled. As businesses and people moved to Nevada, larger amounts of water were needed. The drought between 1988 and 1992 did not help matters. Nevada continues to examine new ways of supplying water to areas around the state.

In the 1990s the largest industries in Nevada included gambling and tourism, which together generated more than 50 percent of the state's income. Mining in Nevada produces more than 350,000 pounds of gold and 1.4 million pounds of silver each year. Computers and electrical equipment were also the leading products; beef cattle, sheep, dairy cows, and hogs were the major farm products, along with hay, grapes, and onions.

In 1995 Nevada's per capita income was \$24,390 and 11.1 percent of all Nevadans lived below the federal poverty level.

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NEW DEAL

The New Deal (1933–1939) was a series of programs intended to alleviate the suffering caused by the Great Depression (1929–1939), an abrupt economic collapse that began in 1929 and resulted in massive unemployment throughout the 1930s. The New Deal began with the inauguration of Franklin Roosevelt (1933–1945) as President of the United States in 1933.

To restore confidence in the American financial system Roosevelt declared a "bank holiday," closing all banks for four days until Congress met to pass bank reform legislation. The immediate banking crisis ended soon after when Congress passed the Emergency

NEW DEAL PROGRAMS		
Year Instituted	Program	Description
1933	Agricultural Adjustment Administration (AAA)	Farmers were paid to stop growing specific crops. Consequently, the demand for and the value of the crops rose.
1933	Civilian Conservation Corps (CCC)	Provided jobs for urban youth in work such as planting trees, maintaining fire lines, and improving hiking trails.
1933	Federal Deposit Insurance Corporation (FDIC)	Insured individual savings held in banks and other institutions across the country. Monitored and defined standards for the banking industry.
1933	Federal Emergency Relief Administration (FERA)	Provided food and shelter to those most affected by the Great Depression. Distributed cash grants to the states for disbursements to individuals and families on the "dole."
1933	National Recovery Administration (NRA)	Set standards for wages, prices and production to encourage business recovery and investment.
1933	Public Works Administration (PWA)	To stimulate demand in the construction industry, the PWA initiated large building projects such as dams, aircraft carriers, schools, and government buildings.
1933	Tennessee Valley Authority (TVA)	Constructed a series of dams on the Tennessee River to provide electricity and flood control for seven southern states. The program also established health centers and schools.
1935	Rural Electrification Administration (REA)	Encouraged the growth of rural electrification cooperatives, spreading electricity throughout the country's rural areas.
1935	Social Security Act (SSA)	A government-run pension program, designed to provide financial assistance to the elderly, the disabled, and the unemployed.
1935	Works Progress Administration (WPA)	Created urban work projects, such as repairing streetcar tracks and cleaning streets.
1937	Farm Security Administration (FSA)	Loaned money to struggling sharecroppers. Helped relocate farmers to more productive land and provided shelter for migrant workers.
1938	Fair Labor Standards Act (FLSA)	Established a minimum wage and set a maximum of work hours for unskilled laborers employed by business associated with interstate commerce.

Franklin D. Roosevelt's "New Deal" programs attempted to alleviate the financial hardships brought on by the Depression in the 1930s.

Banking Act, which required the Treasury Department to inspect all banks before they could reopen. Three-fourths of the Federal Reserve system banks reopened within three days.

Even though these measures stemmed the immediate crisis, more comprehensive measures were needed. Congress passed the first program, the Agricultural Adjustment Act, in May 1933. The most important aspect of the act was its establishment of the Agricultural Adjustment Administration, which provided subsidies to farmers who were told to reduce crop production by leaving part of their land idle. In 1936 the Supreme Court ruled that it was unconstitutional for the government to require farmers to limit production and the act became inoperable. However, within weeks Congress passed the Soil Conservation and Domestic Allotment Act, which allowed the government to pay farmers to reduce production. In addition, the Roosevelt administration helped poor farmers by setting up the Resettlement Administration in 1935, succeeded

by the Farm Security Administration in 1937, which helped farmers on marginal lands relocate to better land by providing loans.

Saving the industrial economy was the most significant challenge facing the Roosevelt administration. On the one hand, businesspeople wanted to stop rapid deflation by relaxing antitrust laws to allow the cooperation of trade associations and stabilize prices. On the other hand, New Dealers wanted business to recognize the rights of workers to organize and bargain collectively in unions, which would allow workers' wages to rise with prices. The resulting compromise was the National Industrial Recovery Act (NIRA), passed in June 1933, which established a new federal agency, the National Recovery Administration (NRA). The NRA called for every business to abide by a temporary "blanket code," with a minimum wage of between 30 and 40 cents an hour, a maximum work-week of 35 to 40 hours a week, and the abolition of child labor. Those employers who followed the code

displayed the NRA symbol of the Blue Eagle in their windows.

The NRA also set up codes for most of the country's major industries to establish price and wage floors, below which the specific industry could not go. However, the hastily devised codes would fail. Most importantly, federal officials, inexperienced in running such a large program, did not have the capacity to administer it. In addition, Section 7(a) of the NIRA gave workers the right to form unions, but had no mechanism for enforcement. Thus, the program failed to raise workers' wages and increase consumer purchasing power. In 1935 the Supreme Court nullified NRA legislation when it ruled in the *Schechter* case that in giving the president the power to shape the NRA codes, the Congress had acted unconstitutionally. Consequently, the failing program was abolished.

THOUGH THE PROGRAMS DEvised FOR THE EARLY YEARS OF THE NEW DEAL WERE INTENDED TO BE TEMPORARY, THEY PROVIDED A BASIS FOR LATER SOCIAL MEASURES THAT BECAME PART OF A PERMANENT WELFARE STATE.

One of the most successful New Deal programs was legislation enacted in 1933 to create the Tennessee Valley Authority (TVA), a project for building a dam at Muscle Shoals and for the comprehensive redevelopment of the region. By building dams and waterways in the region, the TVA nearly eliminated flooding in the area and provided electricity to thousands of people. But the Roosevelt administration also initiated major financial reforms. On April 18, 1933, Roosevelt made an inflationary move by signing an executive order, which took U.S. currency off the gold standard. Enabling the government to manipulate the value of the dollar, government management of currency set a significant precedent in federal policy and changed the relationship between the government and business. The New Deal also gave the government authority in areas of the economy that previously were weakly regulated. The Glass-Steagall Act of June 1933 allowed the government to regulate irresponsible speculation by banks. The act also established the Federal Deposit Insurance Corporation (FDIC), which guaranteed all bank deposits up to \$2,500. In 1935 Congress passed a banking act which transferred the authority of the regional Federal Reserve to the Federal Reserve Board in Washington, D.C. Congress sought to protect stock market investors by passing the Truth in Securities Act of 1933, which required corporations to provide accurate and complete information to the public. In addition, in June 1934, the Securities and Exchange

Commission (SEC) was established as a stock market watchdog.

The expansion of federal relief provided to millions of unemployed Americans was an enormous undertaking. One of President Roosevelt's first programs was the Federal Emergency Relief Administration (FERA), which gave grants to states in which relief agencies had run out of money. However, the FERA relief would not be enough. The second program, the Civil Works Administration (CWA), provided work relief to more than four million people between November and April during the president's first year in office. But both FERA and CWA were intended as only relief measures, not as long-term programs meant to save the country's economy. By 1934, Roosevelt began to dismantle the CWA. His administration also established the Civilian Conservation Corps (CCC), which employed millions of young men, mostly urban, to work in camps at national parks and forests on conservation and reforestation projects. Though the programs devised for the early years of the New Deal were intended to be temporary, they provided a basis for later social measures that became part of a permanent welfare state.

In 1935 Roosevelt began a new set of programs called the "Second New Deal." Noted for its shift to a decidedly anti-corporate stance, the president proposed one of the most progressive tax systems in American history. Called a "soak the rich" plan by conservatives, the system had taxes reach as high as 75 percent on income for the richest of Americans.

Another significant development during the New Deal was the growth of labor militancy. When the Supreme Court nullified the NIRA in 1935, Senator Robert F. Wagner of New York introduced the National Labor Relations Act (also called the Wagner Act) in Congress. The new law gave workers more federal protection than Section 7(a) provided by including an enforcement mechanism in the National Labor Relations Board (NLRB), which was given the power to require employers to recognize unions. While showing few signs of challenging employers in the 1920s, union leaders and workers, encouraged by the Wagner Act in 1935, stepped up organizing efforts. John L. Lewis of the United Mine Workers helped start the Committee on Industrial Organization to begin organizing unskilled factory workers, a group that the more conservative American Federation of Labor ignored because of their commitment to organizing only skilled workers. The number of workers in recognized unions jumped from three million in 1932 to eight million in 1937, and to 10 million in 1941.

In 1935 Congress passed the Social Security Act (SSA), one of the most important pieces of social welfare legislation in American history. The act established several programs. First, it provided for federal assistance to the elderly in poverty, who could receive \$15 a month. The act started a pension system, in which workers and their employers would pay a payroll tax, beginning in 1940, to provide an old age pension of \$10 to \$85 a month for many workers, though it excluded domestic servants and agricultural workers. The SSA also set up an unemployment insurance system, and provided aid to handicapped people and dependent children.

In addition, the Roosevelt administration set up the Works Progress Administration (WPA) in 1935, a much larger work relief program than the CWA. Between 1935 and 1941, the WPA employed about 2.1 million workers. WPA workers built 110,000 public buildings, 600 airports, and over 500,000 miles of roads, and over 100,000 bridges.

Though President Roosevelt won a landslide victory in 1936, he faced a conservative backlash during the following years. Although the economy had improved by the summer of 1937, a recession struck the economy that year. In 1938, the president asked for emergency funds for public works and relief programs, and as the government's spending saturated the economy, a recovery seemed possible. The American economy, however, would not recover from the Great Depression until World War II. Only the massive federal spending needed to produce the men and material to fight the war brought the depression to an end and laid the ground work for the postwar economic boom. Even though New Dealers failed to meet their goal of rejuvenating the American economy, they had remade the federal government and its relationship to the corporate world.

See also: Glass-Steagall Act, Hoovervilles, National Industrial Recovery Act, Securities and Exchange Commission, Tennessee Valley Authority, Works Progress Administration

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NEW DEAL: REFORM OR REVOLUTION (ISSUE)

In 1933 the New Deal was initiated after the inauguration of Franklin Delano Roosevelt (1882–1945) as President of the United States. The New Deal represented a set of extensive legislative programs intended to alleviate human suffering that resulted from the Great Depression. In 1929 the Depression had brought about a collapse of the national economy.

Historians have drawn various conclusions about the legacy of the New Deal and its effect on the U.S. economy and society. At the time, critics of the New Deal came from both the political right and left. Conservatives attacked Roosevelt's programs as "socialist" reforms. They argued that he had intervened too deeply in the affairs of business and the economy. Groups such as the American Liberty League, led by the Du Pont family, publicly opposed the "dictatorial" course of the New Deal. By 1935 many New Dealers had given up trying to reconcile their agenda with business interests. Feeling forced by growing Conservative opposition to Roosevelt's liberal programs, New Dealers advocated programs of a more strident, anti-corporate nature. As part of the "Second New Deal" in 1935, for example, the administration proposed to increase taxes on the wealthy, whose income tax could reach as high as 75 percent under this scheme. It was the highest rate ever proposed in U.S. history and was branded a "soak the rich" plan by conservatives, although in practice very few Americans were rich enough to be placed in the highest income bracket.

The liberal policies of the New Deal were for the most part supported by socialists, communists and other radicals. At times, however, critics on the left claimed that New Dealers had not gone far enough in redistributing economic and political power to marginalized groups which included the labor movement, farmers, women, and minorities. The Social Security Act (SSA) was one of the most important pieces of social welfare legislation in U.S. history. Congress passed it in 1935. The act provided federal

assistance for the destitute elderly, set up an unemployment insurance system, aided the handicapped and dependent children, and started a pension system. It was a pension system, however, that excluded domestic servants and agricultural workers from coverage. Since both categories contained a large number of African Americans and women, many needy people were denied security in their old age.

NEW DEAL REFORMS OF THE NATIONAL ECONOMY AND SOCIETY OPERATED WITHIN THE CONFINES OF THE POLITICAL AND IDEOLOGICAL REALITIES OF THE CAPITALIST SYSTEM.

Despite the contemporary criticism from the right and left, the widespread popularity of President Roosevelt's policies was evidenced by his landslide presidential victory in 1936 and his reelection in 1940 and again in 1944. He held his office for four terms, longer than any other president in U.S. history.

After World War II (1939–1945) liberal historical interpretations of New Deal policies dominated. Historian Arthur M. Schlesinger argued in the *The Age of Roosevelt* (1957) that the New Deal created a reformed capitalism. He maintained that the power of businesses had finally been constrained by the regulation of public interests. Other liberal historians such as Carl Degler in *Out of Our Past* (1959) took the argument a step further. Degler claimed that in addition to American Revolution (1775–1783) and the American Civil War (1861–1865), the Roosevelt administration brought on a “Third American Revolution.”

Other historians were more critical. In *The Age of Reform* (1955) Richard Hofstadter found a break with the past in the New Deal programs. Hofstadter was critical of the New Deal for lacking an overall philosophy in shifting from policies favoring the Progressive reform of the corporate world to a New Deal liberalism with a “social democratic tinge that had never before been present in U.S. reform movements.”

William Leuchtenburg was the first historian to provide a systematic, sympathetic critique of the period in *Franklin D. Roosevelt and the New Deal* (1963). He called the New Deal only a “halfway revolution.” Leuchtenburg argued that New Deal reforms were limited because of the ideological and political opposition faced by the Roosevelt administration. According to Leuchtenburg little more could have been achieved given the realities of the time. Ellis Hawley, meanwhile, challenged the liberal assumption that the New Dealers worked against corporate interests. He further argued in *The New Deal and the Problem of Monopoly*

(1966) that New Deal programs in many cases were meant to promote private business interests.

In the 1960s historians of the New Left were much more critical. Ronald Radosh argued that the New Deal helped enhance the power of capitalism. Radical historians such as Colin Gordon in *New Deals* (1994) also provided evidence that there were close associations between New Dealers, industrialists, and financiers.

But by the 1970s and 1980s most historians agreed with the interpretation that the New Deal was historically significant and positive in its reforms. Nevertheless they ceded the New Deal was severely limited by the political and ideological realities of the time. Later research was concerned less with the “conservative” or “revolutionary” nature of the Roosevelt administration's policies. Contemporary scholars such as Theda Skocpol, James T. Patterson, Barry Karl, Mark Leff, and others focused more on the ideological and political limits with which the New Dealers had to contend. Allen Brinkley in *The End of Reform* (1995) provides an analysis of the New Deal that explores these ideological constraints. The New Deal, he emphasizes, underwent a transition from a government that promoted regulation to one that, for the most part, wished to stay out of the affairs of the business world.

Debate about the efficacy and impact of the New Deal still continued at the end of the twentieth century, almost 80 years later. Conservatives continued to criticize the Roosevelt administration programs for controlling the economy too extensively. Liberal and radical historians, conversely, maintained the reforms were beneficial to society in spite of the constraints that the New Dealers confronted. Although historians somewhat disagreed about the radical implications of the New Deal programs, they came to two similar conclusions. The first was that the New Deal legislation raised federal spending and regulation to the highest levels in U.S. history. The second was that New Deal reforms of the national economy and society operated within the confines of the political and ideological realities of the capitalist system.

See also: Harry Lloyd Hopkins, Hooverilles, National Labor Relations Act, National Recovery Act, Franklin D. Roosevelt, Social Security Act, Works Progress Administration

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NEW FRANCE

New France refers to the collective holdings of France in North America during colonial times. At its height New France consisted of the colonies of Canada, Acadia, and Louisiana. The first land claims were made in 1534 by French explorer Jacques Cartier (1491–1557) as he sailed the St. Lawrence River in eastern Canada. In 1604 Sieur de Monts (c. 1568–c. 1630) established a settlement at Acadia (in present-day Nova Scotia, Canada). French claims later extended the region to include present-day New Brunswick, Canada, and eastern Maine. Explorer Samuel de Champlain (c. 1567–1635) founded Quebec in 1608. He then penetrated the interior (present-day Ontario) as far as Georgian Bay on Lake Huron. In this way he extended French land claims westward. In 1672 French-Canadian explorer Louis Jolliet (1645–1700) and French missionary Jacques Marquette (1637–1675) became the first Europeans to reach the upper part of the Mississippi River. Ten years later French explorer Robert Cavelier (1643–1687) followed the Mississippi to the Gulf of Mexico. He claimed the river valley for France and named it Louisiana. The majority of French settlers lived in the colony of Canada during the time when the French were expanding their North American claims. The fur trade was the major industry. The French called the colony a *comptoir*, a warehouse for animal pelts. It was never very successful in attracting colonists. France lost the colony to Great Britain in the French and Indian War (1754–1763). Louisiana changed hands numerous times before it was finally sold to the United States in 1803 as part of the Louisiana Purchase; it was France's last claim on the North American mainland. French culture remained prevalent in the former colonies of New France during modern times.

See also: Louisiana, Louisiana Purchase, Maine

NEW HAMPSHIRE

Dutch, English, and French explorers navigated the coast of New England before the first English settlement in New Hampshire was established along the Piscataqua River in 1623. At this time New Hampshire was still a province of Massachusetts (it did not separate until 1740). White settlers began to move up the Merrimack and Connecticut river valleys in the 1700s, virtually eliminating the Native American population of the area.

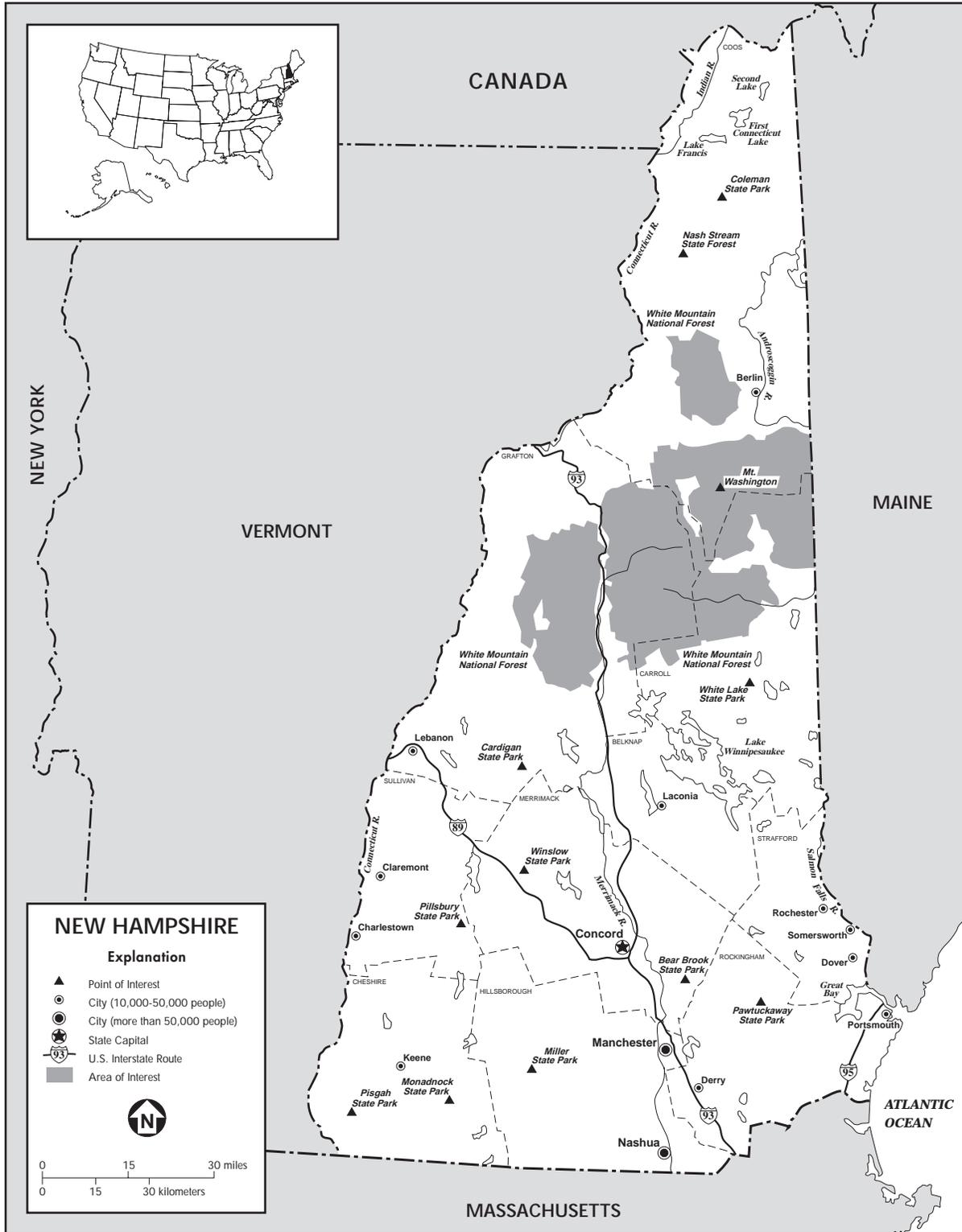
During this period the province's economy was based on fishing, farming, timber harvests, and shipping. Portsmouth became the capital and a busy commercial port. Transportation from Portsmouth to the inland areas was difficult, however, because all travel had to go north or south around the mountains. Thus Boston, not Portsmouth, became New England's busiest trading center. In 1776 New Hampshire was the first of the original 13 colonies to establish an independent government, doing so even before the Declaration of Independence was proclaimed.

During the nineteenth century the textile industry became the most prominent industry in the state. Textile mills were especially plentiful along the Merrimack River. The first workers were generally young "mill girls" who came from neighboring farms to supplement their families' meager incomes. A huge demand for textiles later brought European immigrants to do mill work. Around 1860 French Canadian workers also began flocking south to find work. Meanwhile, farming in the state declined, mostly because of poor soil and rocky terrain.

The growth of what later became the city of Manchester is an interesting case study in how the mill towns developed. The Amoskeag Manufacturing Company was started in 1837 by manufacturers who had worked at the famous Lowell, Massachusetts, mills. In addition to several mills, a whole town was laid out with town squares, schools, churches, parks, and cemeteries, and six block of tenements for the workers and their families. Within eight years the city which grew there increased in population from 50 to 10,000 and the mills were producing the equivalent of 22 miles of yard goods a day for worldwide distribution.

Railroads were making headway during this period as well, despite ambivalence among the populace about how this new mode of transportation would alter New Hampshire life. Railroad companies were granted

New Hampshire



State of New Hampshire.

123 charters in 1846 and 1847, and soon New Hampshire had more miles of track than most other New England states. Regulations on the railroads and on industry passed by the state legislature, however, limited capital growth in the state in the 20 years before the American Civil War (1861–65).

NEW HAMPSHIRE WAS THE FIRST OF THE ORIGINAL 13 COLONIES TO ESTABLISH AN INDEPENDENT GOVERNMENT. IT DID SO IN 1776, EVEN BEFORE THE DECLARATION OF INDEPENDENCE WAS PROCLAIMED.

Ten years after the war people were employed in manufacturing and farming in approximately equal numbers. Like other New England states, however, New Hampshire was experiencing a loss of population as many citizens left the state for newly opened western territories. Farming the rocky soil of New Hampshire was an unattractive option compared to the possibility of a large plot of good farm land in Ohio or Iowa. In 1839 about half the land in the state was agricultural, but by 1870 that percentage had dropped to 39, with more decreases in succeeding decades.

In the southern section of the state mill towns developed where farm land and small villages had been. Elizabeth and Elting Morison observed in their history of the state that on the Merrimack River, “the continuous line of red brick along the water was, in fact, the west wall of a dense and complicated network of mill structures that, threaded by narrow and tortuous passages, extended well inland.” These large factories were full of modern machinery, and some began to turn themselves to the production of other industrial products, such as steam engines and rifles.

Besides textile mills, lumbering continued to be an important industry in New Hampshire. The city of Berlin in north-central New Hampshire was the center for lumbering activity. Firms like the Brown Company sent workers out to cut logs, transport them to the Androscoggin River, and float them down river to the mills in massive log drives. This demanding work was done mostly by immigrants from French Canada, Norway, Germany, and Russia.

Taking advantage of its mountains and its rural appeal, New Hampshire developed a thriving tourist business in the later half of the nineteenth century. Throughout the White Mountains large resort hotels such as the Glen House and the Mount Washington Hotel sprang up, and “summer places” built by well-to-do easterners began to dot the landscape. Other

mountain and lake resorts and cottages were built for the less wealthy. Musicians and artists began to establish colonies in towns like North Conway. By the turn of the century it was estimated that the state was earning \$700,000 annually from the “summer people.” New Hampshire continued to promote tourism in the twentieth century; it ranked second only to manufacturing in the state’s economy in the 1990s.

The last decade of the nineteenth century in New Hampshire was marked by an increase in the power of the railroads, primarily the Boston and Maine. Railroad influence penetrated the state government and it was not curbed until 1911, when a progressively oriented governor and legislature enacted laws to regulate private corporations and public utilities. These reforms preceded similar ones which would be enacted throughout the nation in the coming two decades.

By the early 1920s the New Hampshire textile industry was beginning to decline. A strike at the Amoskeag mills in 1922 only served to highlight the inevitable fact that mills in the South, where much of the raw materials for New Hampshire’s mills was produced, were slowly eroding the profitability of those in the New England. Between 1880 and 1925 the number of mill spindles doubled in New England, but in the South this number increased thirty-fold. In 1950 one New Hampshire town which once had six working mills was reduced to one mill—this scenario was repeated throughout the state.

The Great Depression added to an already declining economy, and the post–World War II drop-off in demand for textiles brought severe recession to many New Hampshire towns. Only logging and paper manufacture in the northern part of the state were moderately prosperous. The state’s population and employment levels both dropped substantially.

In the 1970s and 1980s, however, the southern part of the state began to make a comeback. Interstate highways, the proximity of Boston, and low state taxes helped to encourage people and new high-technology industry to move into the state. Between 1960 and 1988 the state’s population doubled, straining government services and increasing local taxes. Most of the newcomers were relatively more affluent and better educated than the natives of the state. A recession in the early 1990s slowed, but did not stop, this progress.

Modern New Hampshire is one of the most industrialized states in the nation. The state’s per capita income in 1996 was over \$26,000, ranked eighth in the

New Jersey

nation. Only 5.3 percent of its citizens were below the federal poverty level in that year.

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NEW JERSEY

The history of New Jersey is a study in conflicts—geographical, political, social, and economic. One end of the state often seems like a part of New York City; the other end has close ties to Philadelphia, Pennsylvania. Although the state retains a healthy agricultural sector, it is better known as a place where industry developed early and then went into decline for a period of time. High unemployment and urban decay have plagued the cities in New Jersey for several decades. In the 1980s and 1990s, however, better times seemed to be on the horizon for the “Garden State.”

In 1524 Italian explorer Giovanni di Verrazano sailed into Newark Bay and became the first known European to reach New Jersey. English Captain Henry Hudson also sailed along the New Jersey shore and established a claim for the Dutch, under whose flag he sailed. Dutch traders founded New Jersey's first town, and Swedish settlers began to settle east of the Delaware River. By the mid-1770s the indigenous Leni-Lanape Indians (whom the English called the Delaware) had exchanged most of their valuable lands for trinkets, guns, and alcohol and had almost disappeared from the area.

England took control in 1664 after King Charles II granted a region from the Connecticut River to the Delaware River to his brother James, Duke of York. The Duke deeded part of the land to his friends Baron

John Berkeley and Sir George Carteret, making New Jersey a proprietorship (New Jersey was named for one of the British channel islands). The country was later divided into two separate parts, East Jersey and West Jersey, only to be reunited in 1702 by Queen Anne. A royal governor was appointed in 1738. To this day the two areas of New Jersey have quite different characters, with the northeastern section closely identified with New York and the southwestern section looking toward Philadelphia.

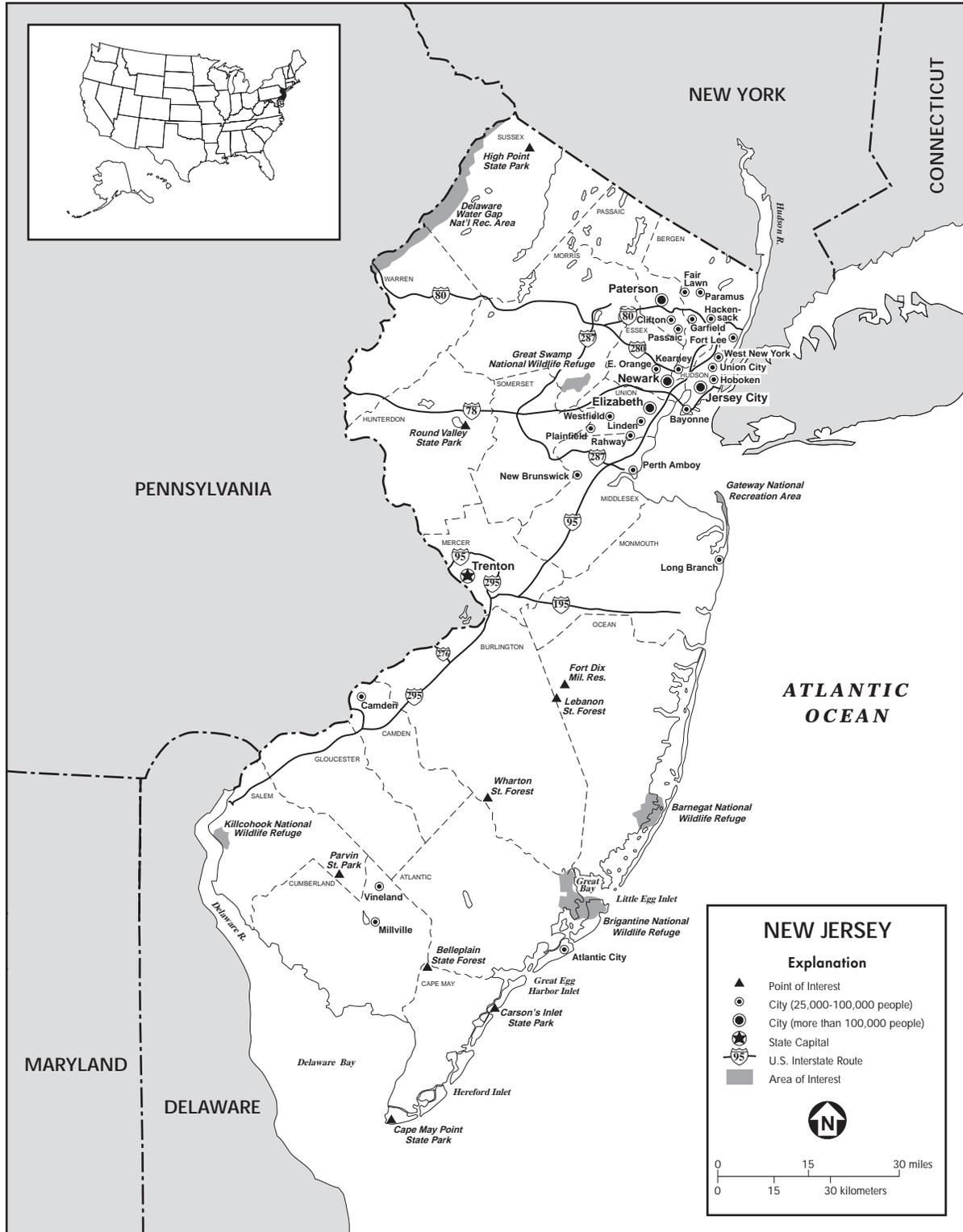
CONTEMPORARY NEW JERSEY IS STILL WHAT GOVERNOR [JONATHAN] BELCHER CALLED IT IN 1745—“THE BEST COUNTRY FOR MIDLING FORTUNES, AND FOR PEOPLE WHO HAVE TO LIVE BY THE SWEAT OF THEIR BROWS.”

Thomas Fleming, *New Jersey: A Bicentennial History*, 1977.

New Jersey played an important role in the American Revolution (1775–1783), but it experienced an economic decline in the aftermath of the war. Its trade with New York was interrupted; its towns were left in ruins; and its profitable iron works were shut down. After New Jersey entered the Union in 1787, however, the state began to recover economically; the town of Paterson, for example, developed as a center of silk manufacturing.

In the 1830s railroads and canals helped to set New Jersey on a course toward urbanization and industrialization. One of the greatest engineering feats of its time, the Morris Canal, connected northern New Jersey with the coal fields of Pennsylvania. The canal benefited many businesses along its route, from iron mines to dyeing and weaving mills. A second canal, the Delaware and Raritan, crossed flat land in the middle of the state. The most important town along the Morris Canal was Newark, the first in the state to be incorporated; it developed around breweries, hat factories, and paper manufacturers. Other towns grew with industries as well: Trenton was noted for its iron and paper plants and Jersey City was noted for its steel and soap operations.

Railroads spelled the end of profitability for the canals, which went into decline after the American Civil War (1861–1865). The first railroad, the Camden and Amboy, opened in 1834; it soon began to monopolize the New York-Philadelphia corridor. Coal brought by the railroad provided a new source of power other than water, and industries sprang up along the railroad's route. After the Camden and Amboy was leased to the Pennsylvania Railroad, numerous other rail lines opened up other areas to development.



State of New Jersey.

Despite much political wrangling over the Civil War in New Jersey, the state benefited economically from the war by providing tons of ammunition and equipment for the Union army. After the war factories continued to make many components used by other manufacturers. In 1873 Isaac Singer (1811–1875) opened a sewing machine plant at Elizabeth; oil refineries grew along the Hudson County waterfront; and pottery manufacturers thrived in Trenton. Newark had a diversified base of manufacturing and a large number of nationally known insurance companies.

New Jersey became the nation's top shipbuilding state during World War I (1914–1918). In addition, New Jersey refined 75 percent of the copper in the country and loaded an equal percentage of U.S. shells. The war, however, did not substantially hinder labor unrest, which had been a part of New Jersey's history since the 1880s. In 1915, at Carteret, a walkout at a fertilizer factory led to the killing of six strikers by guards. In the postwar era, Passaic textile workers stayed off the job for a year in 1926, and in 1933 Paterson silk workers finally gained union recognition and higher wages after another strike.

By that time, however, many other New Jersey workers were experiencing reduced work weeks or unemployment. As the Great Depression (1929–1939) worsened, many expected to take advantage of President Franklin D. Roosevelt's (1933–1945) New Deal programs to provide a measure of relief. Unfortunately for many, these government jobs were almost entirely under the control of Frank Hague, Mayor of Jersey City, a corrupt politician with many ties to the Roosevelt administration. According to Thomas Fleming's history of New Jersey, *New Jersey: A Bicentennial History*, Harry Hopkins, head of the Works Progress Administration, "ignored stacks of testimony and sworn affidavits from men and women who said that they were forced to vote for Hague's candidates and pay 3 percent of their salaries to the [political] machine in return for their jobs." Fleming painted a sorry picture of the relationship between New Jersey politicians and their constituents during this time: "For the first time politicians had access to huge amounts of *legal* money and jobs. No longer did they have to rely on padded loyal payrolls and money from illegal gambling and phony real estate deals." The power of Hague's political machine in the state was formidable, lasting until his defeat as mayor in 1947.

World War II (1939–1945) brought a revival of industry in New Jersey, especially in shipbuilding and munitions. Chemical and pharmaceutical companies also thrived, while Paterson became the nation's leading aircraft engine manufacturing center. After the war

many people left the older cities to build homes in suburbs like Cherry Hill, Woodbridge, and Middletown Township. Between 1940 and 1950 the population of the state burgeoned by 1.2 million, stretching highway use and housing availability to the limit. New Jersey rapidly became the center for many research laboratories during this time, which helped creation of a number of affluent areas such as Bergen County.

For many in the inner cities, however, postwar hopes of economic opportunity had been crushed. According to Fleming, the many African Americans who had come to Newark seeking jobs after the war "virtually guaranteed tragedy." Only half found employment in the declining industries, and "[s]ome 40 percent of them had to travel to work outside the city every morning while 300,000 suburban workers poured into the central district to work in giant insurance company offices or in the remaining industrial jobs." In 1967 the city of Newark erupted into four days of rioting, looting, and burning, which left the city in shambles, both economically and psychologically.

In the next five years Newark lost 23,000 private jobs. In the 1970s and 1980s, 270,000 people left New Jersey as cities lost manufacturing jobs and retailing moved to suburbia. Unemployment reached nearly 10 percent. By the mid-1980s, however, recovery was on the horizon. With the loss of manufacturing jobs came a resurgence of jobs in the service industries. After another recession in the early 1990s, the state rebounded again. The unemployment rate fell to six percent in 1996 for the first time in six years. The recovery was due at least in part to the presence of a highly skilled workforce, which attracted pharmaceutical, biotechnology, electronics, and other high-technology industries to the state. Along with business incentive programs administered by the state Department of Commerce and Economic Development, the relatively low tax burden in New Jersey has helped to encourage new businesses to come into the state. Per capita personal income in the state in 1996 was over \$31,000 and ranked second among all states.

Vitally important to New Jersey's economy are the ports which line New York Harbor. Ports at Elizabeth, with three miles of berthing space, and Newark, with four miles, handle more cargo than New York City ports, benefiting the local economy greatly. Privately owned piers in Jersey City and Bayonne also handle significant cargo. Northern New Jersey port facilities taken together form the largest port in the eastern United States and the second largest in the whole country.

See also: Isaac Singer

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NEW MEXICO

In 1803 when President Thomas Jefferson (1801–1809) purchased the Louisiana Territory from France, New Mexico had been under Spanish rule for nearly 250 years. After the real estate deal with Napoleon Bonaparte was completed, New Mexico had a new U.S. neighbor.

In 1821 Mexico won its independence from Spain and New Mexico became a province of Mexico. Until then, the Spanish had been very careful about allowing foreigners into Mexican territory. But the new Mexican government was eager to allow New Mexico to deal with U.S. traders. Missourian William Becknell entered Santa Fe and sold U.S. goods such as cloth, pans, and tools to residents there. In exchange he received furs, gold, and silver. He made such a profit that his success created a rush of other businessmen to Mexico who traveled along an 800-mile pathway between Independence, Missouri and Santa Fe, known as the Santa Fe Trail.

America's bid to extend its boundaries to the Pacific Ocean involved the conquest of New Mexico. In 1846 war broke out between the United States and Mexico. When the war ended in 1848, the red, white and blue American flag flew over Santa Fe. Mexico was forced to give up California and New Mexico to the United States. Soon after settlers from eastern and southern states began migrating to New Mexico in the early 1850s to ranch or search for gold and silver.

In 1862 the United States began a campaign against the Native Americans in New Mexico to drive them to a reservation on the Pecos River. Christopher "Kit" Carson, a mountain man and military officer, led the charge against the Apaches and Navajos. As the Native

Americans resisted, Carson and his men burned the Native Americans' cornfields and pumpkin patches. Two million pounds of grain were destroyed the first year, causing starvation among the Navajos.

At the same time settlers were fighting among themselves. Cattle ranchers fought against merchants for control of Lincoln County. The Lincoln County War, as it came to be known, involved William H. Bonney, or Billy the Kid, and helped give the territory the image of lawlessness.

In the late 1870s the development of railroad lines across the landscape of New Mexico changed the territory forever. Railroads connected cities in the west and the Southern Pacific line became the first transcontinental track to cross southern New Mexico. Prospectors and equipment for mining were brought to New Mexico by train. Several silver mines were established and towns sprang up. Cattle ranching spread to New Mexico from the southeast region of Texas.

In 1876 statehood for New Mexico was opposed by mining companies, railroads and cattle ranchers who anticipated higher taxes as a result. In addition, New Mexico's diverse population, which included Native American, Spanish, and Mexican cultures, rather than bringing about cultural interchange and amalgamation, fueled the fires of bigotry and racism. However, in 1912 Congress proclaimed New Mexico a state.

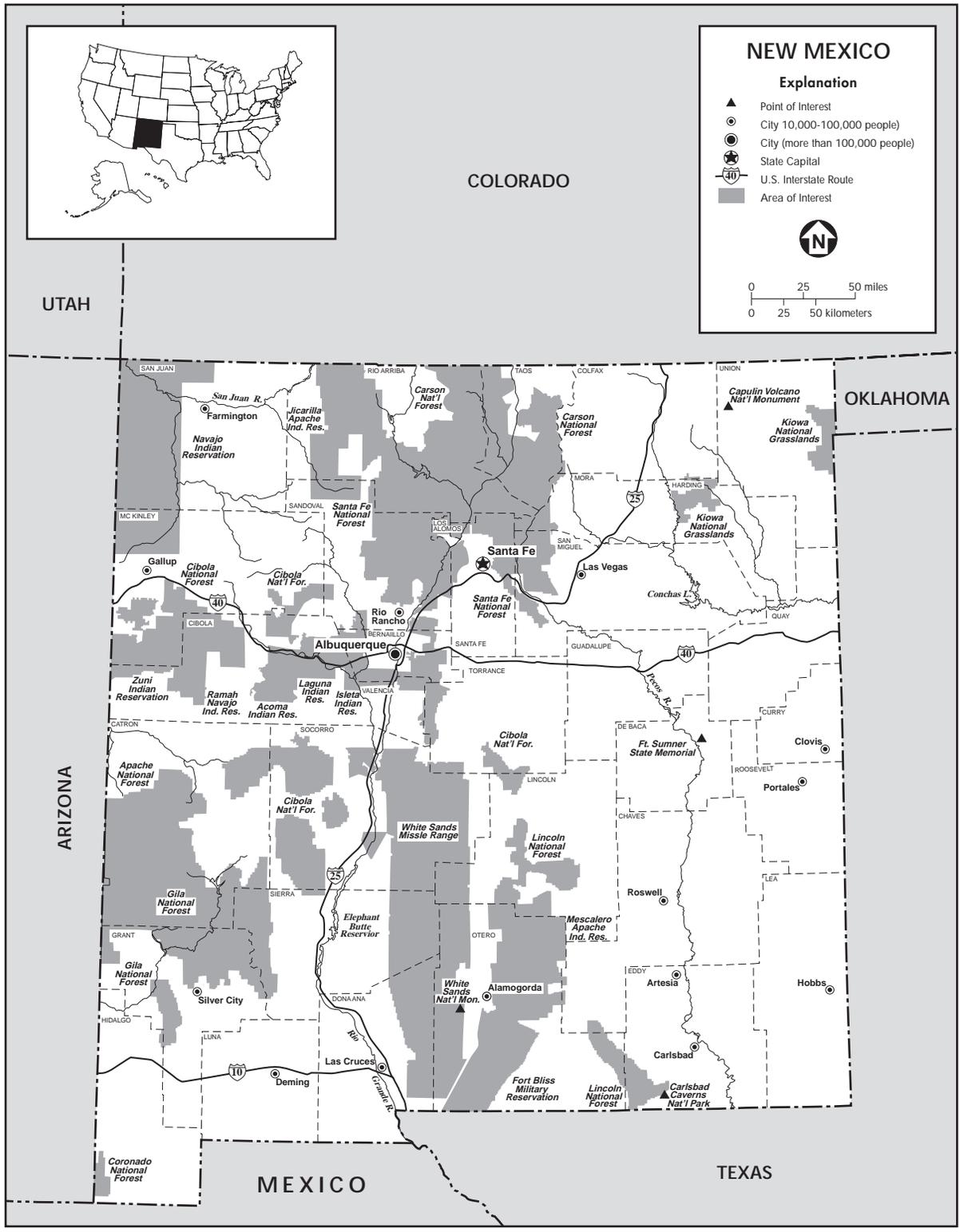
Soon after, New Mexico became a haven for talented artists attracting painters, poets and novelists from the East and Midwest. In 1930 a scientist and visionary named Robert Goddard moved to New Mexico to test rocket models. Eventually aerospace became one of New Mexico's major industries.

As the Great Depression rocked the country in the 1930s, New Mexico was devastated as mines closed and railroads and cattle ranches laid off workers. Economic recovery in the state began after the start of World War II (1939–1945). A steady stream of newcomers were going to a New Mexican ranch called Los Alamos. The ranch had been turned into a secret laboratory for the Manhattan Project, a plan to build the most dangerous war weapon ever.

In 1945 the first atomic bomb test took place in a desert near Alamogordo, New Mexico. Subsequently, the war ended shortly after atomic bombs were dropped on Hiroshima and Nagasaki, Japan. New Mexico was instrumental in bringing the war to an end and the world into the nuclear age.

After the war the federal government turned Los Alamos into a huge nuclear laboratory. Nuclear research was conducted at Sandia National Laboratories

New Mexico



State of New Mexico.

in Albuquerque. The government created the White Sands Missile Range in New Mexico, a test site for rockets. In addition, in 1950 uranium, a metal used in nuclear bombs and nuclear power plants, was discovered in northwest New Mexico. Thus New Mexico became a leading uranium-mining state.

Many scientists, researchers, engineers and their families moved to New Mexico to work at the sites. The state's population doubled in size between 1950 and 1960 and Albuquerque's population quadrupled. So many people were coming from other parts of the country that Spanish-speaking New Mexicans, who once were the majority, became a minority. In the 1990 census, Hispanics accounted for 38 percent of the state's population.

Over the next three decades the state's nuclear and high-tech industries flourished. In 1987 New Mexican companies were awarded \$1.8 million to build the SDI or "Star Wars" missile defense system. Even though the government reduced military spending and income from the nuclear industry decreased in the 1990s, New Mexico's high tech industry offset those losses with Intel's Rio Rancho plant which was the world's largest computer chip factory in the mid-1990s.

Tourism played a major role in the state's economy in the mid-1990s and the state continued to be a leader in space and nuclear research. However, poverty affects a significant number of New Mexico's residents. In the early 1990s the government instituted job training programs to address unemployment issues. In addition, in 1993 a border crossing opened across from Juarez, Mexico to encourage trade between New Mexico and Mexico. In 1995 the median household income was \$25,991 and 25.3 percent of New Mexicans lived below the poverty level.

See also: Santa Fe, Santa Fe Trial

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NEW NETHERLANDS

New Netherlands was the only Dutch colony on the North American mainland. The area consisted of lands surrounding the Hudson River (in the present-day state of New York) and later the lower Delaware River (in New Jersey and Delaware). Explorers from the Netherlands (Holland) first settled the area in about 1610. In 1624 the colony of New Netherlands was officially founded by the Dutch West India Company. In 1626 on behalf of the company Dutch colonial official Peter Minuit (1580–1638) purchased the island of Manhattan from the Native Americans for an estimated \$24 in trinkets. The colonial capital of New Amsterdam (present-day New York City) was established there.

The Dutch settlement was never very big, consisting mostly of single males who were either fur trappers or traders. The seal of the colony was a beaver surrounded by wampum. The Dutch pioneered the use of wampum as a form of money that could be exchanged with Native Americans for beaver pelts. The Dutch tried several devices to attract new settlers, including the patroon system. Investors would be given a large tract of land, if they could populate it with farmers. Eventually land was distributed more liberally. By 1640, 200 acres would be given free to any family of five, including servants. Larger numbers did come before the Dutch lost the colony in 1664, when it was conquered by the English under the direction of the Duke of York, brother of king James II (1633–1701). The English had sought the territory since New Netherlands had separated its American holdings. Under British control the area was divided into two colonies—New Jersey and New York.

During the colonial period the Netherlands also claimed the West Indies islands of Aruba, Bonaire, and Curacao (called the Netherlands Antilles). The islands were administered separately from New Netherlands on the North American mainland.

See also: Delaware, New Jersey, New York, Wampum

NEW ORLEANS, LOUISIANA

The city of New Orleans, Louisiana, is situated on the Mississippi River. It is about 100 miles (160 kilometers) north the Gulf of Mexico, making it a strategic port of entry to the North American mainland.

New Orleans, Louisiana

Before the arrival of Europeans in the 1500s Louisiana was home to the Chickasaw, Choctaw, and Natchez Indians who had lived there for thousands of years. French explorer Robert Cavelier (1643–1687) sailed down the Mississippi River in 1682 in search of a westward route from Canada into the interior. He claimed the entire river basin for France. The claim consisted of roughly the central third of the present-day United States. La Salle named it Louisiana in honor of French king Louis XIV (1638–1715). In 1701 the territory was made a province of France; it was one of three French colonies on the North American mainland (the other two were Acadia and Canada; together the three colonies were known as New France). It was not until 1714 that the French began settling Louisiana. In 1718 colonist Sieur de Bienville (1626–1685) established a settlement at New Orleans. He named it after French regent Philippe II (1674–1723), Duke of Orleans. Philippe II ruled France after the death of Louis XIV on behalf of King Louis XV (1710–1774) who was only a youth at the time. To encourage development Scottish financier John Law (1671–1729) was named controller-general in 1720. This gave him authority over Louisiana. While Law succeeded in increasing shipping between New Orleans and France, his *Compagnie d'Occident* failed later that year. The city was made the capital of Louisiana in 1722 but under Law's scheme it attracted few reputable emigrants. In 1731 France reclaimed Louisiana as a royal province, but the colony still did not thrive economically.

In 1762 King Louis XV ceded Louisiana to Spain (ruled by his cousin, King Charles III; 1716–1788). He was on the verge of losing the rest of New France to Great Britain in the French and Indian Wars (1754–1763). Under Spanish rule the colony grew more prosperous, attracting French, American, and Spanish settlers. However New Orleans was still beset by problems, including two fires that destroyed more than a thousand buildings during the late 1700s.

In 1800 the economic and strategic importance of New Orleans became clear as French ruler Napoleon Bonaparte (1769–1821) exhibited an interest in reacquiring Louisiana. Spain, which had bought Louisiana and New Orleans from France in 1763 at the end of the French and Indian Wars with Great Britain, was no match for the French militarily, and Napoleon secretly pressured Spain to return Louisiana to France. Under U.S. envoy Thomas Pinkney's 1795 Treaty with Spain the Spanish had been allowing the Americans to traffic on the Mississippi River and to store their river freight in the warehouses of New Orleans' prior to transshipping it onto ocean going ships. In 1800 and

1802 Spain secretly sold Louisiana back to the French. At about the same time Spain began to renege on the privileges that it had accorded the Americans. In March 1803 the transfer became publicly known.

President Thomas Jefferson, who had been a supporter of the French Revolution and a critic of France's enemy, Great Britain, feared that Napoleon would establish a French presence along the Mississippi River and eventually obstruct westward settlement by the United States' farming population. Jefferson wrote to his diplomatic minister to France, Robert Livingston, that although he had always looked on France as the "natural friend" of the United States, now he had to reassess matters. He observed that there was "one spot" on the face of the earth the possessor of which automatically became "our natural . . . enemy." That spot was New Orleans because of its chokehold on U.S. western river traffic. (Brinkley, 211) Accordingly, Jefferson ordered the rebuilding of the United States Navy and prepared for war with France. Rather than go to war with the United States when he was already engaged in hostilities with the British, Napoleon then agreed to sell the Louisiana territory to the United States. For only \$15 million in the Louisiana Purchase the United States doubled its size.

The city of New Orleans continued to grow and prosper as the agricultural economy of the Ohio Valley and of the "new" southwest of the country (along the Mississippi River) expanded. During the War of 1812 (1812–1814) New Orleans was the site of the most fortunate military engagement of the war (from the standpoint of the U.S.) The city had already been incorporated in 1805. In the Battle of New Orleans the U.S. troops under the command of Andrew Jackson "whipped" the British in what turned out to be the last armed hostilities between the United States and Great Britain.

After the War of 1812 New Orleans continued to serve in its familiar role of warehousing and shipping agricultural goods as the South's sugarcane and cotton plantations were thriving. As a result New Orleans river trade flourished. During the succeeding years it became a major U.S. seaport. Ten dollar bills issued by the Bank of Louisiana were used to pay riverboat men when they unloaded their cargo in New Orleans. The notes were called "dixies" because the French word for ten, *dix*, was prominently displayed on the bill. So successful was this trade that "dixie" soon began to mean the entire south.

Once again, the strategic importance of New Orleans and of the traffic along the Mississippi River

shaped military calculations during the Civil War (1861–1865). Early in the war the Union forces established a blockade of southern ports and, under the command of David Farragut, captured New Orleans on April 25, 1862. Throughout the war the Union forces controlled New Orleans, thus preventing the Confederates from receiving provisions and military hardware from its largest port. The Union Army then proceeded to attack other cities along the Mississippi. They bombarded Vicksburg in June 1862. Over a year later, in July 1863 Vicksburg fell after a six-week siege conducted by Union General Ulysses Grant finally wore down its defenders.

In the modern age New Orleans has continued to prosper not only for its continued economic importance in transshipping agricultural commodities, but also for its tropic climate and its rich cultural resources.

See also: Civil War, Colonies (Proprietary), Louisiana, Louisiana Purchase

NEW SPAIN, VICEROYALTY OF

New Spain refers to Spanish possessions in the New World during the colonial period. At its height New Spain included what are today the southwestern United States, all of Mexico, Central America to the Isthmus of Panama, Florida, much of the West Indies (islands in the Caribbean), as well as the Philippines in the Pacific Ocean. The viceroyalty (a province governed by a representative of the monarch) of New Spain was governed from the capital at Mexico City beginning in 1535.

The era of Spanish colonization began with the radical de-population of portions of the Western Hemisphere caused by the slaughter of the indigenous people by the Conquistadores and the mass deaths caused by epidemic disease, mostly measles and small pox. This traumatic de-population produced mortality rates as high as 90 percent. It was a catastrophe which disorganized the culture in ways which may only compare to the trauma of Middle Passage voyage below decks for the newly enslaved Africans.

More than anything, the Spanish conquerors were intent on locating and removing precious metals—gold and silver—from the Aztec and Inca empires that they encountered. The mining of silver was accomplished by the enslaving of the native people, later supplemented by importing African slaves. The mines at Potosí (in modern Bolivia) yielded great quantities of silver.

This lust for gold and silver resulted in a ruinous inflation in Spain as the imported bullion suffused throughout the Spanish economy. The initial impact of the inflation was to raise the price of Spanish exports. This helped to destroy Spain's economy, especially its textile industry. Over several decades during the sixteenth century this inflation spread out to the rest of Europe. Since the economies of Europe were mostly experiencing healthy expansion, this somewhat milder wave of inflation did not have the same destructive impact on the rest of Europe as it did in Spain.

Since the Spanish did not bring women with them they intermarried with the native peoples. The resulting mixture of parentage, plus the missionary efforts of the Catholic Church, produced a complex caste system and a creolized culture further complicated by the addition of African slaves to the population. The leaders of the Spanish forces of occupation sometimes installed themselves in almost feudal splendor based on the *encomienda* system of tribute (in precious metal) levied on the local villages.

In 1821 a Mexican rebellion ended Spanish rule there and the colonial empire of New Spain was dissolved. By 1898 Spain had relinquished all its possessions in North America. Its last holdings were the islands of Cuba, Puerto Rico, Guam, and the Philippines, which were ceded to the United States after Spain lost the Spanish-American War (1898).

During the colonial period Spain claimed other territories in the New World—in northern and western South America. Most of these holdings fell under the viceroyalty of Peru, which was administered separately from the viceroyalty of New Spain. Spain lost these possessions as well by the end of the 1800s.

See also: Mesoamerica, Middle Passage, Spanish-American War

NEW SWEDEN

New Sweden was a small Swedish colony established in 1638 at Fort Christina (present-day Wilmington, Delaware). The Swedes gradually extended the settlement from the mouth of Delaware Bay (south of Wilmington) northward along the Delaware River as far as present-day Trenton, New Jersey. The settlers were mostly fur traders; the Swedes often acted as middlemen between Native American trappers and the English. But there was farming in the colony as well. In

1655 the territory was taken by the Dutch in a military expedition led by director general of New Netherlands Peter Stuyvesant (c. 1610–72). For nine years the territory was part of the Dutch colonial claims called New Netherlands. In 1664 the English claimed it along with the rest of New Netherlands. Delaware was set up as a British proprietary colony, which it remained until the outbreak of the American Revolution (1775–83). New Sweden was the only Swedish colony in America.

See also: Colonies (Proprietary), Delaware, New Netherlands, New Jersey

NEW YORK

The state of New York was for a long time a leader in industry and economic prosperity. Particularly interesting is how the specific forms of New York's industry and economy have changed over the years, beginning with its days as a Dutch territory in the early 1600s.

The Dutch-employed English explorer Henry Hudson journeyed up much of the length of the present day Hudson River in 1609, giving the Netherlands the right to claim the land. The Dutch soon began to set up outposts in order to carry on the lucrative trading of animal furs with the Native Americans. More settlers arrived and founded settlements that would later become known as Albany, Schenectady, and New York City. The Dutch continued to prosper in New Netherlands until 1664 when English King Charles II gave the land to his brother, the Duke of York (later King James II). York then seized the land and placed it under English control. This was how the name New York was derived. Even under English control fur trading continued to be a major industry, as well as agriculture and lumber.

With the formation of the United States of America New York's first governor George Clinton established policies of protectionism which allowed commerce to expand. New York soon became a leading commercial power with strong dairy and textile industries. Economic expansion in New York continued in the early 1800's, attracting migrants from the surrounding states. By 1810 New York became the most populated state in the union.

Geography always played a vital role in the economy of New York. New York's many lakes and waterways helped in the transportation of goods to and from the various settlements throughout the state. In 1817

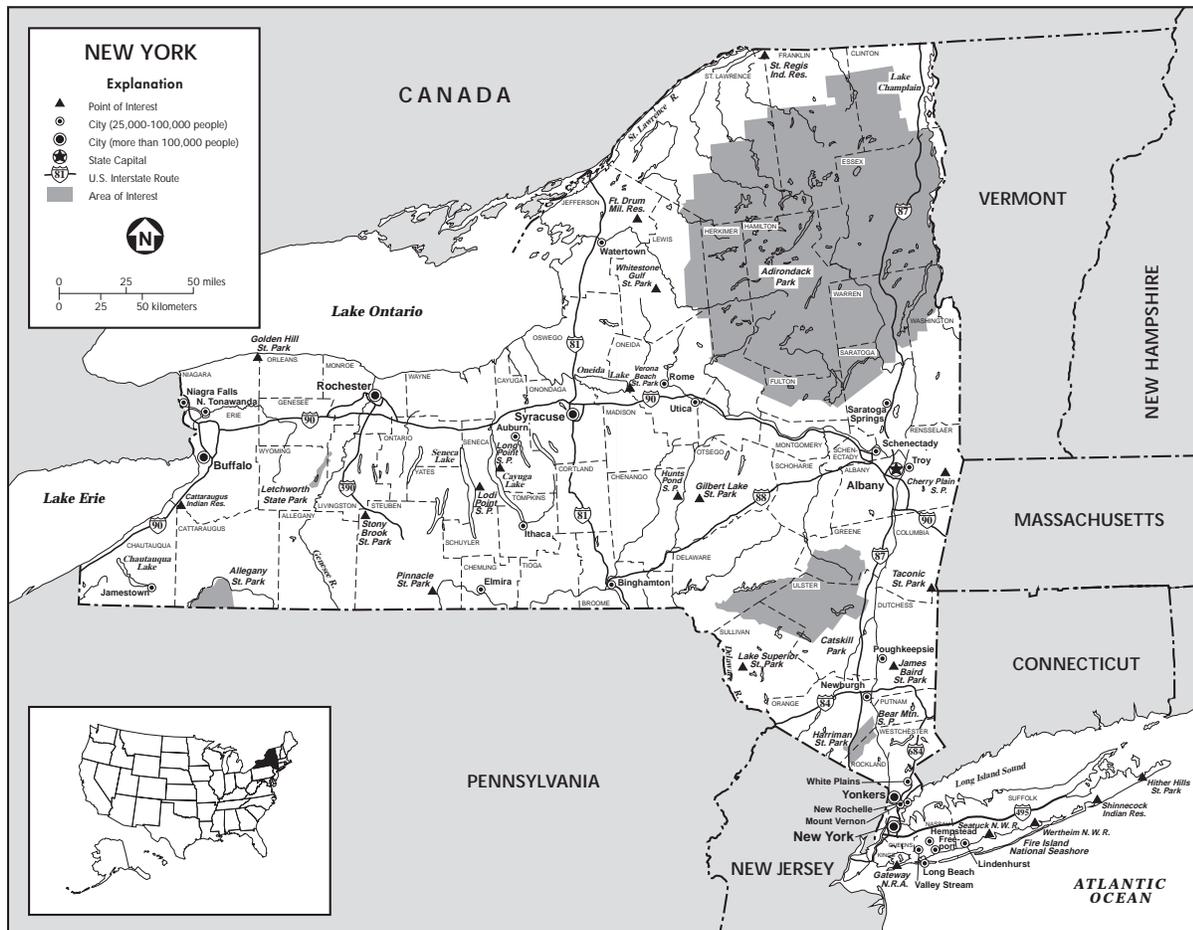
Governor De Witt Clinton (nephew of George Clinton) set about to further expand the transport system of the state with the construction of a canal. When the canal was finished in 1825 New York had an all water route from New York City to the Great Lakes. By 1831 fifty percent of U.S. imports and 27 percent of exports traveled on the canal. This led to further development and increased business in the towns along the canal and rivers such as Rochester and Utica.

Engineering projects like the Erie canal and later the railroads provided work for the large numbers of immigrants arriving from Europe. The increased labor force and improved transportation and development allowed New York to become the national leader in manufacturing.

During the period of the early Republic the guild-inspired, artisan production system of apprentice, journeyman, and master craftsman began to be circumvented by the reorganization of capital investment. The system of production in the garment trades, for one example, was transformed by a new system of subcontracting, where the employer used one experienced and well-paid "cutter" who created the cutting pattern which was simply reproduced and sewn together by women working on a piece-work basis. The result was cheap "off the rack" clothing in which productivity was very high, but wages were low and job security was minimal. In this system the apprentices and journeymen eventually lost their status and became wage-workers, while a few of the master craftsmen became entrepreneurs. This result of this was bitter class conflict within the trades which was reflected in the rise of the "Workingman's Party" in the 1830s.

This process of class differentiation was reflected in the rise of a working class culture in New York City among the children and the "factory girls" who worked in the garment district and in other quarters of the city. On the job, they were subject to the "sweating system" of piecework production. They had few rights and little job security. They did, however, evolve a sort of assertive class-defined public culture, as in the ritual promenades along the streets, especially along the bowery. The factory girl was assertive in her manner and in her "fancy" dress. As one women's historian, professor Stansell comments: "The real sin of the factory girl lay not in premarital sex, but in advertising, with her fancy clothes and assertive ways, the possibilities of a life for women outside the household. . ."

The latter half of the nineteenth century saw the rise of several industry giants. They were entrepreneurs such as John D. Rockefeller (1839–1937), who



State of New York.

created the Standard Oil Trust, and inventors like Thomas Edison, (1847–1931), founder of Edison Electric (later General Electric). Russell Sage was a prominent investor whose legacy lives on through the New York university that bears his name. Companies such as Westinghouse Electric and Rochester's Eastman Kodak also arose during this time period.

As the twentieth century began New York began to shift increasingly from a highly agricultural state to a manufacturing one. Industry in the second half of the nineteenth century focused around flour, sugar, and lumber. While these industries were still present in the early 1900s there was a rise in the production of machinery, metal, chemicals, and electrical equipment during this period. The fabric and garment industries also grew quickly making the factories unsafe and crowded.

New York's economic rise came to a halt in the late 1920s and early 1930s with the Great Depression (1929–1939). Despite legislation promoted by Franklin D. Roosevelt (1882–1945) while he served as New

York's governor (1929–1932), and later U.S. president (1933–1945) the state did not fully recover until World War II (1939–1945).

During World War II New York was a major force in the nation's military industry. Huge amounts of materials important to the war effort flowed out of the state's major cities. Manufacturing centers like Buffalo, New York City, and Schenectady all contributed to the war effort, not to mention the help of many smaller communities. New York's role as a center of the defense industry would be repeated in the Korean War (1950–1975), and the Vietnam War (1959–1975).

New York went through an economic recession in the early 1980s. The state's top industries shifted again, moving from manufacturing to services. Financial services were growing rapidly as New York City banks rose among the state's largest employers. Approximately one million jobs were added to the state's economy between 1980 and 1990 and New York's per capita income hit \$21,073 in 1990, at the time, fifth highest in the nation.

New York Central Railroad

In 1994 Republican George Pataki became the governor of New York and began to foster policies with the goal of improving the state's economy. Tax breaks were offered as a means of encouraging businesses to move into the state. In 1996 per capita income rose to fourth place out of the fifty states, and the total personal non-farm income reached \$520 billion, second only to California.

New York's economy has varied greatly, centering around agriculture and lumber in its early years, moving into manufacturing and machinery during the Industrial Revolution, and then changing over to services and retail. Regardless of what the major industry might have been the state's economic growth and success earned New York its nickname as the *Empire State*.

See also: Erie Canal, New Netherlands, Standard Oil, Tenements

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NEW YORK CENTRAL RAILROAD

The New York Central Railroad was established from several different railway lines that were joined together to consolidate railway lines throughout the state of New York. George W. Featherstonhaugh applied to the New York state legislature to incorporate the Mohawk & Hudson Railroad Company (M&H) on December 28, 1825. Four months later, on April

17, 1826, Featherstonhaugh appointed Stephen Van Rensselaer III as the first president of M&H. Other key players in the inception of the railroad line were Lynde Catlin (president of the Merchant's Bank of New York City), James Renwick (a mathematics professor at Columbia University), and John Jacob Astor (fur trader and merchant).

Oddly enough, M&H remained essentially inactive until January 1829, when construction began on a line running from Albany to Schenectady, New York, to augment the flourishing cargo business conducted on the Erie Canal. Engineer Peter Fleming was hired to construct this 16-mile stretch of track. Fleming, however, relinquished this position in 1830 and was replaced by John B. Jervis. The railroad finally opened for business in August 1831, at twice the estimated cost. Both horses and the line's only locomotive were used to pull cars during its initial operating phase, although more locomotives were purchased shortly thereafter.

The next link in the line, connecting Utica and Schenectady, began service in 1836. However, since these tracks paralleled the cargo-laden Erie Canal, state legislature proclaimed it illegal to transport freight until 1844. Even then, freight could only be shipped by this railway during the winter months.

During this time other railroads were expanding across the state of New York. Cross-state lines thrived, although the Hudson River proved to be a significant barrier due to the high speed and relatively low cost at which it could be used to transport freight. In 1849 this obstacle was overcome by the construction of a line running from Poughkeepsie to New York. This track was lengthened to East Greenbush, and it soon became apparent that a consolidation of the cross-state lines was in order. The tracks were finally linked in 1853, and the New York Central Railroad (NYC) was formed.

Famous railway magnate Cornelius Vanderbilt (1794–1877) gained control of the New York Central in 1868, and combined it with the Hudson River Railroad. Acting as president of both lines, Vanderbilt set about expanding the reach of these railroads to Chicago, Illinois. He began a series of acquisitions, starting with the purchase of the Lake Shore & Michigan Southern. Vanderbilt's son, William, continued to expand the empire through the acquisition of the Nickel Plate Road (1883) and the West Shore (1885). The Vanderbilt influence continued to hold sway even after William H. Vanderbilt's death in 1885. More railroads were acquired under the leadership of Chauncey Depew, and soon the line reached as far west as the Mississippi River. In 1900 the company leased the Boston &

Albany line, creating one of the most powerful corporations in the United States and a far-reaching railway that spread north from New York to Canada and west from Boston, through Chicago to St. Louis, Missouri.

The New York Central Railroad made many contributions to the railroad industry. These included the American-type No. 999 steam engine, the invention of the dynamometer (an apparatus used to gauge the force exerted by locomotives when hauling trains), and the opening of the first railroad apprentice school. The New York Central was also the first line to adopt the use of high-powered brakes designed specifically for heavy steel passenger equipment.

Unfortunately, troubled times lay ahead. In 1954 Robert R. Young gained control of the New York Central. Alfred E. Perlman was appointed president of the railroad, the last person to ever hold this title. Automotive and airline travel had begun to draw passengers away from the rails. In 1962 the directors of the New York Central and the Pennsylvania Central decided the merge both systems in an effort to eliminate overlapping rail facilities and develop a single powerful railway. Various legal issues held up the merger until 1968, but by then it was too late. The combined railroads, dubbed the New Penn Central, went bankrupt in 1970. What started in 1825 as the Mohawk & Hudson Railroad Company and thrived for years as the New York Central, became a portion of the government-operated Consolidated Rail Corporation (ConRail) in 1976.

See also: John Jacob Astor, Baltimore and Ohio, Erie Canal, Railroad Industry

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NEW YORK STOCK EXCHANGE

The New York Stock Exchange (NYSE), is the country’s oldest and largest securities exchange. It dates from May 17, 1792 when local brokers agreed to formalize their business transactions. The brokers had, until then, been buying and selling securities under a designated tree.

In 1825 the NYSE opened for business at 11 Wall Street, New York City. At that time most shares traded were in canal, turnpike, mining, and gaslight companies. Though some industrial securities were traded on the NYSE as early as 1831, it would be 40 years before industries began to dominate the trading floor. As the nation became increasingly oriented toward manufacturing, the companies listed on the exchange reflected this economic shift.

Corporations applying to list their stock on the NYSE must have a minimum of two thousand shareholders. Each original shareholder must have one hundred or more shares, the corporation must be able to issue at least one million shares of stock, and it must also provide a record of earnings for the previous three-year period. The board of the stock exchange may make exceptions to these guidelines.

Corporations may be listed with other stock exchanges (such as the American Stock Exchange) or they may allow stock in their company to be traded as unlisted stocks, which are bought and sold in over-the-counter (OTC) trading. Companies that do not allow shares to be publicly traded are called private corporations.

See also: Stock, Stock Market

NEW YORK YANKEES

The Baltimore Orioles baseball franchise formed in 1901. In 1903 Bill Devery and Frank Farrell purchased it for \$18,000, moving the team to New York. Originally called the Highlanders, the team changed its name in 1913 to the New York Yankees. In 1915 Colonel Jacob Ruppert and Tillinghast L’Hommedieu Huston purchased the Yankees from the original owners for \$460,000. Ruppert bought out Huston in 1922.

The first years of this American League franchise team were mediocre and filled with frustration. But after the shift of ownership in 1915, the Yankees began to improve. Miller Huggins was hired to manage the baseball team, and he did an excellent job of assembling a line-up of good players. The team acquired its



A New Year's Eve party, December 31, 1997, held on the floor of the New York Stock Exchange. Traders gathered to celebrate the coming year together.

star from the Boston Red Sox after the 1919 season. His name was George Herman "Babe" Ruth, and his contract was obtained for \$125,000, plus a loan of approximately \$300,000. The year before this trade, Ruth hit 29 home runs and was considered the best and most exciting player in the game of baseball. His yearly salary was a then-unheard of \$20,000 per year.

In 1921 the team played in its first World Series, losing to the New York Giants. But in 1923, after winning three American league pennants in a row, the Yankees finally won a World Series, beating the Giants 4 games to 2. Nineteen twenty-three was also the year the team moved into Yankee Stadium, the nation's first triple-deck stadium and acquired one of its greatest stars, Lou Gehrig. In the following years, the Yankees continued to build a dynasty, adding players like Joe DiMaggio (1936) and a host of others. The team won fourteen American League pennants and ten World Series titles by 1943.

In 1945 Larry MacPhail, Del Webb, and Dan Topping bought the team. The final purchase price was almost \$3 million. The Yankees had a successful farm team program which continually supplied the major league team with new talent. Throughout the 1950s,

1960s, and 1970s the Yankees continued to win championship titles and increase their market value. By 1964 CBS owned 80 percent of the team, having purchased this share for approximately \$11 million.

A colorful millionaire named George M. Steinbrenner III, who was a Cleveland shipbuilder by trade, headed a group of investors who purchased the Yankees from CBS in 1973 for \$10 million. Steinbrenner had been an assistant college football coach at Purdue and Northwestern Universities and was part owner of the Chicago Bulls basketball team. He also owned the American Shipbuilding Company, located in Tampa, Florida. Steinbrenner's ownership marked the beginning of the most exciting and volatile era of Yankee baseball.

In the late 1970s, the Yankees won three consecutive pennants. During the 1980s Steinbrenner repeatedly hired and fired many managers. Billy Martin was the most famous of all these managers—Steinbrenner fired him and hired him on a total of five separate occasions until Martin's death in 1989.

In the late 1990s George Steinbrenner became the Yankee's Chief Executive Officer, and Joseph P. Torre

acted as the team's manager. Main major league competitors included the Baltimore Orioles, Boston Red Sox, Tampa Bay Devil Rays, and the Toronto Blue Jays. The Yankees won the World Series in 1996 and 1998. They achieved an American League record in 1998 for most wins (114) in a regular season.

THE GAME ISN'T OVER TILL ITS OVER.

Lawrence (Yogi) Berra, Former Yankee catcher

Throughout its history, the Yankees retained its status of a private company. In 1997 the team achieved \$144.7 million in sales. Player payroll exceeded \$63 million per year. Because of the team's phenomenal success, the Yankees would have no trouble increasing the price of their tickets, concessions, media rights, and sponsorships. Such a sure turn of profits for the Yankees would give the team ample opportunity to attract and sign more star players in the future.

See also: Baseball

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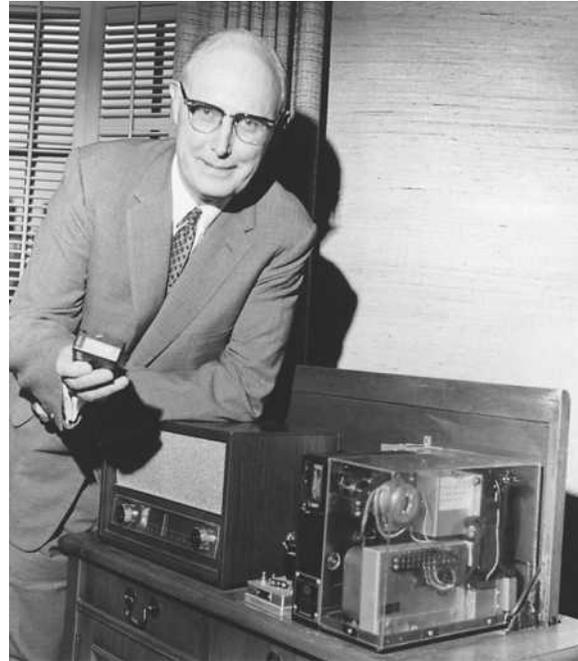
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NIELSEN, ARTHUR CHARLES

Perhaps no other single man contributed as much to the development of professionalism in marketing as Arthur C. Nielsen (1897–1980). Nielsen accomplished far more than developing his famous market researching system, the Nielsen Ratings, for radio and television. He also created services that reduced the costs of product distribution—marketing, sales, and advertising—involved in moving goods from the factory to the consumer. His services made it possible to price essential goods at lower costs, resulting in a higher standard of living throughout the world.

Arthur Nielsen was born in Chicago, Illinois in 1897, the son of Danish immigrant Rasmus Nielsen, a



A. C. Nielsen Sr. stands next to his Audiometer.

business executive, and his wife, Harriet, a teacher. After graduating high school, Nielsen attended the University of Wisconsin where he obtained a Bachelor of Science in electrical engineering. Nielsen returned to Chicago in 1919 and worked in a number of companies as an electrical engineer.

For several years Nielsen had been anxious to open his own business, and in 1923 after borrowing \$45,000 from his college fraternity brothers, he opened the A.C. Nielsen Company. The company conducted performance surveys of industrial equipment, and provided manufacturers with evaluation reports. By 1930 The company's sales increased to \$200,000 annually, but the Great Depression (1929–1939) caused a massive industrial slump in the United States and nearly bankrupted Nielsen. He turned to other research services, creating the Nielsen Food and Drug Index, a research service that recorded the retail flow of grocery and drug brands by regular audits of carefully selected samples of stores. Using this information, food and drug manufacturers could measure the sales of their products against their competitors.

In 1936 Nielsen learned of the existence of the Audiometer, a mechanical device that made a minute-by-minute record of when a radio was on, and where its dial was set. Nielsen bought the invention from its creators, two professors on the faculty of the Massachusetts Institute of Technology. He made some changes to the device, and in 1938 patented the Audiometer

Nineteenth Amendment

under his own company name. Slowly Nielsen began installing Audiometers in a number of U.S. homes in the early 1940s and began to offer to radio stations and advertisers what he called a “Nielsen Radio Index” (NRI). The NRI provided for advertisers a specific reading of their “share” of the market in percentages. The broadcaster and advertiser could be told accurately how many people (by percentile) were listening to their advertisements and programming every 15 minutes throughout the day.

Though Nielsen’s rating system was slow to start and his competition, who used phone calls and door-to-door interviews, were often more successful in selling their data to advertisers, Nielsen’s system gradually caught on. By 1950 Nielsen had installed 1500 Audiometers across the country, representing 97 percent of the United States, and in ratings surveys the Nielsen Co. had emerged on top. In order to produce his reports faster, more cheaply, and more comprehensively to his clients, Nielsen was one of the first to purchase a business computer. In 1955 the world’s first electronic computer, the Univac I, was delivered to the Nielsen Co.

During the 1950s Nielsen adapted his Audiometer methodology to television and abandoned radio ratings in 1964. Nielsen and his son, Arthur, Jr., continued to refine their consumer analysis system before Arthur Nielsen, Sr. retired in 1957. His son succeeded him as CEO of the company. In his free time Nielsen turned to philanthropic activities, which included support for hospitals, medical research, and organizations devoted to conservative economics and political economy.

Arthur C. Nielsen died in 1980. The Nielsen family sold the company for \$1.3 billion in 1984 to Dun and Bradstreet. The ratings service Arthur Nielsen pioneered had earned a position as the premier TV ratings service.

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NINETEENTH AMENDMENT

Proposed in Congress on June 4, 1919, and ratified by the states August 18, 1920, the Nineteenth Amendment to the U.S. Constitution gives women the right to vote. After four decades of struggle, the women’s movement in the United States had finally secured the vote.

The woman’s suffrage movement had its roots in the 1840s, when women who sought social reforms, including abolition of slavery, instituting a national policy of temperance (abstinence from alcoholic beverages), and securing better work opportunities and better pay, organized. These reformers soon realized that in order to effect change, they needed the power of the vote. An early leader of the suffragist movement was feminist and reformer Elizabeth Cady Stanton (1815–1902). She joined anti-slavery activist Lucretia Mott (1793–1880) to establish the first women’s-rights convention in 1848 in Seneca Falls, New York. In 1869 Stanton teamed with Susan B. Anthony (1820–1906) to organize the National Woman Suffrage Association. That same year, another group was formed—the American Woman Suffrage Association, led by women’s rights and anti-slavery activist Lucy Stone (1818–1893) and her husband Henry Brown Blackwell (1825–1909). In 1870 the common cause of the two groups was strengthened by the passage of the Fifteenth Amendment, which gave all men—regardless of race—the right to vote. When the two organizations joined forces in 1890, they formed the National American Woman Suffrage Association (NAWSA). The suffragists appealed to middle class and working class women alike, as well as to students and radicals. They waged campaigns at the state level, distributed literature, organized meetings, made speeches, marched in parades, picketed, lobbied in Washington, DC, and even chained themselves to the White House fence. If jailed, many resorted to hunger strikes.

From 1878 to 1917, woman suffrage amendments were introduced during every session of Congress; all failed. In 1918, the required support for the amendment was finally mustered in the House of Representatives—the result of years of activism and of the role women played during World War I (1914–1918). Having demonstrated their position as involved and intelligent citizens, members of the House passed the proposal in 1918. It then went to the Senate where it was

defeated. Voting again the next year, the amendment passed in the Senate and was duly sent to the states, which ratified it in 1920. The amendment states that the “right of citizens of the United States to vote shall not be denied or abridged by the United States or by any state on account of sex.”

See also: Henry Brown Blackwell, Women’s Movement

NIXON, RICHARD MILHOUS

Richard M. Nixon (1913–1994) took office as the thirty-seventh President of the United States on January 20, 1969. He campaigned on promises to end the Vietnam War (1959–1975), reduce racial divisions in the United States, and decrease the nation’s high inflation rate. Despite his ambitious plans, Nixon’s accomplishments are often overshadowed by the scandal for which his presidency is best known. Nixon’s personal anger and suspicions manifested themselves in the Watergate criminal and political scandal, first revealed to the public through the news of an interrupted burglary at the offices of the Democratic National Committee in Washington, D.C. As evidence of his wrongdoings mounted, Nixon resigned rather than face impeachment by Congress.

Nixon was born in 1913 on a modest farm in California and was raised in the Quaker faith. He was an aggressive and successful student from an early age, graduating in 1934 from Duke University Law School on a full scholarship. After graduation he worked for the federal government and later as a military attorney during World War II (1939–1945). Nixon’s humble but aggressive style caught the attention of others, who encouraged him to enter political life.

His active political career resembled a roller coaster ride. He served as President Dwight Eisenhower’s (1953–1961) vice president, and was unusually active in the role. But Nixon lost his campaign to succeed Eisenhower in 1961 when he was defeated by John F. Kennedy (1961–1963). In 1962, Nixon again lost a bid for public office, failing to gain the governor’s seat of his native state, California. This series of defeats ended his political career for a time and Nixon returned to practicing law. But when the political climate in the United States shifted in the late 1960s, Nixon saw new opportunities and prepared a presidential campaign.

During his campaign, Nixon promised a quick end to the Vietnam War, which was the source of much



Richard Nixon leaving office.

social unrest at home, but once in office he actually expanded the war before decreasing American involvement in the region. Though Nixon did not follow through on his Vietnam promises, he did achieve an arms treaty with the Soviet Union in 1972. Relations with that country were quite strained at the time, and the arms treaty, limiting strategic nuclear weapons, was a timely foreign policy success.

War was not the only item on Nixon’s foreign policy agenda. It also included economics. Nixon reopened trade and economic relations with China, which were severed in the early 1950s due to China’s involvement with North Korea during the Korean War (1950–1953). Renewed relations between the two countries opened up a wealth of new business opportunities. The vast Chinese market appealed to many U.S. businesses and trade was quickly established. He also proposed a steep tax on imported goods and a freeze on all wage and price increases for ninety days. Nixon’s efforts to stabilize the inflation-ridden U.S. economy helped reduce the national debt and the rate of inflation. It also asserted the primacy of business vitality over the artificial economic ties to the value of gold.

Tying the U.S. dollar to the value of gold was seen by Nixon as an economic restriction. By ending the U.S. dollar’s attachment to the gold standard, Nixon asserted he had done something long overdue, claiming, “The strength of a nation’s currency is based on

Normalcy

the strength of that nation's economy.' With his action the Gold Standard Act of 1900 ended. The nation's currency became subject to the floating exchange rates of the marketplace and endured well.

Nixon's accomplishments as president are often overshadowed by the events that consumed his second term in office, beginning in 1972. Known collectively as the Watergate scandal, these events include criminal acts against Nixon's perceived enemies. Watergate first came to national attention when a break-in of the Democratic National Committee offices in the Watergate building was interrupted. The culprits eventually revealed ties to the White House and Congress ordered an investigation. Nixon was very uncooperative and denied personal involvement in the affair. However, Congress' determination to get to the bottom of the scandal revealed that Nixon was indeed involved. Rather than face almost certain impeachment and removal from office, Nixon resigned on August 4, 1974, leaving the presidency in disgrace.

Nixon went into seclusion for a time and later regained a kind of elder statesman status. He wrote several books on foreign policy and politics, including a personal memoir of his life. Nixon died of a stroke in 1994, at the age of eighty-one.

See also: Gold Standard, Gold Standard Act, Vietnam War

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NORMALCY

Normalcy was the term used by Republican candidate Warren G. Harding (1865–1923) during the 1920

presidential campaign to describe the condition of the United States prior to its entry into World War I (1914–1918). It was also the condition to which the nation would return, Harding promised, if he were sent to the White House. Voters liked the idea of returning to normalcy too, giving Harding the biggest plurality victory ever, 16,152,200 votes for Harding to 9,147,353 votes for Democratic nominee James Cox (1870–1957).

Once in office (1921–1923) Harding's efforts to normalize American political, social, and economic conditions met with mixed results. Part of the president's problem was defining the term "normalcy." Harding's call for "normalcy" meant a foreign policy of isolationism and a domestic policy of increased economic freedom. To meet these ends, Harding supported a repeal of the wartime tax on excess profits, a reduction of income taxes on the wealthy, a high tariff on imports, and anti-immigration laws limiting the annual number of aliens who could come to the United States. Harding also opposed U.S. membership in the League of Nations. In contrast, his Democratic predecessor, President Woodrow Wilson (1913–1921) helped establish that international body and urged the country to join it. Although America was prosperous during his years in office, Harding's administration is primarily remembered for its corrupt practices, which represented politics as usual to his opponents and a return to "normalcy" of a different kind. Harding has been credited by some with inventing the term "normalcy." The word, however, first appeared in American lexicon during 1857 as slang for the word "normality." In any event, Harding did help popularize the use of "normalcy" in everyday speech.

See also: Anti-Immigration Laws, Isolationism, Andrew Mellon

NORRIS-LAGUARDIA ACT OF 1932

The Norris-LaGuardia Act outlawed yellow-dog contracts (pledges by workers not to join a labor union) and further restricted the use of court injunctions in labor disputes against strikes, picketing, and boycotts. Imposing strict procedural limitations on issuing injunctions against strike activity, the act pointed the direction towards a more even-handed relationship between the judiciary and the nation's labor relations systems. Although it had few enforcement powers, the act was one of the first federal labor laws supporting organized labor and it marked a significant victory in

labor reform. Its passage fostered a trend toward more favorable government labor policies.

Industrialization of the late nineteenth century brought unsafe factory conditions, low wages, repetitious work over long hours, little job security, no benefits: these conditions led workers to favor unions. But the very legality of labor unions was in dispute for much of the nineteenth century. At the anti-union end of the spectrum, many nineteenth century judges considered unions to be in restraint of trade, because they called strikes. Later the courts began to recognize the validity of workers seeking shorter workdays and higher wages. But, injunctions requiring unions to refrain from certain activities (like picketing on company property or otherwise trying to persuade workers from entering company property during a strike) became a major weapon of employers beginning in the 1840s. Later antitrust laws added further legal authority to such orders by prohibiting organizations from restraining free market competition through cooperative relationships. During this period, the Sherman Anti-Trust Act was more often used against unions than against the companies.

PASSED IN 1932, THE NORRIS-LAGUARDIA ACT MARKED A PROFOUND CHANGE IN U.S. GOVERNMENT OVERSIGHT OVER LABOR RELATIONS. IT WAS THE MOST FAVORABLE LEGISLATION TO DATE FOR A U.S. LABOR MOVEMENT THAT HAD ALWAYS HAD TO FIGHT FOR ITS VERY EXISTENCE.

In 1877 and again in 1894 the federal government used troops to end major strikes, actions that radicalized some in the labor movement. In 1905 the Industrial Workers of the World (IWW) was formed, espousing the goal of replacing the capitalist system with socialism. After some successful early strikes, however, it was smothered by government repression.

During the labor shortage of World War I, the Clayton Anti-Trust Act of 1914 Congress finally acted to exempt unions from antitrust laws. Employers turned to other means. Forcing employees to sign “yellow-dog contracts” became a condition of employment. The contracts pledged employees to refrain from joining a union, or to renounce membership if they already belonged to one. Some state legislatures moved to prohibit these agreements but the Supreme Court ruled in 1915 that such state prohibitions unconstitutionally violated freedom to contract.

But, after the crash of the stock market in 1929 and the long stagnation in investment that characterized the 1930s, the high unemployment of the Great Depression

made it difficult for workers to express their unified preference for union representation. By the third year of the Depression, however, workers with jobs began to push for unionization anyway. Labor solidarity was borne of desperation. The formation of the Congress of Industrial Organizations (CIO) with the specific purpose of “organizing the unorganized” unskilled and semi-skilled workers in basic industry, sparked an explosion in the size of the union movement. In spite of the high unemployment during the Great Depression, the union movement grew by more than 300 percent. In 1933 national union membership had fallen to less than three million. By 1941 it stood at over ten million.

The Norris-LaGuardia Act was part of this change in labor relations. Even before the New Deal began, Senator George William Norris from Nebraska and Congressman Fiorello H. LaGuardia from New York City, both progressive Republicans, introduced new labor reform legislation, the Norris-LaGuardia Act. With passage of the act, the groundwork was laid for an even more important labor bill, the National Labor Relations Act of 1935, called the Wagner Act. The Wagner Act continued the mission of reforming labor relations. It set out to regulate the nation’s labor relations. It granted unions fundamental rights and powers, including the right of collective bargaining, defined unfair labor practices, and established penalties for violating them. Passed in 1932, the Norris-LaGuardia Act marked a profound change in U.S. government oversight over labor relations. It was the most favorable legislation to date for a U.S. labor movement that had always had to fight for its very existence.

See also: Clayton Anti-Trust Act, Labor Unionism, Sherman Anti-Trust Act, Yellow Dog Contracts

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NORTH AMERICAN FREE TRADE AGREEMENT (ISSUE)

Formal negotiations for the North American Free Trade Agreement (NAFTA) began in 1991. Within three years the United States, Canada, and Mexico signed the trilateral free trade agreement and it went into effect in 1994. Pushed through by both the administrations of Presidents George Bush (1989–1993) and Bill Clinton (1993–) amidst much domestic controversy, this historic agreement established a formal trading bloc with 364 million consumers and a combined economic output of six trillion dollars in North America.

The agreement established what was called the world's largest free trade zone, and included a 15-year gradual phase-in of the elimination of tariffs and traditional non-tariff barriers on trade for all goods and services among the three countries. The accord is a 2,000-page text that contains detailed rules for hemispheric trade liberalization and two side agreements. The rules cover such areas as rules of origin (the country where the product was produced) to qualify for free trade, protection of intellectual property rights, and dispute settlement procedures.

NAFTA originated in negotiations begun in the mid-1980s between Canada and the United States to establish a bilateral agreement to guarantee market access between the two countries. The subsequent U.S.–Canada Free Trade Agreement was implemented in 1989. Canada then wanted to expand the agreement into a trilateral arrangement when the United States and Mexico initiated negotiations on a bilateral agreement of their own in 1990.

In the 1980s Mexican President Carlos Salinas de Gortari (1988–1994) decided to expand economic reforms through international agreements when the protectionist, state-dominated economy was in crisis and unable to pay off its debts to commercial banks. Moving to a market-based economy, the Salinas administration implemented accelerated trade-barrier reductions to encourage foreign investment. Having removed or reduced most of the tariffs between the

United States and Mexico since Mexico joined the General Agreement on Tariffs and Trade (GATT) in 1986, the hope for Mexico was that a free trade agreement between the two countries would continue to stimulate foreign investment and economic growth.

The Bush administration had support from most large U.S. industrial corporations that would be able to take advantage of lower Mexican wages. Thus the administration requested “fast-track” negotiating status for NAFTA, which permits a president to negotiate international trade treaties and submit them to Congress for approval without amendments. In 1991 Congress gave NAFTA fast-track status.

NAFTA became a hotly debated issue in the 1992 U.S. presidential elections. Differentiating himself from the incumbent, presidential candidate Ross Perot opposed NAFTA, calling for the public to hear the “giant sucking sound” of jobs being pulled from this country and going South to Mexico. Meanwhile as a compromise in support of NAFTA, candidate Bill Clinton promised that NAFTA would include guarantees for the trading countries to abide by environmental and labor standards. Clinton was the target of mounting pressure from environmental groups and organized labor that NAFTA would amount to a “green light” for environmental “dumping” and human rights abuses in Mexico. After Clinton was elected as president and NAFTA was ratified in 1993 along with the two labor and environmental side agreements, the same groups criticized NAFTA for not having any effective enforcement mechanisms.

Opponents of NAFTA, such as labor leaders, were especially concerned that the agreement would result in massive losses in U.S. manufacturing jobs after Mexico began to attract foreign investment. Critics and supporters drew contradictory conclusions about the long-term consequences of NAFTA after the agreement was implemented in 1994. On one hand, opponents conducted studies such as the one by the Economic Policy Institute (EPI). The EPI authors, Jesse Rothstein and Robert E. Scott, concluded in their report, *NAFTA and the States*, that “an exploding deficit in net exports with Mexico and Canada has eliminated 394,835 U.S. jobs since NAFTA took effect in 1994.” On the other hand, supporters such as Nora Claudia Lustig, a senior fellow at the Brookings Institute, claimed that “there is evidence that NAFTA has created more jobs than it destroyed.”

Critical studies such as the EPI report contended that NAFTA resulted in the net export deficit growing from \$16.1 billion in 1993 to \$48.3 billion in 1996. Consequently jobs created with increased exports were

offset by jobs lost with increased imports. The EPI argued that the implementation of NAFTA had affected all 50 states, with job losses ranging from 621 in Vermont to 38,406 in California. The states hardest hit were those with the greatest production facility relocation, industries such as automotive manufacturing, textiles, apparel, computers, and electrical appliances. In addition, wages fell four percent between 1993 and 1996 and real median wages fell in at least 25 states.

Meanwhile NAFTA proponents at the Brookings Institute, such as Lustig, claimed that the agreement "has resulted in an increase in U.S.-Mexican trade, business partnerships, specialization in production processes and direct investment flows into Mexico. At the same time, the agreement has protected U.S. exporters from the brunt of the Mexican crisis [peso crisis of 1994], especially in comparison to exporters from Japan and the European Union." The report's author claimed that "there is even some evidence that NAFTA has created more jobs than it destroyed." Lustig contended that a net job gain may be the end result because a strong Mexican economy makes a strong market for U.S. exports.

Despite the absence of follow-up initiative on Capitol Hill to push for fast-track negotiations that would include other countries such as Chile and Brazil in the free trade bloc, President Clinton remained sanguine concerning the outcome of NAFTA in its early years. In a letter to Congress, Clinton noted that "NAFTA is an integral part of a broader growth strategy that has produced the strongest U.S. economy in a generation."

Thus the history of the negotiations over and implementation of the landmark agreement further complicated a centuries-old debate over the economic impact of free trade policies. Departing from traditional trade liberalization agreements, NAFTA became part of a public controversy that resulted in the unique inclusion of labor and environmental standards as an element in a trilateral free-trade bloc in North America.

See also: Free Trade

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NORTH ATLANTIC TREATY ORGANIZATION (NATO)

In 1949, in the aftermath of World War II (1939–1945), sixteen nations in Europe and North America developed the North Atlantic Treaty. It was a measure designed to block the threat of military aggression in Europe by the Soviet Union. The North Atlantic Treaty Organization (NATO) united Western Europe and North America in a mutual security and self-defense agreement. If one of the sixteen members was attacked, they would all fight in defense.

The agreement, at first intended solely to discourage the Soviet Union, created a framework for further cooperation between the members on military, political, economic, and social matters. The members of NATO at the time of its inception were Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Turkey, the United Kingdom, and the United States.

While the North Atlantic treaty calls for the peaceful resolution of disputes, the organization is prepared for self-defense. NATO's military forces are comprised of units volunteered from each of its members. The forces are based under three main commands: the Atlantic Command, the Channel Command, and the Allied Command Europe. The supreme Allied commander heads the three commands and directs units in exercising NATO military forces. In times of peace, the three commands plan the defense of their regions.

NATO also has a policy wing, called the North Atlantic Council, a nonmilitary policy group comprised of permanent delegates from all NATO members. The North Atlantic Council is led by a secretary-general and is responsible for general policy, budget

issues, and administrative actions. A Military Committee, comprised of the chiefs of staff of member nations' armed forces, meets twice a year to advise the Council.

NATO headquarters was initially established in Paris, France, but in the 1960s French President Charles DeGaulle (1890–1970) complained the United States had too much control over NATO and, in fact, dominated the organization. In 1966, France expelled NATO troops from the country. As a result NATO headquarters moved from Paris to Brussels, Belgium, where it remains today.

With the collapse of the Soviet Union in 1991, NATO expanded its membership to include Poland, Hungary, and the Czech Republic. This raised concerns from Russia about NATO intentions. Russia sees NATO expansion as a threat to its sphere of influence in eastern Europe. Since the 1991 collapse of NATO's main foe, questions have also been raised regarding the continued need for the organization.

In the late 1990s, those questions were quieted by NATO involvement in Yugoslavia. In 1999, NATO launched a military campaign against Serbian leader Slobodan Milosevic in response to his brutal repression of ethnic Albanians in the region of Kosovo. This marked the first time in NATO's history that it became the aggressor in a regional matter outside the boundaries of its member states.

See also: World War II

NORTH CAROLINA

North Carolina was slow to develop, abundant in resources and natural beauty, and traditionally tied to the tobacco empire. It is a study in contrasts. Once thought by Virginia settlers to be backward and wild, North Carolina has become an important player in the nation's industrial development and a major producer of agricultural products. It is also an attractive destination for tourists. Though thought to be unfriendly to labor, the state continued to employ hundreds of thousands of workers in its manufacturing and services industries as the twentieth century closed.

Italian explorer Giovanni di Verrazano discovered the North Carolina coast in 1524. Other explorers from Spain later attempted unsuccessfully to settle in the North Carolina wilderness. English courtier Sir Walter Raleigh sponsored the famous "lost colony" at Roanoke, and in 1629 Charles I began settlement in earnest of the colony he called, after himself,

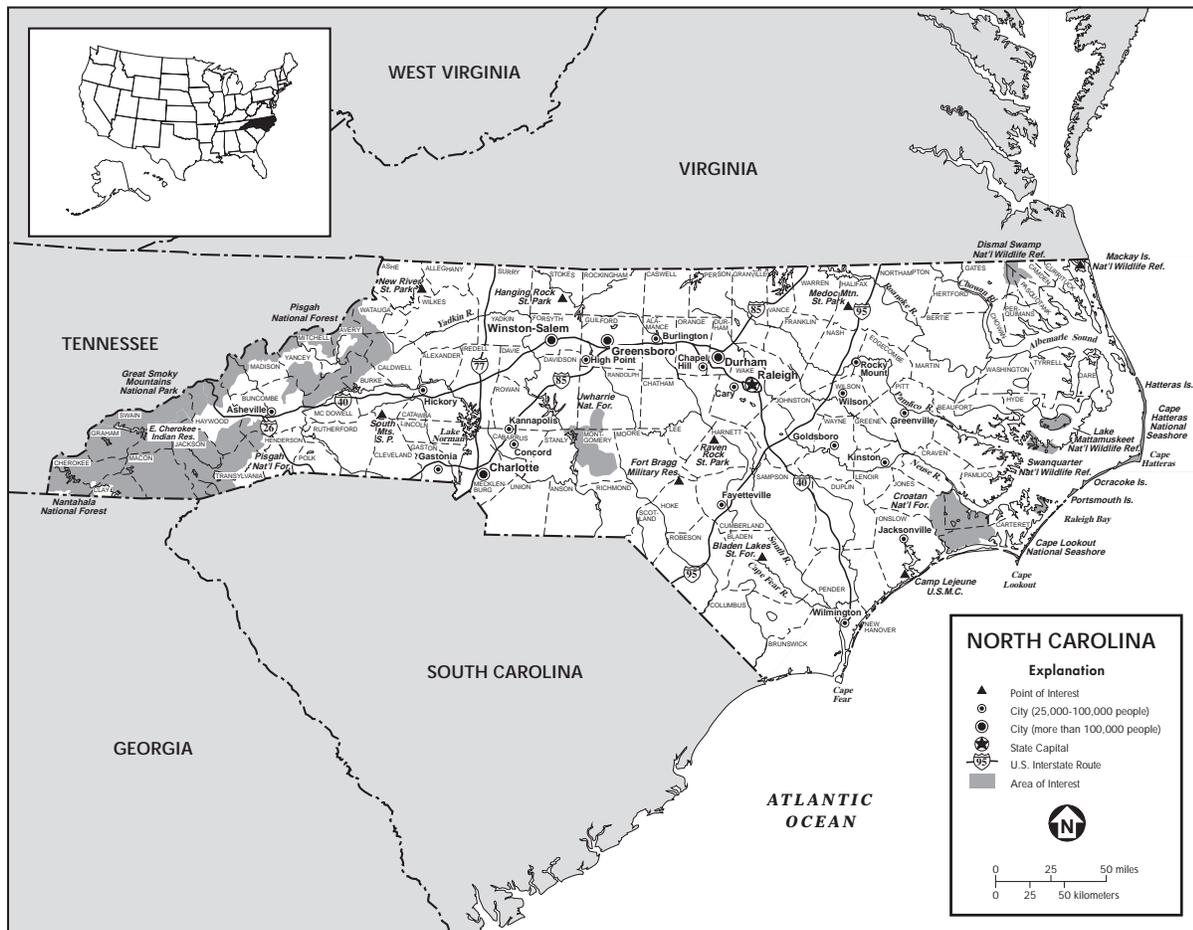
"Carolana". It was set up as a proprietorship and it extended its boundaries from the Atlantic to the Pacific Oceans and from northern Florida to the present boundary between North Carolina and Virginia. The colony of South Carolina split off from North Carolina in 1719.

Less accessible and wilder in geography than neighboring Virginia, the North Carolina country grew slowly. Wealthy landowner William Byrd of Virginia undertook a surveying expedition to settle a boundary dispute between Virginia and North Carolina in 1728. In his *History of the Dividing Line*, he expressed his low opinion of the North Carolina "backwoodsmen" he found there (an opinion which was shared by many of his contemporaries). "Both cattle and hogs ramble into the neighboring marshes and swamps . . . and are not fetched home till the spring. Thus these indolent wretches, during one half of the year, lose advantage of the milk of their cattle . . . and many of the poor creatures perish in the mire . . . by this bad management."

After North Carolina became a royal colony in 1731, thousands of new settlers came to the colony; the population reached 345,000 by 1775. From the beginning the colony was beset by geographical divisions. While western backcountry farmers were self-sufficient but poor, the wealthy eastern plantation owners used slave labor to cultivate their tobacco and rice fields. Although the colony harbored a number of Loyalists, most North Carolinians were united in opposition to colonial controls from Great Britain—they supported independence in 1776.

After the American Revolution (1775–1783) North Carolina was sometimes known as the "Rip Van Winkle" state because of its slowness to develop. It was among the last states to ratify the new U.S. Constitution, in 1789. In addition to widespread illiteracy, the state's transportation routes were substandard, making it difficult to expand commercial agriculture. The western part of the state was the least developed, and eastern interests refused to be taxed to support the westerners. In 1835, however, reforms in the state constitution brought state aid to railroads and other badly needed public works, as well as the first common schools.

North Carolina fought for the Confederacy during the American Civil War (1861–1865). Politics in that war's aftermath was very divisive. Republicans—the party of Lincoln—wrangled with states' rights Democrats, who finally took over state government in 1876. Democrats then slashed public services and solidified the power of landlords over tenants and sharecroppers. They also saw to it that cotton mills were built in the piedmont area and that railroads were consolidated. By



State of North Carolina.

1880 industry in North Carolina had made a big recovery. The plight of African Americans in the state did not improve, however, leaving a legacy of poverty and inequality which persisted into the civil rights struggles of the 1960s and beyond.

The development of the railroads was very important to the rise of big tobacco in the state. In 1875 young R. J. Reynolds saw that railroad access to the city of Winston (now Winston-Salem) would be an important asset to tobacco manufacture and distribution. He established his own plant and by 1920 he had absorbed most of the other small tobacco companies in Winston. Around the turn of the century Reynolds Tobacco (which then manufactured only chewing tobacco) was part of James B. Duke's tobacco trust but it became independent again in 1911. By 1913 Reynolds had expanded into the cigarette market and he was producing the nation's best-selling cigarettes.

Small farmers in the state continued to protest against their depressed economic condition. They were

overshadowed by the textile, furniture, and tobacco producers, who, along with banks and insurance companies, dominated the state by 1900. Both World War I (1914–1918) and World War II (1939–1945) deeply affected the state. For one thing, many industrial plants were built in North Carolina to produce war materials, many of them expanding and continuing to provide employment after the war. In addition, returning veterans came home with new ideas. According to historian William S. Powell, after World War II, “Veterans who were no longer content to farm or to work in cotton mills set about to improve themselves by taking advantage of the G.I. Bill of Rights. . . . Military service gave many of these people new skills and broadened their perspectives. . . .”

A good example of postwar economic development in North Carolina was the Research Triangle Park, which began in 1957 in an area equidistant from Raleigh, Durham, and Chapel Hill. The park was constructed to provide research facilities and high-technology industrial sites; it soon became home to

North Carolina

many government offices, private research concerns, and cultural agencies. The Research Triangle Park was also ideally situated, close to the University of Carolina, Duke University, and other colleges.

North Carolina has advanced in many areas, but not in its relationship to organized labor. The many "company towns" which grew up around the textile mills left their legacy of fear and dependence. The American Federation of Labor attempted to organize workers in the textile industry at the turn of the century but it failed to produce lasting unions. A number of failed strikes in the first four decades of the twentieth century left a generally anti-union sentiment among North Carolina workers. Repeated charges of unfair labor practices against textile giant J. P. Stevens and Company during the 1970s and 1980s reinforced the anti-labor reputation of the state. By 1970 the percentage of workers belonging to unions in the state was only 7.8, compared to 27.9 percent nationwide. By 1995 the percentage of union members had decreased to 4.2 percent, the second-lowest in the nation. In the late 1990s North Carolina held the dubious distinction of having the largest percentage of manufacturing jobs in the nation but the lowest manufacturing wages. In 1990 30 percent of jobs in the state paid wages below the poverty line.

THE ONLY BUSINESS [IN NORTH CAROLINA] IS RAISING OF HOGS, WHICH IS MANAGED WITH THE LEAST TROUBLE, AND AFFORDS THE DIET THEY ARE MOST FOND OF.

William Byrd, *Virginian landowner*, 1728

The continuing story of tobacco in North Carolina has also had its vicissitudes. For the last three decades tobacco manufacturers have been under fire from the federal government for causing health problems for large numbers of Americans. Cigarette advertising was banned from radio and television after 1971, and the federal cigarette tax was doubled in 1983. As the public perception of smoking steadily declined, an heir to the Reynolds Tobacco fortune, Patrick Reynolds, shocked his state and the nation in 1986 when he appeared before a congressional committee to call attention to the detrimental effects of tobacco. However, Reynolds Tobacco (now owned by RJR Nabisco), along with other tobacco firms, has survived by diversifying its interests and increasing overseas sales. In the late 1990s North Carolina was still the producer of 38 percent of the U.S. supply of tobacco and shipments of tobacco were second only to those of textile manufacturers in the state.

In the late 1980s and early 1990s North Carolina experienced a shift in job patterns. Traditional industries like furniture, textiles, and tobacco lost ground to high-tech industries and financial concerns. In 1997 the state was home to seven Fortune 500 companies, none of which was connected to the kinds of industries which historically developed the state.

In modern North Carolina agriculture and industry coexist and they are mutually dependent. Although the actual number of tobacco farms has decreased significantly, perhaps one-third of the jobs in the state are directly related to agriculture. North Carolina remains the largest manufacturer of textiles, cigarettes, and furniture in the United States. In addition to J. P. Stevens, some of the important textile manufacturers are Blue Bell Inc., Cannon Mills, and Burlington Industries. The furniture industry is centered in the High Point-Thomasville and Hickory-Statesville areas. Although per capita income has increased faster than the national average since 1986, it still ranks only 32nd among all states. Alternate sources of income in the service industry are increasingly important to the state. Tourism and retirement living were major sectors of North Carolina's economy in the 1990s, with many people flocking to the state's historic sites, recreation areas, and scenic mountains.

See also: Furniture Industry, Tobacco, Tobacco Industry

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NORTH DAKOTA

As a surveyor for the North West Company (Canada) in 1797, David Thompson was the first to describe part of what is presently North Dakota. Thompson completed the task of mapping the main travel routes through Canadian and United States territory. He also recorded details of the land and described Indians he encountered along the way.

In 1801 the first long-term trading post was set up at Pembina, and it became the center for the first white settlers in the state. Locally, trading furs provided the economic base for early settlers. It also became big business abroad as American trading companies competed with British-Canadian companies for control of the fur trade business. After the Lewis and Clark Expedition was completed, the fur business soared in North Dakota. Because trading furs became more lucrative as more companies were established, John Jacob Astor (1763–1848), founder of one of the biggest fur trading companies in the United States, convinced the American government to pass a law prohibiting other countries from trading with the Indians.

In the 1800s demand for furs was great and traders in the west could answer the call. Fur trading flourished into the 1850s as Astor built the first steamboat to run on the upper Missouri River. (It could carry 144 tons of goods.) Soon after, more trade routes were established including a major trade route that was opened for cart caravans between St. Paul, Minnesota, and what is now Walthalla, North Dakota. St. Paul merchants offered \$1,000 to the man who would open more trade markets by putting a steamboat on the Red River. In 1859 Anson Northrup received \$2,000 for dismantling a small boat he had launched on the Crow River; using 32 teams of oxen, he hauled it to the Red River and successfully launched it there.

Dakota became a territory in 1861. Some settlers traveled west to Dakota to take advantage of the Homestead Act, which was passed by Congress in 1862. This bill gave free land to those who would work on the land for five years and plant crops. In 1864 Congress gave Northern Pacific Railroad 50 million acres in Dakota to lay tracks from Minnesota to the West Coast. Unfortunately, funds ran out after a few years and the project was not completed until 1881. In the 1870s and 1880s the development of other modes of transportation made it easier for settlers to move west. Steamboats, stagecoaches, and ox-drawn wagons brought hundreds of thousands of people to Dakota in the ten-year period between 1880 and 1890. European immigrants also began to settle in Dakota. However, life on the plains was not easy. The dry summers, forest

fires, spring floods, and winter blizzards made every day life extremely difficult.

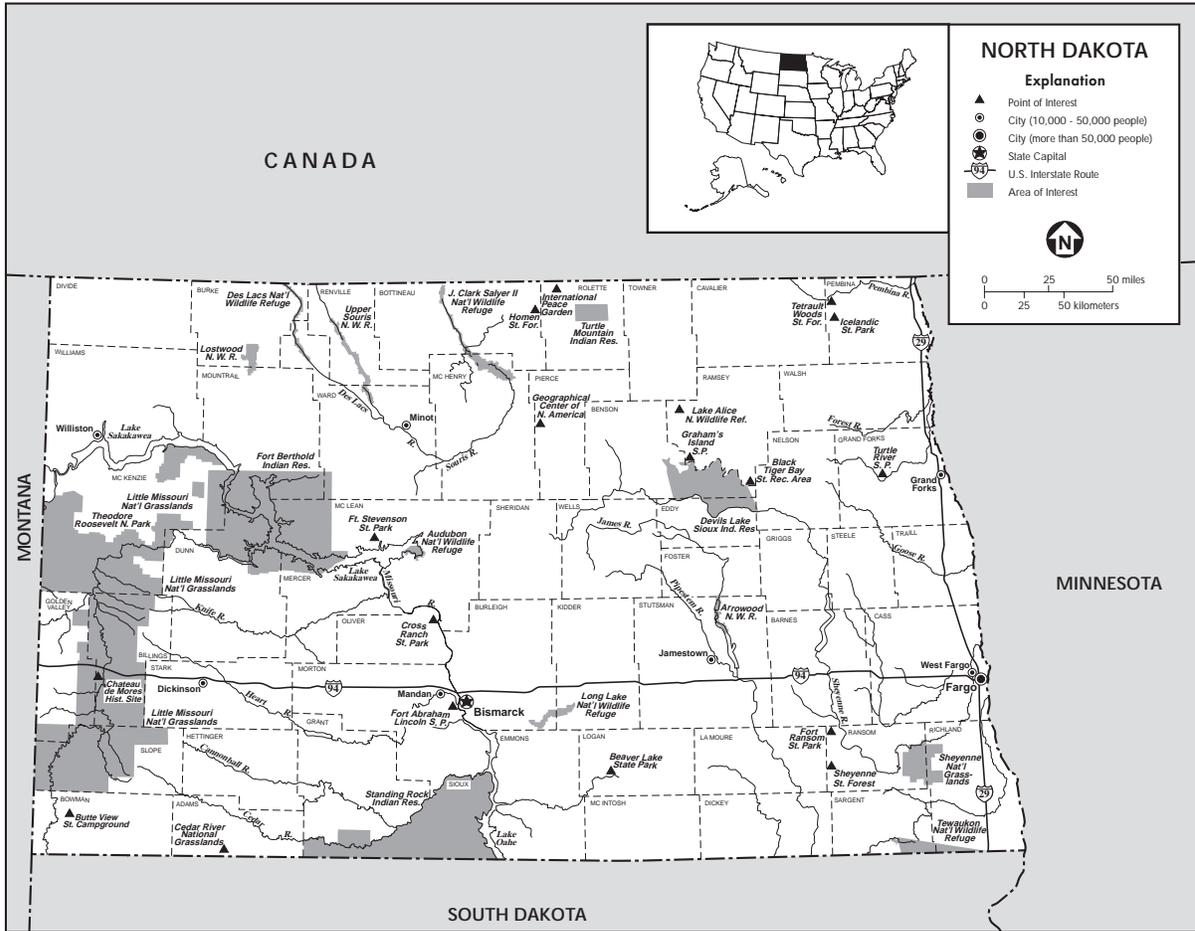
In 1870 wheat became a major source of revenue in the state. A new milling process was developed for spring wheat, a northern crop that was planted in the spring and harvested in the fall. When the wheat was ground the bran was separated from the flour. Also the railroad companies started up “bonanza farms” that covered thousands of acres of land and produced tons of wheat. A land agent for the Northern Pacific persuaded railroad president George W. Cass and a director, Benjamin Cheney, to purchase more than 13,000 acres for a bonanza farm. This enterprise, and more than 90 others like it, became very successful. The farms were owned by businessmen and were managed by foremen or superintendents. New settlers took advantage of the opportunity to work the farms or to start their own, smaller farms.

Though bonanza farming was successful, it also caused land prices to increase. To turn a substantial profit, many owners sold the farms when they knew they could get the highest price. However, in 1890 a depression caused wheat prices to fall drastically; most of the larger farms had to be broken up and sold in smaller parcels.

While farmers were tending wheat, cattle ranching started to take hold in the 1880s. Among the first was a business built by the Marquis de Mores, a Frenchman trying to make his fortune in Dakota. Instead of shipping live herds to markets in the East, the marquis devised a plan to slaughter his cattle on the range and send the beef to market. In the first year, the marquis was very successful, but he overextended himself and had to go back to France, leaving a \$1 million debt behind. Other ranchers in the area had difficulties as well—grasshoppers and fire destroyed the grass in 1886. As a result many ranchers pulled out of the area.

During the late 1880s, Dakota’s territorial governor, Nehemiah Ordway, and his friend, Alexander McKenzie, were major political bosses who protected the financial interests of the railroad, banks, lumber and insurance companies ahead of the interests of the people. Along with special interest groups, they were opposed to Dakota’s bid for statehood. However, after a new (state) constitution was approved, North Dakota and South Dakota became states on November 2, 1889.

The first action taken by the state’s new government was to pass laws regulating railroads and grain businesses. For the next two decades Dakota worked hard to establish a stable economy. More railroad lines were built to serve more towns because the price paid



State of North Dakota.

for crops was good. In order to gain more control over wheat marketing, farmers formed cooperatives. These groups of farmers, who worked together to try to reduce the costs of transportation and storage costs and to get fair market prices for their wheat had little success.

Another attempt at fair trade was made by Arthur C. Townley, who developed a powerful farmer's organization called the Nonpartisan League (NPL). A popular organization, it became 40,000 members strong in one year. The NPL called for state-owned businesses such as banks to offer low-interest loans to assist farmers; they also favored grain inspectors to maintain consistent standards. Many voters opposed what they called "state socialism," but in 1918 NPL candidates took over state leadership. The League continued in state politics through the 1950s. Reforms that were achieved under the NPL included tax breaks for farmers, funds for schools, and a better process for grading grain. However, despite NPL reforms, the Great De-

pression (1929–1939) caused banks to close, farmers to lose their land, and widespread unemployment in the late 1920s and early 1930s.

In the 1940s the economy began to pick up again with the construction of the Garrison Dam. The project relieved flooding along the Missouri, produced hydroelectricity, and provided irrigation for farms. In 1951 another major event took place that would bring new money to the state. Oil was discovered on the Clarence Iverson farm. An oil boom brought oil companies and prospectors flocking to the area. Although production from these wells declined in the 1960s and 1970s, new oil wells were discovered in the late 1970s. The OPEC oil embargo of 1973 and the rise of oil prices throughout the decade encouraged additional drilling and supported another oil boom. However, the state's economy suffered in the 1980s when oil prices dropped and a drought that started in 1987, continued into the 1990s—more than 5.3 million acres of land were damaged. While the agricultural production was strong in the 1980s and early 1990s, more than \$600

million in crops were damaged from severe storms and flooding in 1994.

The 1995 median household income in North Dakota was \$29,089; twelve percent of all North Dakotans lived below the federal poverty level.

See also: John Jacob Astor, Bonanza Farming, Homestead Act, Lewis and Clark Expedition

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NORTHERN SECURITIES CASE

The American economy changed substantially following the American Civil War (1861–1865). Cottage industries, artisan production, and small-scale manufacturing declined, and a new, larger, factory-based manufacturing sector grew. Operating under relatively relaxed state business laws, financiers and manufacturing moguls became rich, often by suppressing the competition.

This led to a concentration of capital in just a few huge corporations, especially in transportation and heavy industry. The giant manufacturing and mining companies that survived the period of cutthroat competition soon folded into nationwide monopolies known as trusts. In a trust, the companies transferred their properties and stocks to a board of trustees who ran the companies in a way that avoided competition—for instance, by dividing the markets up to protect regional monopoly. Such business arrangements substantially restricted the opportunities for new competitors.

During the 1870s the rapidly expanding railroads required long-term capitalization to meet their high

fixed costs on a scale never before seen in U.S. business. The railroad companies sought cooperative pooling arrangements to stabilize markets and profits. Despite the ideology of free enterprise so prevalent during these years, the railroads, the steel industry, and the oil industry feared cutthroat competition much more than they feared government intervention. When the passage of the Interstate Commerce Act in 1887 prohibited pooling, railroads turned to other forms of consolidation. Workers, consumers, farmers, and small independent businessmen often faced high transport costs due to the lack of rail competition. Their reaction was frequently to demand antitrust laws.

Embracing the economic philosophy that public interest is best served by free competition in trade and industry, Congress passed the Sherman Antitrust Act in 1890 to guard against "combination(s) in restraint of trade." Congress sought to prevent unreasonable concentrations of economic power. However, vagueness in the terms "restraint" and "monopolization" placed the burden on the president and judiciary to determine how to enforce and interpret the act.

Existing monopolistic business trends continued through the 1890s. Between 1897 and 1904 more than four thousand companies melded together to form not quite 300 corporations. Meanwhile, the Sherman Antitrust Act was of little use, as the courts initially interpreted the Act as applying mainly to labor union activities "in restraint of trade." The courts held that manufacturing was not commerce and that consolidation was considered a viable means to stabilize costs. In addition, the courts ruled that the Act did not apply to stock transfers.

Under President Theodore Roosevelt (1901–1909), the Sherman Antitrust Act began to be used against corporate mergers. Roosevelt, who was concerned that the blatant favoritism that the government had displayed towards the corporations might result in the radicalization of labor, argued that the federal government should have the power to control big businesses through regulatory boards. Soon after Roosevelt assumed office, a case emerged involving four rail lines serving the northern plains.

Three of the four railroads were owned by prominent New York financiers. J. P. Morgan (1837–1913) owned the Northern Pacific which ran from Minneapolis to the Pacific Ocean. James J. Hill (1838–1916) owned the Great Northern with a similar route. Edward H. Harriman (1848–1909) owned the Union Pacific running from Omaha to Ogden, Utah. All three of them wished to control the Burlington railroad which ran across Illinois and provided ready entry into Chicago.

Northern Securities Case

In 1901 Morgan and Hill cooperated to purchase the Burlington and plotted to drive Harriman out of business. Harriman quickly maneuvered, purchasing the majority of Great Northern stock. To salvage his ownership Hill began buying back the shares which, in turn, led to a sudden escalation in Great Northern's stock. Other investors did not understand what was the driving force behind the price escalation, so they began rapidly dumping other stocks to purchase Great Northern stocks. A panic on Wall Street followed, bankrupting thousands of unsuspecting investors.

A standoff between the three financiers led to a negotiated agreement. To prevent hostile takeovers the agreement established the Northern Securities Company, a holding company to control stocks of the Northern Pacific, Great Northern, and Burlington. The new company in which Morgan and Hill held controlling interest was worth approximately \$400 million. Such a merger, through a holding company, was thought to be a viable means of cooperation without violating interstate commerce or antitrust laws.

Roosevelt became keenly interested in the developments pertaining to the agreement between Morgan, Hill and Harriman. Attorney General Philander Knox was assigned to look into the arrangement. In March 1902 the United States filed suit against the holding company in a federal district court in St. Paul, Minnesota, charging violation of the Sherman Antitrust Act. Lawyers for the railroads argued that the intent of the company was not to restrain trade but to prevent hostile takeovers. They asserted that the railroads rarely competed for the same business despite running parallel tracks. Furthermore the Northern Securities Company did not actually run the railroads, but merely held stock in the companies that did. Hence the company was not actually involved in interstate commerce. They argued that the act should not be applied to situations that only involved transfer of ownership.

Accustomed to a more cordial relationship with presidents, as soon as Morgan learned of Roosevelt's intention to prosecute the case, he and two conservative senators hurried over to the White House and declared to the president, "If we have done anything wrong, send your man to my man and they can fix it up." (Brinkley, 642) Despite these pleadings, Roosevelt held firm and the district court ruled that the company essentially eliminated any motive for competition as far as the public was concerned. The court ordered the Northern Securities Company dissolved.

In appeal to the Supreme Court, the railroads claimed forced dissolution would essentially deprive

them of their Fifth Amendment property rights. The government countered that the holding company essentially concentrated control of transportation trade over a vast area of the nation under a single entity. In March 1904, the Supreme Court sided with the government's argument and affirmed the lower court's ruling in a 5-4 decision. The holding company constituted an unreasonable restraint of trade as prohibited by the act. Only Justice Oliver Wendell Holmes dissented from the decision. Holmes asserted that essentially all railroads are monopolies since only a single company runs on a particular set of lines. Therefore he could find nothing unreasonable concerning the holding company. These disagreements simply reflected an economic trend toward larger corporations with greater powers. Critics of the ruling complained that mere possession of great power should not automatically make someone suspect and some forms of price fixing may actually be reasonable.

The Supreme Court decision demonstrated to the business world that the Sherman Antitrust Act could be an effective tool used to combat business activities that restrain trade, including monopolies and trusts. The Act thus became not only the first, but also the most important antitrust legislation in the United States. The character of industrial business organizations and particularly railroads changed. Roosevelt became known as the "Trustbuster." With large corporations becoming a fixture in the American economy, this episode inaugurated a lengthy history of government oversight through antitrust enforcement.

See also: Monopoly, Sherman Anti-Trust Act

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NORTHWEST ORDINANCE

The Northwest Ordinance was the third of three major land ordinances passed by the Congress convened under the *Articles of Confederation* (before the ratification of the U.S. *Constitution*). The three ordinances also included the Ordinance of 1784 and the Land Ordinance of 1785.) These laws were passed to help manage the lands of the Old Northwest, which were awarded to the United States at the end of the American Revolution (1775–1783)—the modern states of Ohio, Indiana, Illinois, Michigan, and Wisconsin. The Ordinance of 1784 was drawn up by a committee headed by Thomas Jefferson (1743–1826). It created a system of government for the territory and guaranteed settlers the right to organize themselves into new states. The Land Ordinance of 1785 established the way in which the territory would be measured and divided up for sale to prospective settlers and land speculators. The Northwest Ordinance of 1787 (one of the final acts passed by the Confederation Congress before it dissolved) set up the process through which settlers could bring their new states into the Union. The ordinance guaranteed settlers the rights of U.S. citizens; established procedures for dealing with Native Americans in the area; allocated money from the sale of land in the territory to be set aside for public schools; and banned slavery north of the Ohio River. It also established that the territory would eventually be divided into no less than three and no more than five states.

Under the terms of the Northwest Ordinance, the Northwest Territory was divided into a number of districts, each of which was to be administered by a governor and by judges appointed by Congress. When the white male population of a district reached 5000, the district became a territory. It could then form its own territorial legislature, but its executive and judicial officials were still appointed by Congress. When the population of a territory reached 60,000, it could apply for admission as a state. The Northwest Ordinance established that territory brought into the Union would enter on an equal basis with the original 13 colonies, thus, recently-settled areas were prevented from being treated as inferior to more established regions. Settlers in the new areas were also guaranteed certain rights, such as freedom of religion, which the original colonies did not promise to their citizens. Although he took no steps to free the few slaves already living in the territory, Jefferson added a provision specifically banning slavery from being introduced into the territory.

The Northwest Ordinance also tried to establish the government's official policy toward Native Americans living in the area. It required the government to

use its "utmost good faith" toward the Indians, and it promised that "their lands and their property shall never be taken from them without their consent; and in their property, rights, and liberty, they shall never be invaded or disturbed, unless in just and lawful wars authorized by Congress." The "just and lawful wars" clause was ignored more often than it was honored. In a series of wars ranging over 40 years, from Little Turtle's War (1791–1794) to the Black Hawk War (1832), Native Americans were driven from the Old Northwest and their lands were seized and sold to white settlers.

IN PROVIDING FOR ORDERLY DEVELOPMENT AND EVENTUAL STATEHOOD, THE LAND ORDINANCES MAY WELL HAVE BEEN THE MOST SIGNIFICANT LEGISLATION OF THE CONFEDERATION-PERIOD CONGRESS.

James Kirby Martin, Professor of History, University of Houston

The economic impact of the Northwest Ordinance was very broad. By making the process of statehood relatively easy, settlers in the Old Northwest were encouraged to ship their produce to American ports rather than to more accessible British, French, and Spanish ports on the Great Lakes or lower Mississippi River. By banning slavery, the area was reserved for free labor. Finally, by allowing Native Americans to be deprived of their lands through warfare, the Northwest Ordinance set a precedent for settler-Native American conflict that lasted over a century.

See also: Black Hawk War, Land Ordinance of 1785, Native American Policy, Old Northwest

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NORTHWEST PASSAGE

The Northwest Passage is the circuitous sea passage, long sought by explorers, between the Atlantic and the Pacific Oceans. Though it was eventually found through a series of discoveries, it was not completely navigated until Norwegian explorer Roald Amundsen (1872–1928) explored it between 1903 and 1906. Numerous navigators, convinced of the existence of such a passage, attempted to find it during the early years of European westward sea exploration. Though unsuccessful, their determination led to the discovery of other important locations. French sailor and explorer Jacques Cartier found the St. Lawrence River, dividing Canada and the United States, between 1534 and 1535. English commander Sir Martin Frobisher discovered Frobisher Bay off the coast of Baffin Island and north of Quebec in 1576. English navigator John Davis discovered Davis Strait between Baffin Island and Greenland in 1587. English navigator Henry Hudson found the Hudson River in eastern New York State, and Hudson Bay, the inland-sea of central Canada, between 1609 and 1611. Following centuries of efforts Amundsen finally completed the first successful navigation of the Northwest Passage in September 1906, during a journey that lasted more than three years. The harsh climate, however, makes the route impractical for commercial navigation.

NORTHWESTERN COAST INDIANS

Northwest Coast Indian tribes occupied the region bounded by the Rocky Mountains to the east and north, the High Sierras to the southwest, and the Pacific Ocean to the northwest. The area roughly corresponds to present-day northern Utah, northern Nevada, northeastern California, Oregon, Washington, Idaho, British Columbia, and southern Alaska. Beginning at the end of the ice age (about 10,000 B.C.) three distinctive cultures emerged in the region as tribes adapted to the varying environments of the Northwest.

The first culture was that of the Great Basin, which is an elevated terrain walled in by the Rockies and the High Sierras. Here tribes including the Shoshone, Bannock, Paiute, and Ute lived simply to survive the rugged region comprised of desert, brush lands, and pine forests. The climate ranged from dry, hot summers to cold, harsh winters. Bands living here hunted small game and foraged for wild grains, nuts, and vegetables; pine nuts were their most important food. Those living near rivers and streams also fished. Dwellings varied by season. During warm months, brush windbreaks served as shelters; in the winter, conical shelters were made of pine poles covered with sod, bark, grass, or skins. The Indians had few possessions, and those they had, such as baskets, were strictly utilitarian.

The second culture lived on the plateaus west of the Great Basin. The inland region tended to be dry but was forged by rivers, principally the Columbia (forming the border between Oregon and Washington) and the Fraser in central British Columbia. Tribes including the Yakima, Walla Walla, Coer d'Alene, and Nez Perce lived off the plentiful seafood, including mussels and salmon. Prime fishing spots were actively protected. These tribes were sophisticated hunters, and their diet was also rich in meat. They foraged for wild bulbs and roots, as well as berries. Dwellings varied by season: in the winter they lived mostly in pit houses (semi-subterranean, circular shelters); in the warm months they made brush or mat-covered windbreaks.

The third Northwestern culture comprised tribes living along the coast of Alaska, British Columbia, and Washington, such as the Aleut, Kwakiutl, and Chinook. From their plentiful environment, which was rich in wildlife and teeming with fish and seafood, these tribes developed a sophisticated culture. Living off salmon, seals, whales, bear, caribou, deer, elk, and moose, some families grew very wealthy in this region. Wealth was measured by possessions such as canoes, blankets, and slaves (captured enemies). Multi-family dwellings were made out of posts and beams, with planked sides and gabled roofs. Armor and elaborate face masks were used in battle. Decorative objects included wooden boxes and totem poles, which displayed a family's genealogy and social standing.

Europeans brought horses, tools, weapons, and diseases to the region. They came to the area to mine minerals, and white settlements gradually pushed Northwestern Indians off their lands. Major conflicts between the Indians and the settlers included the Modoc War (1872–1873) and the Nez Perce War (1877).

See also: Alaska, California, Idaho, Nevada, Oregon, Washington, Utah

NUCLEAR ENERGY (ISSUE)

In 1954 the U.S. government authorized private ownership of nuclear reactors as part of President Dwight D. Eisenhower's (1953–1961) Atoms for Peace initiative, paving the way for utility companies to build nuclear power plants. By the mid-1960s many utility companies had "gone nuclear," though building reactors proved far more costly than the early hopes; reactor energy did not meet expectations that they could provide power for pennies a day.

Most U.S. citizens' sole experience with the power of the atom was the devastating bombing of Hiroshima and Nagasaki in 1945; accordingly, some opposed the whole issue of nuclear energy. In California, after an earthquake disrupted construction, residents demanded the cancellation of the planned Bodega Bay reactor which was sited on a geological fault. Inhabitants of New York City resisted the siting of a plant within its borders because of the dense population.

Regardless of fears about nuclear weaponry, most people liked the idea of building atomic energy plants. The country was using increasing amounts of electrical energy (produced by burning fossil fuels which created air pollution. Nuclear power promised to be cheaper and cleaner. Moreover, nuclear power had the aura of a neat, high-tech solution to the complicated problems that people had come to expect from politics and business. When an oil embargo by countries in the Middle East hit in 1973–1974, the United States faced shortages of electricity, gasoline, and heating oil. Factories and schools were shut down. There were also cancellations of commercial airline flights, electrical brownouts, and increased lines at gasoline service stations. Blackouts plagued cities and industries, most spectacularly in New York City on July 13 and 14, 1977. High fuel prices reduced the productivity of U.S. industry. To all of these complaints the supporters of nuclear energy claimed a solution. They also argued that nuclear energy would solve the balance of payments problem and neutralize the damage to the international monetary system that was being done by the heavy U.S. imports of fuel.

To some U.S. citizens, atomic energy seemed to offer a way for the nation to achieve energy independence. Support for nuclear power steadily increased. Meanwhile the anti-nuclear movement carried forward the traditions of the anti-Vietnam War movement and many opponents initiated demonstrations at nuclear

power plants. At Seabrook Station in New Hampshire, opponents staged sit-ins, civil disobedience, celebrity concerts, and rallies. Supporters of nuclear energy ridiculed the protesters' fear of technology and charged the anti-nuclear movement with a vaguely un-American variety of consumer elitism. One writer caricatured the protesters as "vegetarians in leather jackets who drive imported cars to Seabrook listening to the Grateful Dead on their Japanese tape decks amid a marijuana haze."

Regardless of this culture clash, the United States' energy crisis was real and was caused by several factors. One was that in the 1950s and 1960s strategic geopolitical concerns led the government to promote the import of fuel from overseas, especially from the Middle East. Another was that President Richard Nixon's (1969–1974) 1971 attempt to halt inflation (called the New Economic Policy) had imposed price controls on the entire economy. But when the other restrictions were lifted, oil remained regulated, keeping the price artificially low to consumers and increasing demand. The United States was extravagant in its use of energy—few U.S.-made cars got better than 10 miles to the gallon, and homes and businesses were poorly insulated and inefficiently designed. Diverse special interests had skewed portions of the government's oversight and regulation of the oil industry toward their particular interests, and passing general legislation regarding energy became a political nightmare. Accordingly, efforts to develop a consistent energy policy throughout the 1970s were diluted and diverted. The decade ended much as it began, with the United States wastefully consuming inordinate amounts of energy, subject, once again, to an oil crisis.

During the 1960s utility companies were aware of the coming energy shortage. One of their methods to prepare for the shortfall was to construct nuclear reactors. In January 1973 there were 27 functioning reactors in the United States, providing only five percent of the power generated. Fifty-five plants were under construction, and an additional 78 were in the planning stages. The majority, however, were never built. Security expenses, nuclear-waste disposal costs, and construction overruns made the return on investment slim in nuclear-power plants.

In 1974, seeking to assist the nuclear industry, the administration of President Gerald R. Ford (1974–1977) disbanded the Atomic Energy Commission (AEC), which had overseen U.S. nuclear development for 28 years. In its place were constructed two more industry-friendly commissions: the Nuclear Regulatory Commission (NRC) and the Energy Research and



The nuclear era was ushered in as the United States claimed victory over the Japanese in 1945. Soon more benevolent uses were developed for this enormous source of energy, such as the Davis-Besse Nuclear Power Plant in Harbor, Ohio.

Development Administration (ERDA). The latter agency was empowered to develop new energy sources and market U.S. nuclear industry abroad. The NRC streamlined the licensing and commission of reactor projects, but many of the old problems remained. Safety was a pressing issue: fires underscored the potential for a catastrophic accident at nuclear plants (at the Indian Point Two reactor in New York in 1971, the Zion reactor in Illinois in 1974, the Trojan reactor in Oregon in 1974, and the Brown's Ferry reactor in Alabama in 1975). In 1975 the Union of Concerned Scientists presented the White House with a petition signed by 2,000 scientists which called for a reduction in nuclear construction. Public opinion followed that of the scientists. Environmental groups increasingly challenged the construction of nuclear projects in the NRC and in the courts, delaying the deployment of projects and driving up the start-up costs. The 1978–1979 protests at the Seabrook nuclear power plant in New Hampshire were particularly vocal and drew national attention to the issue. Then, in the spring of 1979, an accident at the Harrisburg, Pennsylvania, Three Mile Island nuclear power plant resulted in a partial core meltdown. Although no one was injured, the accident terrified the public and placed the future of the nuclear industry in jeopardy.

On April 26, 1986, near the town of Pripjat in the Soviet Union, attention was again focused on the issue of safety in the nuclear power industry. One of four

nuclear reactors at the Chernobyl Nuclear Power Station in the Ukraine exploded with such force that the roof of the building was completely blown off. Eight tons of radioactive materials were scattered about the region immediately surrounding the plant. Airborne radioactivity from the blast rained down on northern Europe and Scandinavia. Fallout contaminating farm produce was measured as far away as Scotland. Engineers at Chernobyl had accidentally initiated an uncontrolled chain reaction in the reactor's core during an unauthorized test in which they unlawfully incapacitated the reactor's emergency systems. In the immediate aftermath of the catastrophe, more than 30 people lost their lives. Moreover, one estimate placed the number at 20,000 who would eventually live shortened lives as a result of the effects of their exposure to radiation from the accident.

In the United States experts argued that the disaster at Chernobyl was not pertinent to the domestic nuclear industry. They noted that the technology employed at Chernobyl was not being used in the United States. The Soviets, they pointed out, were using a weapons-material production reactor to generate electricity for their domestic market—something not done in the United States. Furthermore, the Chernobyl reactor lacked a containment building—a required safety component mandated for all U.S. reactors. Nevertheless, many in the United States drew uneasy parallels between Chernobyl and Three Mile Island, among

them, that operator error and equipment failure was possible in the nuclear industry. The consequences of a single major mistake could be catastrophic.

During the 1980s scores of “anti-nuke” organizations warned of the hazards of nuclear energy and protested plant construction and operation. In Seabrook, New Hampshire, protesters rallied around the citizens’ action group, the Clamshell Alliance, to oppose the building of two nuclear reactors. By 1987 the utility that owned Seabrook was near bankruptcy, in part due to the increased vigilance of oversight safety committees insisted upon by the Clamshell Alliance. At Long Island’s Shoreham nuclear facility the story was much the same. Besieged by civic-group opposition and having far exceeded initial cost estimates of \$241 million (its actual cost to the utility had surpassed \$5 billion), the Shoreham “nuke” was closed by the state government in 1988. The utility that owned Shoreham had failed to develop an adequate evacuation plan for the region of Long Island that would be affected in the event of a meltdown. Sold to the state government for one dollar, the completed plant was to be dismantled even before it opened.

Cost overruns and construction problems continued to plague the industry. Florida’s St. Lucie Two plant cost about four times its original estimate of \$360 million. This price, as it would turn out, was a relative bargain. By mid-decade Michigan’s Midland nuclear power plant (initial cost estimate: \$267 million) had cost the utility constructing it \$4.4 billion, and it was nine years behind schedule. In the West, at the Diablo Canyon Plant, earthquake supports were installed backwards.

Another problem the industry faced was the disposal of irradiated fuel rods. During the 1980s utility companies stored these rods on site at the power plants, in large vats resembling swimming pools, but this was only considered a temporary solution. In 1982 Congress passed the Nuclear Waste Policy Act. The act called upon the Department of Energy (DOE) to find a suitable site to bury radioactive waste. DOE, however, was unsuccessful in locating a site that included both the necessary stable rock formation (free of groundwater) and the requisite local public support. By the end of the 1980s, no solution to the problem of nuclear waste had been found.

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OFFICE OF EMERGENCY MANAGEMENT

Office of Emergency Management (OEM) was an executive branch office that coordinated defense activities for all government agencies except the War and Navy Departments. It was established by an administrative order on May 25, 1940, in accordance with an executive decree issued by President Franklin D. Roosevelt (1933–1945). OEM created a number of federal agencies that played a critical role on the American home front during World War II (1939–1945). Three of the most important such agencies were the War Production Board, (WPB) the Office of Civilian Defense (OCD), and the Office of War Information (OWI). WPB mobilized the domestic economy, encouraged industrial expansion, and developed policies to regulate nearly every facet of military and civilian production. OCD was in charge of integrating federal, state, local, and territorial efforts aimed at boosting morale and reducing the risks presented by internal and external enemies of the United States. OWI disseminated information to the media about the government's war-time policies and closely monitored the content of Hollywood films to screen for unpatriotic material that might be harmful to the Allied cause. Although OEM is presently listed as inactive by the United States Government Manual, its responsibilities have been largely assumed by the Federal Emergency Management Agency (FEMA), which was established in 1979.

See also: War Production Board, World War II

OFFICE OF PRICE ADMINISTRATION

During World War II (1939–1945), the federal government became the major consumer of production for the war period. Accordingly, Congress instituted a price fixing authority on all goods and wages with the creation of the Office of Price Administration (OPA),

and the “General Maximum Price Regulation” (General Max), which froze all retail prices at their highest price levels as of March 1942.

On April 27, 1942, President Franklin Roosevelt outlined another aspect of price administration, to be known as “rationing” (which Roosevelt described as a “democratic, equitable solution” to the issue of providing goods for Americans that had become scarce because of the war). Items that were rationed in some way included gasoline, rubber tires, leather shoes, butter, and products with nylon content.

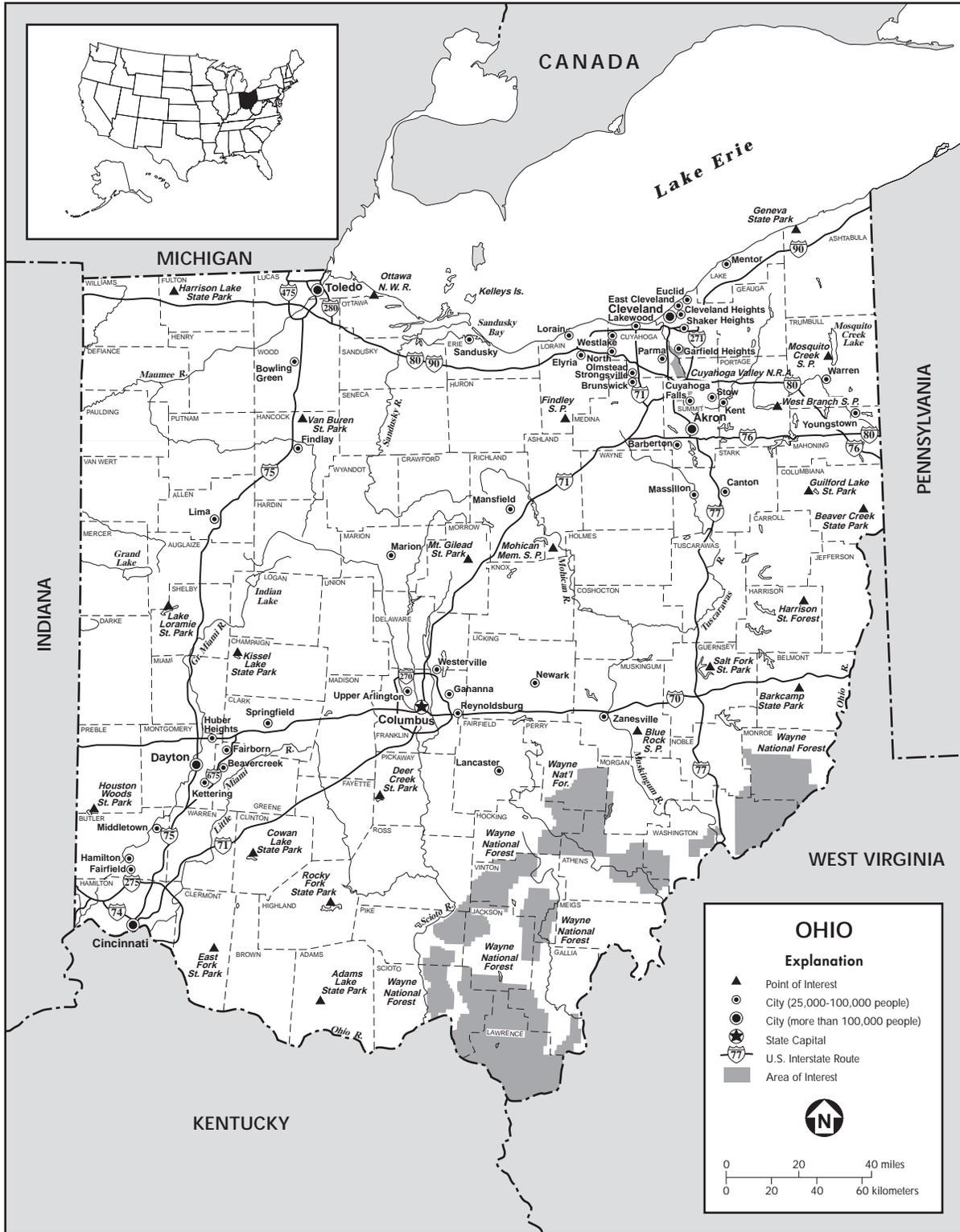
The rationing of goods to U.S. consumers during World War II was one of the many functions of the OPA. Perhaps the major problem of the OPA, functionally, was keeping economic inflation in strict control domestically, while providing military forces overseas with what they needed to fight the war.

See also: Rationing, World War II

OHIO

Some historians have said that the history of the state of Ohio is, in some ways, a microcosm of the history of middle America. Ohio has seen Native American revolts, pioneer migrations, and the gradual transformation of its wilderness into farms, towns, and cities. The transportation systems that eventually traversed the state brought rapid economic growth. The immigrants who peopled Ohio's cities helped make them industrial giants. They brought with them a wealth of skills and experiences that enriched society and made Ohio the prosperous, culturally diverse place it is today. The industrial pollution and urban decay plaguing the state have mirrored problems in the nation as a whole. But Ohio's efforts to keep up with changing economic times have been largely successful in spite of periodic setbacks.

The first European visitors to Ohio were game hunters of French and English extraction. When they



State of Ohio.

began to settle in Ohio in the seventeenth century, they found a number of Native American tribes there, including the Wyandots, the Delawares, the Miamis, and the Shawnees. The hunters soon started bringing in such goods as knives, hatchets, tobacco, and brandy. They exchanged these for the natives' beaver pelts and deerskins. The French and the English competed for the territory of Ohio until the middle of the eighteenth century, when as a result of the French and Indian War (1754–1763), the British became the predominant power in northern North America, gaining control over a vast area that included Ohio. They lost some of this territory in the American Revolution (1775–1783).

After the Revolution, Ohio belonged to the United States, becoming part of the Northwest Territory. Future land development in the new Northwest Territory was regulated by the Ordinance of 1785 and the Northwest Ordinance of 1787. The new territory was defined as the area between western Pennsylvania and the Mississippi River, bounded on the south by the Ohio River and on the north by Canada. When settlers began making their way to the Ohio area, many went by keelboat down the Ohio River. They sought fertile lands and new economic opportunities. The new American nation came into being in 1789, and this set the stage for Ohio's prosperity. The Treaty of Greenville in 1795 pushed Native American tribes out of the territory and further encouraged white settlement in the area. More settlers came from the older eastern colonies after Connecticut ceded the Western Reserve, a tract of land along the southern coast of Lake Erie that now comprises part of northeastern Ohio. By 1803 the area had enough residents to become the seventeenth state of the Union.

EXCEPT ON THE BROADEST LEVELS . . . ONE CANNOT GENERALIZE ABOUT THE PEOPLE OF OHIO . . . [THE STATE] HAS A REPRESENTATIVE QUALITY[, WITH] AN UNUSUAL BALANCE BETWEEN NORTHERN AND SOUTHERN INFLUENCES, BETWEEN AGRICULTURE AND INDUSTRY, BETWEEN RURAL AND URBAN.

George W. Knepper, *Ohio and Its People*, 1989

A final challenge from the British came with the War of 1812 (1812–1814). Commodore Oliver Hazard Perry (1785–1819) won a decisive battle in the war on Lake Erie, making Great Lakes commerce safe for Americans. Gen. William Henry Harrison (1773–1841) repulsed Indian encroachment at the Battle of Tippecanoe in the Indiana Territory. Large numbers of people migrated to Ohio thereafter, both from the eastern colonies and from abroad. Encouraged by low prices

for land, new settlers moved quickly to establish farms and begin towns across the new state.

Ohio needed a better system of ground and water transportation to help its economy grow. The first significant route to cross the breadth of Ohio in the 1830s was the National Road (later to become U.S. route 40). The route stretched from Cumberland, Maryland, to Vandalia, Illinois. A canal system was created at about the same time, connecting the northern and southern portions of the state. The Ohio and Erie Canal ran from Portsmouth on the Ohio River to Cleveland. The Miami–Erie Canal ran from Cincinnati to Toledo. The canals were not profitable for their owners but proved successful at opening new markets to many farmers.

By the 1840s railroads were beginning to radiate from the population centers, effectively bringing the canal era to an end. The number of railroad tracks in Ohio increased tenfold between 1850 and 1860, though canals were still being constructed in the state. The railroad was crucial to Ohio's economic growth, connecting small towns and urban centers with other cities across the young nation.

Although the railroad brought unprecedented change to Ohio, the state was still primarily agricultural in the mid-nineteenth century. The American Civil War (1861–65), however, increased industrial development, which continued to grow during the rest of the century and beyond. John D. Rockefeller's (1839–1937) Standard Oil Company in Cleveland quickly took control of most of the oil refining and distribution in the nation. The city of Akron became the "rubber capital" after B.F. Goodrich (1841–1888) began manufacturing fire hose. Cincinnati and Dayton also became major manufacturing centers during this time. There was a new wave of immigrants, mostly from southern and eastern Europe, in the 1880s and another in the 1910s. This influx of population brought many potential factory workers to Ohio cities. The advent of labor unions in the 1880s brought some protection to workers against unfair labor practices.

By 1900 Ohio ranked number four in manufacturing. The coal mines in the southeastern part of the state and Great Lakes access to Michigan and later, Minnesota iron ore helped the iron and steel industry to grow in the Cleveland-Youngstown area. By this time Ohio led the nation in the manufacture of machine tools. It ranked second in steel production.

The state's farm population steadily declined after 1900 and cities began to grow, and World War I (1914–1918) greatly contributed to Ohio's industrial growth.

Ohio Valley

The automobile industry stimulated Ohio's rubber, oil, and glass industries in the 1920s.

The Great Depression of the 1930s hit Ohio hard. It caused widespread unemployment and stifled the economy in many ways. Labor unions became stronger during this time, as workers hoped to protect their standard of living by organizing. The United Rubber Workers in Akron grew to a membership of around 70,000 after a series of sit-down strikes at the rubber plants. The United Steelworkers also struck at seven steel plants in Youngstown and greatly increased their membership.

Like much of the nation, Ohio benefited economically from the outbreak of World War II (1939–1945), though the state prospered in part because of its healthy industrial base. The state's economy especially grew through war-time production of trucks, tractors, and airplanes. Highway building and airport construction also increased during this time.

In 1959 the St. Lawrence Seaway provided a major economic boost to Ohio. This important waterway connected Toledo and Cleveland with transatlantic commerce. This period unfortunately also brought widespread pollution of the waters, especially Lake Erie, from the dumping of industrial wastes. The rural population continued to decline, and many middle-class people fled to the suburbs from city centers. They left a legacy of urban ruin that would plague the state for years to come.

In the 1970s Ohio's economy began to lag. By the early 1980s it entered a difficult phase. The state's unemployment rate rose to 14 percent by 1983. Manufacturing jobs were on the decline—down from 39 percent in 1970 to 27 percent in 1982. The high sulfur content in most of Ohio's abundant coal supply made the coal largely unusable because it contributed to atmospheric pollution. The state was eventually forced to borrow from the federal government to pay for the high costs of unemployment benefits.

A boost to Ohio's economy was the Thomas Edison Program, initiated in 1983. The project provided venture capital funds for new companies. It also helped establish conservancy districts for the Miami and Muskingum rivers, and began programs that eventually reversed the pollution of Lake Erie. Another major achievement for the state was the establishment of a new Honda Motor Company auto plant at Marysville near Columbus.

Unemployment in Ohio rose again during the recession of 1992, despite considerable economic progress in the mid-1980s. In 1995 there was a major strike

at two General Motors plants in Dayton. This added to the state's economic uncertainty. But manufacturing remained the major economic pillar in Ohio throughout the 1990s. The state manufactured mostly durable goods like motor vehicles and other equipment, and steel. The service industry also became significant in the state. Tourism became one of the important segments of the service market. Ohio farms maintained high levels of production in cattle, pigs, and poultry, as well as tomatoes, soybeans, wheat, and oats. The state ranked fifteenth in net farm income in 1995. Ohio's mineral production was also healthy: coal provided more than one third of the state's energy needs, and Ohio was a national leader in the production of sand and gravel. In 1995 Ohio led the nation in lime production.

See also: **Automobile Industry, Keelboats, Northwest Ordinance, Petroleum Industry, John D. Rockefeller, Standard Oil**

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OHIO VALLEY

The Ohio River drains into a fertile basin that measures 203,000 square miles (528,101 square kilometers)—stretching across Ohio, West Virginia, Indiana, Illinois, and Kentucky. The river is formed by the confluence of the Allegheny and Monongahela rivers at Pittsburgh, Pennsylvania. From there the Ohio flows southwest, forming the border between Ohio and West Virginia. The river then turns west-northwest to form the border between Ohio and Kentucky before turning southwest again between Indiana and Kentucky, and between Illinois and Kentucky. Navigable by barges its entire length of 975 miles (1,569 kilometers), the Ohio River empties into the Mississippi River at Cairo,

Illinois. The region surrounding the Ohio River is rich farmland. Commercial cities—trade centers that grew as transportation along the principal waterway increased—also dot the region.

The Ohio was first seen in 1669 by a European, French explorer Sieur de La Salle (1643–1687). In the first half of the 1700s, traders traveled the Ohio River, finding the surrounding valley a plentiful hunting ground. The fur trade flourished, making the region a coveted possession for both the French and the British. Numerous battles were fought in the valley, including the French and Indian War (1754–1763), the last major conflict in North America before the American Revolution (1775–1783).

The Ohio River Valley passed to British control (from the French) in 1763. In 1783 it became part of the new republic of the United States. Four years later the U.S. government established the Northwest Territory (the present-day states of Ohio, Michigan, Indiana, Illinois, Wisconsin, and part of Minnesota). Soon many settlers traveled the Ohio River westward. By 1820, more than 60 steamboats plied the Ohio, which remained the main westward route into the region until 1825. Settlement of the Ohio River Valley was aided by the federally built National Road (completed 1852), New York's Erie Canal (1825), and by Pennsylvania's Main Line Canal (1837).

Two companies also helped develop the region. The first was the Ohio River Valley Company (sometimes called the Ohio Company of Virginia), formed in 1747 when England's King George II granted London merchants and landed Virginians 200,000 acres (81,000 hectares) west of the Allegheny Mountains. But conflicts with the French stymied British efforts to settle the region and the company failed. The Ohio Company of Associates was organized in 1786 in Boston, Massachusetts. Shares were sold to raise enough money to petition the Congress of the Confederation to purchase land beyond the Ohio River. Congress sold the company 750,000 acres (304,000 hectares) in what is today southeastern Ohio. In 1787 Congress passed the Northwest Ordinance, which set guidelines by which territories became states. The first settlement founded under the Northwest Ordinance was Marietta, Ohio, which was named the capital of the Northwest Territory in 1788. Within a year three more settlements were made in the territory. Ohio was admitted to the Union in 1803.

See also: Erie Canal, Illinois, Indiana, Kentucky, Massachusetts, National Road, Northwest Ordinance, Ohio, Old Northwest, Pennsylvania, Pennsylvania Main Line Canal, Steamboats, West Virginia

OIL DEPLETION ALLOWANCE

Oil depletion allowance refers to deductions allowed in petroleum industry taxation. Mineral resources, including oil and gas, are finite and may become exhausted from area to area. Although difficult to estimate the amount of the deposit left, the allowance takes into account that production of a crude oil uses up the asset. Depletion deductions provide incentives to stimulate investment in oil discovery in hazardous or financially risky areas. The deduction, a fixed percentage of sales, is subtracted from a business' gross income, thus lowering its taxable income.

The oil depletion allowance has been an integral part of the U.S. taxation system applied to oil since the end of World War I (1916–1918). First called the "discovery depletion," the allowance evolved to the "percentage depletion" in 1926 when, regardless the amount invested, corporations deducted a specific percentage of total sales. Long set at 27.5 percent, the deduction came under fire as being overly favorable to the extractive industries. Congress lowered the percentage to 22 in 1969.

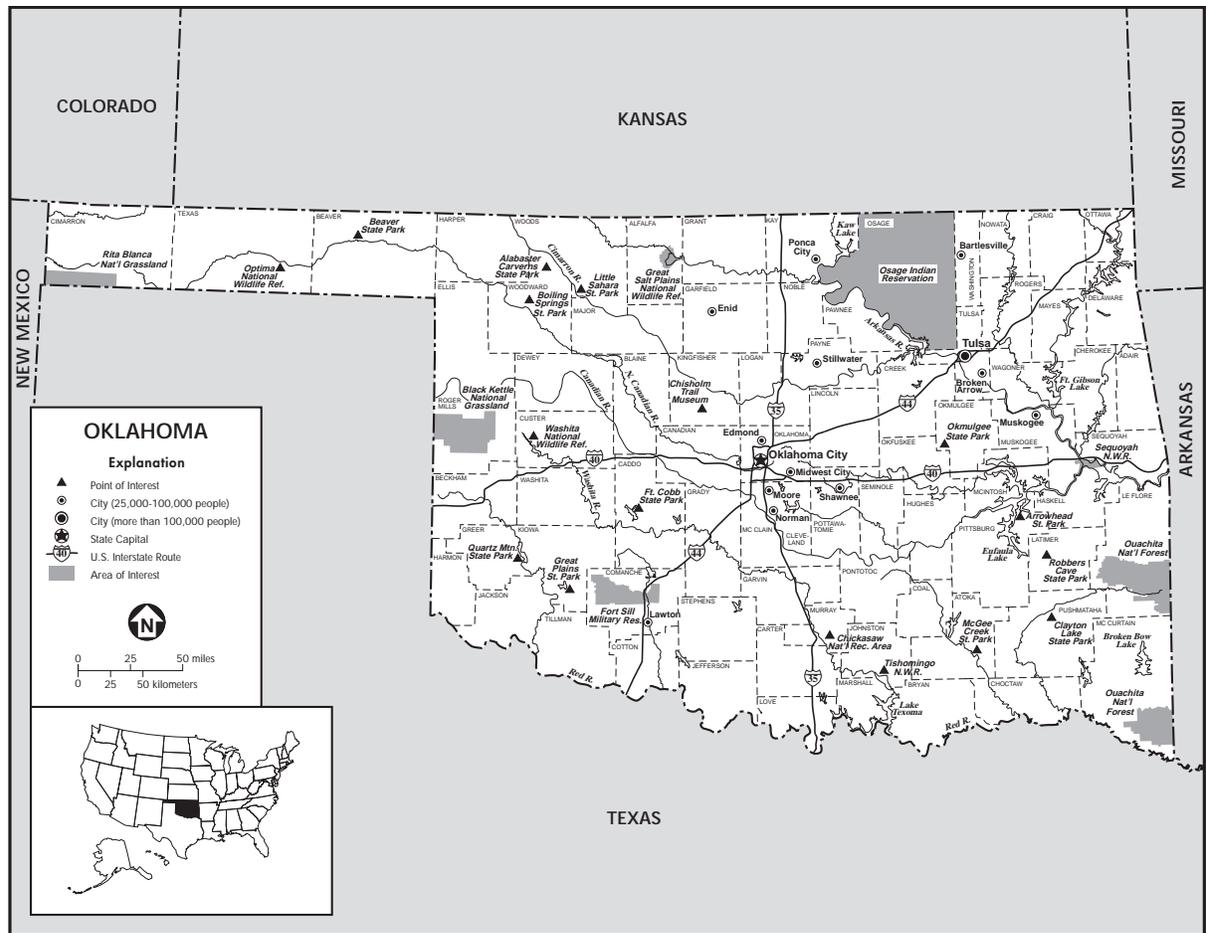
In 1975 there were approximately 35 major oil producers but roughly 10,000 smaller independent producers. The oil depletion allowance again entered the political arena with opponents arguing that it constituted a special treatment gift to the oil and gas industry. Fear of losing the allowance completely led independents to break with the majors and fight to retain it for themselves. Congress agreed that the independents indeed were America's hazardous oil-finders. Congress voted to eliminate the allowance for the majors but, although gradually reducing it to 15 percent by 1984, retain it for the independents and royalty owners. For the first time in U.S. history, a definition for an "independent producer" appeared in the basic U.S. tax code. The explicit legal definition allowed independents to be considered separately from major oil producers in legislation and saved the independents millions of dollars in the last quarter of the twentieth century. Attempts to eliminate the 15 percent tax shelter in 1985–1986 failed when sinking world oil prices alone sent the oil industry into decline.

See also: Petroleum Industry

OKLAHOMA

Oklahoma was admitted to the Union as the forty-sixth state on November 16, 1907. Its location in the western south central United States makes it a geographic melting pot. Sharing borders with Texas and

Oklahoma



State of Oklahoma.

Arkansas, Oklahoma is part of the South. But its common borders with Missouri and Kansas place Oklahoma in the central United States, and its borders with Colorado and New Mexico give the state a western flavor. Oklahoma is the nation's eighteenth largest state with over 69,000 square miles. Its population of 3.3 million people ranks 30th among the fifty states. Oklahoma City is the state's capital and its most populous city.

The state enjoys a diverse topography, climate, and economy. The humid eastern region of Oklahoma is graced by seven million acres of forests and 2,600-foot mountainous peaks where mining and lumbering are the chief economic activities. The east is also home to hundreds of swift-running rivers, many of which are dammed to provide hydroelectric power in neighboring communities. Wheat is grown and cattle raised in the more temperate, low-rolling prairies to the west. Most of Oklahoma's cotton is grown in the drier, heavily irrigated southwestern counties. Petroleum and natural gas are produced throughout the state—Oklahoma is

one of the country's five leading producers of both mineral fuels.

Oklahoma winters are relatively mild, with temperatures in January averaging about 38 degrees Fahrenheit. Spring brings dozens of tornadoes that twist through the state annually, usually leaving measurable damage. Summers tend to be long and hot, and periodic droughts can turn the semi-arid western region of Oklahoma into a dust bowl. But the state's sometimes challenging climate does not stop yearly visits from 16 million tourists, who generate over \$3 billion in gross revenue for the state. Popular Oklahoma tourist attractions include plentiful state parks, rodeos, Old West shows, and Native American exhibits.

Native Americans played an integral role in Oklahoma's early history. The name "Oklahoma" itself is derived from two Choctaw words: "okla" meaning people and "humma" meaning red. Oklahoma has been inhabited by Native Americans since at least 1200 AD. Explored by the Spanish in the sixteenth century and settled by the French in the seventeenth century,

Oklahoma was acquired by the United States in 1803 as part of the Louisiana Purchase. To open land for white settlers in the Atlantic states during the 1820s the federal government began relocating Native Americans from their homelands in the southeastern United States to the new Louisiana Territory west of the Mississippi. The most populous tribes inhabiting this area were the Choctaw, Chickasaw, Creek, Seminole, and Cherokee. Many of these Native Americans adopted European dress styles, farming methods, and political practices.

In the 1830s the federal government seized more land from Native Americans and created what was then called the Indian Territory, which included all of present-day Oklahoma as well as parts of Nebraska and Kansas. Tens of thousands of Native Americans were forcibly uprooted from their communities and driven into this newly created territory. Two-fifths of the uprooted Native Americans died along the way, while others suffered great hardship in what became known as the Trail of Tears.

During the American Civil War (1861–1865) the five tribes indigenous to Oklahoma signed treaties committing their support to the Confederate states. But the war left Oklahoma in ruins. Homes, land, and personal property were destroyed, creating widespread poverty and lawlessness. From the disorder, outlaws and bandits emerged, including the notorious Frank and Jesse James. In response to complaints about the growing tumult, the federal government built a district courthouse in Arkansas and appointed hundreds of U.S. marshals to quell the chaos.

The federal government also built a number of military posts that were designed to keep Native Americans on their reservations. (The Indian Territory had been reduced to the area of present-day Oklahoma after various tribes surrendered land as a condition for rejoining the Union.) Beginning in 1866 native peoples from several western states were relocated to reservations on the western half of the Indian Territory, while the five tribes were cramped into reservations on the eastern half. Skirmishes soon erupted when Native Americans left their reservations to hunt for food on white settlements in Texas and Kansas. U.S. troops were ordered to chase after the wayward Native Americans, beat them back to the reservations, and disarm them. During one particularly cruel military campaign in the winter of 1868, Colonel George Armstrong Custer led a Seventh Cavalry attack on an unsuspecting Cheyenne village near the banks of Oklahoma's Washita River. Custer's troops killed more than one hundred men, women, and children.

Treaties and federal laws further encroached upon the Indian Territory. In 1889 Congress opened 800,000 acres for settlement in the central Indian Territory known as "the Unassigned Lands." Promoters (called "Boomers") organized the settlers (called "Sooners") into communities of home seekers. On April 22, 1889, 50,000 Sooners lined up on the border of the Unassigned Lands, awaiting their signal to race across the unclaimed lots in search of property they wanted to settle. By nightfall nearly all of the available land was taken, and Oklahoma had a new nickname, the Sooner State. "Boomer Sooner," the University of Oklahoma's fight song, was also named after this page in the state's history.

The Native American population in Oklahoma was decimated by the influx of Sooners during the late nineteenth and early twentieth centuries. Native Americans comprised only 9 percent of Oklahoma's population at the time it was granted statehood in 1907, a stark contrast to their 27 percent of the pre-statehood population of 1890. African Americans, many of whom had been lured from other southern states by the promise of unsettled land in Oklahoma, comprised 10 percent of the state's population. They established more all-black towns in Oklahoma than the rest of the country combined.

Although African Americans were discriminated against in Oklahoma, as they were elsewhere in the country, the Oklahoma African American community served as a bellwether for the Civil Rights Movement. For example, African Americans in Oklahoma were among the first to successfully file lawsuits challenging the system of racial segregation in the South. These lawsuits, brought to court during the 1940s, foreshadowed the U.S. Supreme Court's groundbreaking 1954 decision in *Brown v. Board of Education*, which declared racial segregation in all public schools unconstitutional.

Oklahoma continued to act as a kind of national political and economic barometer for the remainder of the twentieth century. Relations between Native Americans in Oklahoma and the federal government seesawed during this time. The federal government teetered between periods when local tribes were encouraged to exercise greater authority over their internal affairs and periods when the federal government interfered with that authority. Oklahoma farmers enjoyed a boom in wheat prices that resulted from massive grain sales to the Soviet Union in the 1970s, but suffered a swoon when the prices began to fall in the 1980s. The Oklahoma petroleum industry also mirrored that pattern as it watched gas prices skyrocket during the OPEC oil

Old Northwest

embargo of the 1970s, but then saw oil-industry jobs disappear as prices dropped a decade later.

Near the end of the century Oklahoma became the site of the most deadly terrorist act in U.S. history. On April 19, 1995, 168 people died in Oklahoma City when a bomb exploded inside a rental truck parked outside the Alfred P. Murrah Federal Building. Timothy McVeigh was convicted of 11 counts of conspiracy and murder for his part in the bombing, while Terry Nichols was found guilty of conspiracy and involuntary manslaughter. Prosecutors portrayed the defendants as right wing, anti-government extremists who sought revenge for the federal government's destruction of the Branch Davidian compound in Waco, Texas. McVeigh was sentenced to death and Nichols to life in prison.

See also: Native American Policy

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OLD NORTHWEST

The Old Northwest is another name for the Northwest Territory—the region around the Great Lakes and between the Ohio and Mississippi rivers. Consisting of about 248,000 square miles (642,000 square kilometers), the territory was acquired by the United States after its victory in the American Revolution (1775–1783). Britain ceded the region in the Treaty of Paris of 1783, which ended the fighting, and the region officially became known as the Territory Northwest of the River Ohio. (Eastern seaboard states also claimed parts of the territory, but those claims were settled by the late 1700s.)

Development of territory was helped by the completion of New York's Erie Canal in 1825. The east-west waterway ran from Albany to Buffalo, connecting the Hudson River (which flows into the Atlantic Ocean) to Lake Erie (one of the Great Lakes). The canal linked the Old Northwest with the established states to the east and promoted the settlement of the territory, mostly by farmers.

Steamboats (invented in 1807) and railroads (introduced to the United States in 1831) also encouraged development of the region. Pittsburgh, Cincinnati, Louisville, Detroit, and Chicago became commercial centers. Out of the Old Northwest the states of Ohio (admitted as a state 1803), Indiana (1816), Illinois (1818), Michigan (1837), and Wisconsin (1848) were created, and part of the former territory was used to form present-day Minnesota (1858).

See also: Erie Canal, Expansionists, Illinois, Indiana, Michigan, Minnesota, Ohio, Railroads, Steamboats, Wisconsin

OLD SOUTHWEST

The Old Southwest was the early name for the territories that were acquired by the United States from Spain in the Adams-Onís Treaty (also called the Transcontinental Treaty) of 1819. The region included present-day Florida and the southern parts of Alabama and Mississippi.

The Spanish who first colonized the Old Southwest referred to the region simply as East and West Florida. Unfortunately, the Spanish monarch had only a weak hold on the Floridas and many Americans had settled there. In 1811 U.S. settlers in West Florida rebelled and declared their independence. President James Madison (1809–1817) ordered the Governor of Orleans Territory (gained in the Louisiana Purchase of 1803) to take possession of West Florida. This action provided impetus for the U.S. government to claim the East Florida territory, which would allow the country to organize all its territory east of the Mississippi River.

Negotiations between Spain and the United States were led by John Quincy Adams (1767–1848), the U.S. Secretary of State, and Luis de Onís (1762–1827), Spain's Minister to the United States. Though the United States gained the Old Southwest, it also made some concessions to Spain in establishing the boundary between Spanish and American claims from Texas to the Pacific Ocean. The treaty was signed in Washington, D.C., in 1819 and was approved by the governments of both countries two years later. Plantation

owners largely settled the Old Southwest during the 1800s. Later the region became the state of Florida (admitted to the Union in 1845) and formed parts of what would become Alabama (1819) and Mississippi (1817).

See also: Adams-Onis Treaty, Alabama, Florida, Louisiana Purchase, Mississippi, Mississippi River

OLIGOPOLY

Oligopoly is a type of market structure where a few large suppliers dominate an industry. Oligopolies are neither purely competitive (with many producers) nor monopolistic (with one producer), but fall somewhere in between. In the United States there are plenty of examples of oligopolist industries (in which only a small number of firms dominate). Heading the list are the following industries: automobile, steel, rubber, copper, aluminum, tobacco, and breakfast cereal. Oligopolist industry products may be differentiated, as with cereals, or homogeneous, as with steel.

In some oligopolies one firm tends to be the price leader, such as U.S. Steel Company in the steel industry. In others, all firms may have similar power. It is generally very difficult for a new firm to break into an oligopoly market because of the huge initial investments required. When only a few large firms dominate the market they cannot act independently without causing a change in output, sales, and prices in the industry as a whole. Where only a few large competitive rivals exist, their interdependence is recognized. They strategize to better anticipate each other's decisions. Competition among oligopolies usually does not include price wars (which would damage potential for generating profit). While price fixing is outlawed, oligopolistic firms keep their prices close together and instead compete with advertising and product variation. Advertising is a means to gain a competitive advantage. By making the product's availability better known, demand for the product is increased along with sales. Product variation results in continuous expansion and redefinition of products. Oligopolists are always seeking the best-selling new model. The automobile industry is a classic example.

The United States economy has traditionally consisted of four industry types: purely competitive, oligopolies, monopolistic competitors, and monopolies. Monopolistic competitors compete for essentially the same customers with slightly differing products. Between the four industry types, in 1939 oligopolies contributed a 36 percent share of the national income

while purely competitive firms accounted for 52 percent. By 1958 oligopolies still contributed a 35 percent share but by 1980 they accounted for only an 18 percent share of the national income with purely competitive firms accounting for a 76 percent share. The U.S. economy became more competitive over the years due to increased competition from imports, deregulation, and enforcement of antimonopoly laws.

OPEC OIL EMBARGO

On October 17, 1973, Arab oil producers declared an embargo that drastically limited the shipment of oil to the United States. These producers, members of a cartel known as the Organization of Petroleum Exporting Countries (OPEC), enforced the embargo in response to the Yom Kippur War between Egypt and Israel. In a gesture of support for Egypt OPEC curtailed oil exportation to countries that supported the Israelis. The cartel later extended the embargo to other countries and oil prices soared worldwide. Accustomed to the influx of ample, inexpensive petroleum from OPEC member countries such as Saudi Arabia, Iraq, Iran, and Kuwait, many nations remained at the mercy of these producers of the valuable natural resource.

In the United States the embargo brought on a crisis of unequal proportions. Daily shipments of oil from the Middle East dropped from 1.2 million barrels to a scant 19,000 barrels. Motor vehicle owners faced long lines at the service stations, and were forced to pay dearly for gasoline when they finally took their turn at the pump. Between May 1973 and June 1974 the average price of gasoline increased by 43 percent. Perhaps the most dangerous effect of the embargo however was the fear and panic it aroused. U.S. citizens were suddenly faced with the shortage of a resource indispensable to every industrialized nation. The shortage was mainly a matter of perception, since OPEC simply withheld oil and had not run out of it. In fact at the time the United States imported only about a third of the oil it used, relying on domestic production for the majority of its supply. But the embargo proved that every drop counted and that a powerful cartel could bring the world to its knees. Daily hardships such as rising oil prices and rates of inflation made the perceived scarcity of the resource seem very real.

Indeed the United States was consuming resources faster and more voraciously than most other countries. Although it represented only six percent of the world's population in 1973, the United States regularly consumed 33 percent of the world's energy supply. Station

OPEC Oil Embargo



Faced with a gasoline shortage during the oil embargo, many gas stations closed, leading to lines at functioning stations that sometimes stretched for blocks.

wagons and other gas-guzzlers were enjoying their heyday. A positive effect of the embargo was that it prompted conservation efforts throughout the country. President Jimmy Carter (1977–1981) declared a national speed limit of 55 miles per hour in order to cut back on gasoline consumption (meanwhile, the number of traffic-related deaths dropped considerably during that period). Between September 1973 and February 1974 the average daily use of petroleum dropped by more than six percent. The U.S. government adopted an energy conservation policy that remained in effect until President Ronald Reagan's (1981–1989) administration discarded it two decades later. The embargo served as a reminder that the world's oil supply was finite and encouraged consumers to use it responsibly, at least for the time being.

OPEC exercised an enormous amount of power during the embargo, which lasted well into 1974. But eventually the crisis hurt the cartel as much as the countries outside of it. The skyrocketing prices and the perceived shortage led to a drop in the overall demand for oil. Countries looked to alternative energy sources

such as natural gas, nuclear energy, and coal. Oil-producing countries outside of the Middle East stepped up their pace of production and relied more heavily on their domestic supply.

Unfortunately many of the positive effects of the 1973 crisis, the attempts at energy conservation and the move toward relying more heavily on domestic resources, did not last long enough after the embargo was lifted. Conservation efforts dropped off as memories of long waits at the gas station and inflated prices faded. A new breed of larger, less gas-efficient cars took to the roads in the 1990s when sport-utility vehicles and small trucks gained popularity. In the 20 years following the crisis U.S. dependence on imported oil increased rather than decreased, reaching the 50 percent mark in 1993. In 1998 on the twenty-fifth anniversary of the embargo many analysts pointed to such statistics as indications that a crisis like that of 1973 could happen again. They claimed that the low, stable price of oil was misleading people in the United States into believing that the world's supply of the natural resource was unlimited. Meanwhile the nation continues

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to consume energy at an extraordinary rate. Whether or not it will take another economic crisis to change such ingrained behavior remains to be seen.

See also: Embargo, Petroleum Industry

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OPEN DOOR POLICY

In 1890 the U.S. Bureau of the Census announced that the western frontier, as a continuous geographical line of settlement, had ceased to exist. This marked a monumental change in the way that Americans thought about their country. What had been an inexhaustible reservoir of natural resource and opportunity was now revealed to be finite and limited. The railroad system had been in the process of unifying the country since even before 1869, when construction was completed on the first transcontinental line. The miners and cattlemen and farmers followed. Now it was declared that

the continental frontier had been pushed all the way to the western coast.

One of the first writers to discuss this event was the historian, Frederick Jackson Turner. Turner wrote that the significance of the frontier was immense. It had provided the natural framework for the American experiment with democracy. It had been a "safety valve" for discontent whenever times got too hard and class conflict emerged in the increasingly crowded eastern part of the country. The loss of this safety valve might portend a crisis as profound as the struggle over slavery.

In addition, the increasing power and productivity of the American economy, which up to this point had been a source of pride and optimism, now seemed to increase the feeling of anxiety. The economy had become so productive at the same time that the polarization of wealth had become so marked that the domestic market was no longer sufficient to soak up all the goods that the economy was producing.

Another historian, Alfred Thayer Mahan, (who was also an admiral in the U.S. Navy), held onto the optimistic notion of frontier. He wrote that beyond the Pacific shores lay another maritime frontier. Mahan wrote in *The Influence of Sea-power upon History, 1660-1783* (1890) that all the great nations were sea-powers. In 1890, the United States was the third most powerful sea-power in the world.

By the late 1800s Japan and several powerful western European nations had divided most of China into separate "spheres of influence," each having economic control over a section of the vast eastern Asian country. A latecomer to imperialism, the United States also wanted its piece of the pie. In 1899 U.S. President McKinley's Secretary of State, John Hay, proposed an "Open Door" Policy with France, Germany, Great Britain, Italy, Japan, and Russia that would allow all participating nations to have equal tariff, trading, and commercial development rights in China.

IN 1899 U.S. SECRETARY OF STATE JOHN HAY PROPOSED AN OPEN DOOR POLICY TO FRANCE, GERMANY, GREAT BRITAIN, ITALY, JAPAN, AND RUSSIA THAT WOULD ALLOW ALL NATIONS TO HAVE EQUAL TARIFF, TRADING, AND COMMERCIAL DEVELOPMENT RIGHTS IN CHINA.

The United States declared that it intended to support China's political and territorial independence, while at the same time preserving and protecting

Open Range

foreign interests. Behind this claim was an administrative tactic to strengthen the U.S. position in China. The European powers agreed to the idea based on mutual consent between European nations but with the actual intent of protecting their own interests. Japan, however, objected to the proposal.

The machinations of the European powers over the Chinese trade offended many Chinese people. In 1900 an anti-European rebellion broke out in China fomented by a secret society called the “Boxers.” It was directed against all foreigners in China. The foreign diplomatic corps of the European powers sought refuge in the British embassy in Peking. The Boxers surrounded the embassy and threatened to overwhelm the defenders. In August 1900 the U.S. sent in a rescue force of 2,500 troops and the diplomats were saved.

Secretary of State Hay sent a note to the European powers requesting an Open Door Policy for all European and U.S. powers in the whole of China. It turned out, however, that few countries, including the United States, would adhere to the policy in practice. Within a year economic issues turned political and the Open Door Policy would remain virtually ignored.

In the early twentieth century the United States became involved in an international rivalry for Manchuria and China proper. In order to secure railroad, mining, and commercial rights in those locations, the United States had to come to grips with its relationship to Japan and, to a lesser extent, to certain western European powers, particularly Russia. The Taft-Katsura Agreement and the Root-Takahira Agreement of 1908 demonstrated that the United States recognized Japan’s increasing influence in the Far East. In return, the United States wanted Japan to respect Open Door principles and allow legitimate U.S. territorial rights within Asia. In 1915, in an attempt to protect its Far Eastern stakes, the United States opposed Japan’s Twenty-one Demands on China; but with the Lansing-Ishii Agreement of 1917, the United States consented to Japanese ambitions in Manchuria.

In response to continuing violations of China’s territory, an international Conference on the Limitations of Armament was held in Washington, D.C., and the Open Door Policy was reaffirmed as part of the 1922 Nine-Power Treaty. Ten years later, however, when Japan overtly defied the Open Door agreement by conquering Manchuria and establishing it as a puppet state, the United States was the only power to object.

Secretary of State Henry L. Stimson’s doctrine of non-recognition, which was supported by the League

of Nations, persuaded Japan to withdraw from Shanghai, its next target. The Japanese soon resumed their invasions and in November 1938 they declared that the Open Door was no longer valid. The onset of World War II (1939–1945) essentially ended the debate over the Open Door Policy, and after the war China’s de facto position acknowledged it as an independent sovereign state. Thus the Open Door Policy ceased to exist.

See also: Imperialism, Japan (Opening of)

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OPEN RANGE

The open range consisted of the unfenced public lands of the West. When the cattle industry boomed following the American Civil War (1861–1865), ranchers in Texas, Colorado, Wyoming, South Dakota, North Dakota, and Montana allowed their cattle to roam freely across the vast range. Livestock were branded with a rancher’s symbol. At the end of the grazing season cowboys sorted the cattle by brand (calves instinctively followed their mothers), rounded them up, and began the long trail drives which ended at the nearest railhead (as far as 1,000 miles or 1,600 kilometers away).

Passage of the Homestead Act in 1862 and the expansion of the railroad brought an ever-increasing number of settlers West after the war. Many of them set up farms on the prairies because provisions of the Homestead Act allowed each up to 160 acres (64 hectares). As the natural landscape lacked trees, fencing the farmlands was not practical and the policy of the open range continued despite the fact that the range was, in fact, being divided up and settled at an increasing rate. When barbed wire was invented in 1874,

farmers across the West used the new material to fence in their lands over the two decades which followed.

Ranchers, who were accustomed to the open range, often conflicted with settlers, who tried to protect their farmlands from the cattle herds and drives. Soon ranchers, too, used barbed wire to cordon off their land, limiting where their cattle and sheep could graze. Cowboys were reduced to cowhands—hired hands who made a practice of “riding the fence” to maintain the ranch boundaries. By the end of the 1880s the innovation of barbed wire and increased settlement had closed the open range and tamed the wild West.

See also: Barbed Wire, Chisholm Trail, Cowboy, Cow Town, Longhorn Cattle, Prairie

OPPORTUNITY COST

An opportunity cost is a way of analyzing an economic decision to determine its real cost. For an accountant or for a consumer in the grocery store the cost of an item is the amount actually paid for the item—that is, its price. In economics, however, determining the real cost of an item or of an economic decision means taking into account the alternative uses that could be made of one’s money. For example, a manager making \$40,000 a year is considering whether the increase in salary she will get by earning a law degree will justify the cost of tuition, housing, and all her other living expenses at school. In making her decision, however, she must also include the \$40,000 in salary per year she will not be able to earn while attending school. The lost salary together with the costs of tuition and living expenses is the real cost—the opportunity cost—of her law school decision. Similarly, suppose someone invests \$10,000 in a stock that falls in value over a six-month period and then sells the stock as soon as it climbs back to the price he initially paid. The investor may feel like congratulating himself for being patient enough to wait until the stock regained its initial price before selling; after all, he “broke even.” In reality, however, since the investor could have invested the \$10,000 in a stock that grew 20 percent over that same six-month period, he did not in fact “break even”—he incurred an opportunity cost of \$2,000.

THERE'S NO SUCH THING AS A FREE LUNCH.

Milton Friedman, Economist

The idea of opportunity costs was first defined by the neoclassicist economists of the nineteenth century,

and today it finds application in the economic decision making of individual consumers, companies, and entire economies. In evaluating whether to make a particular investment, for example, a company will first determine what use of its available capital will provide the best return. For various reasons, the company may in the end decide not to invest its money in the option that offers the lowest opportunity cost. However, it will always know what the opportunity cost of each of its options is and whether that cost is growing or decreasing. The expression “There’s no such thing as a free lunch,” popularized by American economist Milton Friedman (1912–), is another way of saying that every economic decision has hidden opportunity costs that must be taken into account to put money to its best use.

See also: Milton Friedman, Price

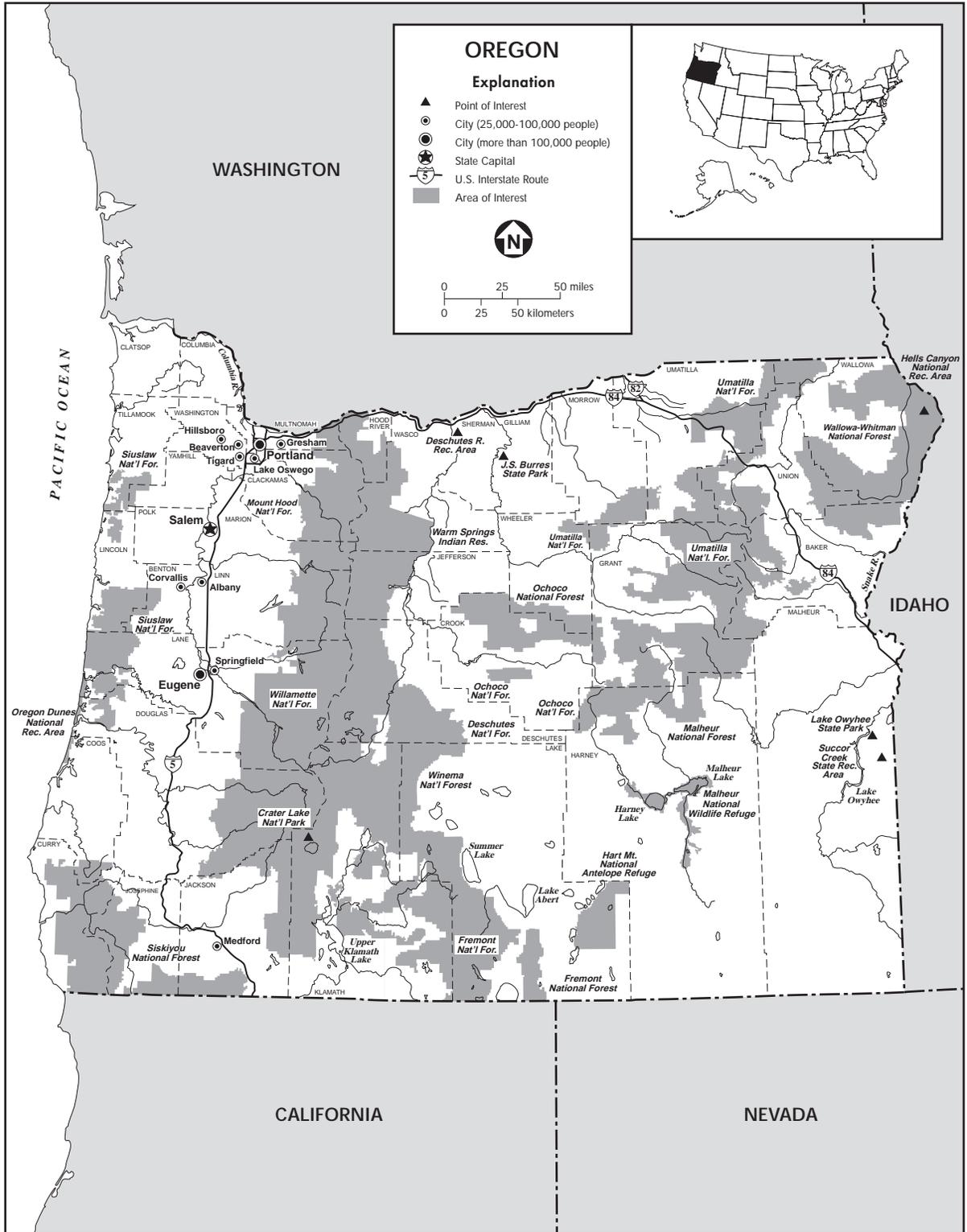
OREGON

The first European to sight Oregon may have been Sir Francis Drake (1540–1596), while he was on a British raiding expedition against the Spanish during the 1500s. Little contact was made during the next 200 years because mariners considered the Oregon coast too treacherous. In 1778, the Englishman Capt. James Cook (1728–1779) explored the Northwest. He named several of the Oregon capes. Explorers seeking sea otter and other furs soon followed. American Robert Gray (1755–1806) discovered the Columbia River in 1792.

The Lewis and Clark Expedition was the first overland exploration of Oregon, reaching the mouth of the Columbia in the winter of 1805. Fur traders employed by New York magnate John Jacob Astor (1763–1848) built a trading post at the mouth of the Columbia and called it Astoria.

The early history of Oregon was marked by competition between Great Britain and the United States for a foothold in the territory. The two countries signed a joint agreement of occupation in 1818. However from 1824 through the early 1840s John McLoughlin (1784–1857), chief official at Vancouver for the British Hudson’s Bay Company, was governor in all but name. Protestant missionaries to the Native Americans, however, established a base for future U.S. settlement. The first of these came by wagon train over the famous Oregon Trail during the early 1840s. In 1843 a provisional government was formed, and in 1846 a treaty with Great Britain firmly established the boundary between the United States and Canada. The

Oregon



State of Oregon.

Oregon Territory was organized in 1848. It was originally much larger than the state as it exists today. Oregon became the 33rd state of the union in 1859.

[OREGON] HAS NO HISTORY OF ITS OWN, ONLY ENDS OF HISTORIES FROM OTHER PLACES; IT HAS NO COMPLETE LIVES, ONLY BEGINNINGS.

H.L. Davis, *Kettle of Fire*, 1959

Oregon's economic progress was slow until the first transcontinental railroad reached the state in 1883. The fur trade dominated the region up until that time. When the railroad was built, fur traders, who were tired of the rigors of their difficult trade, began to settle on farms. They settled particularly in the Tualatin Valley and in a region near present-day Salem. Most were French-Canadians who were married to Indian women. Others came north from the gold fields of California, including a number of Chinese who continued to seek gold in eastern Oregon. They also worked as salmon packers and farmhands but were best known for their role in completing the Oregon Central Railroad and other railroads.

The California Gold Rush of the 1850s provided the first real impetus to economic growth in the Northwest. The city of Portland grew rapidly as gold miners demanded lumber, flour, wheat, and beef. Portland provided easy access for ship captains, and the city built a rudimentary road to the wheat fields of the Tualatin Valley. Oregon's mountains together with the Columbia River blocked any rivals from providing this wheat through other means. Thus an important export market developed, along with the Northwest's first reliable currency, gold dust. Another gold rush in eastern Oregon brought even more prosperity. Sailing vessel and steamship companies prospered during this time.

Oregon also found ready markets for the salmon taken out of the Columbia River. Lumber and paper industries as well as textile mills began to develop along the Columbia and the Willamette rivers.

Much of the economy remained agricultural because railroads and improved roads were slow in coming to Oregon. Wheat was the most important crop, followed by oats and potatoes. Cattle, horses, pigs, and sheep were the most important livestock. Towns such as The Dalles, Princeville, Klamath Falls, and Pendleton arose to serve the farm market. Before the coming of the Pacific Northwest railroad Oregon was essentially a purveyor of raw materials, with few finished goods being produced there.

By the 1890s several railroads crisscrossed Oregon. Raw materials could now flow to the ocean more efficiently and immigration to the region increased. Consumer goods, farm machinery, and construction materials were now readily available from the East to supply the growing farms and cities. Lumbermen and farmers could compete with those in other sections of the country. The Northern Pacific Railroad and the Great Northern Railroad also had vast publicity bureaus that sent pamphlets to the East, encouraging emigration. The railroad also changed economic patterns. The tracks broke up large cattle ranges and helped to destroy the cattle industry. Because wool was easier to transport by rail than beef, local residents soon preferred to raise sheep.

Waterways were also improved during this time, including canals along the Columbia to bypass falls and rapids. Lumbermen benefited from better water transit, from technological developments in their industry, and from the destruction of forests in the Great Lakes region.

During the 1920s Oregonians had to make adjustments as demand for certain materials declined after World War I (1914–1918). Lumber mills also suffered from a lack of supply because wartime cutting had decimated the forests. Congress acted quickly to pass the Clarke-McNary and McSweeney-McNary acts. The acts provided a model for future federal efforts to conserve forests.

Other changes during the 1920s were related to transportation improvements. Shipping continued to increase because of the Panama Canal. The railroads began to lose business as better roads were built. Oregon had created its first highway department in 1913 and built the Columbia River Highway along the river's south bank.

The 1930s saw a downturn in the economy as a depression rocked the country. After the 1929 stock market crash, lumber companies lost most of their markets but slowly regained strength. However the fishing industry never quite recovered from the market collapses which sent many fishermen to the relief rolls. President Franklin D. Roosevelt's (1933–45) New Deal programs, especially the Wagner Act, encouraged union organizing. Portland experienced a crippling strike by the International Longshoremen's Association in 1934. In the spring of 1935 the Sawmill and Timber Workers practically shut down the lumber industry in the Northwest. On a more positive note, the federal government's water conservation efforts during this period resulted in the construction of the Grand

Oregon Country Cessation

Coulee and the Bonneville dams along the Columbia River.

World War II (1939–1945) brought much-needed relief to Oregon's failing economy. Portland shipbuilding in particular was a major beneficiary of wartime contracts. Construction entrepreneur Henry J. Kaiser (1882–1967) was the genius behind Portland's shipbuilding renaissance. He was the primary contractor on the Bonneville Dam project. Kaiser used his many contacts in Washington and with other construction interests to gain government contracts for the so-called Liberty ships. The ships were 441-foot long freighters that kept the Allies supplied throughout the war. Kaiser also built escort aircraft carriers, tankers, and Victory merchant ships.

The postwar years in Oregon were quite prosperous, with manufacturing and service industries expanding. Government was also heavily involved in water and forest conservation in the state. Farming changed drastically with the number of farms declining from 63,125 in 1945 to 36,000 in 1982. Large corporate farms using high technology methods began to dominate the economy. Oregon fisheries declined as the salmon supply became depleted, causing most of the state's canneries to be closed; the federal government rushed to supply fish eggs to hatcheries. The 1980s and 1990s were marked by a continuing debate between loggers and environmentalists over logging in Oregon's rainforests. A 1993 federal law helped prevent commercial exploitation of older forests, home of the threatened spotted owl. Despite attempts to diversify the state's economic base employment in manufacturing outside Portland was still mostly in the lumber and wood products field in the 1980s. This made the state increasingly vulnerable to fluctuations in the housing construction market.

In addition the trend toward conservation of the forests from commercial development continued into the 1990s. The total commercial land base decreased by more than 24 percent since 1945. While federal lands were increasingly being removed from timber-harvesting, private forests took on a more important role. The reforestation required since 1941 and the Forest Practices Act of 1971 helped replenish the timber supply. Timber still provided the largest percentage of shipments by manufacturers in the state.

The principal economic changes in Oregon since World War II have been in the development of the aluminum and electronics industries, as well as in tourism and the services industry. In 1994 unemployment stood at a 25-year low of five percent. Per capita

income was over \$22,000 in 1997, putting the state's ranking at 27 in the nation.

See also: John Jacob Astor, Environmentalism, Liberty Ships, Lumber Industry, Henry J. Kaiser, Shipbuilding Industry

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OREGON COUNTRY CESSATION

For thousands of years native peoples lived in the rich lands of North America's Pacific Northwest. The first known European presence in the region was in the sixteenth century as Spanish and English ships ventured northward from Mexico, looking for the mythical Northwest Passage. Not until the late eighteenth century, however, did European expansion in the region truly begin. In the mid-1770s Spanish ships sailed north from Lower California to determine the extent of Russian penetration in the region as they had moved along the southern Pacific Coast of modern Alaska and British Columbia. The British arrived with the voyages of captains James Cook in 1788 and George Vancouver shortly afterwards; U.S. Captain Robert Gray marked the first American presence in the West in 1788 as well. A lucrative fur trade began with furs acquired from the indigenous population and sold in the Orient for substantial profit.

By 1790 several European nations, Russia, Spain, Great Britain, and the United States asserted claims to the region. Following a dispute over fur-trapping rights along the Vancouver Island coast, Spain was the first to begin a withdrawal through the Nootka Sound Convention of 1790 with Britain. The settlement sought to open the region to British colonization.

By January and February (of 1846) a new slogan, “Fifty-Four Forty or Fight,” had stamped its irresistible alliteration on the public mind. The principal themes of extremist argument sprang from both the natural expansionist pride of the people and the more artificial fury of the Democratic press. One theme was defiance of England, the traditional enemy . . . The second theme was that of manifest destiny . . . A third theme was suspicion of . . . the plantation aristocracy (over the slavery issue).

David M. Pletcher, historian, 1973

The coast was substantially charted starting in 1792, with Gray’s important discovery—the mouth of the Columbia River. Having this information in hand, President Thomas Jefferson (1801–1809) dispatched the Lewis and Clark Expedition to explore the Pacific Northwest over land. They wintered near the mouth of the Columbia River in 1805–1806. The Expedition and Captain Gray’s voyages provided a strong U.S. claim to the Oregon country. In 1811 Boston fur entrepreneur John Jacob Astor (1763–1848) established an American trading post at the mouth of the Columbia. However, the post traded hands to the British during the War of 1812 (1812–1814).

Vying for a crucial Pacific coast commercial position, the United States wanted to extend its northern boundary with Britain east of the Rocky Mountains along the 49th parallel, westward to the Pacific Ocean. The British demanded the Columbia River be the boundary. With these continuing rival claims, the Convention of 1818 uniquely arranged for joint-use between the United States and Britain. The joint-use region extended north of the 42nd parallel to near the 54 degree-40 minute parallel (54–40) and eastward to the Rocky Mountains crest, including modern-day Oregon, Washington, Idaho, British Columbia, and western Montana. Spain then relinquished any remaining claims north of the 42nd parallel to the United States through the Transcontinental Treaty of 1819. The treaty resolved all claims between the two nations from Florida westward across the continent. Russia, holding the weakest rights, was the next to bow out of its claim to the area south of the 54-40 line through separate treaties with the United States in 1824, and Great Britain in 1825. However, despite all the diplomacy, Britain held a monopoly over commerce in the entire region through most of the early nineteenth

century. Americans attempted to penetrate that market but without success.

American-funded military exploration in the Northwest resumed in 1841. Lt. Charles Wilkes’ naval party extensively explored the region, reporting on the great port promise of Puget Sound in western Washington. Lt. John C. Fremont (1813–1890) led an expedition over land in 1842–1843. Those few American settlers who had trickled into the region formed a Provisional Government in 1843, further creating antagonism between U.S. and British citizens in the region. Finally, with restlessness and feelings of manifest destiny (a popular notion of the day that supported U.S. expansion from the Atlantic to the Pacific coasts) quickly growing in the United States, the great migration began across the Oregon Trail in 1843, and “Oregon fever” swept the United States.

U.S. expansionism was a key issue in 1844 presidential election, in which James K. Polk (1845–1849) won, after exhorting desires for a unified continental nation. Though overall American attitudes were split over the question of Oregon, and extremists threatened force in the Oregon boundary dispute, adopting the slogan “Fifty-four forty or fight” in pressing for U.S. control of the entire region.

Following his election to the presidency Polk approached Britain in early 1845 with a compromise to finally split the two nations’ claims by setting the boundary at the 49th parallel. Britain, however, balked, still demanding the Columbia River serve as the boundary. Polk hardened his stance, adopting the 54–40 position. Little progress in negotiations occurred through the remainder of 1845, but in 1846 Polk took the offensive again, threatening to terminate the 1818 joint-use agreement. Despite few U.S. citizens residing north of the Columbia River, Polk’s assertion of new settlements south of the Columbia that contained over 5000 U.S. citizens by 1845 further validated U.S. claims. Britain, suffering domestic problems and also having moved their Northwest base to Vancouver Island, became more conciliatory to settlement. Anticipating war with Mexico, however, Polk backed off from the 54–40 claim despite bitter political opposition. Both parties finally agreed to the original compromise dividing the Oregon country along the 49th parallel, and they signed the Oregon Treaty in 1846. Britain retained navigation rights to the Columbia River, though, and its Fort Vancouver property. Not until 1872 was the boundary around the south end of Vancouver Island firmly resolved.

Assertion of national ownership of the Pacific Northwest by the United States, while largely ignoring

Oregon Trail

Native American claims, represented a major step in U.S. expansionism. The United States also annexed the Texas Republic in 1845 and together, with the Oregon cession, extended the U.S. western boundary both to the south and to the Pacific Ocean establishing the nation's northern boundary. Heavy traffic over the Oregon Trail continued through the late 1840s and 1850s, totaling 53,000 people, leading to a strong agrarian economy. Statehood was granted to Oregon in 1859 and for Washington in 1889.

See also: Lewis and Clark Expedition, Manifest Destiny, Oregon, Oregon Trail

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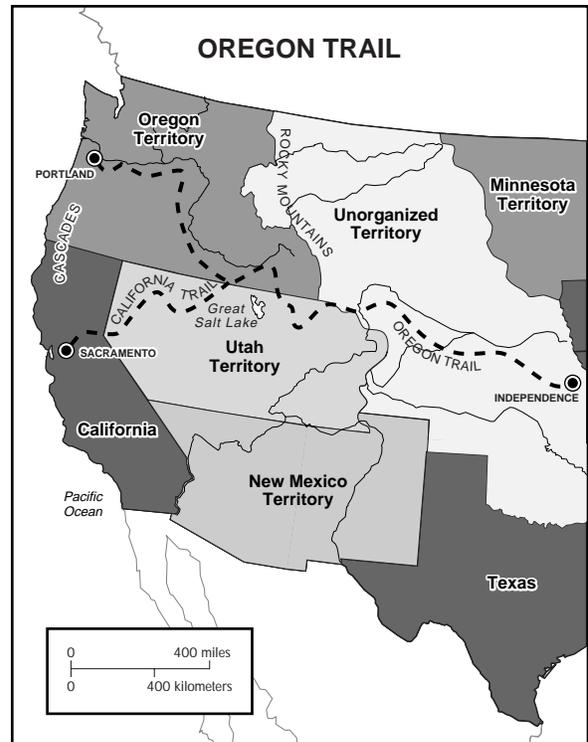
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OREGON TRAIL

The Oregon Trail was a route used primarily from the late 1840s through the 1870s to reach Oregon Territory—lands that were ceded to the United States by the British in 1846. (The territory comprised present-day Oregon, Idaho, Washington, and parts of Montana and Wyoming.) Measuring 2,000 miles (3,200 kilometers), the trail was one of the great overland routes used in westward expansion. Wagon trains began at Independence, Missouri (today an eastern suburb of Kansas City, Missouri), and traveled northwest to Fort Kearny (near present-day Kearney), Nebraska. From there wagons followed the Platte and North Platte rivers west and northwest to Fort Laramie in southeast Wyoming. Continuing westward along the North Platte, travelers arrived at South Pass, located on the southeastern end of the Rocky Mountains' Wind River Range. Nearby South Pass City became a boomtown during the 1800s. The Oregon Trail then ran



The Oregon Trail originated in Independence, Missouri, and terminated in Portland, Oregon. This 2000 mile trail was the primary passage of settlers from late 1840s through 1870s.

southwest to Fort Bridger, Wyoming—where the Mormon Trail diverged to the southwest (into Utah). Travelers bound for the Pacific Northwest continued along the Oregon Trail, following the Snake River through Idaho. The route turned northwest to Fort Boise, Idaho. From there settlers made the difficult crossing through the Blue Mountains to Walla Walla (then the site of a mission) in Washington. The last leg of the journey followed the Columbia River west to Fort Vancouver and into the Willamette Valley of Oregon. The road could be traversed in six months' time, but it was a rigorous journey that took travelers across prairie, through desert, over mountains, and across flooded rivers.

Explorers and fur traders are credited with first forging the route. The western portion of the trail was covered by explorers Meriwether Lewis (1774–1809) and William Clark (1770–1838) in their 1804–1806 expedition to the Pacific. But it did not become heavily used by wagons until about 1842, the same year that military officer and future politician John C. Fremont (1813–1890) surveyed a portion of the route for the U.S. Army. After the Territory of Oregon was set up by the U.S. government in 1848, an increasing number of settlers made their way westward across the winding Oregon Trail. The route was heavily used through the

1860s. However, at the completion of transcontinental railroads its importance diminished by the end of the century.

See also: John Fremont, Idaho, Lewis and Clark Expedition, Montana, Missouri, Nebraska, Oregon, Santa Fe Trail, Transcontinental Railroad, Utah, Washington, Wyoming

OTIS ELEVATOR COMPANY, INC.

By 1852 vertical hoisting devices had long been in use. However these had been proven hazardous if the supporting cable snapped. That year Elisha Graves Otis, a mechanic from Yonkers, New York, invented a safety hoist that would change the future of such devices. With two orders for elevators Otis started his own factory in September 1853. By the end of 1856 he had filled more than 40 orders for freight elevators. Within the next year Otis installed his first passenger elevator in a multi-storied retail building in New York. Otis died in 1861, severely in debt.

Otis' sons Charles and Norton took over their father's business, renaming it Otis Brothers and Co. Their collective work produced 53 patents for elevator design and safety features. By 1872 the company produced more than 2,000 steam-powered elevators and grossed over one million dollars in sales. In 1878 Otis produced a faster, cheaper hydraulic elevator. The electric-powered elevator replaced this model in 1889. At the same time Otis first exhibited the escalator at the 1900 Paris Exposition. The early 1900s saw the production of the first gearless-traction elevator. This design remained essentially unchanged even at the end of the twentieth century.

The merger of Otis Brothers and Company with 14 other elevator companies resulted in the creation of the Otis Elevator Company. This incorporation proved so successful that in 1902 the company purchased overseas firms and strengthened its monopoly of the market. By 1912 Otis had seven factories within the United States, and by 1924 it owned subsidiaries in Canada, Belgium, Italy, and Germany. In order to compensate for the lost revenues suffered during the recessions, Otis started selling service and maintenance contracts for all its installations. The company's net income rose to \$8.4 million in 1929, falling sharply with the advent of the Great Depression (1929–1939).

Constant improvements in design marked the first third of the twentieth century. Features such as a self-leveling device allowing the platform to stop exactly at

each floor and a push-button system increased the sales and reputation of the Company. World War II (1939–1945) generated further business for Otis, not only with orders for elevators but for range finders and tank and aircraft engine components as well. These military contracts continued to be profitable during the Korean War, accounting for approximately one-quarter of its business in 1953.

In 1948 Otis introduced the Autotronic System for commercial contracts. These systems utilized electronic controls to operate the cars while a computer directed and handled the traffic accordingly. These systems became popular because of their speed and efficiency. By 1956 the job of elevator attendant had become obsolete as more and more companies were converting from manual to automatic systems.

In spite of these developments the decade following World War II proved to be a period of stagnation for the company. The trend in architectural design towards single-story shopping centers and ranch-style homes changed the sales environment. To compensate Otis turned to diversification in order to generate income. Purchasing outside acquisitions such as electronic pilot trainers, automatic bowling pin-setters, and forklift trucks generated little profit. Between 1955 and 1968 Otis' net sales quadrupled to \$481 million, but its net income rose only from \$11.9 million to \$22.1 million.

In 1968 Otis installed 255 elevators and 71 escalators in New York's new World Trade Center. At this time the company controlled half of the U.S. elevator market. Refusing to accept a deteriorating sales picture, Otis acquired five companies involved in materials handling. In 1969 the company created its Diversified Systems Division to apply elevator and escalator technology to warehouses, automobile parking, and container handling systems. Further advances in design and manufacturing of horizontal moving systems produced the "Trav-O-Lator" and Odyssey models for transporting people quickly and comfortably.

By 1973 Otis surpassed \$800 million in sales while maintaining plants in 17 countries. Its overseas operations accounted for 37 percent of its annual income. Overall Otis' share of the elevator market increased from 19 percent to 30 percent. The backlog of orders in March 1973 reached an all time high totaling \$1.1 billion.

In October 1975 United Technologies Corporation (UTC) purchased 55 percent of Otis' stock in order to reduce its dependence on military contracts. This agreement did not hinder Otis' growth as a UTC subsidiary, with sales continuing to grow during the

Over-the-Counter Securities Market

last decades of the twentieth century. The unveiling of the Elevonic 101 system in 1979 brought design and engineering break-throughs. This system boasted the first control system using microprocessors to control every aspect of the elevator operation. The Elevonic 401, produced in 1981, utilized synthesized speech, information display, and advanced security systems. These elevator systems benefited from the continued development of computer technology in the late twentieth century.

By the mid-1990s Otis' major manufacturing plants included facilities in the United States, Mexico, Brazil, Great Britain, France, Germany, Italy, Spain, the Czech Republic, Russia, Japan, China, India, Taiwan, Malaysia, and Australia. Otis revenue of \$4.64 billion accounted for 22 percent of UTC's total revenue. Otis also held 23 percent of the world market in 1994 and was selling approximately 39,000 elevators and escalators per year. Two-thirds of its 66,000 employees had averaged 15 years of company experience and typically held the position of field installer and mechanic. With a vision for future development and growth in the world of transportation technology Otis invested more than \$100 million in engineering, research, and development in 1994.

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OVER-THE-COUNTER SECURITIES MARKET

An over-the-counter (OTC) securities market is a secondary market through which buyers and sellers of securities (or their agents or brokers) consummate transactions. Secondary markets (securities markets where previously issued securities are re-traded) are

mainly organized in two ways. One is to form an organized exchange, where buyers and sellers of securities (mostly represented by their agents or brokers) meet at a central place to conduct their transactions. The New York Stock Exchange (NYSE), the American Stock Exchange (ASE, located in New York) and the Chicago Board of Trade for Commodities are examples of major organized exchanges in the United States.

An over-the-counter securities market provides an alternative way of organizing a secondary market—in this, dealers with inventories of securities at different geographical locations are in contact with each other through a computer network. In other words, these dealers of securities are ready to buy or sell securities over the counter to anyone who contacts them and accepts their quoted price. One may thus describe an over-the-counter securities market as an electronic market. The National Association of Securities Dealers Automated Quotations System (NASDAQ) is an example of an over-the-counter securities market in the United States.

See also: NASDAQ, New York Stock Exchange, Stock Market

OVERMAN ACT

In 1918 the Overman Act was passed by Congress, in the midst of World War I (1914–1918). It gave President Woodrow Wilson (1913–1921) power to coordinate government agencies for the war effort. The legislation was sponsored by Democratic Senator Lee Slater Overman (1854–1930) of North Carolina.

The emergency powers of the executive office have, at times, been a controversial issue in the political life of the nation. A 1973 Senate report on the subject explained that "American political theory of emergency government was derived . . . from John Locke (1632–1704), the English political-philosopher whose thought influenced the authors of the Constitution (who) argued that the threat of national crisis unforeseen, sudden, and potentially catastrophic required the creation of broad executive emergency powers." Locke reasoned that since the lawmaking power (Congress) is not always assembled and it is "too numerous, and so too slow" in dispatching procedures and remedies, latitude must be given to the executive power during times of national emergency. The Senate report described Wilson as the "model for future Presidents and their advisors." While the urgent and pressing matters of the war required Wilson to expand his authority, he also sought congressional approval for his actions.

President Wilson was reluctant to become involved in the war in Europe. However, after German attacks on the American merchant marine in 1917, he resigned himself to U.S. engagement in the conflict. On April 2 Wilson made a special trip to the Capitol where he addressed Congress. He asked them to declare war, saying, "the world must be made safe for democracy." Congress met the pronouncement with applause and on April 6 it passed a joint resolution declaring war on Germany. Wilson immediately mobilized for the fight, organizing a variety of defense and war agencies. In 1917 he set up the War Industries Board but Republicans in Congress pressed for the establishment of a war cabinet instead. Wilson pressed back by asking the lawmakers to grant him comprehensive economic power. These powers were conferred upon the president by the Overman Act, passed April 1918. By that time Wilson had already given the War Industries Board broad authority, but congressional approval was, nevertheless, critical in unifying government during wartime. When the fighting was over (Germany surrendered to the Allies in November 1918), President Wilson promptly relinquished his emergency powers and asked Congress to repeal the wartime emergency statutes, which it did.

OZONE LAYER

Ozone is a poisonous colorless gas with an acrid odor. Chemically, it is a variant of normal oxygen, except that ozone has three oxygen atoms per molecule rather than the two found in normal oxygen. There exists a layer of ozone occurring naturally six to thirty-one miles above the earth. This layer of ozone gas surrounding the earth protects living organisms at the

earth's surface from the dangerous ultraviolet radiation of the sun. The ozone layer normally absorbs about 98 percent of the ultraviolet rays that continually shower the earth. In small amounts, ozone can be useful as a water disinfectant and a purifier. If, however, ultraviolet rays came to ground level through the shield of the ozone layer, there would be massive lethal consequences for wildlife, crops, vegetation, and profound life-threatening problems for human beings, including cancer and immune system damage.

In 1974 chemists F. Sherwood Rowland and Marle Molina found that chlorine from chlorofluorocarbon (CFC) molecules was capable of breaking down ozone in the ozone layer above the earth. There was evidence that industrial chemicals and chemical exhaust from jet airplanes, as well as large volcanic eruptions, severely threatened the upper atmosphere and the ozone layer. In 1974, when damage to the ozone layer first became apparent, the propellants in common aerosol spray cans were a major source of CFC emissions. CFC aerosols were banned in the United States by 1978, but CFC chemicals remained in widespread use as coolant agents in refrigerators and in air-conditioners as well as in cleaning solvents. During the last decades of the twentieth century there was only a gradual move to ban CFC chemicals from all refrigerant systems, forcing modern industry to deal with alternative systems to stabilize the ozone layer. The question of how much protection is necessary has continued to be a controversial political issue because necessary changes in industrial systems proved to be profoundly expensive. At some level, however, such expenditure is crucial to the existence of human life.

See also: **Environmentalism**



PACKERS AND STOCKYARDS ACT

In 1921, the result of an investigation by the Federal Trade Commission (FTC), Congress responded to gross abuses within the meat industry by passing the Packers and Stockyards Act. The legislation made the meat-packing industry and any related industry subject to federal regulation and gave the Secretary of Agriculture purview over stockyard markets and operators. The act prohibited price fixing (the practice of pricing below cost to eliminate a competitive product), price discrimination (the practice of setting different prices for different markets), and the apportionment of markets (the practice of dividing up markets). The legislation helped eliminate monopolies in the meat industry (combined with the 1905 prosecution of the “Beef Trust” in the case of *Swift and Company v. United States*). However, critics have charged that, like the tobacco industry, government regulation led to industry control by a handful of businesses.

See also: Trust, Trust-Busting

PALEO-INDIANS

Paleo-Indians were the first inhabitants of North America (“paleo means old in Greek). They were also known as Lithic Indians; the word “lithic” is derived from the Greek “lithos” meaning stone, a reference to the material from which they made their tools. They migrated from Asia across the Bering Strait, the waterway that separates Asia (Russia) from North America (Alaska). Scholars believe that during the Late Ice Age (known as the Pleistocene glacial epoch, which ended about 10,000 B.C.) land masses were exposed by a drop in sea level or that ice covered the strait, forming a natural bridge. As large game traveled across this bridge the Asian hunters followed in pursuit, arriving in North America as early as 50,000 B.C.. During the thousands of years that followed they continued their

migration, spreading out across the Western Hemisphere. By 25,000 B.C. Paleo-Indians had begun crafting stone into spear points to be used as weapons. Archaeologists have therefore named Paleo-Indian groups for the different types of spear point they used such as Clovis or Folsom. When the number of large game, such as mammoth and mastodon, diminished and finally became extinct, the hunters turned to smaller prey such as deer and rabbits.

Paleo-Indians eventually settled in various post-Ice Age environments, including coastal regions, forests, mountains, and swamps. They adapted their lifestyles to their physical surroundings. Groups along the East Coast, for example, began to rely on the sea as a food source (in Virginia, ruins indicate that early peoples consumed a large amount of oysters). By about 2000 B.C. they began to cultivate plants, marking the transition to agricultural-based societies. Settlements became increasingly permanent. Between the years 500 and 1600 they developed ceramics, jewelry, and the bow and arrow, and began to focus on their spirituality.

When Europeans arrived in North and South America the native inhabitants they encountered were descendants of the Paleo-Indians. Ice Age nomads had settled as far east as Nova Scotia by 10,000 B.C.. There they were succeeded by the Micmac Indians, who in the early 1500s traded with French, Spanish, and Portuguese explorers.

See also: Beringia, Clovis Point

PANAMAL CANAL, BUILDING OF THE

After ten years of intensive construction, the Panama Canal was officially opened to shipping on August 14, 1914. In addition to a multitude of engineering challenges, the building of the Panama Canal survived

Panama Canal, Building of the



Foot Gate of Gatun Locks during the construction of the Panama Canal which reached completion August 14, 1914.

political turmoil and environment hazards. It is considered by many historians to be one of the world's greatest engineering accomplishments. Led by a group of American engineers, the completion of the canal fulfilled the dream of a shorter shipping lane between the Atlantic and Pacific oceans.

In 1534 King Charles I of Spain introduced the concept of a Central American canal. The Spanish government was eager to find a sea route between the two oceans that would allow them to ship the gold and silver mined along the Pacific coast of their South American colonies. Land travel to the Atlantic seaports was significantly hampered by the mountainous terrain and muddy jungle trails. The king commissioned a study of the Isthmus of Panama region to determine the feasibility of constructing a water passageway. The local Spanish governor, however, dismissed the survey, and nothing was done.

The discovery of gold in California in the late 1840s revived interest in a canal between the Atlantic and Pacific oceans. The Gold Rush of 1849 stimulated a massive migration of settlers from the eastern and Midwest regions of the United States to California. Many of these settlers traveled by sea along the Atlantic coast, crossed the Isthmus of Panama on foot, and completed their journey to California by ship along the

Pacific coast. The momentum for a canal was intensified when the American government finished a railroad across the Isthmus of Panama in 1855.

By then the United States and England had already begun surveying routes for a canal in Nicaragua and Panama. In 1850 the two countries signed the Clayton-Bulwer Treaty, which stated the canal would not fall under the control of either country upon its completion. During the Spanish-American War (1898) the United States recognized the need for a sea lane that would allow its fleet to pass from the Pacific to Atlantic Oceans. The United States focused its efforts on gaining full control of the proposed canal and convinced England to waive their claim by signing the Hay-Pauncefote Treaty in 1901.

CONSTRUCTION OF THE 40-MILE LONG CANAL LASTED 10 YEARS. TWO HUNDRED AND FORTY MILLION CUBIC YARDS OF EARTH WERE DUG UP—THE EQUIVALENT AMOUNT OF EARTH NEEDED TO CONSTRUCT 70 EGYPTIAN PYRAMIDS.

The Hay-Herran Treaty of 1903 between Colombia and the United States gave the United States a 10-mile wide strip of land across the Isthmus of Panama. In exchange, the United States would pay \$10 million

and an annual payment of \$250,000 to the Colombian government. Although Congress ratified the treaty, the Colombian government rejected it in hopes of receiving a higher payment.

Its recalcitrance angered many Panamanian business owners, and the local canal supporters began a successful revolution against Colombia. The United States, which had indirectly supported the revolution, immediately recognized the new government and signed the Hay-Bunau-Varilla Treaty with the Republic of Panama in 1904. This treaty included all the provisions that the initial treaty offered to Columbia, but it also provided the United States with a renewable 99-year lease.

The construction of the canal was actually begun in 1882 by a French company led by Ferdinand de Lesseps, who in 1869 had successfully constructed the Suez Canal. After a disastrous seven years of work, the company went bankrupt. Diseases such as yellow fever and malaria took the lives of 22,000 workers.

Twenty years later the United States was determined not to repeat Lesseps' failures. Although the United States was granted ownership of the canal zone in 1904, actual construction did not begin for another two and a half years.

In this interval, Colonel William Gorgas (1854–1920) made a significant contributions to the future construction effort by improving disease prevention. In 1891 Dr. Ronald Ross, a British army surgeon, found that certain types of mosquitoes transmitted malaria through their bites. A similar discovery was made by Dr. Walter Reed, an American army surgeon, who traced the source of yellow fever to the bite of a specific type of mosquito. Colonel Gorgas, who was chief sanitary officer in Havana, used these new medical discoveries to develop detailed sanitary procedures that greatly enhanced resistance to tropical diseases. Gorgas ordered breeding grounds for mosquitoes, like ponds, swamps, and lakes, to be drained or covered with oil to prevent the mosquito's eggs from hatching. Screened windows and doors were installed on all buildings. By the time the canal's construction began in 1906, yellow fever had been eliminated from Panama. Gorgas' methods were also successful at combating malaria, although the process was much slower compared to the conquest of yellow fever. By 1914 only seven workers had died from disease. Colonel Gorgas' guidelines and the medical research on which they were based saved the lives of countless workers and helped ensure the success of the canal's engineering efforts.

President Theodore Roosevelt (1901–1909) established the Isthmian Canal Commission to lead the construction project and he appointed John F. Stevens as the Commission's chief engineer. The project's organizational efforts were extremely demanding because of the scope and size of the construction efforts. The Commission recruited qualified workers from all over the world. Buildings were erected to house the workers; facilities were built to store heavy-duty earth moving equipment, which was shipped to the area from all corners of the globe. The ten-mile wide canal zone established a government with jurisdiction over its own police force and court system. When chief engineer Stevens resigned from the project in 1907, President Roosevelt appointed Colonel G.W. Goethals (1858–1928). Under Colonel Goethals the leadership of the construction efforts shifted from independent contractors to the United States Army Corp of Engineers.

Construction of the 40-mile long canal lasted ten years. Two hundred and forty million cubic yards of earth were dug up—the equivalent amount of earth needed to construct 70 Egyptian pyramids. More than 100 steam shovels were used and thousands of workers survived landslides, heavy rains, and an earthquake. The construction of the canal was completed on October 10, 1913, at a cost of \$380 million. The canal was officially opened on August 15, 1914.

By 1964 Congress went on record in favor of establishing a new treaty to govern control of the canal. Relations between the United States and Panama were shaken during the 1960s, when Panamanians voiced their anger at the initial terms of Panama's treaty with the United States. Riots occurred and anti-American resentment continued to fester throughout Panama. In 1977 President Jimmy Carter (1977–1981) signed two treaties with the government of Panama. On October 1, 1979, the Canal Zone ceased to exist as a formal U.S. entity, and the area was returned to Panamanian civil authorities. The United States and Panama share control over the canal itself until December 31, 1999, when Panama becomes the sole proprietor.

See also: Spanish-American War

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PANAMA CANAL TREATY

On November 18, 1903, the United States and the then new Republic of Panama signed the Hay-Bunau-Varilla Treaty, granting the United States exclusive control over a 10-mile strip across the Isthmus of Panama. This gave the United States control of the Panama Canal, a lock-type man-made channel connecting the Atlantic and Pacific Oceans across the isthmus. The canal is about 51 miles long, from the deep water of the Atlantic to the deep water of the Pacific. The United States paid \$10 million and agreed to pay an annuity of \$250,000 to Panama, which became a virtual protectorate of the United States. Because Panama had been a part of Colombia prior to its becoming a protectorate of the United States, the United States compensated Colombia for its loss with the signing of the Thomson-Urrutia Treaty in 1914. In 1921 Colombia was paid \$25 million when this treaty was finally ratified in Congress. The Hay-Bunau-Varilla Treaty of 1903 gave the United States the right to build and operate the canal, and it awarded the United States sovereign rights of over five miles of territory on either side of the waterway and area known as the Canal Zone. In 1936 the original treaty was voided by the Hull-Alfaro Treaty, which ended the eminent domain provisions of the original treaty and raised the annual annuity to Panama to \$430,000. In 1955 the Eisenhower-Remon Treaty further modified the original treaty to increase the annuity once again and to include building of a bridge over the Canal (finished in 1962). In 1977, because of ongoing rioting in Panama, a final treaty amendment was signed between the United States and Panama. The treaty now stated that control of the canal would revert to the Panamanians by the year 2000, giving Panama exclusive control of all the international ship-traffic passing through the canal yearly, including commercial vessels loaded with cargo.

See also: Panama Canal (Building of)

PANIC OF 1819

Financial panics have been known since the introduction of modern capitalism in the eighteenth century. Excessive speculation in the stock of a European colonizing company in 1720 led to a panic in France and England. In North America the newly formed United States quickly began experiencing the financial business cycles of booms and crises. A business boom driven by optimism over the nation's future immediately followed victory in the American Revolution (1775–1783), however, economic crises soon followed. Business over-expansion, personal extravagance in spending, the end of military contracts that had inflated prices, and an inability of the United States to establish a treaty regulating trade with Britain, led to widespread debt in the aftermath of the war. British textile products flooded the U.S. market causing domestic agricultural and industrial prices to substantially drop.

Distrust for any form of centralized government activity also pervaded the largely agrarian society. Yet the lack of a centralized government allowed an unsound money system to come into existence which destabilized foreign trade. The stage was set for the financial panic in 1785.

The establishment of a centralized federal government in the 1787 Constitutional Convention brought back optimism for economic prosperity. To institutionalize economic stability in the young country, Congress created the Bank of the United States in 1791. The Bank instantly became not only the largest bank in the nation, but the largest corporation at the time. Functioning as both a commercial and central bank, its chief political objective was to regulate lending practices of state banks. The state banks were issuing their own paper money in the form of bank notes with the promise they could be exchanged for gold or silver coins upon request. The central bank, though effective in achieving its goals, attracted substantial opposition. Western agrarian communities demanded an inflated money system, opposed by the National Bank, to keep agricultural prices high and to pay off debts with cheap money. Responding to public dissatisfaction over the centralized power of the Bank, Congress allowed its charter to expire in 1811. With the National Bank gone, state banks expanded quickly and returned to the practice of issuing paper notes.

The problems associated with the national debt from the War of 1812 (1812–1814) led to chartering of a Second Bank of the United States in 1816. This again attracted the ire of the small farmers. Following victory in the War of 1812 western land speculation rose sharply. State banks and even some branches of the

Nicholas) Biddle inherited a bank (Second Bank of the United States) whose previous leaders had proved incapable of their tasks. William Jones, the first president, had . . . been a political choice; he was a man who knew nothing of banking, and to make things worse, was venal as well. During his years as president, the bank caused distress in all parts of the country through speculation on the part of its leaders . . . and unwise loan policies. After a Congressional investigation, Jones resigned, and was replaced in 1819 by Langdon Cheves . . . (who) was determined to put the (Bank's) affairs in order, and to do so called in many loans and advances. The result was . . . the abrupt end of a period of wildcatting.

Robert Sobel, Historian, 1969

U.S. Bank encouraged the wave of speculation. However, fewer gold coins and silver dollars were in circulation, and currency speculators were hoarding the specie (gold or silver). As a consequence such coin was used primarily for large transactions, bank reserves, and foreign payments. Domestic land and commodity speculation was commonly in the form of paper bank notes printed by wildcat (unregulated) banks. In the South, following invention of the cotton gin in 1793, cotton plantations and exports expanded rapidly, reaping huge profits. The new cotton aristocracy engaged in "conspicuous consumption" and proceeded to spend money lavishly.

The managers of the Second Bank of the United States feared a shortfall in the specie backing up the bank notes, given the unchecked speculation and growth based on a nondescript system of currency. In 1819 the Second Bank decided to initiate a sharp contraction of credit by refusing to make loans. There were "bank runs" where depositors rushed in a panic to banks to have their notes converted to coin. Lacking suitable reserves, many state banks failed. With the banks closing their doors, millions of dollars owed to the federal government for sale of public lands went uncollected. The Second Bank's action led to a severe depression, particularly in the South and West. Prices, such as on the commodity market for cotton, declined sharply. With cotton income down, the South decreased their purchases of manufactured goods from Northern industry. Also, the South was sending much less cotton north to the Northern mills (which had been

ultimately exported overseas by Northern shipping companies). The North lost both its Southern and foreign markets.

In the aftermath of the panic, Congress conducted investigations of alleged mismanagement of the federal banking system which, most people thought, had derailed an otherwise booming economy. Manufacturers also lobbied for better protection through tariffs and excise taxes. To the rescue of individual debtors who were victims of the panic, several states passed legislation relieving them of their debts. The depression lasted until 1823 when commodity prices and the economy in general began picking up again and public confidence in the banking system was restored. However, the Panic of 1819 presaged many other financial panics throughout the nineteenth century as the nation sought ways of balancing free market capitalism with economic stability.

See also: Panic of 1837, Panic of 1907, Panics of the Late Nineteenth Century

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PANIC OF 1837

In the early nineteenth century an unstable currency and a new shaky banking system supported the nation's economic foundation. Construction of the nation's transportation system, which consisted of railroads and canals, led to accumulation of large debts by investors in the early 1830s. In addition speculation was rampant in western lands as states became settled,

The economy and the securities markets did not recover fully from the 1837 panic until 1844, when trade revived, the effects of the liquidations had been absorbed, and expansion into the West accelerated once more. The Mexican War and gold discoveries in California gave a further fillip (boost) to the economy, as did the banking and tariff reforms of the Polk Administration.

Robert Sobel, Historian, 1968

and new banks were chartered. In the 1832 elections President Andrew Jackson (1829–1837) ran on a populist platform marked by an anti-Eastern establishment philosophy including opposition to the Second Bank of the United States (created in 1816). Jackson charged that the Second Bank did not fairly treat the common citizen and that it only served the wealthy.

Following his assumption of office Jackson proceeded to dismantle the central banking system. In 1833 Jackson began transferring federal funds from the U.S. Bank to selected state banks, often owned by friends of Jackson. He also stopped depositing government money in the Second Bank, instead placing new proceeds from land sales and revenue from taxes in various state banks, which he called his “pet banks.” With more money the state banks increasingly expanded their issuance of credit, giving out too many loans and printing almost worthless paper money, as banks had been allowed to issue their own paper currency. Confidence in the currency declined, especially within the Eastern business establishment. So much available paper money led to a spiraling inflation rate. The price of land available from the government also rose. Since this did not stem the number of speculators, they borrowed more heavily. In 1832 the government sold less than \$3 million in land and by 1836 the amount increased to almost \$25 million. To make economic matters worse, in addition to the high inflation, imports began exceeding exports creating a foreign trade deficit.

With land speculation continuing rampantly Jackson issued the “Specie Circular” in 1836, which required that all public lands be bought with specie (coin), rather than private script (paper money) issued by individual banks. Also in 1836 Congress passed an act distributing the surplus federal revenues from the U.S. Treasury to the states. In reaction to the tightening of federal monetary policies, banks reduced credit available. With fewer loans available for domestic

investment, reliance on British investors grew. Unfortunately, this coincided with an internal financial crisis in England, leading British creditors to collect on their loans abroad. Three British banking houses failed and a trade imbalance for the United States grew as Britain could afford fewer U.S. exports. Gold began an increased flow to Europe. With the U.S. economy already in decline, another financial blow occurred with widespread crop failures in 1835 and 1837. A financial crisis loomed.

In May 1837 New York banks ceased specie payments to investors, leading other banks across the nation to do the same. With no coin to back it paper currency lost its value, triggering the Panic of 1837. During a brief ensuing time span many companies crashed and fortunes were lost. Unemployment skyrocketed, especially in the West and South with a loss of agricultural exports and crop failures. Public calls for banking reform increased as a six-year depression followed.

The Panic of 1837 brought about changes in banking and monetary policy. President Martin Van Buren (1837–1841) moved to establish an independent U.S. treasury system in 1840 to hold and disburse government funds. Though initially defeated, the federal system became permanent in 1846. From that point onward, to help stabilize the nation’s economy, public funds were held in the U.S. Treasury and its branches in various cities, rather than in the nation’s private banking and financial system.

State governments had also invested heavily in enterprises such as canal and railroad construction with hopes of ultimately boosting their economies. Many of the existing 26 state governments went bankrupt or came close to it. New York state government became a leader in reform with adoption of a new constitution in 1846, instilling a philosophy of state governmental fiscal restraint. To address economic displacement of the states’ citizens, a key part of various state legislative reform measures was protection for families who fell into debt. State laws were passed to alleviate the effects of the panic on an individual basis. Texas was the first state to pass a homestead exemption law following the panic. These laws aimed at shielding private individuals from free market fluctuations and provided some state protection for families during the transition to an industrial economy in many sections of the country.

On the national level Congress passed a federal bankruptcy law removing about \$450 million in debt from a million creditors. However, by bailing out

investors the credit system itself was substantially undermined. Creditors were more hesitant to hand out loans unsure if they could enforce repayment. The numerous bankruptcies resulting from the panic and associated debt relief similarly discouraged foreign investors. The Panic of 1837 had cost British investors almost \$130 million.

Difficult economic times contributed to the rush of emigrants that began flooding across the Oregon Trail, beginning in 1843, seeking a fresh economic start. Thousands of emigrants had been displaced by the depression resulting from the Panic of 1837. Ironically, the depression drove U.S. expansionism and spurred new economic hope by the late 1840s.

See also: Nicolas Biddle, **Panic of 1819**, **Panic of 1907**, **Panics of the Late Nineteenth Century**

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PANIC OF 1907

Economic prosperity during the first several years of the twentieth century led to expanded bank credit and rampant speculation in railroad consolidations, western mining ventures, and the coastal shipping industry. With President William McKinley's (1897–1901) administration favoring business interests, powerful business trusts remained poorly regulated and competed with banks. Between 1897 and 1907 imports and exports almost doubled along with the volume of money in circulation, from \$1.5 billion in 1896 to \$2.7

billion in 1907. Deposits in the national banks (created in the 1860s) more than doubled from \$1.6 billion to \$4.3 billion. U.S. economic prosperity was shared with many other nations.

Despite economic well-being gold production was lagging behind as demands for investment funds were increasing. A capital shortage was beginning to appear and money was becoming tighter. To help avoid the periodic financial panics of the late nineteenth century, governmental business reforms were introduced. Congress created the Interstate Commerce Commission through the Interstate Commerce Act of 1887. The courts proceeded to weaken the act, but in 1906 the Hepburn Act reasserted the power of the federal government to regulate railroad rates. These regulatory efforts, however, did not save the economy from periodic panics. In 1907 the economy again ran out of steam and fell into depression.

However, business financial troubles began appearing early in 1907. In February the business giant, Standard Oil Company, suddenly faced financial difficulties which caused a sharp drop in the stock market. Then a shipping conglomerate failed in the summer, followed in October by the failure of the United Copper Company. This caused a run on banks as depositors fought to withdraw their funds. Later in October closure of the Westinghouse Electric Company and the Knickerbocker Trust Company accompanied with the suicide of Knickerbocker's president finally triggered a panic in the stock market and suspensions or failures of several banks.

The government turned to New York City's J.P. Morgan and fellow financiers to implement an emergency strategy by loaning \$40 million to rescue selected banks and businesses. With President Theodore Roosevelt's (1901–1909) approval, Morgan had United States Steel Corporation purchase holdings of its major rival, Tennessee Coal, Iron and Railroad Company. However, Roosevelt did not initially appreciate what Morgan and others stood to gain personally out of this arrangement—the action strengthened the existing steel trust. This outcome was not well accepted by Roosevelt, known to his public as the “trustbuster.”

The panic was limited in scope, not causing extensive unemployment, bank and business failures, or disruption to the agricultural economy. However, the recovery tactics affected the image of big financiers as the public, fearing the power of J.P. Morgan and others, saw the need for banking and monetary reform. Foreign investors also lost confidence, perceiving continued U.S. financial instability from the previous century. (Since the charter of the Second Bank of the United

States had expired in 1836, the nation had been operating for over 70 years without a central banking organization.) In response Congress passed the Aldrich-Vreeland Currency Act in 1908 which, during future crises, provided for issuance of emergency bank currency by groups of national banks. Other congressional actions included the creation of the Postal Savings System in 1910 to protect the savings of the poor, and in particular immigrants. The Aldrich-Vreeland Act also created the National Monetary Commission (NMC) to determine needed banking reforms.

Clearly the historic requirements of banks maintaining certain levels of reserves to help insure liquidity of bank notes and deposits were not sufficient measures to blunt financial crises. The NMC studied banking practices in the United States and Europe, which resulted in a 38-volume report in 1911. Congressional examination and debate over the report's findings indicated that the nation needed greater flexibility in lending power in addition to elasticity of currency. As a result Congress passed the Federal Reserve Act in 1913 creating the modern reserve bank system, the Federal Reserve System. The Federal Reserve became the lender of last resort, designed to meet liquidity demands of the entire banking system. This new system placed Federal Reserve Banks throughout the United States, thus eliminating the concentration of banking in New York City. Lastly, the Federal Reserve would also standardize the currency through issuing federal reserve notes.

See also: Federal Reserve System

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PANICS OF THE LATE NINETEENTH CENTURY

During the late nineteenth century the largely unregulated and unstable U.S. economy witnessed a series of financial panics between 1857 and 1893. Financial panics are socioeconomic events, often psychologically driven, in which a more or less irrational fear and sense of futility sweeps through investors or some other group. Usually occurring during periods of economic optimism and over-expansion the actual panic-driven activity varies depending on the nature of the sudden crisis that spurred the fear. (For example depositors could start a run on banks by demanding their money back out of fear the bank has insufficient capital reserves to cover its deposits.) Often, but not always, panics lead to economic depressions characterized by high unemployment and lower living standards.

Prior to 1863 U.S. banking in the nineteenth century was characterized by widespread recklessness. The money supply used to finance industrial expansion fluctuated markedly. With demise of the Second Bank of the United States in 1836 state banks would periodically print and lend money, or often make loans with insufficient capital on hand while at other times they would greatly restrict credit. Under this relatively unpredictable system commodity prices fluctuated greatly as did the level of business activity.

The period began optimistically with victory in the Mexican War (1846–1848) which resulted in the acquisition of California and the American Southwest followed by the discovery of gold in California. An economic boom period followed. Speculation was rampant in railroad construction, manufacturing, and the newly gained western lands. The first major sign of financial over-extension was the failure of the Ohio Life Insurance Company of Cincinnati in August of 1857. The Panic of 1857 quickly spread through the developing Eastern industrial centers and Western wheat belt resulting in high unemployment. Yet the South's cotton trade with Great Britain, sustained through low tariffs, continued to prosper. By winter squabbling between the North and South intensified. Suffering numerous bank failures, the North and West turned to the newly formed Republican political party. Economics as well as slavery became the key issues of the 1860 presidential election.

The American Civil War (1861–1865) devastated the Southern economy and financing the war left the U.S. government in debt. Congress created a national

The ultimate bailout of the Treasury came from Europeans and their best-known agents in New York. Despite eighty years of progress, the situation appeared to have changed little since the War of 1812. This was annoying to many advocates of central banking because two private bankers managed to perform central banking operations for the United States, charging a fee in the process.

Charles R. Geisst, *Wall Street: A History*, 1997

banking system in 1863 to stabilize the economy. The National Banks Act created a system of privately owned banks that issued notes backed by U.S. bonds driving previously issued state bank notes out of circulation. However, the new “national” banks still failed to take actions to increase the money supply in order to escape the clutches of the threatened depression.

In the 1870s speculators ignored, once again, the problems of the increasing trade deficit. Instead, they loaned more money to the railroad companies. Almost all activity on Wall Street and investment capital was singularly focused on the railroad industry. Unable to raise sufficient loan capital, over four thousand U.S. businesses failed in 1872. In the fall of 1873 a panic ensued as several major New York financial firms failed, including the most noted banking house, Jay Cooke and Company. Wall Street closed for ten days as many other companies and citizens faced bankruptcy. The subsequent severe depression left half a million people unemployed by 1875. Another 18,000 businesses failed in 1876 and 1877 including most railroad companies and iron mills in the United States. With the lack of organized relief programs, hunger and destitution spread. For those still employed, wages declined leading to numerous strikes, including a violent railroad strike in 1877. Finally, by 1878 the economy began to improve and with increasing gold reserves, the U.S. government in 1879 placed the economy on a gold standard.

Nevertheless, economic instability persisted. Capital investments in railroads, the mining of newly found silver deposits in the West, industrialization, and foreign enterprises exceeded possible economic returns in the 1880s. Prices for goods declined and by 1883 an economic depression commenced. Overproducing wheat farmers and silver miners of the West pushed for increased currency circulation through unlimited silver coinage to combat declining wheat prices. Meanwhile

Eastern industrial growth outpaced the nation’s gold production leaving banks without sufficient gold reserves to adequately back loans for capital investments.

After a mild economic recovery in the late 1880s, the British economy suddenly declined sharply in 1890s leading to failure of the prominent Baring Brothers and Company banking house. Impacts on the U.S. economy were direct and investment of foreign capital, particularly British, into U.S. business dropped dramatically. The sale of American securities by foreign investors led to a Wall Street collapse that year and substantial exporting of gold. In addition, under political pressure from the West, President Benjamin Harrison (1889–1893) promised to relieve the suffering of silver producers from the declining price of silver. Congress passed the Sherman Silver Purchase Act of 1890 which obliged the United States to purchase large amounts of silver on a continuing basis.

By early 1893 the gold reserves dropped below the set \$100 million baseline minimum. The amount was considered the minimum to assure redemption of government obligations. With the price of commodities, gold, and silver continuing downward, the Philadelphia and Reading Railroad failed, then the National Cordage Company. The Panic of 1893 had begun. This panic hit banks in the South and West particularly hard as investors rushed to banks to convert their holdings into gold. Almost 600 banks suspended operation and by the close of 1893 4,000 banks and 14,000 businesses had failed and four million people were unemployed.

In an effort to bring relief newly elected President, Grover Cleveland (1893–1897), then in his second term, repealed the Silver Purchase Act. This caused silver prices to drop dramatically and brought economic devastation to parts of the West. A depression with widespread unemployment lasted from late 1893 through much of 1894. Violent strikes erupted, including the Pullman Strike in 1894. Jacob Coxey, a small businessman, led his “army” of unemployed on a march from Ohio to Washington, D.C. to present Congress with a demand for creating jobs, mostly on road repair.

Cleveland arranged for Eastern bankers including J. P. Morgan to purchase specially issued U.S. bonds to help replenish the gold reserves. This action raised public fears over the increasing influence of East financiers.

Due to poor European agricultural harvests in 1897, the export of American produce significantly increased the circulation of gold. In addition, the domestic production of gold increased steadily through

Paper Industry

the 1890s with gold discoveries in the Klondike region of Alaska. The economy rebounded by 1898.

While the recurrent business cycles left many Americans bankrupt foreign investors also lost millions in each panic episode. The pattern constantly repeated itself. Foreign investors would avoid investment in U.S. securities immediately following an economic downturn and contraction. Then as domestic investors began making fortunes with securities at lowered prices and economic expansion growing, the foreign investors would be lured back only to suffer another panic and downturn.

Such financial business cycles of recurrent panics through the late 19th century established a public mood for substantial economic reform. A major factor behind the dramatic financial swings during this period was a lack of public confidence in the largely unregulated economic system, particularly given extensive political and business corruption. Reformers sought increased protection against concentrations of economic power in the hands of a few private financiers and enhanced stability for foreign as well as domestic investors.

See also: **Jacob Coxey, Pullman Strike**

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PAPER INDUSTRY

According to ancient writings paper was first made by a eunuch in the court of the Chinese emperor

Ho Ti. He is thought to have used the bark from a mulberry tree. The earliest known paper that still exists was made from rags in about A.D. 150. China was the only area where paper was made until the technique surfaced in Japan and then in Central Asia. The Egyptians did not make paper until A.D. 900. Around 1150 a papermaking mill was built in Spain and the art of papermaking spread throughout Europe. The English built their first mill in 1495; it was 200 years after this that paper was first manufactured in America.

In 1690 the first paper mill in the American colonies was constructed in Germantown, Pennsylvania. It was built on the banks of the Monoshone Creek by William Rittenhouse, a papermaker trained in Germany and one of the first Germans to settle in the New World. His ambition was to make fine white paper from the raw material of rags. During the American Revolution (1775–1783) the Rittenhouse mill donated paper for pamphlets and newspapers. Paper was also used to make gun wadding and cartridges used in the war.

Papermills sprang up to meet the demands of a growing market. New mills thrived that were near cities and towns and that had a plentiful supply of rags for the basic raw material. A new job title emerged for those seeking employment in the paper industry. For lack of any more sophisticated name, the word “rag-picker” was coined for those that scurried around the cities collecting rags for the papermakers. There were approximately 185 paper mills in the United States by 1810. The supply of rags used to make paper was running low and papermakers began looking for alternative materials. On January 14, 1863, the *Boston Weekly Journal* became the first U.S. newspaper to be printed on paper made from ground wood pulp.

As the United States grew in size so did the paper industry. Technology kept up with the need for faster production. The first practical machine for papermaking was invented in 1798 by Frenchman Nicholas Louis Robert. An improved machine constructed by British brothers Henry and Sealy Fourdrinier appeared in 1803. The first machine that produced paper in a continuous sheet was installed by Thomas Gilpin in Wilmington, Delaware in 1817. Straw and wood were being used as raw materials and machine speeds were greatly increasing. Paper was now being made in longer and wider dimensions.

By the late 1990s the United States and Canada were the largest producers of pulp, paper, and paper products in the world. The U.S. paper industry was accountable for approximately one percent of the U.S. national income. In the 1990s the United States employed 750,000 workers in the paper industry alone.

Towards the end of the twentieth century conservationists became concerned with the impact of paper production on the environment. Paper mills had the unfortunate tendency to foul the water supply and destroy wildlife. The industry set a goal to recover 50 percent of all used paper via recycling by the end of the twentieth century. By 1999 it appeared that this estimate was low; twice as much paper was recovered for recycling as was sent to landfills. Another economic and social issue affecting the paper industry at the turn of the century was the promise of a “paperless” world by those who believed that technology and commerce would shape every facet of society. Instead of this outcome, technological growth seemed to be followed by an increase in the demand for paper. This growth appeared to be based on the premise that paper is universal and relatively inexpensive; replacing it with electronic apparatus makes communication exclusive and, in some cases, too expensive.

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PARTNERSHIP

A partnership is a legal organization in which two or more individuals own and operate the business. Partnerships are not limited as to the number of possible partners or the number of employees. Generally, however, partnerships are small in size. Partnerships are a common form of organization in the professions (businesses such as retail shops and service trades like

car repair shops) and in wholesale firms (which buy from producers and sell to retailers).

Businesses organized as partnerships are advantageous for several reasons. No formal legal process is required to start a partnership, but most are based on signed agreements between partners as to how the costs and profits will be divided. Although certain licenses or permits may be required, few fees are to be paid or papers filed with government agencies. Owners may have a great deal of flexibility and freedom in decision making. Also, instead of working for someone else and receiving a salary, the owners may keep all the profits to do with as they see fit. The talents and abilities of more than one person will be available to the business, and, with several individuals backing the firm, bank loans may be easier to obtain.

The largest economic disadvantage of partnerships is unlimited liability. The owners are personally responsible to the full extent of whatever wealth they own for all the debts of the business, both jointly and separately. This means that if one individual owns 1/4 of a firm and the firm goes out of business with debts of \$400,000, the individual is liable for \$100,000. However, if the other three partners disappear, the one remaining would be liable for the entire \$400,000 (and even personal possessions may be taken to satisfy creditors). The actions of any one partner are the legal, unlimited responsibility of all partners. Another disadvantage is the limited ability to raise enough capital for the business to grow, be efficient, and highly profitable. In most cases raising sufficient investment capital is problematic.

In the United States during the 1980s and the 1990s, the percentage of total firms organized under partnerships and their sales remained relatively constant. In 1993 partnerships made up 6.9 percent of all U.S. firms and represented 1,467,000 businesses; they received 4.8 percent of total sales, about \$627 billion.

PATENT

A patent is a legal document issued by a government granting exclusive authority to an inventor for making, using, and selling an invention. The invention must have a sufficient degree of newness, usefulness, or novelty to distinguish it from items with existing patents. To qualify for a patent, an invention may not merely be a substitution, change, or combination of items. In the United States inventions may include



These two children study the original patent granted by the United States government. The document was presumed lost until it was recovered in a trunk of papers in 1954, and preserved by the Chicago Historical Society.

products, machines, methods, new uses, and even new forms of life as genetically engineered bacteria.

The exclusive authority granted is considered a barrier to entry, that is, something that prevents anyone else from copying or producing the invention without permission. By doing so, government hopes to encourage creative innovations by providing sufficient time for the innovator to recoup his research costs and realize profits. The inventor may manufacture, use, or sell his invention in a monopolistic atmosphere.

Each country has its own system of patents. In the United States, applications are made to the U.S. Patent and Trademark Office (PTO), and it takes up to two years to process. The patent is granted to the first inventor rather than the first person to make application, so inventors must document when they first came

up with the idea. The PTO exhaustively checks previous patents to make sure of no duplications. If none exist, PTO sends a notice of allowance to the inventor. Upon paying fees, the patent is issued. The patent protects the invention for 17 years. A design patent, which covers only the appearance of an item, is issued for 14 years. A patent owner may sue on grounds of infringement to stop any copying of the invention.

The U.S. *Constitution* first empowered Congress to secure exclusive rights for inventors. At the beginning of the twentieth century, 82 percent of patents issued in the United States went to individuals and 17 percent to U.S. corporations. By 1962 about 28 percent of the patents went to individuals while 59 percent went to U.S. corporations, 12 percent to foreign entities, and two percent to the U.S. government. The sharp

decline in individual patents could partially be explained by large increases in corporate research and development expenditures funded by both the federal government and private industry.

In 1992 the North American Free Trade Agreement (NAFTA) highlighted the continued importance of patents by requiring each member country to provide both product and process patents for all kinds of inventions.

See also: North American Free Trade Agreement

PAY EQUITY

Pay equity concerns an aspect of the growth of capitalism involving the fairness with which the system distributes its expanding wealth and how it shares its recurring hardships. An example of the disparity of pay equity is the following: in 1986, in the United States, the lowest 20 percent of all families received only 4.6 percent of the total income, whereas the top 20 percent of all families received 43.7 percent. This disparity, or lack of pay equity, clearly results from the concentration of assets in the upper economic brackets. According to the *Encyclopedia Britannica*, “the disparity is the consequence of highly skewed patterns of corporate rewards that typically give, say, chief executive officers of large companies 50 to 100 times more income than those of ordinary office or factory employees.” Advocates of market-determined distribution of capital assets declare that in a society like the United States, with certain exceptions, people tend to be paid what they are worth—their incomes reflecting the economic value of their contributions to production. Critics of this point of view contend that labor, under capitalism, is paid less than its value because of the superior bargaining power of employers; in their view the claim of capital efficiency might easily mask an underlying condition of exploitation. Pay equity (achieving a fair sharing of wealth at all levels of any capitalist society), seems an ongoing dilemma of the capitalist system, a system that generates capital but does not pay heed, necessarily, to the moral or social implications of the creation of wealth. The pursuit of pay equity is ongoing and involves struggles within the capital economy in constant efforts by many groups to achieve justice.

See also: Capitalism

PENNEY, JAMES CASH

James Cash Penney (1875–1971) was born on his father’s farm in Hamilton, Missouri, the seventh of 12 children. He grew up in a stern, joyless family. His father, a farmer, served as an unpaid preacher for a fundamentalist sect known as Primitive Baptists. By age eight James Penney was forced to earn money to buy his own clothes. This was his parents’ way of teaching him the value of money and self-reliance.

Penney’s childhood and early adult life appeared quite ordinary. He finished high school and worked mostly in store clerk positions. Penney moved to Colorado for health reasons and his life changed. He was quickly employed by T.M. Callahan, the owner of the Golden Rule Mercantile Company Chain—a company Penney would later buy-out and make into his own.

THE ETHICAL MEANS BY WHICH MY BUSINESS ASSOCIATES AND I HAVE MADE MONEY IS MORE IMPORTANT THAN THE FACT THAT WE HAVE ACHIEVED BUSINESS SUCCESS.

J.C. Penney

Working in the Callahan store, Penney began to dream of operating his own chain of stores, based on the idea of having partner-owners who would share in all the profits. Additionally, he married and found living in a healthier environment stimulated his goals, ambitions, and imagination. In 1902 Penney became owner of his first store, one of the Golden Rule chain stores; he worked night and day for the success of this Kemmerer, Wyoming, store, which opened at 7 AM and closed it between 9 and 10 P.M.. Penney worked six days a week and half a day on Sundays.

His work and his sense of constantly expanding business—with more stores and mail-order catalogues—led to monumental national expansion throughout the 1920s. By 1927 J.C. Penney had opened 1000 stores throughout the United States. Penney knew he could not control the daily operations of many stores with such wide expansion. He decided that his success potential could only come true if he delegated responsibility to others and if he put his faith in the people he hired. This faith and his financial arrangements with store managers worked profoundly well. Individual store managers shared in one-third of the store profits. Sharing profits with store managers was, in Penney’s own estimation, was the motivating factor for success in business.

Because of this profit-sharing arrangement with his store managers, J.C. Penney was called “the Man

Pennsylvania

with a Thousand Partners,” a phrase Penney used in his autobiography. In his book Penney wrote: “The ethical means by which my business associates and I have made money is more important than the fact that we have achieved business success.”

In later life Penney, who now had the financial means to do what he pleased, operated cattle farms, became involved with charitable and religious endeavors, and pursued frequent public speaking engagements. His rise to fame and fortune crashed with the stock market crash of 1929—at age 56 he was \$7 million in debt. Yet the highly motivated Penney, still vigorous and determined, borrowed money and soon regained control of his retail empire. He wrote in his autobiography that all of his business success was based “in adherence to the Golden Rule, faith in God and the country.”

Despite early health problems, J.C. Penney lived to the age of 95. He died in 1971.

See also: Chain Store, Mail-Order House, Retail Industry

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PENNSYLVANIA

In Charles Andrews' *The Colonial Period of American History*, Pennsylvania's founder, William Penn (1644–1718), is quoted as saying, “I abhor contention, niceties, doubtful disputation, divisions, etc., and am for patience, forbearance, long suffering and all true moderation.” While Pennsylvania did not fulfill all of William Penn's high ideals as a “holy experiment” in tolerance and diversity, it certainly developed in very diverse ways. Its urban areas soon became some of the most influential in the nation, while its rural areas and

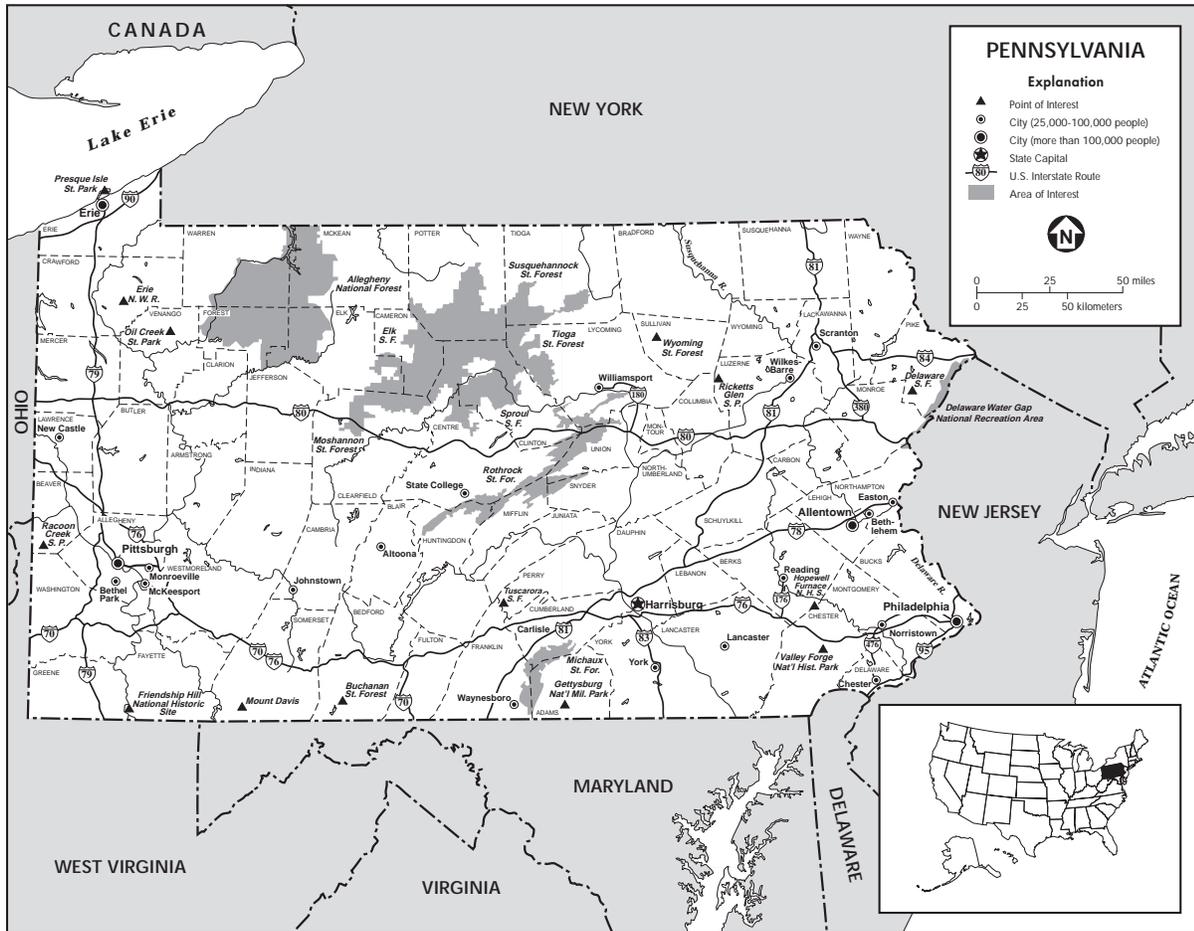
vast forests remained unspoiled. Its unmatched transportation network and abundant natural resources helped the state to become an industrial powerhouse in the late nineteenth century. Nonetheless, Pennsylvania retained its agricultural base. It weathered declines in manufacturing after World War II (1939–1945) but managed to retain much of its economic health in the 1990s by diversifying its economic base.

In 1614 Cornelis Jacobssen, sailing for the Dutch fur trade, was probably the first European to reach Pennsylvania. Swedes also settled there, surrendering to the English in 1664. The colony was granted by King Charles II in 1681 as a proprietorship to William Penn.

Penn, a Quaker who espoused pacifism, tolerance, and equality, was given broad powers to make laws and run the colony as he saw fit. Penn however gave up his lawmaking powers and set up a form of representative government. Many immigrants came to this tolerant colony. The *Declaration of Independence* was declared from Philadelphia, the state house in 1776, and the new Congress continued to meet there. Philadelphia would serve as the U.S. capital following the American Revolution (1775–1783) until 1783, and again from 1790 to 1800. Pennsylvania was the second state to join the Union, in 1780.

Pennsylvania's destiny as an industrial powerhouse was sealed when iron was discovered there. The first iron furnace was built in 1792, and coal began to be exploited as an energy resource. The early nineteenth century also saw the completion of the Main Line of Public Works, a canal and railroad system, which connected Philadelphia with Pittsburgh. Another aid to economic development was the stock company, which Pennsylvania encouraged to promote local enterprise. Pennsylvania chartered the Insurance Company of North America (INA) and the Insurance Company of the State of Pennsylvania in 1794, both of which profited mostly from marine and fire casualty policies. The Philadelphia and Lancaster Turnpike was also chartered and was completed in 1794, cutting the cost of moving goods from Lancaster to Philadelphia by about two-thirds.

Meanwhile Philadelphia was becoming the commercial center of the state. According to historian Thomas C. Cochran, political and economic business could be conducted there very conveniently: “Such compactness, possible for a city of less than 75,000 people, meant that business could be conducted reasonably expeditiously without telephone, telegraph, or a clearing house for the four banks.” By the time President Thomas Jefferson (1801–1809) declared an embargo on foreign imports in 1807, Pennsylvania's



State of Pennsylvania.

financial institutions and insurance companies were ready to meet the challenge, as were local industries, including Philadelphia’s many shipbuilders.

By the early 1800s Philadelphia had become the nation’s financial center. It was the home of the nation’s first stock exchange (1790), the First Bank of the United States (1791), the Second Bank of the United States (1816), and a number of other financial institutions. Under its powerful director Nicholas Biddle (1786–1844), the Second Bank became the only important rival to New York’s financial institutions. Philadelphia, however, lost its preeminence as a financial center when President Andrew Jackson (1829–1837) vetoed the Second Bank’s re-charter in 1831.

In the mid-nineteenth century Pennsylvania continued to tap its abundant natural resources, creating a center for the iron industry and other manufacturers and developing a transportation network which was matched by no other state by 1840. Both Philadelphia and Pittsburgh became major commercial centers. Several more roads were built, and Pennsylvania also

benefited from a section of the old National Road, which passed south of Pittsburgh. By the 1840s the improvements to canals and other waterways in the state also exceeded anything which had been done elsewhere.

It was in railroad building however, that Pennsylvania really excelled. By the 1850s lines connected Philadelphia with Germantown; Trenton, New Jersey; the Lehigh Valley; and New York City. In 1852 the Pennsylvania Central connected Philadelphia and Pittsburgh, solidifying these two cities as transportation meccas. In 1857 the powerful Pennsylvania Railroad purchased the State Works, virtually eliminating state competition and tolls. Following the American Civil War (1861–1865), the Pennsylvania Railroad dominated economic life in the state and held sway over most Republican Party politicians. By 1880 it was the world’s largest corporation, with more than 30,000 employees and \$400 million in capital.

For the next two decades Pennsylvania was the chief producer of coal, iron, and steel and a major

Pennsylvania

supplier of petroleum and lumber. Immigrants from other states and from abroad came in droves to the coal regions and urban centers to find work in mines, mills, and factories.

No story of the development of Pennsylvania industries would be complete without mention of Andrew Carnegie (1835–1919). A Scottish immigrant, he worked various jobs before being employed by the Pennsylvania Railroad. There he advanced rapidly, laying the foundations for his future fortune by investing wisely. After serving in the Civil War, he formed a company that produced iron railroad bridges and then founded a steel mill. One of the first to use the Bessemer process, Carnegie succeeded quickly, buying up several other steel companies and soon controlling a quarter of the steel production in the United States. In 1901 he sold his Carnegie Steel Company to United States Steel Corporation for \$250 million. After his retirement Carnegie was well-known for his philanthropy, endowing many educational and cultural institutions. He is best known to the general public for his gifts to nearly 1,700 public libraries across the nation and in Great Britain.

With Carnegie Steel, and with the financial expertise of banker Andrew Mellon (1855–1937), Pittsburgh retained its position as the preeminent industrial city in the region. The city and the state, however, were not without labor problems. Over a period of years many violent strikes occurred in both the coal and the steel industries. In 1892 a lockout at the Carnegie-owned Homestead Steel plant caused a bloody clash between workers and the Pinkerton guards hired to keep them out. Another strike in 1919, involving 50 percent of U.S. steelworkers, shut down the industry for more than three months.

During the 1920s Pennsylvania barely held its own economically, with a low growth rate and industrial products selling below normal levels. The Great Depression (1929–1939) brought even more economic grief to the state. Democratic Governor George H. Earle, breaking the longtime hold of the Republican party over the state, initiated a “Little New Deal,” following the policies of President Franklin D. Roosevelt (1933–1945) in supporting labor and farmers, regulating utilities, and building public works. Industrial workers came out of this period with a renewed ability to challenge industry. During World War II (1939–1945) Pennsylvania returned to a high level of prosperity as it turned out large volumes of munitions, ships, steel, and other materials for the war effort.

Republican and Democratic governors following the war continued efforts to support and encourage

industry in the state. Not until the governorship of William W. Scranton (1963–1967), however, did Pennsylvania return to full economic health. Through increased taxes for state services, more federal aid for economic programs, and steady increases in support for economic development, the state was able to bring its high unemployment rate to below the national average by 1966.

By the mid-1980s, Pennsylvania found itself in the throes of converting from an industrial to a service economy. Pittsburgh, long known for its iron and steel (not to mention its dirty air), became a prototype of a city which made the transition successfully, even converting the sites of its former steel plants and railroad yards to parkland, retail shopping, hotels, and other service-oriented industries. Areas such as Wilkes-Barre which remained depressed were helped in the late 1980s by Governor Robert Casey’s attempts to assist ailing industries. In the 1990s steel had been replaced as a major industry by food processing and chemicals, particularly pharmaceuticals. Pittsburgh became a center for corporate headquarters, and Philadelphia, a Mecca for high-technology industries.

By 1996 Pennsylvania ranked eighteenth in per capita personal income in the nation. Nearly 27 percent of the state’s workers belonged to labor unions, the sixth highest percentage in the United States. Though primarily known for its industries, Pennsylvania also remains an important agricultural state, producing large quantities of staple crops in addition to livestock. Another important economic sector is forestry. Pennsylvania’s numerous historic sites and natural recreation areas have also made tourism the second-largest employer in the state.

See also: *Bank of the United State (First National Bank), Bank of the United States (Second National Bank), Andrew Carnegie, Homestead Steel Strike, Steel Industry*

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PENNSYLVANIA MAIN LINE CANAL

Partly in response to the federally funded National Road project, which began at Cumberland, Maryland, in 1806 and continued westward to eventually reach Illinois, the state of Pennsylvania launched its own program of transportation improvements in 1826 to link East with West. Philadelphia leaders initiated the program because they did not want their city to be eclipsed by Baltimore (which prospered at least in part because of the National Road) or New York City (which flourished after the completion of the Erie Canal in 1832). Pennsylvania developed the Main Line of Public Works—a comprehensive network of canals and railroads to connect Philadelphia with Pittsburgh. The project was approved by the state legislature in February 1826 and work began at Harrisburg in July of that year. In 1837, the project, whose centerpiece was the Pennsylvania Main Line Canal, was completed. Unlike New York’s highly successful Erie Canal, the Pennsylvania Main Line Canal was never profitable. The project, built at an enormous cost to the state, never even broke even. One source described it as a “curious and cumbersome combination of railroads and canals.” The Main Line Canal did connect the state’s major cities, which emerged as thriving commercial centers by the end of the century. Pittsburgh, home to the iron and glass industries, became known as the Gateway to the West.

See also: Baltimore and Ohio, Erie Canal, National Road

PENNSYLVANIA RAILROAD

The building of the Erie Canal in 1825 and the emergence of the Baltimore and Ohio Railroad threatened Philadelphia’s traditional position as a center of commerce. These modern, accessible transportation networks made New York and Baltimore major trade centers. In an effort to maintain Philadelphia as an important market hub, Pennsylvania merchants secured a legislative charter for the Pennsylvania Railroad (PRR) in 1846.

Construction on the railroad began at Harrisburg, where it would connect to the state-owned Philadelphia and Columbia Railroad, and then advance westward to Pittsburgh. The 245-mile segment between Harrisburg and Pittsburgh was open for service in 1854. Three years later, the PRR purchased the state-owned railroad east to Philadelphia. For much of the 1850s the railroad developers were occupied with upgrading the railroad’s physical plant, buying new equipment, and experimenting with coal-burning fireboxes. By the beginning of the American Civil War (1861–1865), the PRR controlled a crucial segment of the nation’s rail system. Despite the inflated economy and the railroad’s deteriorating equipment, the PRR doubled its net profits during the war. By war’s end, the Pennsylvania Railroad was the largest corporation in the world. Free of debt, it was poised for further expansion.

Expansion continued well into the 1870s, providing rail service throughout the state and beyond. Main rail lines emanated from Harrisburg to Erie, Buffalo, Baltimore, Washington, D.C., Jersey City, and New York harbor. Additional lines were leased to provide connections to Midwest cities and extend PRR rails to the Mississippi River. By the end of the nineteenth century the railroad had ceased to expand, and it began to concentrate on consolidating the leased lines and making improvements in service.

BY 1910 THE PENNSYLVANIA RAILROAD OPERATED 10,000 ROUTE-MILES IN 13 STATES, OWNED MORE THAN 260,000 PASSENGER AND FREIGHT CARS, AND EMPLOYED MORE THAN 215,000 PEOPLE. THE PRR HAD BECOME A U.S. CONGLOMERATE—A CORPORATE GIANT THAT REFERRED TO ITSELF AS “THE STANDARD RAILROAD OF THE WORLD.”

Between 1899 and 1906 the passenger traffic on the main line between Harrisburg and Pittsburgh was the highest in the nation. To accommodate service demands, the railroad expanded by constructing four additional tracks and several new tunnels. In 1905 the PRR’s premier passenger train, the Broadway, began running between New York and Chicago in eighteen-hour trips. In 1907 newly constructed tunnels under the Hudson River allowed passenger trains access to the newly constructed Pennsylvania Station in Manhattan, New York. By 1910 the Pennsylvania Railroad operated 10,000 route-miles in 13 states, owned more than 260,000 passenger and freight cars, and employed more than 215,000 people. The PRR had become a U.S. conglomerate—a corporate giant that referred to itself as “The Standard Railroad of the World.”

Penny Auctions

Throughout this period the Pennsylvania Railroad carefully researched and implemented technological innovations. In the late nineteenth century the PRR pioneered the use of the air brake, steel rails, and automatic block signals. By 1908 the railroad was poised to introduce an all-steel passenger car. The PRR also began to use electric power, first in New York and then later in Philadelphia. The use of electric power reached full maturity in 1935 and completed the largest modernization process attempted by a U.S. railroad. In addition the PRR secured interests in Trans World Airlines, Greyhound Bus Lines, and numerous trucking companies in order to provide consumers with multi-modal transportation options.

The Pennsylvania Railroad did well enough in the first part of the century to survive financially through the Great Depression (1929–1939), but it began running into difficulties soon after. World War II (1939–1945) and the increasing cost of modernization placed a severe financial burden on the entire railroad industry. In 1946 the combination of large capital expenditures and postwar inflation produced the company's first annual net loss.

The need to replace its obsolete fleet of steam locomotives quickly became the company's most pressing issue. In spite of its deep ties and loyalty to the coal industry, the railroad replaced steam with diesel-electric power. This change offered many of the benefits of electric traction without the high initial cost. The completion of the transfer from steam to diesel, a \$400 million investment, took place in 1957.

During the 1950s and 1960s the Pennsylvania Railroad continued to experience a drop in revenue and service. The company felt the impact of heavy industry's decline in the Northeast, as well as stiff competition from other emerging means of transportation. In the late 1940s the railroad's average annual ton-miles totaled 54 billion, but by 1960 the total annual ton-miles had fallen to 43 billion.

In 1968 after many years of negotiation to prevent further loss, it merged with the New York Central (NYC) and eliminated duplicate routes and facilities. Unfortunately the new company, Pennsylvania Central, proved to be unable to withstand the declining rail traffic or cope with the soaring labor costs and declared bankruptcy only two years later. In 1976 Conrail and Amtrak purchased most of Penn Central's rail holdings. This allowed Penn Central to return to financial solvency as a real estate development firm.

See also: **Railroad Industry**

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PENNY AUCTIONS

Penny auctions were part of the militant tactics adopted by many Midwestern farmers before and during the Great Depression (1929–1939). The hard times that began in the mid-1920s led to what was arguably the most violent agricultural movement in U.S. history—the Farmer's Holiday Association. As farm foreclosures skyrocketed in the 1920s, with no relief from the government forthcoming, many Midwestern farmers began to cease all buying and selling of commodities. Dairy farmers blockaded roads into Sioux City, Iowa, attempting to increase the price of milk. Violence increased; milk-dumpings were common; and railroad service was interrupted. Fights broke out between the police and farmers. As part of this struggle—a struggle of farmers trying to survive—farmers began to threaten bank officers with physical harm at the auctions of farms claimed in bankruptcy settlements. The penny auctions involved farmers bidding a few cents for a neighbor's farm to re-purchase it, and if a few cents (pennies) did not clear the bank debt, then the bank officers were physically threatened. With the beginning of the Franklin D. Roosevelt (1933–1945) presidency in 1933, creditors and debtors began to work together to arrange re-financing of farms and to resolve payment of delinquent debts.

See also: **Great Depression**

PENSIONS

Pension is a benefit, generally monetary, paid to employees or their supervisors as retirement income or as compensation for disablement. A pension is a regular allowance intended to provide income security.

Pension plan benefits usually depend on the employee's age, years of service, and average salary. Plans may be contributed to jointly by the employer and employee, the employer only, or the employee only. Contributed funds are subsequently invested in a wide variety of financial markets.

Pension plans are available to workers in private industry, in local, state, or national government, or who actively served in a uniformed branch of the military. Private employers are not required to establish pension plans, but in the 1990s approximately half of private employees were covered by plans. Those private employees not covered and self-employed individuals may establish their own individual pension plans. The largest retirement plan, the U.S. government's Social Security system, provides retirement benefits to approximately 95 percent of U.S. workers when they retire. Enacted into law in 1935, the Social Security system requires both employees and employers to pay a percentage of salaries to social security through the Federal Insurance Contribution Act (FICA) payroll taxes.

In addition to Social Security, federal government pension plans include federal civilian retirement systems, military pensions, and railroad pensions. Federal government employees are covered under the Civil Service Retirement System (CSRS) if hired before January 1, 1984 and under the Federal Employee's Retirement System (FERS) if hired after that date. Both CSRS and FERS are funded by automatic payroll deductions from the employees and by contributions made by the particular federal agency for which the employee works. Many Americans are eligible for benefits based on their active military service. The first military pension was granted for the War of 1812 (1812–1814). The Veterans Administration administers the veterans pensions. Railroad pensions provide benefits for railroad workers. Although a private industry pension, a government agency, the Railroad Retirement Board, manages the funds.

Private pensions can be basically considered in two categories: defined benefit plans where an employee receives a definite pre-determined amount of money at retirement or if disabled; and, defined contribution plans where the employer pays a certain amount into the fund in certain time increments but does not guarantee any particular pension amount upon retirement. Examples of private programs include trust-fund plans, annuity plans, profit sharing plans, and thrift or savings plans including a 401(k) plan. Individual pension plans include individual retirement accounts (IRAs) and Keogh plans.

See also: Social Security Act

PER CAPITA INCOME

Per capita income is calculated by taking the total income, mostly wages, of a group of individuals, often a nation or a population of a specific geographic area, and dividing it by the number of individuals in the group. The resulting number is the per capita income, or income per person. Per capita income does not account for the uneven distribution of income, or wealth, among the individuals in the group. Per capita income is also usually stated in monetary units that do not reflect the effects of inflation or deflation. Per capita income can, however, be adjusted to account for changes in purchasing power and prices during a specific period of time. The adjusted per capita income is referred to as per capita real income.

PERKINS, FRANCES

Frances Perkins (1882–1963) changed her baptismal name from Fannie to Frances at the age of 25, as part of her religious conversion from Congregational to Episcopalian. Ms. Perkins also changed many other things during her 60-year long career as a social activist, social worker, social reformer, and feminist. Frances Perkins was best known for her appointment as the first female Cabinet officer in the United States government.

Frances Perkins was born in 1882, in Boston, Massachusetts, the eldest of two daughters born to Frederick and Susan Perkins, who were members of an old Maine farming family. She attended Mt. Holyoke College, where she studied physics and chemistry, subjects unusual for a girl in her day. While at Mt. Holyoke, Perkins was inspired by Florence Kelly, secretary of the National Consumers' League. Kelly was an advocate for the elimination of child labor and sweatshops (small businesses that crowded people into miserable working conditions for six or seven days a week, 12 to 16 hours a day). These conditions were quite common as the nation industrialized through the end of the nineteenth and into the twentieth century. Through Florence Kelly, Frances Perkins found her calling, and she devoted herself to a lifelong mission to help the poor and needy of the United States, especially children, women, and immigrants.

In 1905 Perkins joined the resident staff of what was to become a very famous and pioneering settlement house in Chicago, Illinois, known as the Hull House. Working there, she saw the affects of poverty and its daily issues firsthand. Though there was satisfaction to be had in providing direct services to the



Frances Perkins.

poor, Perkins began to understand that until certain laws were changed or created in the United States, no real change in the circumstances of the poor would be possible.

In Philadelphia in 1907 Perkins became a professional social worker. She began to advocate local legislation to stop the exploitation of young immigrant women and African Americans who had recently moved North from the former slave states of the South. She took courses in sociology and economics, and her social consciousness brought her closely in line with existing socialist thought of the time. She earned a degree in political science and moved to New York, where, in 1910 at the age of 30, she was offered the job of secretary of the New York City Consumers' League. As secretary she focused on changing laws to improve sanitary conditions in businesses, creating legislation for fire prevention in factories, and passing a 54-hour-week maximum labor law that would limit work hours of women and children under the age of eighteen. In 1918 she became a leader in the U.S. women's suffrage movement.

Perkins successfully supported many New York laws that regulated business practices with respect to the abuses of the workforce. She developed many political contacts in New York, and she took on various social and legislative projects on behalf of women and

children. Among her contacts was the governor of New York, Franklin D. Roosevelt (1882–1945), who later became President of the United States in 1933. Roosevelt was impressed with Perkins' skills and after his election to the presidency (1933–1945), he appointed her to his Cabinet as his Secretary of Labor. Frances Perkins became the first female member of a presidential Cabinet in U.S. history.

The pressure she felt to succeed at this post was immense. Many labor and business leaders were outraged at her appointment. Despite enormous pressures and controversy, she re-organized the Department of Labor during the Great Depression (1929–1939) and restored the integrity of the Bureau of Immigration and Naturalization, which was then considered to be an agency of bribe taking and illegal deportations. She also became an important advisor to President Roosevelt, and she brought in many important members to Roosevelt's administration. Her sympathies for the unemployed during the Depression and her efforts to support organized labor gained her the reputation as a communist sympathizer, though she clearly distrusted the Communist Party in the United States.

Perkins survived an unsuccessful impeachment attempt in 1938, when the House Un-American Activities Committee (HUAC) accused her of being a communist. She remained in government service until 1953, when she retired. The legacy of her work was enormous, not only as a lifelong political and social activist on behalf of women and children, but as a pioneer in social legislation. The pioneering role she undertook as a woman made her arguably one of the most revered feminist role models in the twentieth century, alongside Eleanor Roosevelt; much of her work led to massive federal programs, including the Social Security program.

After her retirement, Perkins spent the rest of her life as a college lecturer, encouraging others to enter the work of social activism. She became a visiting professor at Cornell University, a post she held until her death in 1965, at age 85.

See also: *New Deal, Franklin Delano Roosevelt, Women's Movement*

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PERRY, MATTHEW CALBRAITH

Matthew C. Perry's (1794–1858) primary occupation was that of a naval officer, yet he is perhaps best remembered as a diplomat entrusted by the U.S. government to negotiate a treaty with Japan. Since the early 1600s Japan isolated itself from Western countries. In 1854 Perry successfully arranged a treaty between Japan and the United States. The treaty provided the United States with two Japanese sea ports, enabling the two countries could begin to engage in commercial trade with one another. This was Japan's first modern treaty with a Western nation. It marked the beginning of Japan's involvement in world affairs.

Born in 1794, Matthew Perry entered the Navy at age 16, serving as a midshipman. His first duty was aboard a vessel commanded by his older brother, Oliver Perry. His career in the Navy led him into combat during the War of 1812 (1812–1814); he later battled pirates in the West Indies, carried freed slaves to the newly founded African colony of Liberia, and transported American minister John Randolph to Russia. It was in Russia that Perry was offered a captain's position with the czarist government, but he firmly declined, preferring his commission with the U.S. Navy as a Master Commandant.

In 1833 Perry was appointed Second Officer of the New York Navy Yard, and began notable service on shore. Residing in New York City, he began to aggressively pursue his ideas for naval development. He created a naval apprentice system, which was adopted by Congress in 1837. In 1845 Perry and other examiners prepared the first course of instruction for the Naval Academy at Annapolis, Maryland. He went on to advocate and pioneer the use of steam-powered vessels in the Navy. He organized the first Naval Engineer Corps, and his work on the naval board was used by Congress to help enact federal legislation creating federal lighthouses. Beginning in 1843 Perry was once again actively at sea. He first commanded the African Squadron, and later led a squadron of ships in the Gulf of Mexico during the Mexican War (1846–1848).

In January 1852 Perry was selected for a highly important diplomatic mission—the negotiation of a treaty with Japan, a country which had sealed itself against dealings with Western powers since the early 1600s. His main mission in Japan was to ensure the protection of U.S. seamen and property and to open one or more Japanese ports to U.S. vessels for the procurement of supplies and commercial trade. Perry agreed to undertake the mission, provided that he could go to Japan with a large and imposing naval fleet. He hoped the sheer size of the fleet would facilitate negotiations with Japan. Perry was instructed to use any vigorous and intimidating means necessary in his negotiations with the Japanese, though with the understanding that President James Monroe (1817–1825) had no power to declare war in this situation.

In an effort to achieve his goals without resorting to military action, Perry adopted a strategy of surrounding himself and his mission with an air of mystery. His combination of boldness and mystery succeeded. He met with representatives of Japan's emperor and left the country nine days after arriving in 1853, stating he would return one year later to learn Japan's decision. He returned in seven months and, on March 31, 1854, a treaty of peace, friendship, and commerce between Japan and the United States was signed. It was a diplomatic event filled with much pageantry, and several U.S. naval vessels stood offshore.

Federal politics had changed during Perry's absence from the United States, and little notice was paid to his achievement in Japan. The "Old Bruin," as sailors called Perry, died in New York on March 4, 1858, a year after his return from Japan. He died while preparing a report of his expedition.

See also: Japan (Opening of)

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PERSONAL COMPUTERS

Personal computers (PC) were developed during the 1970s and were intended for use by small businesses and in the home. No established industrial computer company, like IBM, Burroughs, or Honeywell believed in 1975 that there would be any market for a PC. The earliest commercial PCs were credited to the efforts of Stephen Jobs (1955—) and Stephen Wozniak (1950—), who began their own PC company, Apple Computers, in 1976, building a microchip-based computer for small businesses and particularly for home use. These computers represented simplicity of design and function, and they were easily used by non-professionals. By 1977 the personal computer industry moved quickly, with Apple, Commodore, and Radio Shack aggressively entering the “home computer market.”

The PC was made possible largely because of the miniaturization of electronic parts and the ability to reliably mass produce many parts of the computer, such as the silicon chip, the integrated circuit board, and the microprocessor. The personal computer evolved (in the 1960s and 1970s) from large single-function devices like industrial data processors to smaller single-function devices like pocket calculators. With smaller hardware and more diverse software, the PC of the late 1970s became consolidated into desktop sized, multi-function devices. They now provide international communications, word-processing capabilities, as well as the other educational, recreational, and personal functions associated with modern computers in homes and businesses.

See also: **Computer Industry, Stephen Jobs, Stephen Wozniak**

PETROLEUM INDUSTRY

Crude oil seeps from the earth’s crevices and fissures, and accumulates in pools on surface rocks; it has been used as a fuel source since approximately 3500 B.C. In the early nineteenth century, crude oil was collected from rock pools and primitively refined for commercial use. Dr. Abraham Gesner of Pittsburgh, inventor of kerosene lamp oil, formed the Pennsylvania Rock Oil Company in 1854. In 1859 Edwin Drake and W.A. Smith drilled the first U.S. well, specifically

to find petroleum, in Titusville, (Oil Creek) Pennsylvania. Because crude oil was unsuitable for direct use, it had to be refined and converted into such products as kerosene, gasoline, and motor oil. In 1860 D.S. Stombs and Julius Brace of Virginia introduced and patented a semi-continuous refining system. In 1861 the first full-fledged petroleum refinery in the United States opened; it churned out mostly kerosene.

The legendary oil tycoon, John D. Rockefeller (1839–1937), began oil operations in 1863. Based in Cleveland, Ohio, Rockefeller founded the Standard Oil Company on June 10, 1870. Skillfully using the laws of incorporation and assembling trusts, Rockefeller eventually acquired competing companies across the country and established a very effective monopoly. By 1879 the 30 companies that belonged to the Standard Oil trust controlled 80 percent of the refineries and 90 percent of the pipelines in the U.S. petroleum industry. This giant trust leveraged its clout with the railroads to negotiate favorable freight rates.

Rockefeller was the biggest, but not the only, oil entrepreneur. In 1897 Joseph S. Cullinan organized the first pipeline and refinery in Corsicana in Texas. Cullinan also successfully pioneered the use of petroleum as a diesel fuel for locomotives and as a dust settler for streets.

The main reason for increased public demand for petroleum was the proliferation of the gasoline-powered automobile, various renditions of which sprang up in the late nineteenth century. Machinist and inventor Henry Ford employed assembly line techniques to lower the cost of each unit of production, making automobiles available to more consumers, and thus increasing the demand for gasoline.

Advancements in technology during World War I (1914–1918) escalated demand for petroleum. Farmers were able to increase productivity with gas powered tractors; new asphalt highways carried diesel-powered trucks delivering goods across the nation. New products derived from refined petroleum included plastics, synthetic fiber and rubber. Increasing demand for new products promoted a steadily increasing supply of new crude oil.

By 1992 the Chevron Oil Company was the largest petroleum refiner in the United States and was a huge producer of oil in terms of profits and sales. Chevron began in 1882 as Standard Oil of California, and quickly developed internationally. The second largest capacity refiner in the United States was Exxon Corporatoin. Exxon came about through the 1934 merger of Standard Oil Company of New Jersey and the Anglo American Oil Company Ltd. Exxon grew

remarkably throughout the twentieth century. By 1993 it was the industry leader with profits totaling \$5.28 billion. Profits of the Mobile Corporation ranked second at \$2.08 billion from sales of \$56.6 billion. Other industry leaders included Texaco Inc., Shell Oil Co., Chevron Corp., Atlantic Richfield Co., Conoco Inc., Amoco Corp., and BP America Inc.

Since the early 1950s natural gas was the refineries' largest end-product. Residential and commercial users consumed the largest proportion of natural gas. Industry consumed the next largest amount with power generation a distant third in natural gas consumption. (Food, paper, chemical, and petroleum refining industries all consume vast amounts of natural gas.)

In 1997 U.S. refineries produced an average of 14.63 million barrels of refined petroleum products each day. The United States supplied over one-fifth of the world's refined petroleum—roughly equal to the production of all the European countries combined. The U.S. refineries employed approximately 93,000 people in 1998.

During the first four decades of the twentieth century, the heyday of internal combustion in the United States, U.S. oil reserves were gradually depleted. Accordingly the oil industry became among the first to undergo "globalization." The Standard Oil Company anticipated this development back in 1888 when it established its first foreign affiliate, the Anglo American Oil Company Limited, headquartered in London. Although U.S. and European companies continued to reap most of the profits of petroleum production, by the mid-1950s much of the world's petroleum was being pumped in a small group of oil-producing countries, most of them in the Persian Gulf. In an effort to gain control of its petroleum reserves, these countries founded the Organization of Petroleum Exporting Countries (OPEC) in 1960. OPEC set a standard cost for producing a barrel of oil in all member countries. The minimum price per barrel was based on the tax-paid cost per barrel plus a profit margin. New petroleum companies could not undermine OPEC's dominant market by offering lower prices. In OPEC's early years, other petroleum producing countries used the organization more as a defensive instrument to stabilize the market. But plagued with oil shortages and political disruptions in the Middle East during the 1970s, non-OPEC refineries and suppliers began to rely more heavily on their own private inventories.

Beginning in the 1970s, many developments led to a sharp decline in world demand for OPEC oil. Several major factors, including environmental concerns, brought about changes; most changes were not in

OPEC's favor. Revolutionary innovations in the oil industry drastically reduced the risk and expense of finding and developing oil and expanded output among non-OPEC producers. For example major U.S. oil companies owned and operated exploration and drilling sites around the world. Exploration, production, and transportation of petroleum in the United States was handled by private companies under the regulation of federal, state, and local commissions. Strategies such as this helped to boost the world's oil supplies at the expense of OPEC's market share. By the 1980s OPEC was a shadow of its former self.

Refining and production of oil and gas has become an exacting engineering science. The United States was a pioneer in petroleum refining, exploration, and perfected most techniques and procedures before other nations. U.S. petroleum refiners have been regarded as the world leaders. However, it remains to be seen as to whether shifting political boundaries will allow U.S. refiners to compete directly with foreign companies for a larger market share.

See also: Exxon Corporation, OPEC Oil Embargo, John D. Rockefeller, Standard Oil Company, Texas Company

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PHARMACEUTICAL INDUSTRY

The pharmaceutical industry in the United States dates back to the early 1800s. Opium was routinely prescribed in the United States as far back as the eighteenth century; however, concoctions known as "patent medicines" did not make an appearance until the nineteenth century. Patent medicines became very popular; they bore names such as "Carter's Little Liver

Pharmaceutical Industry

Pills.” During this time many pharmaceutical companies were founded in the Midwest, including Parke Davis, Eli Lilly, and Upjohn Company.

As the industry developed, New York City was an important center of trade in drugs; Philadelphia also emerged as a home for about six pharmaceutical manufacturers. Pharmacy schools, which began to open in several states between 1821 to 1859, probably contributed to the growth of the pharmaceuticals industry. (The *American Journal of Pharmacy* began publication in 1825.) Another probable factor in the growth of the industry was the prodigious amount of drugs used during the American Civil War (1861–1865). By 1870 there were almost 300 pharmaceutical manufacturers in existence.

During the early nineteenth century, several new drugs quickly came into common use. Some of these were opiates, which were later greatly restricted during the twentieth century. Morphine was first commercially produced in the 1830s. After the invention of the hypodermic needle in the 1860s, morphine use became more widespread as it could be easily injected into the patient. Another (subsequently) restricted drug, cocaine, was first commercially produced in the 1880s. When it was first introduced, it became very popular—physicians thought that it was harmless. (Until it was found to be addictive, cocaine was even used as an ingredient in the soft drink Coca-Cola.) In 1898, another opiate, heroin, was commercially available from the Bayer Company.

The dangers of opiates were not acknowledged until the 1900s, in part because there were no laws regulating the drug industry until the 1870s and 1880s. The Pure Food and Drug Act of 1906, the Shanghai Opium Convention of 1909, The Hague Opium Treaty, and the Harrison Narcotic Act (both in 1912) were all early attempts by the U.S. government to regulate drug manufacturing and distribution.

Several advancements in drug production were developed during the late nineteenth century which furthered development of the industry. Pharmaceutical manufacturers attempted to standardize batches of medicines between the various companies. In 1888 another improvement came in the form of a machine that produced pills of uniform dose and purity. Later, during the early twentieth century over-the-counter drugs were developed and marketed. Products, such as aspirin and laxatives, greatly increased the availability of medicines to the general public.

Following World War I (1914–1918) demand influenced the rapid commercial expansion of the

pharmaceuticals industry. The number of chain drug-stores increased during the 1920s and, as the industry grew, it consolidated; several drug companies merged. By the 1930s, market research became important in the industry; consumers wanted new medicines that could help two or more symptoms at a time. Sulfa drugs, designed to fight bacteria, were also developed during this period and became the choice for treatment of infections until the mid-1940s, when penicillin was commercially developed and marketed.

In 1937 over 100 Americans were killed when treated with a drug that had a toxic solvent in it. This resulted in stricter governmental regulations to improve drug testing. Changes included passing the Food, Drug, and Cosmetic Act of 1938, which was enforced by the Food and Drug Administration (FDA).

World War II (1939–1945) caused an upsurge in demand for the new antibiotic drug, penicillin, which was first marketed in 1946. (The major producer of penicillin was the Pfizer Company.) New medicines continued to appear after the war. Almost 500 new drugs entered the market between 1950 and 1959. With this expansion came advanced marketing tactics—pharmaceutical companies began to advertise drugs on television. As the pharmaceutical market grew, so increased the level of government regulation. In the 1950s and 1960s several new FDA laws were passed to further regulate the testing, certification, and prescription of drugs.

In the mid-1980s, the FDA was reorganized due to allegations of deficient practices. One issue examined by the reorganized FDA was the use of generic drugs, which, according to “The American Druggist,” accounted for almost 45 percent of all prescriptions by the mid-1990s.

In the 1990s the pharmaceutical industry focused on the research and development of new drugs, especially drugs for treating diseases common to an elderly population, as well as cancer and AIDS. Biotechnology began to make an impact in the drug industry, as companies such as Amgen, Inc., and Chiron Corporation were founded. Competition resulted in the merging, restructuring, and downsizing of many pharmaceutical companies.

See also: Pure Food and Drug Act

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PHILIPPINES

An archipelago (island chain) consisting of some 7100 islands in southeast Asia, the Philippines became a territory of the United States by the Treaty of Paris (1898). Signed on December 10, the agreement ended the Spanish-American War (1898), which marked a determined U.S. interest in participating more fully in international affairs. One issue during the war was the matter of an independent Cuba. The peace treaty signed between Spain and the United States provided for Cuba's autonomy and granted the United States control of Puerto Rico, Guam, and the Philippine Islands. Spain surrendered the last vestiges of its colonial empire; in exchange, the European country received \$20 million in payment from the United States.

U.S. imperialists viewed the Philippines as "stepping stones" to mainland Asia, and they stressed the islands' strategic importance for the United States. Anti-imperialists argued that the annexation constituted the conquering of people against their will. While Americans debated the motives and the outcome of the expansion, soon after the Treaty of Paris was signed, the Philippines were embroiled in conflict. Filipinos, determined to achieve independence, revolted in an uprising lasting from 1899 to 1901. A civil government was established on the islands in 1901, and in November 1935, the Commonwealth of the Philippines was officially established. The islands, however, continued to be the site of conflict in the following decade.

The United States struggled with Japan for control of the Philippines during World War II (1939–1945). Under General Douglas MacArthur (1880–1964), the United States established practical control of the islands during the last days of the war (July 1945). After the Japanese surrender, an independent government was established in the Philippines (July 1946), but the United States was granted a ninety-nine year lease of

several Philippine military facilities. In the 1980s political upheaval in the island nation resulted in the revocation of the military leases. The United States withdrew its troops from the Philippines in the 1990s.

See also: Imperialism, Spanish-American War

PHYSICAL CAPITAL

Physical capital consists of man-made tangible assets, such as factories, buildings, machinery and equipment, that are used to actually convert raw materials into usable products for consumer purchase. Physical capital is considered to be secondary to primary resources such as money, raw materials, and land. Since it is used to produce goods or services over time, the wear and tear on physical capital makes it subject to depreciation, or loss of value, and requires replacement periodically. The more physical capital a nation or company possesses, the greater its capacity to produce goods or services. Physical capital may also be referred to as capital goods.

See also: Capital Goods

PICKENS, THOMAS BOONE, JR.

One of the best known and most skillful deal makers ever to emerge on the American scene, T. Boone Pickens (1928–) rose to prominence during the 1980s as one of the decade's premier corporate raiders. Colorful and outspoken, he combined uncanny business skill with the daring of a gambler as he launched one takeover attempt after another and shook up the oil industry in the process.

Thomas Boone Pickens, Jr., was born in the small town of Holdenville, Oklahoma on May 22, 1928. He was the only child of Thomas Boone Pickens, Sr., a distant relative of frontiersman Daniel Boone, and Gracee (Molonson) Pickens. Pickens' father was an attorney employed in the land acquisitions department of Phillips Petroleum Company when his son was born. "I was very fortunate in my gene (genetic) mix," T. Boone noted in a 1985 *Time* magazine interview. "The gambling instincts I inherited from my father were matched by my mother's gift for analysis."

Around the mid 1940s, the family moved to Amarillo, Texas, where Pickens excelled in basketball at Amarillo High School. He then attended Texas A&M University on an athletic scholarship but transferred to Oklahoma State University after a broken

elbow caused him to lose his financial support. Pickens received his bachelor's degree in geology from Oklahoma State in 1951 and subsequently went to work in the petroleum industry.

Not long after he earned his college degree, Pickens took a job as an oil geologist for Phillips Petroleum. He left in 1955 however, because he found the work boring and felt stifled by the company's conservative style. Pickens then started his own company, Petroleum Exploration Co., with \$2500 in cash, a \$100,000 line of credit, and "an uncanny ability to find oil and gas," in the words of reporter Lydia Chavez of the *New York Times*.

Pickens focused his efforts on locating oil and supplying it to others. He managed to do this while avoiding the temptation to become involved with often-costly sideline businesses such as pipelines, refineries, and service stations. By 1964 he had become successful enough to diversify some of his operations and incorporate. Thus was born Mesa Corporation, Inc., with headquarters in Amarillo, Texas.

By 1969 profits had reached the point where Pickens could afford to start buying out other companies. His first acquisition was Hugoton Production Co. and its vast natural gas field in Texas. The following year he was rebuffed when he made a bid to take over Southland Royalty. In 1973 however, he added Pubco Petroleum to Mesa's holdings. In 1974 an ill-fated attempt to diversify into cattle cost him \$19 million.

Pickens fared much better during the 1980s thanks to a combination of his astute business skills, his love of gambling, and sheer luck. Using a variety of techniques, including some that were not entirely above-board, he managed to accumulate a massive amount of cash by selling off some of his assets at just the right time and by buying and trading stock in other petroleum companies in a series of hostile takeover bids. Pickens also profited handsomely from the booming oil market during this decade. His shrewd deal-making netted him the Wall Street Transcripts "gold award" for the top executive in the oil industry in both 1981 and 1982.

Pickens' specialty was "greenmailing," which involved buying huge blocks of a company's stock as if preparing for a takeover, then selling them back at an inflated price so that the company can thwart the apparent buyout attempt. He first used this strategy in May 1982, when he tried to buy a controlling interest in a medium-sized oil firm called Cities Service Company. His efforts touched off a fierce bidding war among several oil industry rivals that drove up the company's stock price. Occidental Petroleum ultimately made the

best purchase offer for Cities Service Company, but Pickens and Mesa shareholders still won big. By losing the bidding war, Pickens had strategically positioned Mesa to realize over \$31 million in profit on the merger deal.

**PICKENS SUPPORTED THE THEN-
REVOLUTIONARY VIEW THAT A CEO'S
MAJOR RESPONSIBILITY WAS TO CREATE
WEALTH FOR HIS SHAREHOLDERS AND THAT
THE FAILURE TO DO SO MIGHT WELL
RESULT IN THE LOSS OF HIS OR HER JOB.**

From that moment on, Pickens became a so-called "corporate raider," pursuing what many believed were authentic bids to assume control of large oil companies, especially ones that he felt were being mismanaged and therefore less able to fight off a takeover. Time and again, he lost bidding wars only to win at the stock manipulation game. In 1984 for example, after a highly competitive struggle involving some of the oil industry's biggest names, Gulf Oil finally allowed itself to be purchased by Standard Oil Company of California to avoid being taken over by Pickens. The transaction resulted in the creation of a new oil company, Chevron; and Pickens and his partners walked away with a profit of \$760 million.

In the mid-1980s, Pickens was reported to be the highest paid corporate executive in the United States, earning more than \$20 million in salary and deferred compensations that year from his newly renamed Mesa Limited Partnership, Inc. His personal wealth was estimated at over \$100 million.

Pickens' reign as the "king of the corporate raiders" was short-lived. In 1985 he went after Unocal Corporation, which responded by offering a unique stock buy-back plan that was open to all shareholders except Pickens and his Mesa partners. Pickens sued in the Delaware courts to block the plan and received a favorable ruling. Then the Delaware Supreme Court reversed the lower court's decision and ruled that a company did indeed have the right to single out corporate raiders and treat them differently than other shareholders. Even though this decision was eventually overturned by the Securities and Exchange Commission, it marked the beginning of the end of Pickens' career.

In 1989 after becoming embroiled in a series of nasty political squabbles in Amarillo, Pickens moved Mesa's headquarters to Dallas. His fortunes took a sustained tumble. The biggest blow came in 1996 when Pickens was forced to resign as head of Mesa after running up one billion dollars in debt, a result of overly

generous payments to his shareholders. Pickens had bet that the price of natural gas would rise and bail his company out. But for once his gamble did not pay off, and Mesa suddenly found itself the target of raiders organized by a former Pickens protégé named David Batchelder. Pickens officially stepped down as head of Mesa on December 31, 1996, but stayed on as a commodity market consultant for the company until late 1997 and then served as a member of the board of directors.

Pickens provided considerable time and money through the years to Oklahoma State University, the University of Texas Cancer Center, and a variety of public service organizations. He also served as chairman of the board of the M.D. Anderson Medical Center in Houston, Texas, as chairman of the executive committee of the Texas Research League, and as chairman of the board of regents of West Texas State University.

A key part of Pickens' strategy during the 1980s was his vocal, and often quite colorful, criticism of the U.S. corporate system. He found many of the CEOs and managers he came in contact with to be greedy, careless, and ignorant about important aspects of their companies or their industries in general. He denounced the cushy perks these executives received and questioned their real value to the companies they headed. Instead Pickens supported the then-revolutionary view that a CEO's major responsibility is to create wealth for his shareholders and that the failure to do so might well result in the loss of his or her job. It also infuriated him that a number of corporate leaders did not even own stock in the businesses they ran, meaning that they had little incentive to improve performance and thus increase stock values. And even those who did own stock in their companies, noted Pickens in a 1985 *Forbes* magazine article, "have no more feeling for the average stockholder than they do for baboons in Africa."

Such outspoken corporate-bashing made Pickens a hero to those "average stockholders." They applauded his efforts to shed light on inept management practices and were thrilled by the hefty returns they received on their investments as a result of his raids. In the end, Pickens opened more than a few eyes to the flaws in U.S. corporate culture and in no small way changed the way business was done in the United States.

See also: Petroleum Industry

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PIECES OF EIGHT

Pieces of eight were Spanish silver coins (pesos) that circulated along with other hard currency in the American colonies. Since the settlements in the New World were all possessions of their mother countries (England, Spain, France, Portugal, and the Netherlands), they did not have monetary systems of their own. England forbade its American colonies to issue money. Colonists used whatever foreign currency they could get their hands on. Pieces of eight (from Spain), reals (from Spain and Portugal), and shillings (from England) were in circulation; the pieces of eight were most common. The Spanish silver coin was so named because it was worth eight reals and at one time had an eight stamped on it. To make change, the coin was cut up to resemble pieces of a pie. Two pieces, or "two bits," of the silver coin made up a quarter, which is why Americans still may refer to a quarter (of a dollar) as two bits.

In 1652 the Massachusetts Bay Company became the first colony to mint its own coins, since because of the English Civil War there was no monarch on the throne of England. The issue of coinage by colonists was strictly prohibited by England, but the Puritans of Massachusetts continued to make their own coins for some thirty years thereafter, stamping the year 1652 on them as a way to circumvent the law.

There were frequent money shortages in the colonies, which usually ran a trade deficit with Europe: the colonies supplied raw goods to Europe, but finished goods, including manufactured items were mostly imported, resulting in an imbalance of trade. Coinage scarce, most colonists conducted trade as barter, exchanging goods and services for the same. The monetary situation on the North American mainland remained tenuous even after the American Revolution (1775–1783). It was not stabilized until after 1785 when Congress established the dollar as the official currency of the new United States.

PIKE'S EXPEDITION

Zebulon Pike (1779–1813) was born in Lambertton, New Jersey in January 1779. He followed his father, a U.S. Army major of the same name, into a military career. The younger Pike was commissioned first lieutenant in 1799. While he was serving on the western frontier in St. Louis, President Thomas Jefferson (1801–1809) completed the Louisiana Purchase with France. The acquisition added 828,000 square miles of land lying between the Mississippi River and the Rocky Mountains, northward to the source of the river. The United States needed to explore and assert legal claim to the newly gained lands as well as to establish friendly relations with the Native American tribes in the region. General James Wilkinson selected Pike to lead an exploratory expedition in search of the Mississippi River's source in the northern part of the Purchase area. (Wilkinson may have also intended to test British reactions to a U.S. military exploration venturing into traditional fur-trapping country.)

Pike assembled a 20-man party and departed northward from St. Louis in early August 1805. At this time, the famous Lewis and Clark Expedition had followed the Missouri River to its source and was crossing the northern Rocky Mountains en route to winter at the mouth of the Columbia River. When winter arrived, the Pike party had journeyed as far as 100 miles north of the Falls of St. Anthony in present-day Minnesota. Taking a smaller party and hauling supplies on sleds, Pike continued onward to Lake Leech, which he mistakenly proclaimed the source of the Mississippi River.

Upon the party's return to St. Louis, Pike received orders from Wilkinson for another venture. This time, Wilkinson requested that Pike explore the headwaters of the Arkansas and Red rivers in the southwest corner of the Louisiana Purchase area and, curiously, to inconspicuously assess Spain's New Mexico settlements. Relations at the time between the United States and Spain were not good and, in the historical record, the purposes of Pike's orders were unclear, especially when it became known that Wilkinson was a secret agent for Spain.

Pike's expedition set out westward in April 1806, to the Arkansas River in modern central Colorado. Apparently, word of Pike's "secret" mission reached the Spanish headquarters for the northern provinces of New Spain in Chihuahua, Mexico. A Spanish military force was dispatched to intercept Pike. Meanwhile, Pike reached the present-day area of Pueblo, Colorado. En route in November 1806, he attempted to ascend a summit located in the Front Range of the Rocky Mountains near modern Colorado Springs, what later

(Pike) was completely lost among the great tossing peaks of the Colorado Rockies, some of the highest mountains on earth, lost in the middle of winter, half-starved, frozen, and admittedly "at a loss which course to pursue" . . . Going in a circular route, they passed through South Park, where a few years later the great rendezvous of the fur traders and mountain men would be held.

John Upton Terrell, *Zebulon Pike; the Life and Times of an Adventurer*, 1968

became known as Pike's Peak. He had to turn back, however, as his party was not prepared for the snow and cold weather on the 14,110 foot peak.

After exploring the Arkansas River's headwaters in the Rocky Mountains, Pike then turned south, supposedly to find the Red River's source. However, he crossed the Sangre de Cristo Mountains to the Rio Grande River's Conejos fork, where he constructed a cottonwood log outpost. At that location a Spanish detachment finally found him. The Spaniards requested Pike and his men accompany them to Santa Fe. Pike, claiming he meant to be on the Red River, departed as requested, and wound up in Chihuahua as a prisoner charged with illegal entry into Spanish territory. A year later the Spaniards escorted Pike and his party back northward to the United States territory at Natchitoches, Louisiana, where he was released in July 1807.

After his return Pike was dispatched to the Secretary of War to answer for his actions and his relationship to Wilkinson. Wilkinson, along with Aaron Burr (1756–1836), was accused of plotting to illegally seize the Southwest from Spain. Absolved of wrongdoing, Pike resumed his military career. With the outbreak of the War of 1812 (1812–1814) Pike, who had a series of promotions after 1808, was promoted to brigadier general. In 1813 he led U.S. troops in a successful attack against the British on York (now Toronto) in Canada. Pike was gravely wounded when a British powder magazine exploded, instantly killing over 90 soldiers from both sides and wounding 180. Pike sustained a broken spine and died a few hours later from wounds.

Pike's official expeditions report, *Account of Expeditions to the Sources of the Mississippi and through the Western Parts of Louisiana*, provided the first description of the broad region lying between the Plains and the upper Rio Grande River region. Though his expeditions charted new expanses of the United



Pike's Peak, part of the Rocky Mountain range near Colorado Springs, was named for Zebulon Pike, who unsuccessfully attempted an ascent of the 14,110 foot summit in 1806.

States—the expeditions were some of the first sponsored by the U.S. government—Pike's journals were not of the same caliber of Lewis and Clark's. Regarding the headwaters of the Mississippi, Pike had misidentified the actual source (Lake Itasca), but he did learn much about the upper Mississippi region. Pike reported on the military weakness of Santa Fe, and he commented on the potential for lucrative overland trade with Mexico. The report fanned American curiosity about the expanding western frontier of the young nation and, in part, stimulated future U.S. expansion to Texas.

See also: Lewis and Clark Expedition, Louisiana Purchase, Westward Expansion

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PILGRIMS

The Pilgrims were Separatists (Protestants who separated from the Anglican Church to set up their own church). In 1609 they fled their home in Scrooby, England, in search of religious freedom, which they found in Holland. Fearing their children would lose contact with English culture, the group decided to voyage to the New World to establish their own community. In 1620 they arrived on the rocky western

shore of Cape Cod Bay, Massachusetts. Their trans-Atlantic crossing had taken 66 days aboard the *Mayflower*. Two babies were born during the passage, bringing the number of settlers to 102—only about 35 were Pilgrims, the rest were merchants.

On November 21 the Pilgrims drafted the Mayflower Compact, an agreement by which the 41 signatories (the men aboard the *Mayflower*) formed a body politic that was authorized to enact and enforce laws. Religious leader John Carver (1576–1621) was voted governor. Though their colonial patent from the London Company specified they were to settle in Virginia, they decided to establish their colony at Cape Cod, well outside the company's jurisdiction. By December 25 the Pilgrims had chosen the site for their settlement and began building at New Plymouth.

The first year was difficult and the Pilgrims faced many hardships: Thirty-five more colonists arrived aboard the *Fortune*, and thereby put a strain on already limited resources. Sicknesses such as pneumonia, tuberculosis, and scurvy claimed many lives, including that of Governor Carver; and the merchants in the group challenged the purity of the settlement.

Having secured a new patent from the Council of New England in June 1621, the lands of the New Plymouth Colony were held in common by both the Pilgrims and the merchants. But this communal system of agriculture proved unsuccessful and in 1624, William Bradford (1590–1657), who had succeeded Carver as governor, granted each family its own parcel of land. The Wampanoag Indians, who had previously occupied the land settled by the Pilgrims, proved friendly and were helpful advisers in agricultural matters. In 1626 the Pilgrims bought the merchants' shares, and claimed the colony for themselves. Though they were inexperienced at government before arriving in America and had not been formally educated, the Pilgrims successfully governed themselves according to their religious beliefs; Plymouth Colony remained independent until 1691, when it became part of the Massachusetts Bay Colony.

See also: Agriculture, Colonies (Proprietary), Massachusetts, Puritans, Virginia

PINCHOT, GIFFORD

Gifford Pinchot (1865–1946), first head of the U.S. Forest Service, was a pioneer in forest management. He promoted forest conservation as an effective

way to provide a steady source of timber. Pinchot was a close advisor to fellow conservationist President Theodore Roosevelt (1901–1909), and he twice served as governor of Pennsylvania. Pinchot's zeal for conservation earned him loyal friends and bitter enemies. His legacy was the millions of acres of national forests that were preserved as a result of his activism.

Gifford Pinchot was born on August 11, 1865 to an affluent family in Simsbury, Connecticut. His boyhood was divided between his family's vastly wooded Pennsylvania estate and at their stylish home in New York City. He often traveled abroad, but he loved to go camping and to hike wilderness trails. Since there wasn't a U.S. college that taught forestry at that time he formulated his own course of study at Yale to provide him with the background he needed. He graduated from Yale University in 1889, and went on to do postgraduate forestry study in Austria, France, Germany, and Switzerland. In Europe forests were under the management of expert woodsmen; these men were Pinchot's teachers. Pinchot learned that European forests were safeguarded from extinction: lumbering was controlled under strict rules, waste was kept to a minimum, and tremendous precautions were taken to prevent fire and blight.

WANTING A SINGLE, MEMORABLE WORD TO DESCRIBE THE GREAT NEED TO PROTECT EARTH'S RESOURCES, PINCHOT COINED THE TERM "CONSERVATION" IN 1907.

Pinchot returned to the United States with the realization that lumbering needed to be regulated in his own country. A bill was passed in 1891 that allowed the federal government to reserve 13 million wooded acres from lumbering. A year later Pinchot initiated the nation's first organized forestry management program at the Vanderbilt estate in Baltimore, North Carolina. He then became a member of the National Forest Commission and in 1898 Pinchot was appointed the Department of Agriculture's first Chief of Forest Service. He would serve in this position for the next 12 years.

In 1902 Pinchot designed a preservation program for the Philippine Islands. The following year he became a professor of forestry at Yale University, a position he would hold for the next 33 years. Wanting a single, memorable word to describe the great need to protect earth's resources, Pinchot coined the term "conservation" in 1907.

After Pinchot publicly criticized Secretary of the Interior Richard A. Ballinger's policies regarding the

administration of coal lands in Alaska, President William Howard Taft (1909–1913) fired Pinchot for insubordination. The dismissal widened a Republican Party rift between Taft and the party's progressive wing, which was led by Theodore Roosevelt. Two years later, when Roosevelt won the presidency, Pinchot played an important role in Roosevelt's revolutionary conservation program. It was a period that became known as the "golden era of conservation."

Although Pinchot lost the Republican nomination for the Pennsylvania governor's seat in 1914 he eventually served two non-consecutive terms as governor of that state. During his first term (1923–1927) he directed the reorganization of the state government and enforced Prohibition. During his second term (1931–1935) he fought for stricter regulation of public utilities. In 1926 William S. Vare defeated Pinchot in a three-candidate race for Pennsylvania's Republican senate nomination. However, the Senate declined Vare after Pinchot announced that the nomination was "partly bought and partly stolen."

Pinchot remained active in conservation affairs throughout his political career and in 1910 he became president of the National Conservation Association. He served on the Inland Waterways Commission, the Commission on Country Life, the United States Food Administration (1917–1918), and was a member of the Commission for Relief in Belgium (1914–1915). From 1920 to 1922 he was the Pennsylvania Commissioner of Forestry and acted as federal mediator in the anthracite coal strike in 1923. The author of several books on forestry and timber, he also published an autobiography called *Breaking New Ground* (1947), which told of his commitment to conservation. Gifford Pinchot died on October 4, 1946 in New York, New York.

See also: Environmentalism, William Howard Taft

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PINCKNEY TREATY

The Pinckney Treaty, officially called the Treaty of San Lorenzo, was signed by the United States and Spain on October 27, 1795, to end a dispute between the two countries over land settlement and Mississippi River trade. The agreement was brokered by American statesman Thomas Pinckney (1750–1828), then U.S. Special Commissioner to Spain. The treaty specified that Spain would recognize the 31st parallel (the northern border of present-day Florida) as the southern boundary of the United States, that Spain would allow American goods to land at New Orleans tax-free for a period of three years (with an option to renew), and that both countries would be allowed to use the Mississippi River freely.

The Pinckney Treaty represented significant gains for the United States during the administration of its first president, George Washington (1789–1797); lingering questions were settled between the two countries which had arisen since the United States won the American Revolution (1775–1783). These disputes had their roots in French concessions of the Louisiana Territory in 1762 and 1763. At that time, the Mississippi River became the western boundary of British colonies in the East and Spanish possessions in the West. When the United States won independence (1783), the Mississippi River became the new nation's western boundary. The Treaty of Paris (1783) granted transport rights along the Mississippi to the United States; but Spain, which had not been party to the treaty, later denied Americans the right to use the water route. Further, during the American Revolution, Spain had claimed—by right of conquest—territory along the Gulf of Mexico and along the eastern shore of the Mississippi, in the present-day states of Alabama, Mississippi, and Tennessee.

As American settlers moved onto Spanish lands, they found themselves in conflict with American Indians who had been incited by the Spanish. Meanwhile, the Spanish also tried gaining the confidence of frontiersmen in the West, who were increasingly dissatisfied with the U.S. federal government. Eventually Spain opened up the Mississippi to American traders in exchange for a 15 percent commission. Pressure thus mounted on Washington's administration to quell the insurgent frontiersmen, settle the boundary disputes, and negotiate free use of the Mississippi. Pinckney was dispatched to Madrid in 1794.

By the time Pinckney arrived to negotiate with Spain on behalf of the United States, in 1795, the diplomatic tides had turned in his favor. Spain's military was so weakened that Pinckney was not forced to

make any concessions in exchange for those yielded by Spain to the United States. The treaty was a substantial victory for the new republic, and greatly contributed to westward settlement.

See also: **Alabama, American Revolution, Louisiana Purchase, Mississippi, Tennessee, George Washington**

PINKERTON NATIONAL DETECTIVE AGENCY

In 1842 Allan Pinkerton (1819–1884), a political activist wanted for arrest, fled from Scotland with his bride and set course for the United States. Settling in Chicago, Pinkerton eventually established his own cooerage (the manufacture of barrels and kegs for the storage of beer and wine) in the town of Dundee. In 1847 an event occurred which would change the course of his life. Noticing some suspicious activity on a nearby island, Pinkerton investigated and exposed a gang of counterfeiters. Word spread quickly, and soon Pinkerton found himself employed by local bankers and shopkeepers to help track thieves. This led to his appointment by Kane County as deputy sheriff. In addition, his concern for social justice led him to become involved in the abolitionist movement, helping escaped slaves cross the U.S. border into Canada.

Pinkerton was soon appointed as the first detective in Chicago. A crucial step in the evolution of what became known as Pinkerton Security occurred in the late 1840s. After a rash of thefts in Chicago Post Offices, Pinkerton found himself appointed Special United States Mail Agent. He went undercover and eventually captured one man stealing envelopes. This case made Pinkerton a household name.

THE EYE THAT NEVER SLEEPS

Slogan of the Pinkerton National Detective Agency

Corruption, lack of organization, and the common use of bounty hunters led Pinkerton to realize that existing police forces needed to be augmented. In 1850 he opened Pinkerton's National Detective Agency, described by biographer Frank Horan as "a private police force that could move across local, county, and even state boundaries in the pursuit of criminals." Pinkerton instigated a strict set of rules for his company, stating that it would in no way accept cases involving divorce, public officials, jurors, political parties, or

scandal. A code of ethics for Pinkerton employees was also established, forbidding them from accepting rewards or other gratuities. At its inception the company employed five agents and various support personnel. Each agent was trained in crime-solving techniques, undercover operations, and other areas according to standards set by Pinkerton himself. (Pinkerton's National Detective Agency was the first in the country to hire a female detective—Kate Warne.)

Throughout the 1850s, Pinkerton's prospered and adopted the slogan "The Eye That Never Sleeps." The company soon contained a national database of criminal activity, and by the 1870s Pinkerton's had gathered the largest compilation of mug shots in the world. Branch offices sprung up in every state as Pinkerton expanded the agency's territorial coverage.

During the American Civil War (1861–1865) Pinkerton and his agents infiltrated the Confederate Army in search of conspiracy and espionage plots against the Union. The Pinkerton Agency was even credited with saving President Abraham Lincoln (1861–1865) from assassination prior to his 1865 death—though there remains some question as to whether an assassination plot ever existed in the first place.

The postwar period saw no decrease in crime. In fact, technology inadvertently led to new types of crime as inventions opened new avenues for criminal behavior. With the creation of the telegraph, wiretapping became a serious issue. Bank and train robberies were still committed, but had become much more daring. Butch Cassidy and the Wild Bunch, Frank and Jesse James, and the Younger brothers were among the many notorious outlaws captured by the Pinkerton Agency during this time. It was also during this period that the famous Molly Maguires staged violent demonstrations in an attempt to acquire safer working conditions. The Pinkerton Agency was hired to infiltrate this group. After three years of investigation under extremely dangerous circumstances, enough information had been gathered to convict the group's leaders of arson and murder.

William and Robert Pinkerton took over the agency after the death of Allan Pinkerton in 1884. The agency focused increasingly on property protection and labor disputes. Improved police departments and other private agencies had begun to encroach on Pinkerton's business. William and Robert Pinkerton continued the company's expansion, investigating Mafia activity, unions, robberies, and insurance claims as well as providing protection to various public events. Allan Pinkerton II gained control of the company in

1923. He continued the expansion, with business growing due to the number of bank robberies increasingly facilitated by the automobile. In 1930 Allan Pinkerton II died and Robert Pinkerton II took control of the agency. The passing of the Wagner Act by Congress in 1937 made the investigation of labor activities illegal. To offset this loss of business the Pinkerton Agency focused more on the investigation of gambling, particularly the horse racing circuit.

The 1940s through the 1960s saw a change in focus for the Pinkerton National Detective Agency. The guarding of property became the agency's primary service. This was due in part to the services provided by the agency during World War II (1939–1945): the guarding of war supply plants. In 1965 the company was renamed Pinkerton's Incorporated to reflect this shift away from investigative services. In 1967 Edward J. Bednarz became the first non-family member to become president of the agency.

Pinkerton's was purchased by American Brands in 1983 for \$162 million. Although it was chairperson and CEO Robert McGuire's objective to improve the agency's service and increase revenues, his efforts resulted in a loss of \$11 million in sales by 1987. Part of this loss could be blamed on the competition provided by over 10,000 other security agencies that had sprung up over the years.

Thomas Wathen purchased Pinkerton's from American Brands for \$95 million in 1988. Having had great success with revitalizing an ailing security guard firm, California Plant Protection, his goal was to revitalize Pinkerton's back to its former position as a multi-purpose investigation firm. Wathen actively sought growth for the company through acquisitions. Within two years Pinkerton's Inc. had a combined revenue of \$605 million. Wathen also expanded the agency's reach to other countries, including Canada, Mexico, and Portugal. In 1991, Pinkerton acquired Business Risk International (BRI), a respected investigation, consulting, and business agency. This move brought Pinkerton back into business as a full service security provider. Pinkerton continued to expand throughout the late 1990s, and solidified its position as the world's largest security solutions firm.

See also: Molly Maguires

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PINKHAM, LYDIA ESTES

Lydia Estes Pinkham (1819–1883) was a life-long resident of Lynn, Massachusetts. In 1875 she became a successful businesswoman by marketing a homemade herbal remedy known as *Lydia E. Pinkham's Vegetable Compound*. By spiking a combination of two herbs with a generous dose of alcohol, Lydia Pinkham produced a bottled remedy for women. Promoting it was a cure for "female complaints," she took advantage of the advertising media available to her. Her remedy was an immediate success and one of the earliest products made for female consumers. At the time of her death the business was grossing \$300,000 per year, a large sum for her day. The business continued to thrive, and Pinkham's remedy was purchased by generations of American women.

Lydia was the tenth child in a Quaker family of twelve. Born into middle class circumstances, she graduated from Lynn Academy and became a schoolteacher. Taking after her parents, champions of the anti-slavery movement and other reform, Lydia was a passionate social crusader. As a young student she was involved in the women's suffrage movement and was a member of the Lynn Female Anti-Slavery Society. She never gave up her support for women's right to obtain a medical education.

At one point her family ran into financial problems because of her husband's failed business ventures. Pinkham began to market the homemade herbal remedies for women that she had privately produced for years, several of which were based on Native American lore. One of her remedies was very popular among neighbors, and was in demand. She aggressively labeled her product "A Sure Cure for PROLAPSIS UTERI or Falling of the Womb, and all FEMALE



Lydia Pinkham.

WEAKNESSES, including Leucorrhoea, Painful Menstruation, Inflammation, and Ulceration of the Womb, Irregularities, Floodings, etc.” Her product was patented in 1876, and included false unicorn root, true unicorn root, life root, black cohosh, pleurisy root, and alcohol. By the 1890s it was the most widely advertised over-the-counter patent medicine in America.

Pinkham was an ardent believer in the powers of her remedy and made many promises to her customers in her advertising. She marketed directly to women because she believed only women could understand female health problems.

Pinkham’s desire to become a businesswoman involved more than just the need to make money for supporting her family. She also hoped to reform medicine and reduce the needless suffering she felt male doctors often caused their female patients. Pinkham believed her remedy, in addition to diet and exercise, was an effective alternative to medical treatment.

Focusing on women’s needs and pursuing a massive advertising campaign including church newspapers, the front pages of commercial newspapers, leafleting in theaters and parks, and a smiling picture of

the maternal Pinkham on every label, Lydia Pinkham marketed one of the most successful women’s products ever created. She became one of the first role models for American businesswomen—she was successful, she embraced the model of motherhood, and she showed how social reform and business could work successfully together. Lydia Pinkham died in 1883.

See also: Advertising

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PIRACY

At the end of the twentieth century the term piracy held two distinct meanings. The first, the more historical meaning, refers to acts of plundering on the high seas. The second, the more modern meaning, refers to the theft of intellectual property, specifically copyright infringements against producers of computer software and entertainment programs such as music CDs, movie videocassettes, and books.

Piracy on the high seas were acts committed by criminals against a shipping vessel, including hijacking the ship, stealing its cargo, or taking violent action against the crew. Acts of piracy along the U.S. Atlantic and Gulf coasts were prevalent from the seventeenth century into the nineteenth century. The U.S. Constitution made piracy a crime in Article 1, Section 8, and Congress in 1790 first enacted an anti-piracy law. The act banned murder and robbery at sea under the threat of the death penalty. Acts of piracy against U.S. ships off the coasts of Britain and continental Europe from 1803 to 1812 was a major factor leading to the War of 1812 (1812–1814). Piracy legislation from 1818 to 1847 laid the framework for modern anti-piracy law

found predominantly in Title 18, Chapter 18, of the U.S. legal code. Twentieth-century international cooperation shaped unique jurisdictional agreement allowing pirates to be apprehended on the oceans by the officials of any nation and punished under that nation's law.

The second meaning of piracy is copyright violations, both in the United States and abroad. The Copyright Act of 1976 gives to the author the exclusive right to reproduce, display, distribute, and sell his original work. The International Intellectual Property Alliance's annual review of illegal copying of works estimated U.S. losses due to copyright piracy totaled approximately \$12 billion in 1998. Computer software businesses suffered the highest loss. The People's Republic of China was a major offender. The Business Software Alliance and the Software and Information Industry Association estimated 40 percent of business applications in use worldwide in 1997 were pirated.

The growth of computer network communications, especially the global Internet, made illegal copying of expensive software easy and nearly untraceable. The Software Publishers Association, from its offices in Washington, D.C. and Paris, France, fights copyright infringement. Also, to combat such piracy, the 1990s saw increased international cooperation through meetings, diplomatic initiatives, and treaties.

See also: **Barbary States**

PITTSBURGH PLATE GLASS COMPANY

In 1883 Captain John B. Ford and John Pitcairn created the Pittsburgh Plate Glass Company (PPG), which became the first financially successful U.S. plate glass manufacturer. Originally located in Creighton, Pennsylvania, northeast of Pittsburgh, the company moved its headquarters to Pittsburgh in 1895. Prior to the 1880s more than a dozen plate glass makers had tried unsuccessfully to compete with their European counterparts. Despite U.S. technical ability in the field, plate glass for growing U.S. cities continued to be imported from Belgium, England, France, and Germany.

Ford left the company in 1896, leaving Pitcairn firmly in control. PPG began diversifying around the turn of the century with the construction of a plant in Barberton, Ohio, that produced soda ash, a major raw material used in making glass. This endeavor formed

the foundation for the company's chemicals business. In 1900 PPG acquired a Milwaukee paint company that became the foundation of its coatings business. Because paints were distributed through the same channels as glass, they were a logical extension for the company. PPG also diversified into the production of window glass through a factory in Mount Vernon, Ohio, which opened in 1907. Pitcairn died in 1916, having built PPG over a 33-year period into the largest plate glass manufacturer in the United States as well as diversifying its product line and developing sources of raw material.

The 1920s were prosperous for PPG. As steel-cage and concrete-reinforced construction became the standard for building, architects were able to design structures with larger window units, and glass consumption reached record levels in the United States. During this decade, the automobile industry also began consuming more glass. The switch from the open touring car to the sedan caused an expanded need for glass, and PPG met the demand.

PPG also made several technological innovations during the 1920s. In 1924 the company switched from the batch method of making plate glass to the ribbon method. Molten glass from a constantly replenished melting furnace flowed through water-cooled shaping rollers. The glass was then cooled and cut into large plates. In 1928 PPG first mass-produced sheet glass, using the Pittsburgh Process, which improved quality and sped production. For the first time PPG was a major supplier of window glass. The Pittsburgh Process, invented by PPG, involves drawing a continuous sheet of molten glass from a tank vertically up a four-story forming and cooling line. In 1928 the Creighton Process was developed. An economical process for laminating glass for automobile windshields, PPG introduced Duplate laminated safety glass through a glass-plastic unit.

During the 1950s car production and construction of new homes and glass and steel buildings exploded. PPG stepped up production to meet demand, and continued to diversify. Fiberglass had been a laboratory novelty until the 1930s; by 1950, however, it was being used in decorative fabrics and for insulation. In 1952 PPG opened its fiberglass business, making both textiles and reinforcements. In succeeding years fiberglass was found to be useful for more and more applications, with PPG being one of the leading developers of new fiberglass products and processes.

In 1955 PPG's sales topped \$500 million. PPG employed 33,000 people in seven glass plants, three

Plains Indians

glass-fabricating plants, two specialty plants, two fiberglass plants, 17 coating and resins plants, and five chemical plants. In the early 1960s PPG produced materials for the building, transportation, appliance, container, boating, textile, paper, television, and chemical industries. In 1963 PPG became the first U.S. company to manufacture float glass, used in place of plate glass by architects.

During the early part of the 1960s a heavy capital-investment program moved the company toward \$1 billion in sales, a goal it reached in 1968. Also that year, the company changed its name to PPG Industries, Inc. to reflect its size, diversification, and global presence. By the late 1990s PPG Industries was a global producer of flat glass, fiberglass, fabricated glass products, coatings, resins, and industrial and specialty chemicals.

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PLAINS INDIANS

Plains Indians were those tribes that lived in the grassland region extending from the Mississippi River in the east, to the front range of the Rocky Mountains in the west, and from Canada in the north, to Mexico in

the south. Algonquian, Aztec-Tanoan, and Iroquoian languages were spoken; eventually a mutually understandable sign language developed among the various tribes. Before European incursion Plains tribes included the Blackfoot, Sioux (or Dakota), Cheyenne, Omaha, Pawnee, Arapaho, Apache, and Comanche.

From 8000 B.C. to 1500 B.C. these tribes were nomadic, moving as many as 100 times a year in pursuit of the buffalo (bison). This large animal provided meat for food, skins for clothing and housing, bones for tools, and manure for fuel. Plants and other animals, such as deer, elk, and rabbits, were also used. The tepee was the typical dwelling: the conical tent was made by stretching skins over a wood frame. Tepees were durable, easily moved, and could be assembled quickly. Tribes traveled mostly on foot; there were no beasts of burden (horses or mules) until the arrival of the Europeans.

After about 250 B.C. some Plains tribes turned to agriculture, settling in river valleys where they cultivated corn, beans, squash, and tobacco. The Omaha and Pawnee were among the tribes that became settled farmers, establishing walled villages of earth lodges. The sustenance of other tribes remained tied to buffalo hunting, which was aided by the development of the bow and arrow (allowing a hunter to remain hidden while he took aim on his prey). Hunting was also a group activity when the large animals were killed by herding them over cliffs. After A.D. 900, Plains Indians began trading with the Eastern Woodlands Indians to the east, particularly the Mississippian tribes. Plains tribes adopted some of their practices and ceremonies.

The arrival of Europeans in the continental interior introduced horses and guns to the Indians and these were readily adopted for use in hunting and warfare. The Plains Indians were warriors, who fought between clans and tribes, and against the white settlers who increasingly encroached on their territory.

By 1890 the buffalo herds of the Plains were virtually extinct—the result of over-hunting by both the Indians and the whites. Diminishing buffalo herds resulted in significant changes in the lifestyle of the Plains Indians. That same year saw the last major conflict between the U.S. Army and the Sioux (who had fiercely resisted white settlement of their lands); federal troops killed as many as 300 men, women, and children at Wounded Knee, South Dakota.

See also: **Buffalo (Extermination of the), Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Carolina, Oklahoma, South Carolina, Texas, Wyoming**

PLANTATIONS

The term plantation originally referred to a colony or new settlement with a planned system of planting. Plantation in American culture gradually evolved to refer to an extensive agricultural enterprise based on slave labor. It would have been similar to a very large, often self-sufficient, farm.

The first plantations appeared in Virginia in the seventeenth century. Settlers began growing tobacco in the rich coastal plains where ocean tides swept up the rivers. Quickly, they realized bigger profits were possible by cultivating tobacco on a large scale. White indentured servants first provided the labor but soon gave way to black slavery. The great tobacco plantations became the hallmark of colonies in Virginia, Maryland, and the Upper South colony of North Carolina. By the 1720s, plantations appeared in South Carolina and Georgia. George Washington (1732–1799), Patrick Henry (1736–1799), Thomas Jefferson (1743–1826), and James Madison (1751–1836) were among the planters.

The greatest expansion of the plantation system occurred between 1790 and 1860. It was spurred by a more efficient textile industry in New England and Britain's increased demand for cotton. Eli Whitney's invention of the cotton gin enabled cotton to be cleaned and readied for market at a rapid pace. Cotton became so valuable that large areas of the "New South," including western Georgia, Alabama, Mississippi, Louisiana, Arkansas, and Texas, were planted. By 1830 cotton accounted for half of all U.S. exports. Although small family farms worked by the owners grew most of the cotton, the great cotton plantation became the ideal of Southern society. The richest 10 percent of planters owned almost 65 percent of the farm wealth and dominated Southern political and social life as well. A planter was defined by the number of slaves owned rather than by acres owned. Only three percent of planters owned more than 20 slaves, but over 100 slaves worked the grandest plantations.

Typical Southern plantations were self-sufficient communities with a mansion for the owner and his family, stables, kitchen, blacksmith shop, extensive gardens, and slave quarters. They encompassed thousands of acres of fertile land with access to waterways for shipping.

While most planters managed the plantation themselves, some hired overseers to help direct the slave workforce. Planters' wives were generally second in command supervising the entire household operation.

Slaves worked dawn to dusk in the fields. The more slaves a planter had the more productive his plantation. Emancipation of slaves at the conclusion of the American Civil War (1861–1865) brought the plantation era to a close.

See also: Cotton Gin, King Cotton

PLESSY V. FERGUSON

The landmark Supreme Court decision in 1896 of *Plessy v. Ferguson* strengthened the constitutionality of segregation laws in the United States. The ruling would not be reversed for over fifty years, until the Supreme Court finally recognized the inequality inherent in "separate but equal" legislation in 1954 with the *Brown v. Board of Education of Topeka* (1954) case.

During the period of Reconstruction (1865–1877) federal troops were stationed in the South to protect former slaves from their former masters and to insure that the civil rights that had been accorded to African Americans—the Thirteenth, Fourteenth, and Fifteenth Amendments as well as numerous federal laws—were not violated. But the long and stubborn resistance against the federal presence waged by southern whites eventually wore down the patience of the northern public. When the troops were withdrawn the political order in the South reverted to something similar to the pre-Civil War South with the exception that slavery was replaced with sharecropping (blacks—and poor whites—renting land for "shares" of the crop) and violence against blacks came in the form of terrorism committed by groups of "night-riders" (Ku Klux Klan, "Mississippi Red-Shirts," Knights of the White Camellia or a half dozen other groups) rather than by the slave owner himself or his delegates.

PLESSY WAS ARRESTED UNDER THE LOUISIANA SEPARATE CAR ACT OF 1890, WHICH REQUIRED THAT RAILROADS PROVIDE "EQUAL BUT SEPARATE ACCOMMODATIONS FOR THE WHITE AND COLORED RACES," AND WHICH PROHIBITED A PERSON FROM USING A RAIL CAR TO WHICH THEIR RACE HAD NOT BEEN ASSIGNED.

After 1877, southern legislatures set about reversing the civil rights gains made during the Reconstruction period by passing Jim Crow laws, which segregated whites and blacks. ("Jim Crow" was a shuffling, subservient, and stupid black character in minstrel

Plessy v. Ferguson



This sign's placement in front of the Illinois Central Railroad depot is an example of the segregation that resulted from the 1896 Supreme Court decision in the Plessy v. Ferguson case. The laws remained in effect for more than 50 years.

shows.) In June 1892, in the midst of this social counter-revolution, Homer Plessy, a 30-year old shoemaker who was one-eighth African American, purposely challenged such a segregation law in Louisiana. Plessy boarded a train, informed the conductor that he, Plessy, was not 100 percent white, refused to vacate a first class seat, and would not move to a separate "colored" car. Plessy was arrested under the Louisiana Separate Car Act of 1890, which required that railroads provide "equal but separate accommodations for the white and colored races," and which prohibited a person from using a rail car to which their race had not been assigned.

In the 1890s the Comité des Citoyens formed in Louisiana to oppose the Separate Car Act. The committee's members were mostly descendants of "free persons of color," an elite class of African Americans that included writers, musicians, and community leaders, most of whose ancestors probably were never slaves. Some were "Creole," connected by blood ties to families of the white gentry.

In 1892 the Comité des Citoyens tried unsuccessfully to challenge the Separate Car Act when the light-skinned Daniel Desdunes bought a rail ticket to travel out of state, and sat in a car for whites only. But after his

arrest, the prosecution dropped the case when the Louisiana Supreme Court ruled in another decision that the state legislature had no jurisdiction over interstate travel. Thus, as part of the continued legal battle, the Comité des Citoyens also challenged the statute within the state of Louisiana with Homer Plessy in 1892. Plessy was released from jail the day after he was arrested. The plan of Plessy's attorney, James E. Walker, was to invalidate the segregation law by invoking the Thirteenth and Fourteenth Amendments. The Thirteenth Amendment abolished slavery and the Fourteenth Amendment gave all naturalized citizens equal protection under the law by state and federal governments.

Plessy appeared before Judge John H. Ferguson of the Criminal Court of New Orleans, who upheld the constitutionality of the state law. Plessy then decided to take the case to the United States Supreme Court, again challenging the law on the basis that it violated the Thirteenth and Fourteenth Amendments. The U.S. Supreme Court found Plessy guilty again. Justice Henry Brown, speaker for the eight-person court, argued that the state law did not contradict the Thirteenth Amendment abolishing involuntary servitude because the statute "merely implies a legal distinction between the white and colored races." With regard to the Fourteenth Amendment, the Court argued, the amendment's purpose was "to enforce the absolute equality of the two races before the law . . . Laws . . . requiring their separation . . . do not necessarily imply the inferiority of either race." The lone dissenter in the decision was former slave owner Justice John Marshall Harlan. He wrote, "Our Constitution is color-blind . . . In respect of civil rights all citizens are equal before the law." He argued that the majority opinion of the Court ceded power to the states, which would "place in a condition of legal inferiority a large body of American citizens."

The test case had failed to undermine the constitutionality of the segregation laws. In 1897 Plessy returned to Court in New Orleans. He pled guilty and was fined \$25 for violating the 1890 law. The Supreme Court decision of *Plessy v. Ferguson* subsequently permitted the expansion of Jim Crow legislation until the middle of the twentieth century.

See also: Affirmative Action, Civil Rights Movement, Jim Crow Laws

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POLK, JAMES KNOX

James Polk (1795–1849) was one of the most successful presidents of the United States, and one of the least known. He was elected president in 1844 and carried out every item on his political program. The period roughly corresponding to his presidency (1845–1849) became known as the Fabulous 40s. The country was, at the time, full of excitement, prosperity, and business energy. Polk was responsible for expanding that nation with the addition of land that today comprises nine western States. He was also largely responsible for admitting the state of Texas to the Union.

Polk was born in 1795, on a small farm near Pineville, North Carolina, in a family of Irish background. He was the oldest of ten children. Because of his sickly childhood, he did little physical labor but helped his father survey and manage large local farms. He later graduated from the University of North Carolina at the top of his class at age twenty-three. Two years later he became a lawyer and soon began his political career with the Democratic Party of Tennessee. His friendship with another great politician and president, Andrew Jackson (1829–1837), allowed Polk to move up quickly in politics. He was soon elected governor of Tennessee. From there he sprang to national political prominence when the issue of acquiring more western land for the United States gained popularity.

Running as a “dark horse” (a political unknown), Polk narrowly defeated Henry Clay in the election of 1844 to become President of the United States. During the campaign Polk forcefully asserted that it was the manifest destiny of the United States to expand its borders both west and south. On the other hand, Clay feared a war with Mexico or England might be the price of this expansion and projected an ambivalent, unsure

image to the voting public, which may have cost him the election. Once in office, Polk was able to acquire peaceably a large section of the northwest known as the Oregon Territory from England in 1846, although the northern border of this new land was far to the south of what Polk had originally envisaged

Mexico refused to sell the land, which included parts of Texas, New Mexico, and California to the United States. Consequently the U.S. Congress declared war on Mexico in 1846. The United States won the conflict and acquired the territory of Texas and much of the territory of present-day Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming.

During Polk’s single term as president, the size of the United States increased by about fifty percent, providing need land for farming, homesteading, and mining development. It was a watershed for U.S. westward expansion and encouraged one of the greatest population movements in U.S. history.

Polk died in 1848, in Nashville, Tennessee.

See also: Manifest Destiny, Mexican Cession, Oregon County Cession, Westward Expansion

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POLL TAX

A poll tax is a tax levied as a prerequisite for voting. After Reconstruction (1865–1877), the twelve-year period of rebuilding that followed the American Civil War (1861–1865), many southern states passed poll taxes in an effort to keep African Americans from voting. As a result many African Americans (and other impoverished citizens) who could not afford to pay the poll tax were disenfranchised (deprived of their rights as citizens).

In 1870 the Fifteenth Amendment was adopted, stipulating that an individual's right to vote cannot be denied by any state on the basis of race or color. But southern state legislators soon looked for other ways to keep the vote from African Americans, as well as some white Americans. Some states adopted literacy tests: In order to vote, a person had to first pass a strict test; those who failed were denied the right to vote. But in addition to excluding poorly educated African Americans from voting, the measure also affected many others who were also poorly educated, regardless of ethnicity. In response, many state legislatures drew up "grandfather clauses" to ensure non-African American constituents were included in the voting process. For example, Louisiana's grandfather clause granted voting rights only to citizens who were eligible to vote, or whose direct ancestors were eligible to vote, on January 1, 1867, a period when few of the state's African Americans could vote. By the early 1900s, most southern states had adopted this method of keeping former slaves and other African Americans from getting involved in government.

The U.S. Supreme Court declared grandfather clauses unconstitutional in 1915 and again in 1939. But the poll taxes had greater longevity and remained in effect into the Civil Rights Movement. In 1964 poll taxes in U.S. federal elections were finally made illegal; two years later they were prohibited in all government elections held in the United States, including state and local elections.

See also: Discrimination, Fifteenth Amendment

POLLOCK V. FARMERS' LOAN AND TRUST COMPANY

In 1898 the U.S. Supreme Court declared the income tax unconstitutional. It had been levied as part of the Wilson–Gorman Tariff Act (1894) and taxed all incomes over \$4,000 at two percent. The ruling came in the case of *Pollock v. Farmers' Loan and Trust Company*. Massachusetts resident Charles Pollock was a stockholder in the loan and trust company. In 1895 Pollock sued on behalf of himself and other shareholders, challenging the payment of taxes on the interest and dividends on deposit in the bank during the previous year. In this case, the justices had to decide fundamental questions: (1) whether the federal government could apply "income duty" to the bank deposits of U.S. citizens; (2) whether it could levy an income tax at all. A bare majority of five judges agreed that the Constitution prohibited direct taxation and that, instead, the tax burden had to be apportioned to each state

(based on their population). The high court's decision stated that the tax was "repugnant to the Constitution . . . income tax is invariably classified as a direct tax." But the need for an income tax did not abate, and after the turn of the century the graduated tax began receiving bipartisan political support. Eventually the states ratified the Sixteenth Amendment (1913), which authorizes the U.S. Congress to levy and collect income tax without regard to a census (apportionment).

See also: Sixteenth Amendment

PONY EXPRESS

Pony Express was a short-lived but emblematic mail and small package carrier service that operated during the mid-1800s. It still remains a symbol of American westward expansion. The service began in 1860 as a means to move messages and parcels from St. Joseph, Missouri (then the western terminus of the nation's rail system), to Sacramento, California, and all points between. The Pony Express trail was 2,000 miles (just over 3,200 kilometers) long and could be traveled in eight to 10 days by a series of riders.

The service was backed by businessman William Hepburn Russell (1812–72), who hired 80 riders and kept 400 horses and ponies to make the relay journey around the clock. Each rider traveled about 75 miles (120 kilometers) per day. Riders followed a trail that ran along Nebraska's Platte River to present day Wyoming, then turned south toward Great Salt Lake (in present day Utah), and south of there turned west to cross the Great Salt Lake Desert to the Sierra Nevada Mountains (in present-day western Nevada), which were crossed into California. Along the route, there were nearly 200 Pony Express stations where riders would change horses or end their day's journey, handing off the specially designed leather mailbag to the next rider. These changes usually took less than two minutes.

Pony Express service was the fastest way to get messages across the frontier at the time; the only alternatives were transport by stagecoach or boat. But when the first transcontinental telegraph line was completed on October 24, 1861, the Pony Express folded only two days later. Its fastest run had been made in March of that year when a transcript of President Abraham Lincoln's (1809–65) first address to Congress arrived in Sacramento in seven days and 17 hours.

See also: California, Missouri, Telegraph, Utah, Wyoming

POPULAR SOVEREIGNTY

In the mid-1800s the U.S. Congress struggled with how to organize western territories—in terms of whether they would be free or slave regions—without upsetting the tenuous political balance between North and South. Congress settled on the idea of popular sovereignty, relying on the vote of the people in the territory to decide the question for themselves.

The biggest proponent of popular sovereignty (and the person who coined the term) was Senator Stephen A. Douglas (1813–1861) of Illinois. An ardent expansionist, Douglas viewed popular sovereignty as a way for the nation to get on with the business of organizing new territories. But policy of popular sovereignty had ramifications that even its strongest supporters did not foresee.

Under the Kansas-Nebraska Act (1854), two new territories were established, and the voters in each territory were charged with deciding the question of slavery for themselves. Many lawmakers assumed Nebraska residents would vote in favor of a free territory and Kansas residents would vote in favor of slavery. Instead, advocates from both sides sent people to settle Kansas, which became the backdrop for violent conflicts between anti-slavery and pro-slavery forces, earning it the nickname “Bleeding Kansas.”

The practice of sending people into a territory, sometimes only temporarily, to swing the vote prompted critics of popular sovereignty to dub it “squatter sovereignty.” The tragic conflict in Kansas was evidence that the policy had failed. With the failure of popular sovereignty, federal lawmakers had exhausted their abilities to address the nation’s political and ideological problems, which would only be resolved by the outcome of the American Civil War (1861–1865).

See also: **Bleeding Kansas, Kansas-Nebraska Act**

POPULIST MOVEMENT

The Populist Movement is the name given to an important movement of agrarian reformists in the United States during the late nineteenth century. In the 1870s and 1880s U.S. society was generally secure and prosperous. Overall economic growth was steady, and no foreign power threatened U.S. interests. One important area excluded from these positive conditions and developments was agriculture. In the decades after the American Civil War (1861–1865), the U.S. farmer suffered a precipitous decline in wealth and status.

Prices for key agricultural products such as wheat and cotton experienced dramatic declines as productivity rose and foreign competition increased. Cotton, the backbone of the Southern economy, sold for over 30 cents a pound in 1866. By the early 1890s, however, the price per pound plummeted to six cents. Not surprisingly, farmers in newer settled regions such as Kansas, Nebraska, and the Dakotas were hardest hit because they had recently borrowed start-up money at fixed interest charges. These obligations were increasingly burdensome as agricultural prices continued to drop. The South was hit hardest of all the regions, not having fully recovered from the economic and social dislocations brought on by the Civil War. The basic problem was that the mechanization of agriculture had created an “overproduction crisis.” The domestic market could not absorb the increased productivity of the farm. Wheat had sold for \$1.60 per bushel in 1865 was going at 49 cents per bushel in 1890.

The decline in the status of the farmer was equally harsh. At the advent of the American republic, Jeffersonian Republicans lauded the farmer as the wellspring of American virtue and prosperity. This idealization of rural life steadily eroded with the growth of U.S. industrialization and urbanization. Cultural and intellectual currents in the city and in the countryside increasingly diverged, and city dwellers began to view the farmer as uneducated, prejudiced, and superstitious.

Before the 1890s rural distress had generated demands for social and economic experiments that would help shield the farmer from the harsh blasts of the market. For example, the Granger Movement of the 1870s produced legislation regulating warehouses, grain elevators, and railroads. It also led to important cooperative experiments in the marketing of farm products and in the purchase of farm machinery, fertilizer, and the like.

The next important wave of populist reformism emerged in the 1890s. Various regional farm groups, known as Farmers’ Alliances, took root and grew rapidly. These included the Southern Alliance and the Agricultural Wheel in the south, and the Northwestern Alliance in northern regions. Although these groups found it difficult to unite due to regional differences based on political preferences and economic interests, they shared the belief that agricultural prices were too low, transportation costs were too high, and that the nation’s financial system was in need of serious reform. These and other agricultural groups threw themselves into rural politics in 1890 with spectacular results. In the South alone Alliance-sponsored gubernatorial candidates won elections in four states. The Alliance also captured eight southern legislatures. In

Porkopolis

the West Alliance candidates dominated elections in Kansas and Nebraska and secured important power bases in the legislatures of Minnesota and South Dakota.

Spurred by these victories and by the failure of the Republican and Democratic parties to seriously address their concerns, the rural reformers, along with representatives of industrial labor and professional reformers, organized the People's Party in St. Louis in 1892 and called for a national convention to convene in Omaha in July. The convention was noteworthy for drafting one of the most comprehensive reform programs ever advanced by a major U.S. political party. The platform called for a number of important measures, including the direct election of senators, the adoption of initiative and referendum procedures, civil service reform, nationalization of transportation and communication networks, and a graduated income tax. To combat deflation, the scourge of the rural economy, the platform advocated the free coinage of silver and the liberal printing of paper money. A "subtreasury" plan was also advocated to protect the farmer from downturns in agricultural prices. Under this scheme farmers could hold crops off the market when prices were low and then receive loans from the government secured by crops in storage. To attract support among industrial workers, the platform also advocated an eight-hour workday, pensions, and the restriction of immigration. Indeed, the strategic political goal of the Populist Party was to displace the Democratic Party by forging an alliance between farmers and industrial workers. Equally important, the Populists, at least in principle, attempted to bridge the social gulf between Southern blacks and whites, arguing that shared economic interests were more important than racial differences.

Despite the excitement it generated in the election of 1892, the Populist Party fell painfully short of its political goals. In the election Democrat Grover Cleveland (1893–1897) garnered 277 votes in the Electoral College to defeat his Republican opponent, Benjamin Harrison (1889–1893), who received 145 electoral votes. James B. Weaver, the Populist candidate, attracted only 22 electoral votes. Although the Populist Party received over 1,470,000 popular votes in the congressional elections of 1894, it suffered a rapid decline soon after. Part of the reason was that the party was never able to construct a cohesive coalition between its constituent rural components. Nor was it able to forge a significant alliance with industrial labor interests. During their presidential convention in 1896, the Democrats adopted the Populist plank of the free coinage of silver, allowing the Democratic candidate,

the firebrand William Jennings Bryan, to appeal to Populist voters. At their own convention in July, 1896, the Populist Party also nominated Bryan, all but fusing with the larger and more influential Democratic Party. A period of rapidly rising agricultural prices also helped seal the fate of the Populist Party.

See also: *Farm Policy, Farmers' Alliance, Free Silver, Industrial Revolution, Urbanization*

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PORKOPOLIS

Porkopolis is an old nickname for the city of Cincinnati, Ohio. In 1788 the area was marked out along the shores of the Ohio River as the village of Losantville. Over the next two decades numerous settlers made their way west in flatboats along the Ohio River. In 1811 steamboat service began on the Ohio River. By 1819 river trade had transformed the territory into a bustling center and the city was officially chartered as Cincinnati.

Cincinnati was perfectly situated on one of the region's major waterways, where it could readily receive raw materials and ship out finished goods. The construction of canals across the region connected natural waterways and made the city accessible from great distances. At its eastern end, the Ohio River extended to Pittsburgh, Pennsylvania. Its western end ran into the Mississippi River, which extended to the

busy port of New Orleans and, by ship, to the Atlantic coastal states.

Many farmers transported their livestock (particularly hogs) to Cincinnati for processing. As early as 1818 meat processors in Cincinnati had begun packing pork in brine-filled barrels. By the 1840s the city was home to numerous slaughterhouses and pork-packing plants. By 1850 Cincinnati had become the country's leading center for pork processing. The city's factories also made steamboat boilers, machine tools, railroad cars, and soap, but it became known as Porkopolis because of its most popular product of the time.

See also: Ohio

POST, WILLIAM CHARLES

Charles William Post (1854–1914) was a trailblazer in the manufacture and marketing of breakfast cereal products. During the early twentieth century he used his wealth to influence a variety of campaigns that held his interest, including anti-union activism.

Charles William "C.W." Post was born on October 26, 1854 in Springfield, Illinois, the son of Charles Rollin and Caroline Lathrop Post. His mother was a poet whose work was published in magazines, and his father, who joined the California gold rush as a forty-niner, held a variety of jobs and finally settled as a grain and farm equipment dealer.

Post, who preferred to be called "C.W.," was educated in public schools and briefly attended the Illinois Industrial College (later to become the University of Illinois), but he dropped out at age 15. He worked for his father's business before moving to Chicago to work as a salesman for a farm equipment firm. In 1876 he returned home, borrowed \$500 from his mother, and opened a general store in Independence, Kansas. Less than a year later Post sold his store and again returned to Springfield. He married Ella Merriweather, and in 1880 established the Springfield Plow Works, a business engaged in the design and manufacture of farm equipment. After four years, both the business and Post's emotional health failed. He spent recuperation time in Texas, where he became interested in real estate, specifically near Fort Worth. By 1891 Post was so ill that he was confined to a wheelchair. He sought help at a well-known sanitarium in Battle Creek, Michigan, run by Dr. John Harvey Kellogg. At the sanitarium Post was fed Dr. Kellogg's



C. W. Post.

high-grain vegetarian diet that consisted of natural food and beverage products.

Post recovered his health at the sanitarium after only a few months, and remained in Battle Creek to open the La Vita Inn, an institute for healing through mental suggestion. He published *I Am Well!*, a book promoting the fashionable belief that the mind could cure physical ailments; the institute, however, never achieved real success.

In 1895 Post formulated a cereal beverage coffee substitute based on a drink similar to one he was served at Kellogg's sanitarium. Post named his beverage Postum. The following year he began to manufacture Grape Nuts, a cereal based on another Kellogg product. With only \$50,000 in capital, Post incorporated his company in 1896 under the name Postum, Ltd. Over the next few years he introduced several products, including a corn flakes product he called Post Toasties, followed by other cereals: Post's Bran Flakes, Instant Postum, and Post's Wheat Meal.

Post saw advertising as the most crucial part of his business. Through ads in newspapers and magazines that Post wrote himself, the company achieved nationwide distribution by the early 1900s. Post's marketing strategies appealed to consumers' health concerns by

Postum Cereal Company

claiming that Postum products would put them on the “road to Wellville” by strengthening “red blood.”

The success of his company made Post a millionaire. Five years after its establishment, Postum Ltd.’s capital had risen to \$5 million. Post’s business, which began in a barn, now employed 2,500 people in factories that covered 20 acres of his Battle Creek farm. It was the largest plant of its kind in the world. Post nonetheless grew bored with his company, hired a team of professional managers to oversee its operation, and used his newfound wealth to turn his attentions elsewhere.

In 1902 Post designed a type of mail currency he called the “Post Check,” which was similar to contemporary money orders. He met strong opposition in his attempt to get congressional support for the Post Check. The greatest objection came from New York Senator Thomas C. Platt, president of the U.S. Express Company, which sold its own form of postal currency. The Post Check also upset small merchants, who feared the new currency would promote mail-order business. Realizing that these merchants carried his cereal products, Post eventually gave up on the Post Check.

C.W. POST BECAME FAMOUS FOR CLAIMING THAT HIS HEALTHY BREAKFAST FOODS WOULD PUT CONSUMERS ON THE “ROAD TO WELLVILLE.”

Shortly after, Post began purchasing what would total more than 200,000 acres of land in western Texas. He built a community called Post City, which ultimately suffered from the region’s arid climate. To combat drought, Post had large amounts of dynamite set off in several experiments to blast rain out of the sky.

Throughout this time Post was a dedicated leader of entrepreneurs against labor unions. He lectured throughout the country and published full-page anti-union denunciations in several newspapers. He even established a magazine called *Square Deal* to disseminate his labor views. Labor unions responded by organizing boycotts against Post’s cereal products. To prevent unions in his own factory, Post paid the highest wages in the industry, gave bonuses, and provided welfare, accident, and health benefits. He also had model homes built near Battle Creek that were sold to employees on accommodating terms. Post helped establish, and later served as president of, the anti-union group Citizen’s Industrial Alliance. In 1910 the National Trades and Workers Association succeeded this

organization. Post offered Theodore Roosevelt (1858–1919) \$100,000 to serve as its president, but the former U.S. president (1901–1909) declined.

Post committed suicide on May 9, 1914, at his home in Santa Barbara, California. He was survived by his second wife Leila D. Young, and his daughter, Marjorie Merriweather Post—the sole inheritor of Postum Ltd. At the time of his death, C.W. Post’s fortune was estimated at \$20 million. Marjorie Post’s second husband, stockbroker Edward F. Hutton, led Postum in an aggressive crusade to acquire other grocery brands. In 1929, Postum Ltd. became the General Foods Corporation.

See also: **W.K. Kellogg, Postum Company**

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POSTUM CEREAL COMPANY

“Health First—Happiness Follows, POSTUM instead of coffee, ‘There’s a Reason.’” This 1895 marketing slogan was created by Charles William Post (1854–1914), the man who, in a small white barn in Battle Creek, Michigan, made the first batch of Postum, a cereal beverage. Sales were slow initially: Post lost \$800 on Postum in the first year. In writing advertisements for his product, Post brazenly blamed caffeinated beverages for any ailment, including heart disease,

rheumatism, blindness, cowardliness, and diminished mental capacity. He literally scared thousands of caffeinated beverage drinkers into switching to Postum. By the end of 1896 Postum sales reached \$3000 per month. The same year Postum Cereal Company Ltd. was incorporated.

“Grape Nuts,” a pre-cooked cereal made of malted barley and whole wheat, was introduced in 1897. It was a commercial success. Post advertised Grape Nuts as a builder of red blood cells and stated that it steadied the nerves and prevented malaria, consumption, and appendicitis. He became well known for outlandish and flamboyant advertising and marketing practices. Post used coupons, samples, and product demonstrations to encourage people to buy his products. The stage was set for the company that would become General Foods.

By the early 1900s Postum Cereal Company’s Battle Creek plant was the largest of its kind in the world, with 2,500 employees and a net worth of \$5 million. Charles W. Post amassed a personal fortune. Though Post crusaded against labor unions, he was not against employee benefits. Post was an active member in the National Association of Manufacturers and he founded many organizations designed to substitute labor unions. Because of Post’s genuine concern for employees, Postum Cereal Company did not have any labor problems in its own factories. Post’s generosity toward his employees was evident as they were paid the highest wages in the industry. The company placed a high emphasis on safe working conditions and implemented a sickness and accident benefit program. It also assisted some workers with the purchase of company built homes.

**HEALTH FIRST—HAPPINESS FOLLOWS,
POSTUM INSTEAD OF COFFEE, THERE’S
A REASON.**

Charles William Post, 1895

Upon the death of Charles W. Post in 1914, his daughter Marjorie Merriweather Post took over company operations. In 1923 Marjorie’s husband, Edward F. Hutton, became chairman and Colby M. Chester became president the following year. Marjorie remained active in the company affairs and she was involved in the business strategy related to the acquisition of General Foods. Postum Cereal Company acquired Jell-O in 1925, followed by Swans Down cake flour, Minute Tapioca, Baker’s Chocolate, and Log Cabin syrup in 1927. That same year the company also shortened its name to the Postum Company. With the

acquisition of Maxwell House coffee in 1928, President Theodore Roosevelt’s (1901–1909) 1907 statement “Good to the last drop” became a household phrase.

In 1929 Postum paid \$22 million for controlling interest in the General Foods Company, which was owned by Clarence Birdseye. The Postum Company then adopted the General Foods title. Birdseye became head of the new General Foods laboratory and continued his research on frozen foods. After record \$19.4 million profits in 1929, earnings dropped to \$10.3 million in 1932 when the company acquired the remaining 49 percent of General Foods. E.F. Hutton resigned as chairman in 1935 and Colby M. Chester took over. Marjorie Post returned as director in 1936 and remained until 1958.

In 1932 the company added six new plants and offered one hundred different frozen food products. In the same year Sanka Coffee Corporation was purchased from European owners who, since 1927, had an agreement with Postum Company to distribute their coffee. By 1943 General Food sales had more than doubled those of 1929. One of the first postwar products introduced to the market was Instant Maxwell House coffee (1945). Adding to the General Foods beverage line was the acquisition of Perkins Products Company in 1953. Fruit flavored drink mixes, such as Kool-Aid, Tang, Country Time, and sugar free Crystal Light, were added to the beverage division of General Foods. Through the 1950s and 1960s General Foods expanded in the international market: it had controlling interest in La India chocolate Company in Venezuela, acquired Hostess snack food company of Canada, the Kibon ice cream company of Brazil, and numerous others. By the end of the 1960s General Foods was a giant in the industry.

The international acquisitions continued throughout the 1970s. On the domestic front the Bird’s Eye brand enjoyed increased sales as frozen foods became more popular. But the Jell-O brands suffered in the dessert market. In 1980 General Foods was not performing as expected and was dependent on its various coffee brands which accounted for thirty-nine percent of entire revenues. In 1981 General Foods merged with Oscar Mayer, the largest national brand of lunchmeats. With coffee and Post Cereal sales sliding in 1984, General Foods sold its Gaines Pet Food division for \$157 million. In 1985 Phillip Morris purchased General Foods for \$5.6 billion. Phillip Morris chairman Hamish Maxwell had plans to diminish the company’s reliance on tobacco products. A massive reorganization of General Foods began in 1987 as coffee, meats,

Postwar Boom

and groceries were split into separate divisions. In October 1988 Phillip Morris purchased Kraft. In 1989, with Michael A. Miles at the helm, General Foods and Kraft merged to become an industry giant named Kraft General Foods Incorporated. The company's name was changed in January 1995 to Kraft Foods Incorporated and the company was reorganized into eleven different international divisions.

See also: Charles Post

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POSTWAR BOOM

During the 1940s U.S. business was dominated by preparation for World War II (1939–1945), by the war itself, and in the late years of the decade by the Cold War. By the end of the decade Americans saw the positive effect the war had on the U.S. economy and realized that they had never had it so good.

President Franklin D. Roosevelt's (1933–1945) combination of private capitalism and public stimulus accomplished exactly what the government intended: it made the United States the largest arms manufacturer in world history. At the end of World War II, U.S. business and the economy were radically different than they were before the Japanese attack on Pearl Harbor (1941). Americans enjoyed unprecedented prosperity. Corporate profits were astounding. In 1943 alone earnings jumped \$2.1 million over the prewar level. Workers' wages on average doubled, increasing from almost

\$25 a week to \$50 a week, and many people earned hefty overtime bonuses. Even farm income increased an incredible 250 percent, despite the loss of nearly 800,000 agricultural workers during the war.

The character of corporate and working America also changed. Despite administration attempts to distribute the benefits of government contracts broadly, 71 percent of all contracts went to the 100 largest U.S. corporations. By the end of 1942 there were 300,000 fewer small companies than there had been before the war. Small farmers lost out as labor got bigger. The total labor force increased by 22 percent during the war, which, along with the draft, eliminated unemployment. Labor unions grew from 10.5 million members in 1939 to 14.75 million members in 1945. An acknowledged power in the U.S. marketplace, big labor insured that many of the wage and benefit gains of the war years would continue into the next decades. Because of wartime labor shortages, moreover, the workforce was more diverse than before. Almost 60 percent of women in the United States were employed during the war. Industry, which for so long had closed its doors to African Americans, now employed 1.2 million. Sixty thousand African Americans migrated to Detroit, Michigan, alone during the war. Even teenagers worked during the war, and their earnings opened up a new consumer market after the war—one geared toward music and automobiles and other status symbols of adolescence. The one problem with all this prosperity was that it was purchased with government deficits justified by the pressure of war. With victory, the new administration under President Harry S. Truman (1943–1953) faced one significant economic problem: how to maintain wartime prosperity without a war.

BY THE END OF THE DECADE PROSPERITY WAS INSURED BY THE TWIN FORCES OF EXPANSIVE U.S. TRADE AND THE GROWTH OF WHAT GENERAL DWIGHT D. EISENHOWER (LATER PRESIDENT, 1953–1961) WOULD TERM "THE MILITARY-INDUSTRIAL COMPLEX."

The Truman administration sought to reconvert U.S. industry to its nonmilitary bases as quickly and as painlessly as the Roosevelt administration had converted it to war production. One way of accomplishing this goal was to use some of the government agencies overseeing war production to supervise the peacetime conversion of U.S. industry. The Office of War Mobilization, retitled in 1944 to the Office of War Mobilization and Reconversion, continued to coordinate manpower, production, and resources after the war. Rations

on scarce goods remained in place long after armistices were signed. These wartime agencies and restrictions came under political pressure during peacetime. Truman hoped that the Office of Price Administration and Civilian Supply (OPA), for example, would continue to regulate production and prices in order to check runaway inflation. The OPA, however, faced criticism from businessmen who wanted to raise prices and from individuals who chafed at its limitations on consumer items. In June 1946, Congress extended the life of the OPA but stripped it of much of its power. Truman vetoed the bill, and when price controls expired on July 1, 1946, prices skyrocketed, and the cost of living index rose six percent in one month. By 1947 the cost of living index had risen 24 points—20 more than it had risen in the previous year. The rise reflected not only the artificial depression of prices the government had maintained during the war, but also the enormous consumer demand spiked by high wartime wages and wartime product shortages. This demand ultimately evened out the economic dislocations of reconversion. The postwar period was notable, in fact, for an unprecedented consumer revolution, as Americans rushed to buy houses, cars, appliances, and luxuries in record numbers.

The biggest single economic problem the Truman administration faced was the demobilization of its 17 million troops. Administration officials feared a rapid demobilization of the military would plunge the nation back into depression, yet the political pressure from American families for rapid demobilization was enormous, especially after 1946. The problem was partially solved by the Serviceman's Readjustment Act of 1944, commonly known as the GI Bill, which funneled many returning veterans into college, thus delaying their entry into the labor force and improving their working skills. Government, business, and labor-union policies, furthermore, favored the hiring of returning vets, forcing tens of thousands of working women and teenagers out of the labor market.

There was also an enormous increase in the number of new industries in the United States following the war. Often sparked by wartime government research, industries such as television, aviation, and chemical and metallurgical processing absorbed many of the demobilized troops. Finally, the government maintained a larger military force after the war than it had ever maintained in U.S. history during peacetime. Troops were needed as occupying forces in Europe and Asia, and U.S. naval and air fleets remained enormous. The large standing army, the GI Bill, and new industries nonetheless failed to prevent widespread labor

dislocations following the war. From 1946 to 1948, as unemployment rose and the U.S. economy slowed, strikes became commonplace, and the Truman administration struggled with popular discontent with its economic policies.

U.S. economic planners also hoped that a revival in U.S. international trade and the reconstruction of European economies would increase U.S. production and absorb the veteran labor force. Even before Pearl Harbor international bankers and interventionists viewed the war as an opportunity to prevent the creation of world economic blocs closed to U.S. trade. With the end of the war they constructed international institutions to accomplish this goal.

The World Bank, the International Monetary Fund (IMF), and the General Agreement on Tariffs and Trade (GATT) were designed to insure U.S. access to colonial markets formerly closed to U.S. trade. These agreements were also designed to help Europe rebuild and resume trade with the United States. This goal was even more explicit in the 1947 Marshall Plan, whose guidelines specified the terms of renewed trade on a basis favorable to U.S. corporations—often accompanied by a surprising degree of U.S. interference in the domestic economies of European states.

The Europeans, devastated and bankrupted by the war, rarely objected to the conditions of Marshall Plan assistance, and by 1950 they had resumed domestic production and trade with the United States on a greater basis than before the war. The Soviet Union, however, committed itself to a policy of economic self-sufficiency and independence. Twice spurned in its requests for less restrictive loans by the United States, it rejected Marshall Plan funds and chose to reconstitute its economy by integrating it, rather poorly, to that of Eastern Europe. The Soviets in effect created an economic bloc and closed it to U.S. trade—it was an anathema to U.S. internationalists.

The actions of the Soviets, as well as the economic restrictions of U.S. assistance, formed the economic backdrop to the Cold War. The political, cultural, and military repercussions of this economic confrontation, in turn, transformed the U.S. domestic economy and by 1949 resolved the problems plaguing postwar industry. The potential military confrontation with the Soviet Union not only cemented U.S. economic ties with Western Europe and increased U.S. trade but also provided a viable rationale for increased military expenditures. By the end of the decade prosperity was insured by the twin forces of expansive U.S. trade and the growth of what General Dwight D. Eisenhower

Postwar Prosperity, 1946–1973 (Overview)

(later President, 1953–1961) would term “the military-industrial complex.”

See also: Cold War, Cost of Living Index, General Agreement on Tariffs and Trade, GI Bill, International Monetary Fund, Marshall Plan, Military-Industrial Complex, Office of Price Administration, Postwar Prosperity, War and the Economy, World War II

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POSTWAR PROSPERITY, 1946–1973 (OVERVIEW)

The economic acceleration sparked by the war production of World War II (1939–45) ended the Great Depression (1929–1939) and brought prosperity to the United States. But the war’s end brought fear of economic stagnation. Many people remembered the downturn following World War I (1914–18) and they were concerned that it might happen again. At first such fears seemed justified, but then Americans went on a buying spree. They used their wartime savings to purchase products such as refrigerators and automobiles that had not been available during the war. This caused inflation because prices rose when supply did not keep up with demand. Also, during the war the inflation increased faster than the wage increases. The unions had been talked into limiting their wartime wage increases to 15 percent per year, considerably less than the actual inflation rate. The government contributed to the problem by removing all wartime price controls in late 1946.

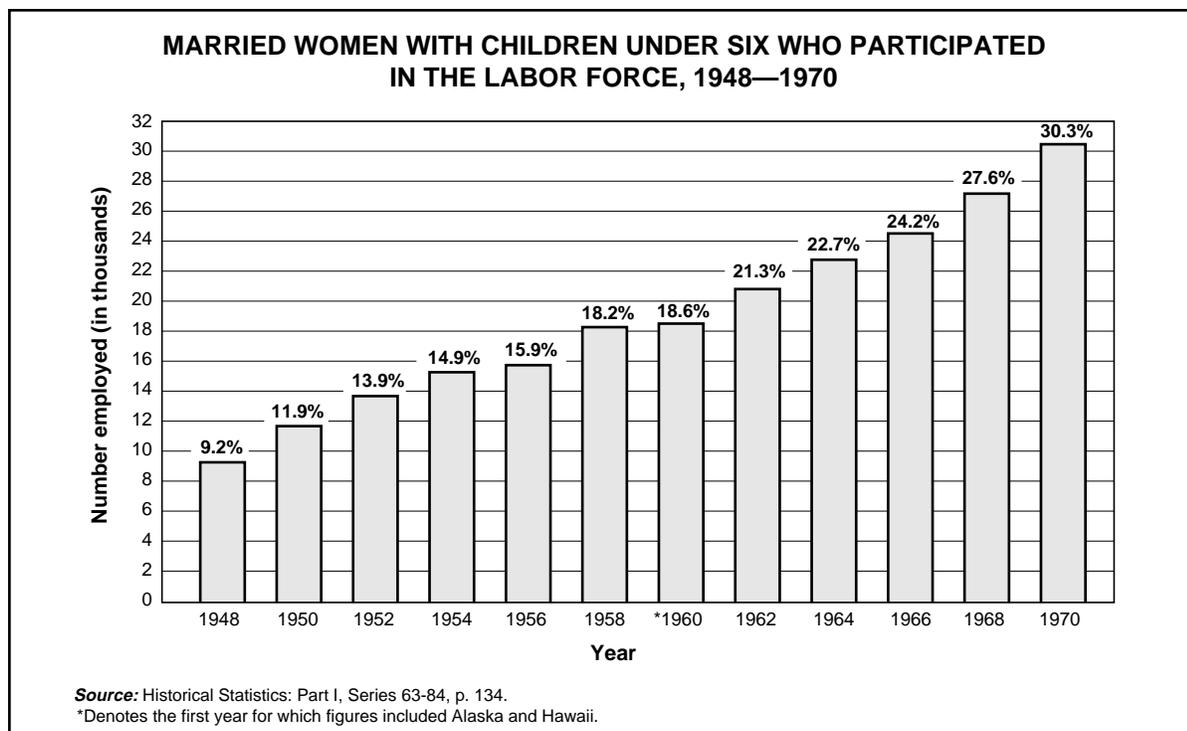
Workers responded to the uncertain economic conditions by going on strike to demand higher wages. In late 1945 and 1946 more than five million workers in major industries were involved in more than 5,000 work stoppages. Most of these strikes were settled to the benefit of the workers who received wage increases; the inflationary trend continued well into the Fifties.

Meanwhile, the Truman administration (1945–53) proposed major government spending programs including an increased minimum wage, price supports for farmers, and support for small businesses. There was also a proposal for a very controversial measure called the Full Employment Bill, which called for the government to guarantee jobs to all workers whenever unemployment rose above a certain level.

President Truman’s (1945–53) program met with vigorous opposition from conservatives who called it “creeping socialism.” However, some of these proposals, including a modified version of the Employment Act, passed Congress before the end of 1946. Truman proposed a more sweeping program, which came to be known as the “Fair Deal.” This included farm supports and other government measures to strengthen growth as well as expansion of Social Security, public housing, national medical insurance, aid to education, and civil rights legislation for blacks. Some of these proposals became law even though there was considerable opposition.

Meanwhile, U.S. farmers experienced many changes after World War II just as they had after World War I. Farming became more mechanized and scientific than ever and output increased at a faster rate than ever. Overproduction once again became a problem. After major increases during the war, prices leveled off and generally showed no gains until the 1970s. At the same time costs increased. The result was that only large commercial farms could be profitably operated. They began to increase in number while the smaller “family farm” declined.

Dwight D. Eisenhower (1953–61), a Republican, succeeded Truman as president in 1953. Generally, he opposed new, large government spending programs, but he favored one project that was profoundly significant: the Interstate Highway System. This was a thirteen-year, \$26 billion program to assist the states to build an interstate highway system according to a national plan. This program generated a number of spin-offs. The construction industry boomed; gas stations and motels profited; the trucking industry flourished; the railroad industry declined; and the American people became more devoted to the automobile than ever.



Shown is the steady increase of married women, with children under 6-years-old, who participated in the workforce between 1940 and 1970.

Otherwise, Eisenhower kept public spending down and the national economy grew slowly. Moreover, the administration did little to stimulate the economy during recessions. Twice, in 1954 and again in 1957, there were economic downturns, but Eisenhower did nothing. Even when the unemployment rate reached 7.5 percent in 1958, he opposed both tax cuts and increased spending.

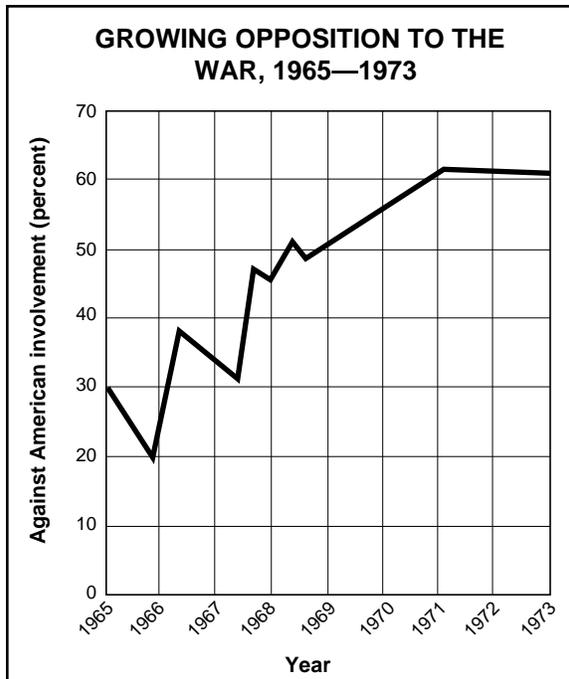
Meanwhile, there were numerous social problems associated with the economy. The population grew rapidly—the increase was largely attributable to the “Baby Boom.” After the war people tended to marry younger and have larger families. Between 1948 and 1955 the number of children born each year increased by 50 percent, the greatest increase ever. This was a direct result of the prosperity of that period. Jobs were plentiful; incomes were rising; and credit was easily available.

The conditions of that period also exerted a significant effect on the status of women. During the war there was an increase in the number of women in the workforce as they came out of their homes to replace the men who went into the service. Immediately after the war many women left their jobs as the men returned, but in the 1950s the trend reversed again and by 1960, 33 percent of the women of working age had

jobs. Most of these jobs were part-time; the pay was low; and the female workers were often over 35 years of age, having gone to work after their children entered school.

During the period of postwar prosperity many people fled the city for the suburbs. They believed that here they would find peace and avoid urban problems such as crime and social tensions. In fact, they frequently traded one set of problems for another. In the suburbs they often found as much congestion as they had hoped to leave behind. In addition, people often went deep into debt for new homes and cars, and they found the long commute to work a burden they had not anticipated.

Despite the flight to the suburbs, the urban population grew dramatically during the late 1940s and 1950s and many of those who flocked to the cities after World War II were black and poor. They came seeking jobs and a better life, but they were often disappointed. They were met with overcrowding, discrimination, and, not infrequently, violence. Still they came. Seventy-seven percent of the African American population lived in the South in 1940. By 1960 nearly 50 percent lived in the North and most of them in cities. They continued to move because, in spite of problems, many actually improved their standard of living. Between



Opposition to the Vietnam War began to rise steadily from 1969 until the United States withdrew involvement.

1941 and 1952 the median annual income of African Americans increased from \$1,614 to \$2,338. Moreover, those employed in unskilled jobs dropped from 80 percent to 63 percent between 1940 and 1950.

Economic growth slowed down somewhat in the late 1950s; John F. Kennedy (1961–63) used the sluggish economy as an issue during the campaign of 1960. Kennedy promised recovery and long-term growth and he gathered a distinguished group of economic advisers to help him produce results. These included John Kenneth Galbraith of Harvard and Walter Heller of the University of Minnesota. These men advocated what came to be known as the “New Economy.” By this they meant that the federal government should use its power over expenditures and monetary policy to promote growth. They convinced Kennedy to push for massive expenditures on social welfare programs and a large tax cut. Kennedy also found himself under increasing pressure to do more in the civil rights arena. However, the conservatives in Congress blocked all such efforts. Thus, Kennedy had achieved little by the time of his death in November 1963.

Kennedy’s program, and much more, was realized by his successor Lyndon Baines Johnson (1963–68). The events of the next five years had an enormous impact on the U.S. economy and society. First, Johnson moved to promote rapid economic growth. He precipitated an economic boom by reducing taxes

through the Tax Act of 1964 and increasing federal spending (mostly on the war in Vietnam). Between 1960 and 1964 the gross national product (GNP) increased 24 percent and corporate profits rose by 37 percent. In 1965 the GNP climbed another seven percent; profits increased 20 percent; and unemployment fell to four percent. These “boom” conditions lasted until near the end of the decade of the Sixties. The GNP increased at a rate of around five percent per year; unemployment never exceeded four percent; and the median family income rose from \$8,543 to \$10,768.

Some economists cautioned that Johnson’s policies could trigger inflation, but the President never deviated from his course. He continued to spend, especially on the war, throughout his tenure. Eventually the economists’ predictions were borne out. By the end of the 1960s the nation was experiencing a runaway inflation.

Meanwhile, Johnson launched his grand plan for what he called the “Great Society.” The idea was to “fix” all of society’s problems by means of federal legislation. In the first year of his administration alone, Congress passed the Tax Act and a new and powerful Civil Rights Act. Congress also approved the Economic Opportunity Act that marked the beginning of Johnson’s “war on poverty.” This consisted of a series of programs designed to provide education, training, housing, and jobs for the less fortunate. It represented the greatest outpouring of liberal legislation in the nation’s history.

After his smashing victory over Senator Barry Goldwater of Arizona in the election of 1964, Johnson shifted the Great Society and War on Poverty programs into high gear. Congress passed Medicare and Medicaid to provide health care for the elderly and the poor. There was legislation passed to provide federal aid to education at all levels. The Voting Rights Act of 1965 guaranteed blacks the right to vote in the South. In addition, federal money was appropriated for housing and urban development and two new Cabinet level departments were created. These were the Department of Housing and Urban Development (HUD) and the Department of Transportation (DOT).

War on Poverty legislation included the Job Corps to train young people who lacked marketable skills; Work-Study, to supplement the income of college students; Head Start, to help pre-school children from “disadvantaged” families; Volunteers in Service to Americans (VISTA), to send volunteers into impoverished areas; federally funded public works projects, and others. However, nothing was done to redistribute wealth, the distribution of which remained much as it

had been since the turn of the century, that is, about 20 percent of the population owned about 80 percent of the wealth.

Lyndon Johnson was forced from office because of the public outcry against his failed policy in Vietnam. His successor, Richard M. Nixon (1969–1974), then had to deal with the major financial and economic difficulties that had been generated by Johnson's policies. He did so by curtailing the money supply. He hoped this would induce high interest rates and consequently business cutbacks.

Nixon's policies did not work. Inflation continued but business activity slowed down more rapidly than expected. This caused government revenues to decline and increased the size of the deficit. It also produced an increase in unemployment. The nation fell into recession.

By 1971 Nixon was ready to try a new, more drastic approach. He froze wages and prices for 90 days, ordered Congress to repeal certain excise taxes, and took the United States off the gold standard by suspending the traditional practice of converting dollars into gold. This had the effect of devaluing the dollar and making U.S. goods cheaper on the international market. Nixon also placed a 10 percent surtax on imports.

This policy worked. By early 1972 the recession was over and industrial production had increased by 5.3 percent over the previous year. Corporate income increased by an average of 11.7 percent over 1971. These changes helped Nixon to win re-election in 1972, but shortly after his triumph the United States faced another economic crisis of significant proportions.

In October, 1973, war broke out between Israel and her Arab enemies, notably Syria and Egypt. The United States supported and aided Israel. In retaliation the Arab states, led by Saudi Arabia, embargoed oil shipments. At that time Middle East imports accounted for about 11 per cent of America's total consumption. Prices shot up and there were shortages. The embargo ended in March 1974 and supplies returned to normal, but prices remained high. The American people now found themselves facing an "energy crisis."

There was a mistaken widespread belief that the price increase in petroleum and petroleum products was caused by the embargo. Price increases were fueled by increased demand that had been developing for several years. In any case, Americans now found themselves paying more—a lot more—to drive their cars, heat their homes, and buy the goods produced by farms and industries that were driven by high-priced oil. The nation had entered a new era.

See also: Great Society, Inflation, Raymond Kroc, Richard Nixon, OPEC Oil Embargo, Suburbs (Rise of), Vietnam War

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POTATOES

The potato, an herb of the nightshade family, originated in the Andes Mountain region of South America about 3000 B.C.. Thousands of years later the Inca Indians cultivated it as a vegetable crop. Because the plant is able to withstand heavy frost, the potato was suitable for the Andean region's high elevations—as high as 15,000 feet (4,500 meters). From the potato the Inca produced a flour-like substance called *chuno*, which was used to make bread. When Spanish explorer Gonzalo Jimenez de Quesada (c. 1495–1579) arrived in the Andes in 1530, he found the people growing and eating the tubers. On returning to Europe, the Spaniards took samples with them, introducing it there in the 1539. In 1586 when English admiral Sir Francis Drake (1540 or 1543–96) returned to England from an expedition to North and South America, he carried with him potatoes he had picked up in Cartagena (present-day Colombia), thus introducing the potato in

Poverty

the British Isles. The potato became a major crop in Ireland and Scotland where it was readily grown. (The edible, starchy tuber of the potato is often called the Irish potato.) Since it is also cheap to cultivate, the potato soon became a dietary staple and is credited with spurring a population growth in those countries. The potato did not arrive in North America until 1718, when Irish immigrants landing in Boston brought it with them. They began growing potatoes the following year in Londonderry, New Hampshire. The potato did not become a popular American food until the 1800s.

See also: **Columbian Exchange, Inca, New Hampshire**

POVERTY

Poverty can be defined either in terms of a definite income level or as a relative condition that changes as society redefines it. Most economists agree that a safe definition of poverty is the inability, through lack of income or wealth, to provide decent housing, clothing, health care, nutrition, or education for oneself or one's family. In 1999 the federal government defined the "poverty line"—the arbitrary dividing line between the poor and the non-poor—as \$16,700 for a family of four in the contiguous United States. According to the U.S. Census Bureau, the number of U.S. citizens living below the poverty line in 1992 was about 36 million, including 14 million children. Sixty-five percent of this number were women (many unmarried mothers), and in 1990 one quarter of all adult African American males lived below the poverty line.

According to economic historians, roughly seven to 10 percent of the populations of New York, Boston, and Philadelphia were poor in the years before the American Revolution (1775–1783). Between 1790 and 1860 the percentage of U.S. citizens living in poverty probably remained about the same; by 1860 there were approximately 2.7 million poor males in the United States. Since 1870 the percentage of U.S. citizens living in poverty has been cut in half, primarily because of the rapid economic growth between 1880 and 1910 and in the years following World War II (1939–1945). The first efforts by the federal government to cope with poverty began in the 1930s. President Franklin D. Roosevelt (1933–1945) established the Social Security Administration in 1935 to provide minimum retirement benefits to U.S. citizens, and the government began to make federal funds available to the states for programs like Aid to Dependent Children.

By 1960 the U.S. government estimated that 40 million U.S. citizens lived below the poverty line. In

1964 President Lyndon B. Johnson (1963–1969) declared an "unconditional war" on poverty that led to the creation of programs like Head Start and the Neighborhood Youth Corps. Because of these efforts and the billions of dollars donated every year by private citizens and foundations, by 1973 the percentage of the population living in poverty reached its lowest level in U.S. history—11.1 percent, or 20 million U.S. citizens. The Census Bureau estimated that in 1997 about 13.3 percent of the total U.S. population still lived in poverty.

See also: **Social Security Act**

POWDERLY, TERENCE VINCENT

Terence Powderly (1849–1924) was born in Pennsylvania in 1849 to a family of poor Irish immigrants. He rose to become one of the major leaders of U.S. industrial workers during the late nineteenth century. Becoming the leader of the Knights of Labor Union in 1879, his idealism created the first industrial union to admit all workers regardless of race or sex and enabled the birth and development of 135 worker and consumer cooperatives in the United States.

Born in 1849, Powderly did not begin his career as a labor leader. He started out in public office, serving three terms as mayor of Scranton, Pennsylvania. He entered into union work seeking to abolish the capitalist wage system and institute a society where people would live by cooperation, rather than by seeking to gain from exploiting one another.

Powderly sought to lead laborers collectively towards this goal. He preferred to negotiate labor matters in a non-confrontational manner. Powderly hoped to bring harmony to industrial relations, stressing cooperation between workers and industries. With these ideals in mind, Powderly became leader of the Knights of Labor in 1879. Since the labor movement at that time was not open to conciliation and negotiation, Powderly found himself taking the union in a different direction.

Powderly led the Knights of Labor through a series of dramatically successful strikes in the 1880s, among them a victory against the U.S. railroad industry. The 1880s were the early days of the labor movement, and Powderly's victories encouraged union growth. Membership in the Knights of Labor rose from 100,000 to 700,000 in one year. Powderly continued to meet with success as a labor leader, establishing labor



Terence V. Powderly.

bureaus in several states and supporting contract-labor laws.

As time passed the popular union boss became ambivalent about leading a confrontational union, but despite his best attempts, the Knights of Labor continued to be more aggressive. Powderly, who saw himself as a man of peace, became uncomfortable with his position, and as a result, he began to distance himself from union involvement.

Powderly turned more of his attention to pursuits outside the labor movement. While still serving as head of the union, he studied law and served as a county health officer. He partly owned and managed a grocery store and served as vice president of the Irish Land League. He also sought a presidential appointment as the first U.S. Commissioner of Labor. Several times he threatened to resign from the union.

Resignation came in 1893, when a rural wing of the Knights of Labor moved aggressively to oust Powderly from the union leadership. This movement was supported by socialists, who sought open conflict with industrial owners and disagreed completely with

Powderly's insistence on negotiation. By this time the union's strength was failing; its membership had dwindled to seventy-five.

Powderly was relieved to leave the union. He resigned at the age of forty-four and soon started a new career as a lawyer and civil servant. Putting his union leadership days behind him, he worked in several capacities as a civil servant with the U.S. Immigration Commission and the Department of Labor.

Terence Powderly died in 1924. His efforts as a labor leader, though often against his personal philosophy, encouraged workers to organize and change the workplace status quo. He continued to serve the public in his work outside the union until his death.

See also: **Knights of Labor, Labor Movement, Labor Unionism, Trade Unions**

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PRAIRIE

The prairie consists of the flat or moderately hilly lands of the nation's middle section, also called the Great Plains. Oklahoma, Kansas, Nebraska, South Dakota, and North Dakota are mostly prairie. Midwestern states of Illinois and Iowa also contain some prairie lands. Primarily covered with tall grasses (which the pioneers described as a sea of grass), the prairie receives low to moderate rainfall each year. Summers in prairie regions are generally very hot and winters harshly cold. These climatic conditions combined to delay settlement of the region. Though ranchers found grasses suitable for grazing livestock, inadequate rainfall did and does make farming difficult. Further, because the region lacked trees, building on the prairie was limited.

Passage of the Homestead Act in 1862 granted settlers up to 160 acres (64 hectares) of frontier land in exchange for building on or cultivating prairie land. Thus many farmers moved their families onto the Great Plains. In the 1870s Russian Mennonites, who introduced a variety of winter wheat, settled Kansas.

A common crop used by early settlers was turkey red wheat, which could be planted in the fall and harvested in the early summer. The crop, which can withstand cold temperatures, received the benefit of the moisture caused by spring snowmelt and was harvested before the scorching summer. Cultivation of the grain spread, and in 1894 wheat became Kansas' principal crop, earning the state the nickname "Breadbasket of America."

In other parts of the Great Plains farmers adopted dry farming techniques. (A technique by which some

fields are allowed to lie fallow every other season so that soil can store up enough moisture and nutrients to support the next year's crops.) Wheat was found to be well suited to dry farming, but it was not used exclusively. Some farmers also grew corn. The end of the nineteenth century saw the invention of the steel plow and the improvement of the McCormick reaper; subsequently, these machines were a great boon to farm production.

The introduction of winter wheat, the development of dry farming methods, and innovations in agricultural machinery combined to make possible the settlement of the American prairie. As a result, between 1863 and 1900 about half a million families became homesteaders in the West. Most of them settled on the Plains, which became one of the world's leading wheat-producing regions by the early 1900s.

See also: Dry Farming, Homestead Act, Homesteaders, Westward Expansion

PRICE

Price is the monetary value of a good or service for sale. There are several different kinds of price. Those with the most dominant roles in the marketplace include market price and equilibrium price. Both are tied to the laws of supply and demand.

The market price is the price consumers pay for goods or services in the marketplace. The equilibrium price is an economic ideal. It is the point where the supply of goods is matched equally by consumer demand. For example, if there are more bicycles on the market than there are consumers to buy them, it will create a surplus on the market and the market price of bicycles will go down. If there are more people wanting to buy bicycles than there are bicycles available for purchase, the market price will go up because of the higher demand. When the number of bicycles produced equals the demand from consumers, that is the equilibrium price.

Market price is thus affected by consumer demand and the production rates and availability of a good or service. Ideally, the market price will not be far off from the equilibrium price. Prices for goods or services are subject to change according to consumer demand and producer supply. Price can not be permanently set in a free market system where supply and demand are constantly changing.

See also: Money, Supply and Demand

PRICE/EARNINGS (P/E) RATIO

The price/earnings ratio (P/E ratio) provides a comparison of the current market price of a share of stock and that stock's earnings per share, or EPS, (which is figured by dividing a company's net income by its number of shares of common stock outstanding). The P/E ratio tells us what a investor will pay for a dollar of earnings. For example, if a company's stock sold for \$30 per share and it posted earnings per share of \$1.50, that company would have a P/E ratio of 20. A company's P/E ratio typically rises as a result of increases in its stock price, an indicator of the stock's popularity.

See also: **Stock**

PRIME RATE

The prime rate is the rate of interest, reported as a percentage, charged by commercial banks on short-term loans to the nation's largest, most credit-worthy corporations. Relatively few U.S. corporations may borrow at this rate. Occasionally banks lend slightly below the prime rate to very low risk corporations. A firm will frequently be quoted a rate slightly higher than prime. As an example, the quote might be prime plus one-half, i.e., if the prime was six percent, the firm might be quoted 6.5 percent. The prime is an important indicator of short-term credit conditions.

The prime rate also serves as a basis for interest rate quotes to individual customers. Mortgage rates rise and fall as the prime rate moves up and down. Individuals might receive a home equity loan or line of credit at a rate of "prime plus three percent."

The prime rate depends on the cost of funds loaned to the commercial bank by the regional Federal Reserve Bank. This cost of funds is the discount rate. When the discount rate lowers, the savings are passed on within a few days to commercial banks and reflected in their prime and all other consumer loan rates. An increase in the discount rate, in contrast, results in an increase in the prime and other consumer loan rates.

Between 1934 and 1950 the prime rate remained in the 1.50 to 2.25 percent range. The 1950s and 1960s witnessed four to eight percent rates. In September of 1973 the prime climbed to 11 percent on its way to an

all time high of 21.5 percent in December of 1980. Rates in the 1990s ranged from six to 10 percent.

See also: **Federal Reserve System, Interest**

PRIVATE PROPERTY RIGHTS

One of the most important characteristics of the U.S. market economy is the private ownership of the means of producing goods and services. Buildings, natural resources, machinery, equipment, and labor are, for the most part, owned privately, not by the government. Under this system of private ownership, known as a system of private property rights, private individuals have certain privileges or legal rights. Producers are largely free to produce what they wish, to decide how to manage the property, and to sell to whomever they choose and under what terms. Laborers are free to work where they choose. This type of system is referred to as a capitalist system. In contrast, a socialist system allows for private property rights regarding labor and personal items but government owns the major productive resources. In a communist system, theoretically, no private property rights exist because the people own everything in common.

Two types of property are recognized, real property and personal property. Real property is land and anything attached to it such as buildings and crops. In modern terms real property also includes the natural resources found over and under the land, such as oil, minerals, and gases. Personal property is anything other than land that can be owned, including money, stocks, machinery, and equipment. Personal property can be tangible or intangible, such as a famous individual's image.

In the United States a system of property law protects private property rights associated with both real and personal property. This system has its roots in English common law. Property law, with principles, policies, and rules, attempts to resolve disputes. It is a unique law in that the disputes are between the rights of individuals with respect to "things," not with respect to other individuals.

Historically, the more confidence is placed in a nation's private property rights, the more private investment will flow to that nation's economy. People are more willing to invest in endeavors that will

Private Sector

increase their private wealth in future years. Throughout the history of the United States and especially in the twentieth century, capital from around the world has been invested in the United States because of its well-defined and enforced private property rights.

See also: **Capitalism, Socialism**

PRIVATE SECTOR

Private individuals and organizations in the United States generate most economic activity involving the production of goods and services. Independent ownership and control define the private sector. Independently owned firms, ranging from large corporations to single individuals within a household, manage their privately owned capital resources to make a profit. Examples include all Fortune 500 corporations such as General Motors and IBM, the local flower shop and a small retail clothing store, the vineyard owner and peanut farmer, the consultant working from a home office and the neighborhood babysitter. Also included in the private sector are non-profit organizations including private colleges and universities and the Catholic Church. In contrast, the public sector includes all governmental activities and local, state, and federal government employees such as postal workers and public school teachers.

In the United States the private sector firms produce, for profit, the majority of goods and services. A business for profit may be organized as a proprietorship, a partnership, or a corporation. In a proprietorship one person owns all the assets and liabilities of the firm. A partnership has two or more owners, both responsible jointly and separately for all assets and liabilities. A corporation is a chartered legal entity with shareholders who are liable only for what they have invested in the firm. In 1993 proprietorships accounted for only six percent of total sales, although they accounted for 75 percent of the total firms. Corporations accounted for 19 percent of total firms but 90 percent of total sales.

Interaction among private sector firms depends on the organization of their entire industry. Industry is defined as firms producing similar products. Types of industry organization generally fall into four categories: competitive firms, monopolistic competitors, oligopolies, and monopolies. Their numbers, product differentiation, price setting power, ease of entry into the industry, and specific distinguishing characteristics differentiate the four.

The U.S. economy, from 1939 to 1980, shifted toward competitive firms. Approximately 77 percent of the firms by 1980 were effectively competitive businesses, 18 percent were oligopolies, and only 5 percent were of the monopolistic organizational type.

From 1970 to 1997 private sector firms experienced a major shift in industry type. Judged by number of employees, manufacturing continuously shrank, while the service sector greatly expanded.

See also: **Public Sector**

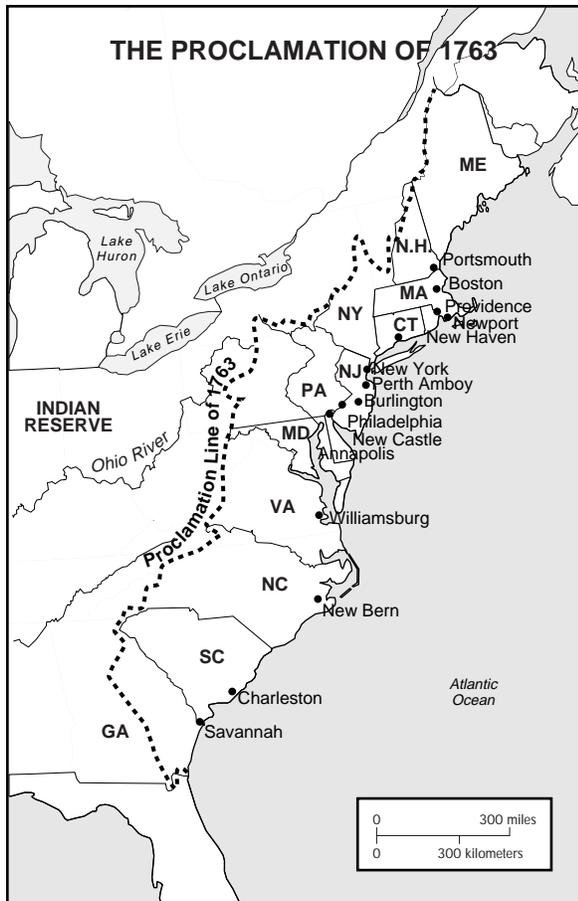
PROCLAMATION OF 1763

The British government intended the Proclamation of 1763 partly as a war measure and partly as a means of administering the new territory taken from France under the terms of the Treaty of Paris. It had two main provisions that affected the colonists. First, the British government drew a line along the watershed of the Appalachian Mountains—the point at which waters run downhill either to the Atlantic Ocean in the east or to the Mississippi River drainage system in the west—separating colonial territory from that of the Native Americans. All lands west of the line were reserved exclusively for Indians, and any settlers living in Indian territory were required to leave. Secondly, in order to make certain that peace was maintained on the American frontier, the British government arranged for the garrisoning of up to 10,000 soldiers in the colonies. The cost of their upkeep, British Prime Minister George Grenville decided, would be borne by the colonists—an estimated 250,000 pounds sterling per year.

WE DO FURTHER STRICTLY ENJOIN AND REQUIRE ALL PERSONS WHATEVER WHO HAVE EITHER WILLFULLY OR INADVERTENTLY SEATED THEMSELVES UPON ANY LANDS . . . RESERVED TO THE SAID INDIANS . . . FORTHWITH TO REMOVE THEMSELVES FROM SUCH SETTLEMENTS.

Text of the Proclamation of 1763

Although some members of the British government may have had a sincere desire to protect the land rights of Native Americans, their main intention was to evade more expensive Indian wars. By limiting white settlement to areas east of the Appalachian watershed, the government hoped to minimize conflict between Indians and colonists. However, Grenville's government also wanted to tie the American colonies closer to England. The British worried that settlers who moved to lands across the Appalachians and lost direct contact



The Proclamation of 1763 was issued by the British to segregate colonists and Indians. The colonists were to stay east of the Appalachian Mountains, and Indians to the west, thus avoiding Indian conflicts, and continued British control of the colonists.

with the British Empire would form economic ties with the Mississippi Valley, then under Spanish control. They also realized that these settlers would need to manufacture some goods for themselves, rather than importing them from England. The British feared that in time such local industries would undercut imperial trade. The simplest way to prevent these things from happening was to forbid settlement west of the Appalachians. This would also keep colonial settlers from drifting away from a market economy. A settler who went far into the interior and began to live in a subsistent economy without using money, would soon lose contact with other colonists and, eventually, also his allegiance to the British crown.

The second part of the Proclamation also threatened American economic prosperity. Grenville's government had inherited a national debt of 137 million pounds sterling, almost twice what it had been before the beginning of the war with France. The costs of

administering the North American empire, Grenville concluded, could well be borne by the colonists, whose debt amounted to only 2.6 million pounds sterling. But the colonies were suffering from a severe post-war depression, and hard cash, or specie (minted gold and silver), was in short supply because of the colonial trade deficit with Great Britain. Most colonial specie was used to pay English or Scottish merchants for goods the colonists had imported.

In order to raise the 250,000 pounds sterling needed to fund the frontier troops, Grenville's government put together a series of direct and indirect taxes on colonial goods and services, including the Sugar Act, the Currency Act, and the Stamp Act. These taxes led to conflict between the American colonies and England, eventually culminating in the American Revolution (1775–1783).

See also: Stamp Act, Sugar Act

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PROCTER AND GAMBLE COMPANY

In 1837 William Procter and James Gamble formed Procter and Gamble (P&G), a partnership in Cincinnati, Ohio, to manufacture and sell candles and soap. Both men had emigrated from the United Kingdom. William Procter emigrated in 1832 after fire and burglary destroyed his woolens shop in London; Gamble came from Ireland as a boy in 1819 when famine struck his homeland. Both men settled in Cincinnati,

Procter and Gamble Company

then nicknamed “Porkopolis” for its booming hog-butcher trade. The suggestion for the partnership apparently came from their mutual father-in-law, Alexander Norris, who pointed out that Gamble’s trade—soap making—and Procter’s trade—candle making—both required use of lye, which was made from animal fat and wood ashes.

Procter and Gamble first operated their business out of a storeroom at Main and Sixth streets in Cincinnati. Procter ran the store while Gamble ran the manufacturing operation, which at that time consisted of a wooden kettle with a cast-iron bottom set up behind the shop. Early each morning Gamble visited houses, hotels, and steamboats collecting ash and meat scraps; he bartered soap cakes for the raw materials. Candles were Procter and Gamble’s most important product at that time.

Procter and Gamble were in competition with at least 14 other manufacturers in its early years, but the enterprising partners soon expanded their operations throughout neighboring Hamilton and Butler counties. Cincinnati’s location on the Ohio River proved advantageous as the company began sending its goods down river. In 1848 Cincinnati was also linked to the major cities of the East via railroad.

Around 1851, when P&G shipments were moving up and down the river and across the country by rail, the company’s famous moon-and-stars symbol was created. Because most people were illiterate at this time, trademarks were used to distinguish one company’s products from another’s. Company lore asserts that the symbol was first drawn as a simple cross on boxes of Procter and Gamble’s Star brand candles by dockhands so that they would be easily identifiable when they arrived at their destinations. Another shipper later replaced the cross with an encircled star, and eventually William Procter added the familiar 13 stars, representing the original 13 U.S. colonies, and the man in the moon. The moon-and-stars trademark became a symbol of quality to Procter and Gamble’s base of loyal customers.

By 1859, the company’s annual sales exceeded \$1 million, and Procter and Gamble employed about 80 people. Following the American Civil War (1861–1865), the transcontinental railroad, completed in 1869, linked the two coasts and opened still more markets to Procter and Gamble. In 1875 the company hired its first full-time chemist to work on new products, including a soap that was equal in quality to expensive castile soaps, but that could be produced less expensively. In 1878 Procter and Gamble’s White Soap hit the market and catapulted P&G to the forefront of its industry.

The most distinctive characteristic of the product, soon renamed Ivory soap, was developed by accident. A worker accidentally left a soap mixer on during his lunch break, causing more air than usual to be mixed in. Before long Procter and Gamble was receiving orders for “the floating soap.” Although the office was at first perplexed, the confusion was soon cleared up, and P&G’s formula for White Soap changed permanently.

Harley Procter, William Procter’s son, developed the new soap’s potential. Harley Procter was inspired to rename the soap by Psalm 45: “all thy garments smell of myrrh, and aloes, and cassia, out of the ivory palaces whereby they have made thee glad.” Procter devoted himself to the success of the new product and convinced the board of directors to advertise Ivory. Advertising was risky at the time; disreputable manufacturers placed most advertisements. Nevertheless, in 1882 the company approved an \$11,000 annual advertising budget. The slogan “99 and 44/100 percent pure” was a welcome dose of sobriety amidst the generally outlandish advertising claims of the day. Procter, committed to the excellence of the company’s products, had them analyzed and improved even before they went to market. This practice was the origin of P&G’s superior product development. Procter believed that “advertising alone couldn’t make a product successful—it was merely evidence of a manufacturer’s faith in the merit of the article.”

During the 1880s there was much labor unrest at many U.S. companies, including Procter and Gamble, which experienced a number of strikes and demonstrations. Thereafter, the company sought to avert labor problems before they became significant. In 1885 the company began giving workers Saturday afternoons off. In 1887 Procter and Gamble implemented a profit-sharing plan in order to intertwine the employees’ interests with those of the company. Although the semiannual dividends were received enthusiastically by employees, that enthusiasm rarely found its way back into the workplace. The next year bonuses were tied to employee performance, which produced better results.

In 1890 the Procter and Gamble Company was incorporated; by that time it was selling more than 30 different types of soap. Two years later, in 1903, the company implemented an employee stock-purchase program, which was tied to the profit sharing plan. By 1915 about 61 percent of the company’s employees were participating. The company introduced a revolutionary sickness-disability program for its workers in 1915 and implemented an eight-hour workday in 1918.

Procter and Gamble has been recognized as a leader in employee benefit programs ever since.

Experimenting with a hydrogenation process that combined liquid cottonseed oil with solid cottonseed oil led to the development of another well-known brand. After several years of research Procter and Gamble patented the procedure; in 1911 Crisco, the first all-vegetable shortening, was introduced to the public. Backed by a strong advertising budget, Crisco sales took off.

During the 1920s and 1930s the company introduced a flurry of new products. In 1926 Camay debuted, a perfumed beauty soap; Oxydol joined the P&G line of cleaning products three years later. In 1933 Dreft was introduced as the first synthetic detergent for home use. In 1937 the company celebrated its 100th anniversary, with sales having reached \$230 million.

After World War II (1939–1945), the availability of raw materials and new consumer attitudes set the stage for unprecedented growth. Procter and Gamble's postwar miracle was Tide, a synthetic detergent that, together with home automatic washing machines, revolutionized the way people washed their clothes. The company was not ready for the consumer demand for heavy-duty detergent when it introduced the product in 1947; within two years Tide, backed by a \$21 million advertising budget, was the number one laundry detergent. Despite its premium price, Tide remained the number one laundry detergent into the 1990s.

Tide helped to fund P&G's rapid growth into new products lines, both through acquisitions and new product introductions. By the end of the twentieth century, Procter and Gamble were the largest maker of household products in the United States, with annual sales in excess of \$37 billion. The company boasted of 300 brands in several areas: baby care, beauty care, fabric and home care, feminine protection, food and beverages, health care, and tissue and towels.

See also: **Porkopolis, William Procter**

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PROCTER, WILLIAM COOPER

William Cooper Procter (1862–1934) spent his entire professional life from 1883 to his death in 1934 with Procter and Gamble, the soap and household products company founded by his grandfather. For half a century, Procter worked to improve conditions for workers, transforming his company from a hotbed of union dissent to a leading example of outstanding employee-management relations. He was known to have a very strong social consciousness and perhaps could be described best as a philanthropic capitalist.

William Cooper Procter was born on August 25, 1862, in Glendale a suburb of Cincinnati, Ohio. His parents, William Alexander and Charlotte Jackson Procter, had five children—William Cooper was their only son. Procter attended Hughes High School in Cincinnati and graduated from Princeton University in 1883. On January 1, 1889, he married Jane Eliza Johnston of Glendale. The couple had no children. Procter was active in the Christ Episcopal Church, where he served as a senior warden, becoming one of the most noteworthy laymen in the Episcopal Diocese of Southern Ohio. While serving as a commanding officer for the 1st Regiment of the Ohio National Guard, Procter established a rifle range, Camp Procter, property that he later gave to the Girl Scouts of America.

In addition to his work with Procter and Gamble, Procter sat on the board of the New York Central Railroad and the National City Bank of New York. He was active in politics with the Republican Party, and managed the unsuccessful campaign of General Leonard Wood for the 1920 presidential nomination. (Fellow Ohioan Warren G. Harding, 1865–1923, got the nomination, and went on to the White House.) Procter also served on many relief committees during the Hoover administration. Procter was extremely generous to his alma mater, Princeton University, and was a

Procter, William Cooper

major donor to the Graduate School. His greatest philanthropic act in his hometown was the amount of time and money that he bestowed upon the Children's Hospital at Cincinnati.

Procter was an unselfish man, a fact borne out by his efforts on behalf of his employees, as well as the contributions he made to numerous charities. He was a sportsman and athlete, active in his church, active in politics, and he received numerous awards and honors, which reflect his many philanthropic endeavors.

A description of William C. Procter is not complete without mentioning his ancestors, James Gamble and William Procter. Gamble and Procter were immigrants from Ireland and England, respectively. Heading West both men stayed in Cincinnati, and married two sisters, Olivia and Elizabeth Norris. William Procter was a candle maker and James Gamble was a soap maker. Their father-in-law suggested that James Gamble and William Procter merge businesses. One essential ingredient for both candles and soap was animal fat at the time, Cincinnati was a major hog-slaughtering center. The men peddled their products along the Ohio River. They became very successful and the company was the largest business in Cincinnati by the time the Civil War started they supplied all the soap and candles for the Union army. In 1890, W.C. Procter's father, William A. Procter, was named the company's first president. William C. Procter was a child when Procter and Gamble's trademark, a man in the moon and 13 stars within a circle, was first used. It was developed by wharf workers who would stamp the symbol on the wooden shipping crates of "Starlight Candles" to identify the manufacturer.

As the grandson of William Procter, William Cooper Procter's future was set. Once he finished his schooling at Princeton University in 1883, he returned to Cincinnati to work for Procter and Gamble. Procter worked in every aspect of the business, both in the factory and office, and as a salesperson. In doing so, he became very much aware of the working and living conditions of the workers. By that time it was an enormous company with large nationwide sales of products such as Ivory Soap. It had developed what was then a model factory called Ivorydale near Cincinnati. But it had a number of problems in the area of worker relations. Procter helped to change the face of employee relations in his family's company and, because of his firm's size and influence, U.S. industry itself. In an era when most business leaders seemed to believe that there was nothing wrong with their workers that pay cuts and the threat of job loss would not cure, his views were extremely progressive, and he set an example for other companies.

When Procter went to work for the family business in 1883, the Knights of Labor, at that time a prominent labor union, were leading a strike at the Ivorydale plant. Whereas the older generation might have taken a hard-line stance that could have caused the strike to go on longer, young William C. Procter talked his father and uncle into letting him use a very different approach. He gave the workers half the day off on Saturdays, an unheard-of concession, and instituted a new profit-sharing plan. He even worked with leaders among the employees to modify the profit-sharing package so it suited their needs.

By his skillful handling of workers' grievances—motivated by what was a genuine concern for his employees' well-being—Procter was able to continue building a successful business in an era when labor unrest was sweeping U.S. industry. Instead of trying to head off the Knights of Labor with billy clubs and rifles, as many of his counterparts in other businesses practiced, Procter dampened their efforts with kindness. The union never gained a foothold in his company's plant.

When the company became incorporated in 1890, Procter became general manager. By then Procter and Gamble was selling more than thirty types of soap and the company was placing large, color advertisements in national magazines. To meet the demand of the consumer, the company opened a second factory. In 1907 his father, William A. Procter, stepped down as company president, and William C. took his place. Once he became company president, Procter went even further. He revised the pension and benefit plans for his employees, and even gave them a voice on the board of directors. In 1918 he instituted a conference committee so that workers had a forum in which to present complaints to management, and in 1923 he guaranteed his employees that they would have work for at least 48 weeks out of every year. That is they would not be laid off for more than four weeks in any 12-month period.

When William C. Procter became president of the company, Procter and Gamble had two plants, the original factory at Ivorydale in Cincinnati and one at Kansas City, Kansas (1905). By the time of Procter's death in 1934, several other plants were built: Staten Island, New York (1908), Macon, Georgia (1910), Hamilton, Ontario (1915), Dallas Texas (1919), Baltimore, Maryland (1930), and Long Beach, California (1931). Procter and Gamble also bought out several other companies, including the William Waltke Company, the Globe Soap Company, and entered the foreign market with its purchase of the James S. Kirk & Company in England and a soap and candle factory in Cuba. Just before Procter joined the family firm, Procter

and Gamble had already become well known for its Ivory soap—the soap that “floats and is 99 44/100 pure.” Under his leadership, the company introduced several products, most notably Crisco Shortening in 1911. Crisco was the first vegetable shortening. It is made from cottonseed oil, also an ingredient used in making soap. Vegetable shortening was healthier than using animal fats and much less expensive than butter, so Crisco became very popular and the product eventually sponsored cooking shows on the radio. Procter and Gamble expanded its factory holdings to include cotton mills with facilities to crush the cottonseed for the production of oil and to process the seed waste to be used for the manufacture of cellulose materials. William C. Procter had created an expansive industrial empire. Procter developed research laboratories to make new products and he also developed one of the first market research departments to study consumer preferences and buying habits. A product was marketed according to its particular use or a specific need of the consumer. In 1932 Procter and Gamble sponsored “The Puddle Family” and in 1934 developed “Ma Perkins”, a serial program sponsored by Oxydol soap—soap operas! In 1930 William C. Procter stepped down as company president. But he remained chairman of the board until his death in 1934.

William C. Procter was a nationally known manufacturer of household products. Perhaps more importantly, he was known for his innovative business management techniques. Elements of Procter’s employee benefits package remained in effect two generations after his death, by which time much of U.S. industry had more or less adapted to his view of employee management. Procter changed the American workplace as well as the American marketplace. He was a model citizen in that he sought to better the conditions of workers and shared his wealth with his community. In the wake of his impressive leadership, Procter and Gamble became the leading seller of household products and the nation’s most dominant advertiser. The company went on to revolutionize the washday with the laundry soap, Tide. Procter and Gamble eventually entered the food and paper markets. By the mid 1990s Procter and Gamble sold over three hundred brands of products in over 140 countries, and had employed over one hundred thousand employees.

See also: Procter and Gamble

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PROCTOR, BARBARA GARDNER

Barbara Gardner Proctor (1933–) rose from dire poverty to the head of the second-largest African-American-owned advertising business in America. Her fearlessness and determination in facing obstacles originated from her own harsh beginnings. She was unique in the advertising industry for using her values to guide her work, and she was not afraid to turn away accounts that she found objectionable, such as those that demeaned African Americans or women.

Barbara Gardner Proctor was born in 1933 in Black Mountain, North Carolina, to a single mother, Bernice Gardner. Raised by a grandmother and an uncle, she lived in extreme poverty with no electricity or running water. Her grandmother instilled early determination in Proctor, telling her, “You’re not cute, but you’re smart, and one day you’ll amount to something.” Proctor never forgot the advice and it turned out to be true.

Proctor’s academic ability earned her a scholarship to Talladega College in Alabama, and she went on to earn a B.A. in English and another B.A. in psychology and social science. She graduated with both degrees in 1954. She also was awarded the Armstrong Creative Writing Award from the college in 1954. Later she attended law school.

In 1960 Gardner married Carl Proctor, road manager for jazz singer Sarah Vaughn. But they divorced in 1963. She had one child named Morgan who later worked for her business. She claimed that the 15-hour days that she worked were the best relaxation for her.

Proctor was involved in the business community and received many awards for her work. She served on a number of boards, including the Illinois Bell Telephone Company, the 1988 Illinois Olympic Committee, the Better Business Bureau, the Illinois State Bar

Association Institute for Public Affairs, and the White House Conference on Small Business. She was involved in efforts for the advancement of women and African Americans and worked with such groups as the League of Black Women (served as president from 1978-1982), the National Association for the Advancement of Colored People (lifetime member), and Handicapped Organized Women (served on honorary board). Proctor won a number of awards for her contributions to the fields of writing and advertising. Some of these included the Small Business of the Year Award (1978) and the Black Media Award for Outstanding Professional (1980).

Proctor began her career by using her writing skills in the music field. In 1958 she began working as a jazz music critic and contributing editor to *Downbeat* magazine. From 1961 to 1964 she worked for Vee-Jay Records International in Chicago, creating copy for jazz record covers and later serving as international director.

After her divorce from Carl Proctor, Barbara Gardner Proctor shifted to the advertising industry. Between 1965 and 1970 she worked for three different advertising firms: Post-Keys-Gardner Advertising, Chicago, 1965-1968; Gene Taylor Associates, Chicago, 1969; and North Advertising Agency, Chicago, 1969-1970. Eventually, she served as copy supervisor at North Advertising Agency. She decided to launch her own business when she was fired from North Advertising Agency for refusing to work on an ad campaign to which she objected. The ad, which she found demeaning to women and African Americans, parodied the Civil Rights Movement and featured protesting women running down the street and demanding that their hairdressers foam their hair.

In 1971 Proctor launched her own business, Proctor and Gardner Advertising. To go into business she applied for a small business loan, which she was denied for lack of collateral. Armed with data (three advertising agencies statements of what they would pay her as an employee), she convinced the lender to give her an \$80,000 loan using herself as collateral.

She faced a number of societal obstacles that did not deter her. As she explained in *Ebony*, "I happen to be born female and black, but I am much more than that. To view one's self in terms of those two small biological characteristics is very self-limiting." In a time when not many women or African Americans ran businesses, Proctor purposefully named the business using both "Proctor" and "Gardner," so that potential clients would assume that "Gardner" was a male partner behind the scenes.

After six months in business Proctor had her first client. At the end of four years in business, Proctor needed more working capital and applied for another loan from the Small Business Administration (SBA). But the SBA refused. Undaunted, she looked inward, refusing to blame any external situations. In the April 30, 1984, edition of the *New Orleans Time-Picayune*, Proctor explained, "In every case where something would have been an obstacle, I've found a way to turn it to an advantage. I cannot buy the concept that anyone outside is responsible." She credited her impoverished upbringing with giving her the ability to take risks, since she had already been exposed to adversity in her life and had little fear of the unknown.

I HAPPEN TO BE BORN FEMALE AND BLACK, BUT I AM MUCH MORE THAN THAT. TO VIEW ONE'S SELF IN TERMS OF THOSE TWO SMALL BIOLOGICAL CHARACTERISTICS IS VERY SELF-LIMITING.

Barbara Gardner Proctor

Proctor brought to her business a firm belief that advertising should encompass quality and equality. According to *Contemporary Newsmakers*, the timing was right for minority business to succeed. In the advertising arena, the African American market was just beginning to be understood, giving Proctor's company a virtually untapped market. Proctor was able to focus on this niche and maximize profits, as well as present a positive picture of the African American community.

Proctor maintained a diverse staff with many women and minorities, and in a 1982 *Ebony* article she called her staff one of the best in the world. She described herself as a non-boss who did not believe in telling professionals how to do their jobs. On the other hand, she held employees accountable, specifying that if they challenged any directions that she had given, that they had "damn well better deliver" to the client. Her son Morgan served on her staff and expressed an interest in taking over the company in the future.

By the mid-1990s sales had slowed, however, and in 1995 Proctor & Gardner Advertising filed Chapter 11 bankruptcy, a protective measure that offered a chance to restructure the firm's finances and pay off debt. At the time of bankruptcy the company was more than \$1.8 million in debt and reported assets of \$361,000. The company had more than \$5 million in account billings. In 1996 Proctor dissolved the advertising agency. Honing in on the increase in Internet use, she started a new company, Proctor Communications Network, which offered Internet marketing expertise and

web site design. The business was later renamed Proctor Information Network, Inc.

Proctor was able to rise from extreme poverty and create a business that became the second-largest African American advertising agency in America. In 1983 the company had \$12 million in billing. Some of Proctor & Gardner's long-standing clients included Kraft Foods, Sears, Roebuck and Co., and Alberto-Culver. Another long-term client, Jewel Foods of Chicago, credited Proctor & Gardner Advertising with rescuing Jewel's generic food line, which suffered poor sales. Proctor & Gardner redesigned the food campaign, giving it a stronger and more positive tone.

Noteworthy of Proctor's work in the advertising field was her adherence to her values. She refused to take work that degraded women, blacks, or that she found morally unacceptable. For example, Proctor & Gardner did no work for cigarette or liquor accounts. Proctor was wary of what she called "ethnically dubious advertising pitches" that were aimed at women and minorities. She maintained, "Advertising is the single most important way of reaching everyone in America and I feel a deep responsibility to my work."

See also: Advertising Industry

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PRODUCTIVITY

Productivity is the quantitative relationship between the number of inputs employed and the number of outputs produced. For example, productivity on a farm involves the inputs (or resources) of land, labor, tractors, feed, etc., and the outputs (outcomes) of crops and livestock. An increase in productivity means that more outputs (crops and livestock) can be produced from the same or fewer inputs. For instance, crop

productivity on a farm may increase because the farmer planted a new, genetically engineered crop designed to be more resistant to insects and disease. The crop is planted on the same amount of land the farmer used the year before, however, the sturdiness of the genetically engineered plant allows more of the crop to survive the growing season and be harvested, increasing the farmer's productivity.

An increase in crop yield is a single-factor productivity indicator. A single-factor productivity indicator defines itself as one factor, rather than many, contributing to increased productivity. Another single-factor productivity indicator may be output per man-hours worked. Several factors combined can also contribute to increased productivity. They are called multi-factor productivity indicators. Total farm output per unit of input is a multi-factor measure.

Productivity plays a vital role in the economy. Increased productivity in national industries can raise the standard of living and the quality of life. It can also improve production efficiency and enhance competition. Technological advances have played a large role in increasing industrial productivity in the twentieth century. However, growth through improved technology may also work against an economy, creating unemployment, as the number of workers needed to produce the same output declines. For instance, with the advent of the multi-purpose tractor in the agricultural industry many tasks previously done by manual laborers were mechanized. The laborers who could not adjust their skills to meet the changes in the industry saw their jobs disappear. Unemployment brought on by changing technology and worker inability to meet those needs is called structural unemployment.

Though productivity and growth clearly affect a nation's economy there is no single way to measure it. Inputs and outputs involve numerous variables and no method has developed to accurately capture all the factors involved.

See also: Structural Unemployment

PROFIT

Profit is the money that remains after the cost of manufacturing, marketing, taxes, interest, depreciation, and any other expenses incurred in the production of a product or service have been deducted from the price subsequently received for the product or service. In a market economy profit is the key element that drives buying and selling decisions. A profit is most easily made when the demand for a product or service

far exceeds the supply. In such a situation a higher price can be exacted regardless of the production costs of the product or service. Profit may also be referred to as net earnings, net income, or bottom line.

PROGRESSIVE TAX

A progressive tax system is one which assesses a higher percentage rate of taxation as income levels or income brackets increase. The U.S. federal income tax system is a progressive tax system. (For the following examples consider all the taxpayers to be filing their income tax returns as single individuals.) In 1999 the person making from 0 to \$25,350 would pay 15 percent on all of their income. Therefore, a low-income person pays 15 percent on their total income. The person making up to \$61,400 pays 15 percent on the first \$25,350, but then pays 28 percent on the income between \$25,350 and \$61,400. To illustrate, if a middle income individual makes \$50,000, 15 percent or \$3,802.50 would be paid on the first \$25,350. On the next \$24,650 (\$50,000 minus \$25,350), 28 percent or \$6,902 is added to the \$3,802.50 for a total tax payment of \$10,704.50. That amount is 21 percent of the total income of the middle-income person. This tax rate is an increase of six percent over the 15 percent the lower-income person would pay on his or her total income. Because higher income groups pay a higher percentage of their total income in taxes, this tax structure is considered progressive. Using tax rates for 1999, income in the range of \$61,400 to \$128,100 is taxed at 31 percent, \$128,100 to \$278,450 at 36 percent, and over \$278,450 at 39.6 percent. In 1982 the top income bracket was taxed at 50 percent and 14 tax brackets existed. The Tax Reform Act of 1986 reduced the number of income brackets to three (15 percent, 28 percent, and 31 percent). The Clinton Tax Package of 1993 increased the brackets to the five used in the 1999 illustration (15 percent, 28 percent, 31 percent, 36 percent, and 39.6 percent).

See also: **Proportional Tax, Regressive Tax**

PROHIBITION (ISSUE)

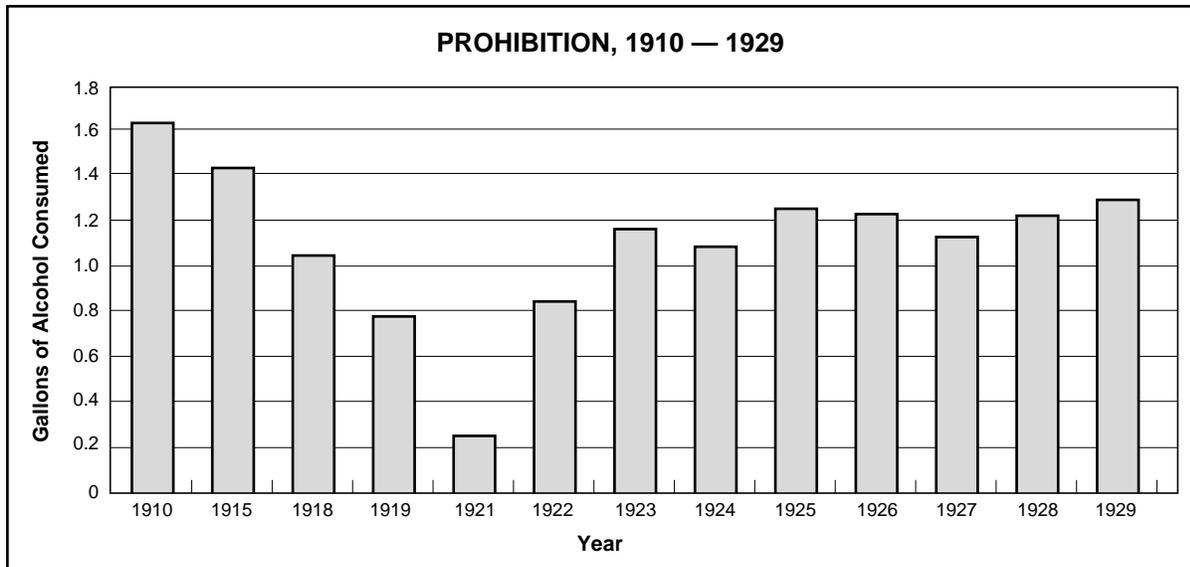
During the colonial period in America alcohol consumption was more common than it was at the end of the twentieth century. Some estimate per capita consumption of alcohol during colonial times at double

the rate it was in the 1990s. Puritans brewed beer and ordinary citizens consumed prodigious amounts of hard cider. Part of the reason for so much alcohol consumption was the uncertainty of potable water. Cholera epidemics in the 1830s and 1840s resulted in part from drinking unclean water. Although the abuse of alcohol was more common then, there is also considerable evidence that it was frowned upon. For example in Virginia as early as 1629, ministers were prohibited by law from excess in drinking, and in Massachusetts a 1633 law limited the amount of alcohol that could be purchased while another statute in 1637 limited the amount of time anyone could spend in a tavern. Later, many colonies imposed fines for excessive behavior as well as taxes and license fees.

The last half of the eighteenth century witnessed the beginnings of the temperance movement as religious leaders began to denounce not only excessive drinking but all consumption of alcohol. Technically, temperance meant moderation, but in fact people meant abstinence. In 1773 John Wesley, one of the founders of the Methodist Church, declared that drinking was a sin and Anthony Benezet, a leading member of the Society of Friends, the Quakers, wrote a pamphlet in which he argued that drinking tended to make a man behave foolishly and even dangerously.

The medical community was also concerned. In 1785, Dr. Benjamin Rush, the leading physician of the day, published a pamphlet entitled "Inquiry into the Effects of Ardent Spirits Upon the Human Body and Mind," wherein he listed various diseases thought to plague those who consumed alcohol. At about this time temperance organizations began to appear. Among the first were the Organization of Brethren and the Litchfield Connecticut Association.

In the early nineteenth century, those who opposed alcohol became more strident because many people saw drinking as an impediment to the growth of democracy and U.S. nationalism. This period saw the first experiments with statewide prohibition. Maine passed the first prohibition law in 1843. During the next few years Ohio, Illinois, Rhode Island, Minnesota, Massachusetts, Connecticut, Pennsylvania, and New York followed suit. But most of these efforts were short-lived. They were vetoed, soon repealed or stricken down by the courts. There was also, of course, considerable opposition from the public. State prohibition laws were widely ignored while they were in effect and in some cases there was violence, as in 1850 when people rioted against Sunday closing laws in Chicago. Still, the advocates of prohibition persisted. The American Temperance Society was founded in 1826, followed by the Washington Movement in 1840 and the



The passage of the Eighteenth Amendment in 1921 outlawed alcoholic beverages nationwide. Although a marked decrease in consumption was seen that year, the law was generally considered a “disastrous failure” because of the rapid growth in illegal consumption and crime in the following years.

Sons of Temperance in 1842. All these organizations advocated total abstinence.

By the late nineteenth century the prohibition movement, like other reform movements, was lobbying Congress. The National Prohibition Party was founded in 1869, and ran its first candidate for president, James Black, in 1872. The Women’s Christian Temperance Union was established in 1874. The organization was led by Frances Willard who was also an advocate of women’s rights and suffrage. By 1884 the issue was clearly affecting the national parties. James G. Blaine, the Republican candidate for president in that year, lost to Democrat Grover Cleveland (1885–1889), partly as a result of his ineffective handling of the temperance question. He succeeded only in alienating people on both sides of the debate.

In 1895 the Anti-Saloon League was founded. Over the next decade-and-a-half the Anti-Saloon League was to become the most powerful lobby for prohibition advocates. Supported mostly by rural, middle-class, white Protestants, the League conducted an aggressive campaign. The Anti-Saloon League argued that liquor was destructive to society because it contributed to divorce, poverty, pauperism, crime, child abuse and insanity. During the early twentieth century, the so-called Progressive Era when social and political reforms were in vogue, the League portrayed prohibition as one of the leading reform movements of the day, and the results were impressive. By 1913 nine states had adopted statewide prohibition, and 31 had chosen the “local option” which allowed cities or counties to go

dry by referendum. As a result, 75 percent of the population lived under some form of prohibition. While this was regarded as a dangerous trend by wets (people in opposition to prohibition) and their leading organizations such as the National Brewers Association, the prohibitionists would not be satisfied until prohibition covered the entire country.

Between 1913 and 1915 prohibition resolutions were twice introduced in Congress by Congressmen Joseph B. Thompson of Oklahoma and Senator Morris Sheppard of Texas. These both failed, but when the United States entered World War I in 1917, things changed. Prohibitionists could argue that the liquor industry was unpatriotic because it drained resources like grain that should be used for food, that the use of alcohol undermined the effectiveness of soldiers, and that many of the families who owned breweries and distilleries were ethnic Germans.

The resolution to prohibit the manufacture, sale, transportation, and importation of alcoholic beverages passed Congress in early 1918. Just a year later it was ratified as the Eighteenth Amendment when on January 16, 1919, Nebraska became the thirty-sixth state to approve it. The enforcement law, commonly known as the Volstead Act, passed Congress on October 29, 1919, and prohibition officially went into effect on January 17, 1920.

The national prohibition experiment was in effect for 13 years from 1920 to 1933. It was a disastrous failure in most parts of the country although in certain

Proportional Tax

sections like the rural South it more or less worked because it had popular support. Generally however the results were not good. Smuggling increased during the early years followed by a rapid increase in crime as “bootleggers”—the manufacturers of illegal liquor—sought to meet the overwhelming demand.

It is estimated that by 1930 the illegal manufacturing establishments numbered over 280,000, and illegal saloons—known as Speakeasies—numbered between 200,000 and 500,000. Moreover, people manufactured “home brew” in vast but unknown quantities and doctors issued prescriptions for equally vast quantities of whiskey to be used for “medical purposes.” Contemporary estimates believe that doctors earned \$40 million in 1928 alone by writing such prescriptions.

Because Congress never appropriated sufficient funds, the Volstead Act could not be effectively enforced and probably would have been repealed eventually under any conditions, but it was the coming of the Great Depression that hastened its demise. This was because the Depression triggered demands for increased employment and tax revenues.

By 1929 it was clear that prohibition was a failure and President Hoover (1929–1933) appointed a special commission to study the issue. Chaired by George W. Wickersham, a former Attorney General, the commission issued its report in 1931. Oddly enough, even though the commission recognized all the problems with prohibition, they nevertheless recommended that it be continued. This however was not to be.

At their 1932 national convention the Democrats advocated for the repeal of the Eighteenth Amendment and their presidential candidate, Governor Franklin Delano Roosevelt (1933–1945) of New York, agreed. Roosevelt was easily elected and the repeal amendment was introduced in Congress on February 14, 1933, before the inauguration. It was approved by both Houses within a few days and submitted to the states for ratification. It was quickly approved and adopted by Congress on December 5, 1933.

Even though the national prohibition experiment failed, there remained millions of people in this country who thought alcohol and its use were sinful, wasteful and dangerous. Thus prohibition in one form or another persisted. The Prohibition Party, though minuscule, continued to campaign, certain churches demanded that their members practice abstinence from alcohol, and 40 states continued to permit the local option.

See also: Black Market, Great Depression, Illegal Drugs

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PROPORTIONAL TAX

A proportional tax system, also called the flat-rate tax, assesses the same percentage rate of taxation on everyone, regardless of income. If the proportional tax rate were set at 20 percent, an individual making \$10,000 would pay \$2000 in taxes; a person with an income of \$50,000 would pay \$10,000; and a person making \$100,000 would pay \$20,000. Even as the income goes up or down, the percent of total income paid in taxes does not change. It is the same percentage at all income tax brackets.

Many state income tax systems are very close to being proportional tax systems. High-income individuals, under a proportional tax scheme do pay more than lower-income people. However, public debate centers on the idea that high-income persons can better afford to pay their taxes while low-income persons need all their income to meet basic needs and are, therefore, hurt by a proportional tax. In the 1990s the flat-rate tax was touted as a way to greatly simplify a complex tax system and, for many people, as an overall tax savings in comparison to the progressive tax system.

See also: Progressive Tax, Regressive Tax

THE PROSPERITY DECADE, 1921–1928 (OVERVIEW)

The period of U.S. history between 1921 and 1929, known as the Era of Prosperity, was dominated by the Republicans in the national government. The three Republican presidents who served during that time were: Warren G. Harding (1921–1923), Calvin Coolidge (1923–1929), and Herbert C. Hoover (1929–1933). Harding was incompetent and his administration was corrupt. He died in office (August 2, 1923) and was succeeded by Calvin Coolidge who served for nearly six years. Coolidge came into office with a reputation for honesty that he maintained throughout his administration. Very popular, he was re-elected to his own term of office in 1924; he could probably have run again successfully in 1928, however, he chose to step down. He was succeeded by Hoover who, since 1921, served as Secretary of Commerce in both Harding's and Coolidge's administrations. At first Hoover was very popular but the financial collapse of 1929 destroyed his reputation.

Businessmen wanted lower taxes and higher tariffs and the Republicans tried to accommodate them. In 1921 the new Secretary of the Treasury, Andrew W. Mellon, recommended a tax plan that included repeal of the wartime excess profits tax and an income tax reduction of nearly 40 percent. However, he had to compromise with Congress; the bill that finally passed reduced the maximum tax rate by 17 percent and raised corporate taxes by 2.5 percent. Mellon served all three administrations. By the end of the decade he had reduced the income tax rate by approximately 30 percent.

On May 11, 1924, Congress enacted a law known as the Emergency Tariff. It raised rates on meat and farm products. Then, in September 1922, Congress passed the Fordney-McCumber Tariff. This measure again raised tariff rates on farm products and also protected chemicals, silk and rayon textiles, toys, china, cutlery, and guns. This law remained in effect until 1930 when it was replaced by the Smoot-Hawley Tariff (which, again, raised rates substantially). By then the average on all imports was 40 percent.

The years following World War I (1914–1918) were marked by a declining birthrate in America. The number of children born fell from 23.7 per thousand in 1920, to 18.9 in 1930. Declining birthrates coupled with immigrant restriction led to an overall decline in population growth. However, this was not the only significant demographic feature of the period. Rural population declined and cities grew. Between 1920 and

1930 some six million people migrated from the farm to the city. By the end of the decade only 44 percent of Americans lived in rural areas (farms and small towns). Among those who moved to the cities were large numbers of African Americans. Eighty-nine percent of all African Americans lived in the South in 1910 but by 1930 the number had been reduced by 10 percent.

The overall economy during this period featured erratic shifts in profits and employment. During the World War I and immediately after it there was a production boom triggered by accelerated demand. Beginning in 1920, however, inflation gave way to a decline driven by the collapse of farm prices. Farmers had indulged in significant production increases during the war and now their markets were melting away. By the spring of 1921 the nation was in the throes of a full-fledged depression. Foreign trade was cut nearly in half, wholesale prices fell 24 percent, and unemployment neared 5,000,000. However recovery began in 1922 for most sectors of the economy (except agriculture); economic improvement continued with few reversals until 1929. It is mainly in comparison to the subsequent Great Depression that this decade is called the "Prosperity Decade."

Per capita income in the United States during the prosperous twenties rose from \$620 in 1919 to \$681 in 1929 (9 percent), while at the same time earnings increased by 26 percent. This trend was driven by large expansion in the construction industry and manufacturing; widespread confidence about the period seemed justified. However there were other indicators that suggested general trends were deceiving. These indicators revealed, among other things, a significant maldistribution of wealth. For example, corporate profits increased nearly 62 percent between 1923 and 1929, but workers' real income increased only 11 percent. Despite perceptions about the "Prosperity Decade," many people were not prosperous at all. A decent standard of living during that period required an annual income of \$2,500, but 71 percent of all families had incomes below that figure.

Several industries which were barely in their infancy at the end of the war grew dramatically during the next decade. These included automobile, electric power, machinery and appliances, radio, aviation, and motion pictures industries. Measured by its social and economic impact, the automobile industry was easily the most important industry of the era. Automobile industry magnate Henry Ford (1863–1947) was the dominant leader of the industry. He perfected the Model T, a vehicle that practically anybody could afford. More importantly, he developed the moving assembly line which made production cheap and fast.

The Prosperity Decade, 1921–1928 (Overview)

During the 1920s automobile production expanded dramatically from 1.5 million at the beginning of the decade to 4.8 million by the end. By 1929 the industry utilized 15 percent of all the steel and 80 percent of all the rubber production in the United States. Car manufacturers employed 7.1 percent of all the wage earners in the country and produced 12.7 percent of the value of all manufactured goods.

Electric power became the second most important economic interest in the country during the Era of Prosperity. By 1929 seventy percent of all homes had electric power. Widespread availability of electricity spurred the invention of new appliances such as irons, washing machines, vacuum cleaners and refrigerators.

Closely related to electric power was the radio industry. Until 1919 the federal government banned the private use of radio sets, but once the ban was lifted, the radio industry began its rapid growth. By 1929 forty percent of all American families had radio sets in their homes.

The aviation industry grew slowly in the first, few post-war years. Congress passed the Air Commerce Act in 1926, which gave control of commercial aviation to the Commerce Department; thus, the age of the aviation industry began. Secretary of Commerce Herbert Hoover (1874–1964) did all he could to promote the industry. Scheduled air service began in 1926 and by 1930 there were 122 airline companies in operation.

In 1896 the motion picture machine was invented by Thomas A. Edison (1847–1931); only seven years elapsed before production of the first “movie” with a story, *The Great Train Robbery* (1903). However, the motion picture industry really began in 1905 when admission to a projection house (5 cents) was first charged in Pittsburgh. The first theaters, called nickelodeons, were very popular. By 1907 there were 5,000 of them in all parts of the country. Over the next few years the technology improved dramatically and by World War I the large, ornate movie theater appeared. Sound and color were added by the end of the 1920s. By 1930 there were 23,000 theaters in the country with annual admissions revenue of \$1.5 billion. The industry employed 325,000 people with a capital inventory of two billion dollars.

The 1920s (the Prosperity Decade) are often called the Age of Big Business. This is true not only because of the rapid expansion of industry but also because of numerous mergers which produced very large business entities. By 1929 two hundred corporations controlled 49 percent of all corporate wealth in the country and received 43 percent of all corporate income. There were only two monopolies by 1929—in the sulfur and

aluminum industries—but there were many near monopolies or oligopolies (an oligopoly is an industry controlled by a very small number of participants).

When Congress passed the Clayton Anti-Trust Act in 1913 and simultaneously created the Federal Trade Commission (FTC), they had sought to end destructive competitive practices that had characterized business since the late nineteenth century. These practices had been largely abandoned by business in the 1920s; the rise of oligopolies had actually enhanced competition. Hence the goal of the government during this period was to encourage healthy competition. If that meant competition among a few, very large businesses which provided high quality goods and services to the people, so much the better. Critics, of course, charged that government had become the handmaid of business, but this was true only in a limited sense.

The American farmer suffered most from the depression of 1921–1922, and never fully recovered as did most other sectors of the economy. In 1919 farmers received 16 percent of the total national income. In 1929 they received only 8.8 percent.

Between 1921 and 1924 a non-partisan group in Congress known as the Farm Bloc worked aggressively on behalf of the farmers. They passed laws regulating the meat packers, the stockyards, and the grain exchanges, and they also created a system of government-backed credit for farmers. However, they did not address the real problem—overproduction. Congress tired to deal with this problem, but their efforts failed. Known as McNar-Haugen Bill, Congress approved a proposal to buy the surplus and sell it abroad. Farmers would then pay a tax on the part of the surplus they produced in order to finance the program. Although complicated, the plan might have worked, but it never became law because it was vetoed by President Coolidge.

Just before the Depression (1929–39) the Hoover administration passed the Agricultural Marketing Act (June 20, 1929). This law created the Federal Farm Board with a revolving fund of \$500 million to be loaned to agricultural cooperatives so they could build warehouses and hold their members’ products in case of a price decline. The Board was also authorized to stabilize prices through direct intervention in the market. The program was the most important effort yet attempted by the American government to stabilize and support agriculture. However, the Agricultural Marketing Act proved ineffective in the wake of the catastrophic economic collapse which began in 1929.

The country experienced a period of inflation just before the depression of 1921–22. This was the key

factor in setting off a wave of strikes by means of which the American Federation of Labor (AFL) hoped to preserve wartime gains and expand the union movement. Some of these strikes succeeded, but there were others that failed and caused long-term damage to the labor movement. Among these were the great steel strike and the Boston Police Strike of 1919. In cases such as these, strike leaders were branded as radicals and public opinion turned against them.

Organized labor, contrary to the hopes of its leaders, did not grow during the 1920s—membership declined. The reasons for this include the absence of aggressive leadership in many of the unions coupled with the rise of a new concept called “welfare capitalism,” which became popular in some industries. First promoted by Henry Ford, the idea was to seek cooperation rather than conflict between labor and management. This was to be accomplished by paying good wages, providing benefits like vacations, insurance, and retirement packages, and by listening to the workers’ ideas. That this plan worked is reflected in the fact that AFL membership declined nearly 30 percent between 1920 and 1930.

The banking business and the stock market were practically unregulated during the 1920s and this led to considerable fluctuation in the world of finance. Many banks failed, particularly in rural areas dependent upon agriculture; conversely, numerous mergers occurred. Thus, while the number of banks declined by more than 5,700 between 1919 and 1929, their total resources increased spectacularly from \$47.6 billion to \$72 billion.

The way banks did business also changed. Before the war a commercial bank’s chief function was to make short term loans to business and industry. But during the twenties most businesses were so profitable that they relied upon their own resources for expansion and current operating expenses. Hence the banks had large sums to invest in other ways. They increased their investments in stocks and bonds, increased loans against real estate, and loaned vast sums to stock brokers for speculative purposes. Bank loans to brokers against stocks and bonds totaled more than \$8.5 billion by the fall of 1929. In addition, banks established their own investment affiliates and did their own speculating in the stock market. This progression continued as long as the market continued to boom as it did between 1926 and 1929, but the collapse, which came in the latter part of the year, took many banks with it. This was the dawn of the Great Depression and a new era in American economic history.

See also: Thomas Edison, Henry Ford, Andrew Mellon

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PROTECTIONISM

Protectionism is a set of policies by which a government seeks to shelter its industries from foreign competition and or help them increase exports to international markets. The most common form of protectionism is a tariff, which is a duty or tax imposed on goods based on their value or size. Subsidies are direct payments or credit given by the government to a protected industry to encourage it to export its products. Quotas set upper limits on the amount of imports that can enter the protected country, and governments can also set limits on investments by foreign companies in domestic businesses. A more recent protectionist policy is the “voluntary export restraint” in which a foreign country is strongly “encouraged” to refrain from importing certain goods under the threat of some more severe action such as quotas. Protectionism can also take the form of preferential purchasing policies, such as the U.S. government’s requirement that its agencies “buy American.”

Throughout its history, the United States has been a protectionist country. A series of tariff laws throughout the nineteenth century steadily raised barriers to foreign trade to encourage the growth of U.S. industry. Beginning in the mid-1870s, however, the United States began exporting more than it imported and it became much more integrated in the global marketplace. Strong protectionist trade policies returned with

Protectorate

a vengeance around the world in the 1920s, and the high tariffs the United States imposed through the Smoot-Hawley Tariff of 1930 were later credited with contributing to the United States' shrinking foreign markets during the Great Depression (1929–1939). After World War II (1939–1945) it was clear that strong protectionist policies had contributed to the destruction of the world order in the 1940s. The launching of the General Agreement on Tariffs and Trade (GATT) in 1948 represented a mostly effective attempt to reduce protectionism and create a positive climate for free trade worldwide.

Under GATT, tariff rates were cut and member nations agreed to drop discriminatory trade policies and adopt the same "most favored nation" trade practices for all other members. Under the so-called Kennedy Round (1964–1967) of GATT negotiations, the United States took a further step away from its protectionist history, and GATT members agreed to include agricultural products under GATT guidelines while adopting an "anti-dumping" code to prevent countries from flooding another's markets with cheap goods. The Tokyo Round (1973–1979) brought further tariff reductions, guidelines for outlawing unfair subsidy practices, and policies for encouraging trade with less developed countries. In 1995 GATT was replaced by a permanent free trade organization, the World Trade Organization, but protectionism was far from dead.

See also: General Agreement on Tariffs and Trade, Quota, Smoot-Hawley Tariff, Tariff

PROTECTORATE

The term protectorate evolved in the nineteenth century. It refers to a relationship in which a weaker state relinquishes the control of a portion or all of its international relations to a stronger state in return for protection. This relationship is a form of guardianship and the reciprocal rights and duties between the two states generally are delineated by treaty. The protected state is considered the "protectorate." In international law the protectorate still retains recognition as a state by other nations and may retain some of its state rights such as a right to diplomatic representation. The protectorate usually maintains control over its domestic affairs.

In the nineteenth century, protectorate relationships often preceded colonial expansion or, as in the case of the United States and Caribbean, aimed at preventing foreign rivals from gaining a foothold in certain areas and upsetting a delicate balance of power. U.S. foreign policy toward the Caribbean from 1898 to

1933 is known as the protectorate era. The United States feared regional instability would lead to non-U.S. foreign intervention. The United States repeatedly used military force, dollars, and custom's controls to safeguard countries such as Puerto Rico, Haiti, Cuba, and Latin American nations, keeping them solvent and stable.

PUBLIC SECTOR

A "public sector" is comprised of local, state, and federal government agencies, as opposed to the "private sector," which is made up of households and businesses. Economists generally speak of the government and the public sector as the same thing. The public sector employs about one-sixth of the labor force, purchases about one-fifth of the total output of the economy, and accounts for about one-quarter of all personal incomes. Because the public sector includes all government activities, not just the federal government, it includes all forms of public employment. It includes teachers, many scientists, the military, police and fire services, and all other areas of public service employment.

PUBLISHING INDUSTRY

Book publishing began to flourish in the American colonies during the eighteenth century. Printing began in 1639 in Cambridge, Massachusetts, and expanded geographically to Boston in 1674, Philadelphia in 1685, and New York City in 1693. Almanacs, primers, and law books were published; theology being the most popular subject. Books were sold in various ways: through subscription, by the printer, in the streets by hawkers, and in shops by booksellers. Hezekiah Usher, who added books to his general merchandise inventory around 1647, may have been the first American bookseller.

The availability of reading matter after 1650 contributed to the spread of literacy and an educated middle class. During the eighteenth century prose novels grew in popularity, while among those of modest means almanacs and chapbooks were more common. Benjamin Franklin's (1706–1790) *Poor Richard's Almanack* (sic), which contained a variety of information as well as religious and moral sayings, was published in Philadelphia in several editions from 1732 to 1764. Chapbooks typically contained a popular story illustrated with woodcuts.

In 1800 the Library of Congress was established. The growth of book publishing led to the establishment of commercial lending libraries in the eighteenth century and, in the nineteenth century, free public libraries. The nineteenth century marked a new era in book publishing brought on by technological innovations that significantly reduced the cost of printing and publishing books. These innovations included stereotyping, the iron press, steam power, mechanical typesetting and typesetting, and new methods of reproducing illustrations. Paper and bindings became less expensive. After 1820 cloth cases began replacing leather bindings, and publishers that had previously issued their works unbound began to publish them already bound.

The nineteenth century book trade was marked by expansion and competition, both in Europe and in the United States. Populations were rapidly growing, communications were improving, and there was a strong desire both for self-improvement and for entertainment, all of which contributed to a strong book trade. In the United States publishing gradually became concentrated in a few major cities: Philadelphia, Boston, and New York City. In addition to publishing American authors such as Washington Irving, James Fenimore Cooper, Ralph Waldo Emerson, U.S. publishers competed fiercely to publish reprint editions of British works by Charles Dickens, Sir Walter Scott, Thomas Macaulay, and others. U.S. publishers would wait at the dockside for a new British title and have a reprint edition ready within hours. Many of these editions were pirated, with no royalties paid to the authors.

WHAT CAN BE SAID OF THE PAST 25 YEARS IN PUBLISHING, OTHER THAN THAT THEY MAKE THE PREVIOUS 100 SEEM SLOW IN COMPARISON?

Publishers Weekly, July 1997

Comprehensive catalogs of books began as early as the book fairs held in Frankfurt, Germany, in 1564, and in Leipzig, Germany, in 1594. During the nineteenth century several such lists were published in England and France and became national lists, with the first U.S. *Cumulative Book List* appearing in 1898.

Many small publishing houses were started in the United States in the 1890s and in the early part of the twentieth century. Start-up costs were low, and it was relatively inexpensive to publish an edition of 1,000 copies of a new book. Public education created a need for textbooks, and publishers began to specialize. In 1912 the Authors' League was formed in the United States to help standardize relations between authors

and publishers, especially regarding contracts and the payment of royalties.

Following World War I (1914–1918), booming economic conditions produced an even more prosperous middle class who demanded even more books. The number of publishing houses grew. U.S. authors, such as Ernest Hemingway and Sinclair Lewis, found a world market. New York City became a source of talent for publishers everywhere. Universities grew in number and college textbooks became an important part of the publishing industry.

Book clubs that offered books by mail began to appear following World War I, with the Book-of-the-Month Club starting in 1926; its rival was The Literary Guild. Book clubs experienced a decline in popularity in the 1950s with the advent of cheap paperbound books.

The Great Depression (1929–1939) caused a trade slump in book publishing beginning in October 1929. In 1935 British publisher Allen Lane launched the Penguin series of paperbacks, and it immediately caught on. Shortly before the outbreak of World War II (1939–1945) Penguin paperbacks became available in the United States through Ian Ballantine, who later founded both Bantam Books and Ballantine Books. U.S. distribution was later taken over by Victor Weybright, who in 1948 founded the New American Library, another successful paperback venture.

The most successful U.S. publisher of mass paperbound books was Pocket Books, founded in June 1939 by Robert F. de Graff. Partnering with Richard Simon and M. Lincoln Schuster, founders of publishing house Simon and Schuster, de Graff began with a modest list of 10 titles, all reprints. Their success was immediate and unprecedented, and the company continued to dominate mass-market paperback publishing for decades. Several magazine publishers decided to launch paperback imprints, including Avon Books in 1941, Popular Library in 1942, and Dell Books in 1943.

World War II disrupted publishing but brought hidden benefits. Nazi persecution of the Jews resulted in the emigration of publishing talent to England and the United States, among other countries. Paper shortages caused publishers to print fewer new titles and fewer copies, but many of these smaller editions sold out to a public that had more time to read. There were also fewer consumer goods to compete with books, because of wartime rationing. As a result a new reading public emerged, and social and economic conditions favored publishing in the postwar period.

Technological developments after World War II spurred the publication of many new technical books,

Publishing Industry

including college textbooks. There was also a major advance in printing, with photo composition replacing the labor-intensive methods of the traditional letterpress system. Large print runs of 100,000 or more copies could now be economically printed, although the problem of printing economical short runs of a few thousand copies remained.

By the 1950s paperback books were more than just a novelty, with paperback sales reaching 200 million copies and paperback revenues an estimated \$46 million in 1950. In fact, a paperback revolution took place in the 1950s in the United States and throughout the world. It converted book borrowers into book buyers and created a large population of book buyers. For the first time books fell into the area of impulse buying. They were offered for sale in a variety of new locations from drugstores to airports. Scholarly paperbacks, aimed at university students, began appearing in the United States in the 1950s and soon spread to England and the European continent.

By the 1960s paperbacks had become a fixture of U.S. life. They reflected the social change of the decade, and in some cases helped bring it about. Paperback publishers perfected the “instant book” during the 1960s, providing in-depth treatment of major news stories within days of the event. Bestsellers were emphasized, with many authors benefiting from the wide exposure they received through paperbacks.

The tremendous profits generated by paperbacks in the 1960s and 1970s brought another change to publishing. Large corporations began to look at publishing as an area for investment. During the late 1960s and early 1970s many independent paperback firms came under the control of giant corporations such as Gulf & Western, CBS, RCA, and Warner Communications. These parent corporations made large amounts of cash available to their paperback subsidiaries, resulting in new levels of bidding among publishers for bestsellers. By the mid-1970s, million-dollar auctions for paperback rights were commonplace. Unfortunately, this resulted in higher prices for consumers; paperback sales, which had climbed steadily since their introduction, began to level off. During the late 1970s and early 1980s several paperback houses went out of business. It became more common for publishers to issue both hardcover and paperback editions, rather than selling the paperback rights to a separate firm.

Consolidation affected the rest of the book publishing industry as well. Fifteen major corporations dominated the industry by the early 1970s. This consolidation continued through the 1990s, when seven

giant publishers accounted for 80 percent of all best-sellers in 1992. Concentration of power raised concerns about the quality and diversity of books being published, and some looked to small presses to fill the need for less popular but higher quality titles that catered to a variety of special interests.

Book publishing experienced tremendous growth during the 1970s, 1980s, and 1990s. From sales of \$1.68 billion in 1963, annual book sales doubled by 1973 then reached \$8.6 billion in 1983. They nearly doubled again to reach \$17.2 billion in 1993.

During the 1990s book publishers became more concerned with cutting costs, maximizing profits, and effective management techniques as a result of corporate ownership. For too long publishers had lagged behind other industries in achieving efficiencies in production, distribution, and marketing. Many challenges faced the book publishing industry in the 1990s, ranging from huge cash advances required to capture best-selling authors to competition from computers and VCRs for the leisure time of traditional book customers.

The fortunes of the publishing industry have been closely related to existing social, economic, and demographic conditions and trends. During the second half of the 1980s, children's publishing experienced tremendous growth, from \$336 million in sales in 1985 to \$1.1 billion in 1992, as the “baby boomlet” market developed. Suddenly, though, sales dropped by one-half, and publishers were forced to rethink their strategies. Trends favorable to publishing in the 1990s and beyond included higher enrollments in schools and colleges as well as an aging population that's interested in a variety of issues.

See also: **Blanche Wolfe Knopf, McGraw-Hill Companies**

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PUEBLO INDIANS

The Pueblo are American Indians of the Southwest. Their ancestors were the prehistoric Anasazi Indians. Beginning in about A.D. 700–1000, the Anasazi, who had settled in Utah, Colorado, Arizona, New Mexico, and northern Mexico, began building above-ground dwellings made of stone or adobe blocks. The more permanent shelters reflect a change in lifestyle: as they became increasingly dependent on agriculture (cultivating corn or maize), they also became more stationary. By A.D. 1000 the structures were more sophisticated; the Anasazi had begun to build multi-storied houses in the rocky sides of mesas (flat-topped hills) and in canyon walls. For this reason they are sometimes called Cliff Dwellers. The Anasazi continued to farm the lands below their dwellings, which could easily be defended in case of raids. Their descendants, the Pueblo, were living in these areas when the Spaniards arrived in 1540. (Observing the settlements, the European explorers gave the natives the name “Pueblo,” which means “village.”)

During the next 100 years missionaries in the Southwest converted about 60,000 Pueblo Indians to Christianity. In August 1680 Popeé, a Pueblo Indian, led an attack on Santa Fe, New Mexico, killing almost 500 Spaniards and driving the rest out. In what is known as the Pueblo Revolt, the Southwestern Indian group had reclaimed their territory, eradicating all Spanish-Christian influences and restoring their own culture in the region. This period of reclamation lasted 12 years: Upon Popeé’s death in 1692, the Spanish recaptured New Mexico and reestablished colonial rule. A band of Pueblos escaped to the west, remained free, and came to be called Western Pueblos. Few traditional (pre-Spanish) Pueblo villages remain today.

See also: Anasazi, Arizona, Colorado, New Mexico, Santa Fe, Southwestern Indians, Utah

PUERTO RICO

A territory of the United States granted under the Treaty of Paris of 1898, Puerto Rico is an island in the West Indies, 70 miles (113 kilometers) east of Hispaniola (Haiti and the Dominican Republic). The agreement, signed December 10 of that year, ended the Spanish-American War (1898) and provided for Cuba’s full independence from Spain. The United States was also granted control of Puerto Rico, Guam, and the Philippine Islands in exchange for \$20 million.

The conflict leading up to the Spanish-American War began during the 1870s, when Cubans rebelled

against Spanish rule of the tiny island (which measures 3,435 square miles, or 8,897 square kilometers). Once the insurrection was put down, peace on the Caribbean island did not hold: worsening economic conditions prompted revolution in 1895. U.S. President William McKinley (1897–1901) made several diplomatic attempts to pressure Spain to grant Cuba full independence, but to no avail. On April 19, 1898, the U.S. Congress passed a joint resolution recognizing an independent Cuba, disclaiming American intentions to acquire the island, and authorizing the use of the American Army and Navy to force Spanish withdrawal. On April 25, the United States formally declared itself at war with Spain. In the months that followed American forces battled the Spanish and Spanish loyalists in Cuba and the Spanish-controlled Philippines. There was also military activity on Puerto Rico, but American forces met little resistance. Once Santiago, Cuba, was surrendered by the Spanish after the battle at San Juan Hill (July, 1898), it was only a matter of weeks before a cease-fire was called and the armistice signed (on August 12), ending the brief war.

The war dissolved the Spanish empire that had once included vast territories on the North American mainland and in Mexico, Central America, South America, and the West Indies. Fulfilling the doctrine of Manifest Destiny, the United States gained long-coveted possessions in the Pacific and in the West Indies. Puerto Rico, which then had a population of about one million people, provided Americans with a base in the Caribbean. In 1917 Puerto Ricans were granted U.S. citizenship. In 1952, upon adoption of a constitution, the island became a commonwealth, in union with the United States. As such, Puerto Rico has autonomy in international affairs. The commonwealth status was improved by the Puerto Rican government in 1967 and again by the people in 1993. The 1993 population was more than 3.6 million. The island’s chief products include sugar, tobacco, fruit, livestock, textiles, pharmaceuticals, and tourism. Spanish is the principal language, but some English is spoken as well. The U.S. dollar is the official exchange.

See also: Manifest Destiny, Spanish-American War

PULITZER, JOSEPH

The modern newspaper was virtually created by Joseph Pulitzer (1847–1911) during the latter half of the nineteenth century. It was a newspaper that seemed to meet the needs of the modern industrial world.



Joseph Pulitzer.

Boasting headlines, sensationalism with social conscience, a sports page, a business page, and the comic strips, it was a paper the average person could use to learn about the world and be entertained. This was largely the social invention of Joseph Pulitzer.

Joseph Pulitzer was born in Mako, Hungary, on April 10, 1848, one of three children born to Philip and Louise (Berger) Pulitzer. (*Poltizer* was the Hungarian spelling of their last name.) As a young child, Pulitzer was considered sickly. He was very thin, his lungs were weak, and his vision was poor. His father was a wealthy grain dealer, wealthy enough to retire early and be with his family. When Joseph Pulitzer was six years old, the family moved to a quiet estate in Budapest, Hungary, where the boy was educated by private tutors, along with his brother and sister. Pulitzer was raised fluent speaking Hungarian, German, and French.

The young Joseph Pulitzer was perhaps overly energetic, and was wild about seeking fame. He was brilliant, very independent, and intensely ambitious. There were early signs, extremes in his behavior as a

young man, of the emotional problems that would later hurt him as a grown man.

At the age of 17 he left home and sought to join the Austrian Army, the British armed forces, and the French Foreign Legion. He was rejected from each army because of his poor eyesight. At one point during the American Civil War (1861–1865), a recruiter of the Union army approached Pulitzer. In September 1864 he came alone to the United States to join the Lincoln Cavalry of the Union Army. In Boston, Massachusetts, Pulitzer jumped ship. He then went to New York where he enlisted on his own behalf, thereby collecting his own enlistment bounty. On September 30, 1864, Pulitzer joined a cavalry regiment organized by Carl Schurz, with whom Pulitzer would work after the war.

IN THE ST. LOUIS POST-DISPATCH AND THE NEW YORK WORLD PULITZER CREATED THE MODERN NEWSPAPER, ONE THAT CAUGHT THE DEMOCRATIC AND POPULIST SPIRIT OF THE UNITED STATES AT THAT TIME AND INSTITUTED CHANGES NEVER BEEN BEFORE SEEN IN U.S. NEWSPAPERS.

Pulitzer was discharged from the Union Army in July 1865. He had little money and no prospects for work. He settled in St. Louis, Missouri, where there was a large German community. In St. Louis Pulitzer found familiar customs that reminded him of his European origins. He worked a variety of jobs including a mule tender, waiter, and hack driver. He also worked for several lawyers and, while doing so, studied law books and was admitted to the bar. In 1867 Pulitzer became a U.S. citizen.

Carl Schurz, whom Pulitzer met during his military service, hired Pulitzer as a reporter for the *Westliche Post*, an influential German-language newspaper in St. Louis. The paper specialized in political articles and was very much committed to social reform in a young United States, which at the time appeared rife with corruption. Pulitzer became very interested in local politics and public affairs, and was an exceptional reporter in these areas. As a result he was nominated for the state legislature by the Republicans in 1869; he won the election.

While serving his term as a representative, Pulitzer also worked as a correspondent for the *Westliche Post*. In 1872 he became very involved in the Liberal Republican movement, which had nominated Horace Greely for president. After the defeat of Greely, Pulitzer became a Democrat.

In 1872 Joseph Pulitzer bought his first newspaper, the *St. Louis Post* for about \$3 million. He also

bought a German newspaper that had an Associated Press membership, which he quickly sold for a profit. In 1878 Pulitzer purchased the *St. Louis Dispatch*, which he combined with the *St. Louis Post*; the newspaper then became the *St. Louis Post-Dispatch*.

As publisher and editor of his newspaper, Pulitzer declared immediately that it would be devoted to issues of social reform. He vowed to his readers that the paper would be independent of political influence, and would instead be “the organ of truth,” as he put it in an early editorial. Along with his editor-in-chief, John A. Cockerill, Pulitzer printed verbal crusades against wealthy tax dodgers and corrupt gambling practices. For example, the newspaper published the tax returns of local citizens, wealthy and poor, in parallel columns. Pulitzer and Cockerill editorialized in favor of the building and maintaining of streets and other public structures and were instrumental in starting a city park system. They made the *St. Louis Post-Dispatch* a very successful civic minded newspaper.

Pulitzer edited the *Post-Dispatch* from 1878 to 1883. From the start he was involved in all aspects of the publication. By 1881 the newspaper had achieved high profits, gained wide readership, and moved to a new building where two Hoe presses were installed. When Pulitzer’s health weakened, however, he gave more responsibility to Cockerill.

In 1882 Cockerill shot and killed Alonzo W. Slayback, a local lawyer running for Congress. Slayback, whom Cockerill openly opposed and insulted, had confronted Cockerill and was murdered. Afterward Pulitzer asked John A. Dillon, founder of the *Post*, to take over the management of the paper. During the aftermath of the scandal, Pulitzer’s health deteriorated further and he was advised by his physician to take a long rest. On his way to Europe, via New York, Pulitzer met with an opportunity he could not refuse: the *New York World* was for sale.

In 1883, when he was 36 years old, Pulitzer bought the failing *New York World* newspaper, and he applied the same principles that led to success with his *St. Louis* paper. In 1883 the paper sold 15,000 copies daily. With Pulitzer’s genius for sensing what the public wanted, he built a newspaper which, by 1898, was selling 15 million copies a day.

In the *St. Louis Post-Dispatch* and the *New York World* Pulitzer created the modern newspaper, one that caught the democratic and populist spirit of the United States at that time and instituted changes that had never been seen in U.S. papers before. Pulitzer changed the form of how readers received their news, and he

created a format and prototype that countless other papers came to imitate.

Pulitzer carefully picked his talent and encouraged them. He paid high salaries to his reporters and demanded hard work from them. He also started the first two-week paid vacation for newspaper staff. Pulitzer’s newspapers used illustrations and political cartoons to attract readers and initiated features such as greatly expanded sports coverage. He also began to include line drawings in the newspaper to give variety to the look of different sections of the paper. Pulitzer’s newspapers started printing colored cartoon strips known as the “Sunday Funnies,” and in doing so captured a new readership for newspapers—children.

Perhaps Pulitzer was able to do so much in changing the form of the newspaper because his own idealistic, crusading, flamboyant, up-and-down character mirrored much of the sentiments of the mixed character of the United States at that time. He remained an idealist, but he also learned how to sensationalize and exaggerate real issues to get public attention. Pulitzer became the master of detailing lurid stories of crime, sex, and disaster. He had his reporters use bold headlines, and illustrations and diagrams for murder scenes. He was one of the first to understand that a successful newspaper had to entertain as well as provide the truth. This was a revolution in newspaper style which became a model for newspapers of that era—sensationalism with a social conscience.

Pulitzer used his newspapers’ editorials to speak out against corruption, and his papers uncovered several scandals such as the insurance fraud and corruption in the construction of the Panama Canal. He also crusaded against unsafe working conditions, the Bell telephone monopoly, the Pacific Railroad Lobbyists of 1887, unpleasant conditions in mental hospitals, police corruption and inefficiency, and police brutality. Pulitzer used his power to rally public support around various causes. In one editorial, for example, he urged the completion of the pedestal for Bartholdi’s Statue of Liberty.

Pulitzer had married Kate Davis in 1878. The Pulitzers had seven children during their reportedly difficult marriage. When Joseph Pulitzer was in his mid-thirties, his health began to deteriorate. He spent much of his time away from his family, traveling widely. In later years he lived aboard his yacht, called the *Liberty*, where annoyances and distractions were kept to a minimum. Pulitzer continued to be in constant poor health. He had several ailments including asthma, diabetes, insomnia, chronic exhaustion, and manic depression; by 1889 he had become blind. On October

Pullman Palace Car Company

29, 1911, at the age of 64, Joseph Pulitzer died of an apparent heart attack while aboard his yacht in a New York harbor.

In the years leading up to his death Pulitzer had turned his focus toward a plan to endow Columbia University with a large sum of money for the establishment of a school of journalism. In 1902 Pulitzer had drawn up a memorandum in which he compared the preparation of journalists to that of lawyers and doctors. In 1912, a year after his death, an endowment of \$2 million was made to Columbia University, which accepted its first class in the School of Journalism. The 1902 memorandum also stipulated that a portion of the endowment be used for annual prizes to journalists and writers. The first Pulitzer Prize was awarded in 1917.

See also: Muckrakers, Publishing Industry

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PULLMAN PALACE CAR COMPANY

One of the last industrialists to operate a company town, George Mortimer Pullman (1831–1897) entered adulthood fueled by ideas and ambition. Pullman stepped into his deceased father’s business of raising the foundations of dwellings that were built in the low lying flood areas of Chicago. In 1858 Pullman faced the challenge of lifting and rotating the stylish Tremont Hotel. He successfully supervised this tremendous feat, which involved the simultaneous turning of five thousand jackscrews by twelve hundred men. With a \$20,000 stake made from the elevation business, Pullman turned his hand to more luxurious ideas.

George Pullman’s first overnight train ride was as memorable as it was uncomfortable. Travelling from Boston to Westfield, Massachusetts, in 1851, he attempted to rest on a rough mattress. Sharing the discomfort with fellow travelers and unable to sleep, Pullman decided there had to be a better way to travel. Although sleeping cars on railroads were not new, passengers were accustomed to little more than cots or mattresses and little privacy. Many who sat up all night suffered back-jarring rides on stiff benches in cars filled with dust in the summer and wood smoke in winter. With the growing number of businessmen traveling between cities, Pullman realized there was a market for comfort.

Pullman formed a partnership with Benjamin Field, who had the rights to operate sleepers on the Chicago and Alton, and the Galena and Union railroads. Pullman rebuilt two oversized coach cars, dividing the space into 10 sleeper sections with curtains. He hinged the upper berths so they could be opened at night and did the same with the chairs, so that they could swing back up out of the way. For extra convenience, linen closets and toilets were built at both ends of the car. Most importantly Pullman paid enormous attention to details. Lining the berths with rich cherry wood, and upholstering the seats in plush fabrics, all basking in the soft glow of oil lamps. Such luxury in George Pullman’s sleepers was met with modest success in 1858. Business grew slowly but steadily as the country headed into the American Civil War (1861–1865).

In 1862 while running a trading store in Colorado, Pullman continued to develop plans to build an even more luxurious sleeper. His idea to raise travel to an unimagined level began in a shed near Chicago’s Union Station. The “Pioneer” sleeper would be 54 feet long and 10 feet wide, with accommodations for 50 passengers. Each car would contain thick Bussel’s carpeting, heavy curtains, French plate mirrors, black walnut woodwork, oil chandeliers, and fine linens that would be changed daily. Porters would carry baggage and attend to the riders needs. The cost to build one car totaled \$18,000, four times more than any other competitive sleeper did. The two-dollar fares for an over-nighter in Pullman’s Pioneer soon emptied the conventional sleepers of other producers, which charged \$1.50. Within a year, Pullman owned 48 sleepers. Within 10 years, Pullman held a virtual monopoly on luxury train travel in the United States.

The assassination of President Abraham Lincoln (1861–1865) on April 15, 1865, prompted arrangements for his body to be transported back to Springfield, Illinois. Part of the funeral procession was by rail from Chicago. The Pioneer, touted “the wonder of the

age,” was chosen to carry Lincoln home. The size of the Pioneer would not fit on some tracks; nor could it be used in some railroad stations. Rail lines had to modify the tracks to accommodate the Pioneer to complete the last leg of the presidential journey. The Pioneer secured its reputation as the pearl of railroad cars because of this event.

The Pullman Palace Car Company was incorporated in 1867. The addition of a kitchen and tables from which to order delicacies such as oysters and rum omelets, led to the unveiling of the first dining car (known as the “Delmonico”) in 1868. In 1875, the first parlor car was introduced, sporting upholstered swivel reclining seats. Each new unveiling of an even better or more novel idea in the next Pullman car was met with greater fanfare. Accepted by the inner circle of U.S. corporate barons by 1880, George Pullman had become a rich, powerful, and respected man. Yet he viewed his power through the filter of Old World values.

When it came time to expand, Pullman decided to build a state-of-the-art factory and a town to go with it, at the cost of five million dollars. His idea was to build a community for the factory workers, about 15 miles outside of Chicago. He wanted a special place, workers’ utopia, to be built with the same attention to detail as his cars. Pullman envisioned his town as a model of efficiency and healthfulness. A company brochure promoting the town of Pullman stated, “all that is ugly and discordant and demoralizing is eliminated, and all that inspires self-respect is generously provided.” In 1884 families began moving into Pullman, Illinois.

By the winter of 1893, recoiling from plummeting orders and economic pressures, George Pullman had laid off more than half the workers living in his town. The wages of the rest were cut by more than 25 percent. However, rent was not cut. Moving to a cheaper neighborhood was not an option for Pullman tenants—if they moved they weren’t likely to remain Pullman employees. In desperation many workers joined the American Railway Union (ARU), an organization created by a young labor leader named Eugene Debs (1855–1926). The workers organized a boycott to which Pullman responded by having all the shops in his town cut off credit to all the workers. At the request of the Pullman workers, the ARU took the strike national. Within a week, 125,000 railroad workers refused to work on a train carrying a Pullman sleeper. Very soon after, rail traffic in the West and Midwest shut down.

The railroad strike of 1894 turned very ugly. The strike stopped mail delivery, freight and passenger traffic plummeted, and the stockyards were at a standstill. Hundreds of rail cars were set ablaze. President

Grover Cleveland (1885–1889) sent almost 2000 federal soldiers to the Chicago area, at the request of the U.S. marshals. When National Guardsmen fired upon a mob trying to block a train, four people were killed and another 20 were injured. Before the strike ceased, 20 people were dead and 60 were injured. This, the last major strike in the United States in the nineteenth century, ended in September 1894. The boycott was lost, and the ARU was broken.

George Pullman tried to hold on to his model town fantasy. He never evicted any workers from his community, as he hoped to be remembered for what he thought was his greatest contribution to U.S. life—the town of Pullman—but he never recovered from the strike. Three years later at the age of 66, George Pullman died of a heart attack. The community of Pullman was dismantled by the state of Illinois in 1898, with the state pointing out that the corporation’s charter did not give it the right to run a town in the first place. What had started as a dream of travel in comfort ended in violence, unemployment, and despair.

See also: Labor Movement, Pullman Strike, Railroad Industry

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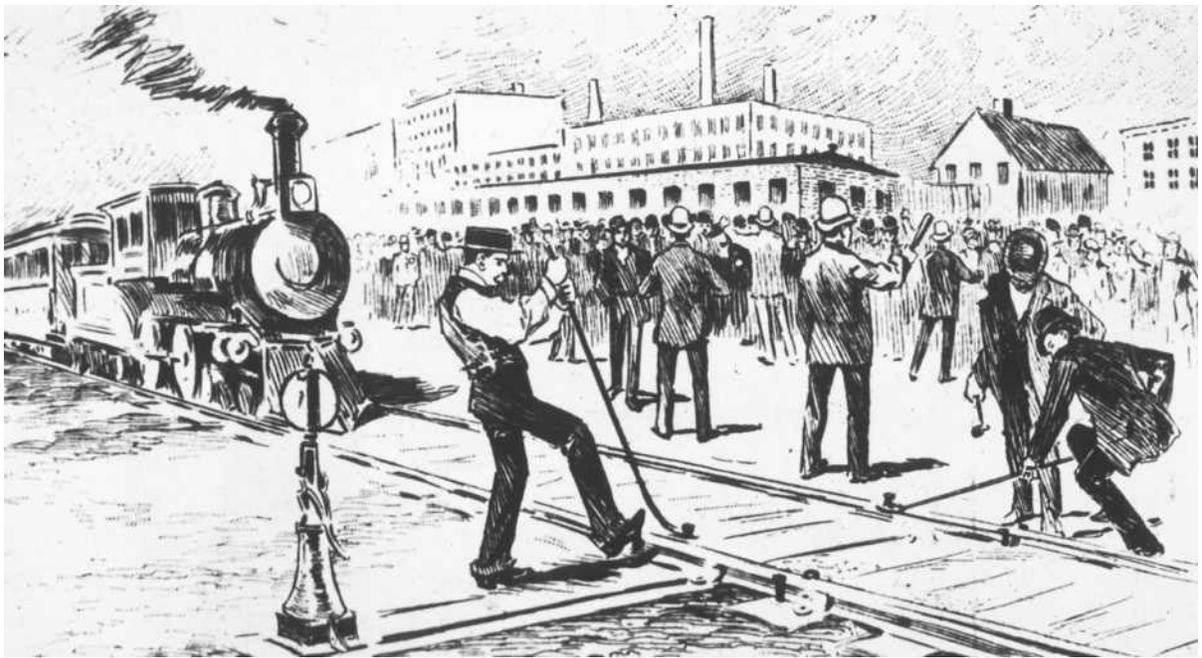
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PULLMAN STRIKE OF 1894

The last third of the nineteenth century was characterized by an atmosphere of bitter conflict between labor and management in the United States. One reason for this was that the economy had not performed very well since the early 1870s. Instead of a secure job, American workers were faced with a steady diet of financial panics and wage cuts. The most severe panic took place in 1893. The depression in 1893 deepened

Pullman Strike of 1894



Railway workers pulling spikes from switches in the Western Indiana Railroad yards, 1894.

the unrest and dissatisfaction of the working class. In the winter of 1893–1894 the Pullman Palace Car Company, which built and repaired Pullman's railroad coaches, announced a 25 percent wage cut. Pullman was a "company town" surrounded by Chicago. Most of the Pullman workers lived in company-owned housing. Even though he cut the wages, George M. Pullman, the Chief Executive Officer of the company, refused to reduce the rent payments on the company housing.

The Pullman workers went on strike in early June 1894 and requested other unions to honor their picket lines. The American Railway Union (ARU), led by Eugene V. Debs, announced that its members would refuse to work on trains that included any Pullman railroad coaches. Within a few days the strike spread to the entire Western and Southern sections of the country. Twenty-seven states and territories were affected.

Another thing that contributed to labor unrest during this period was the perception that the government was not neutral in most disagreements between workers and management. In the ARU strike, for instance, rather than allowing labor and management to settle their disagreement by allowing the strike to take its course, many officials in the affected states called out the militia to repress the strike. The most notable exception to this was John Peter Altgeld, the first-term Democratic Governor of Illinois who had already shown his pro-union sympathies by pardoning three union organizers accused of instigating the

Haymarket Riot in 1886. Altgeld refused to call out the Illinois militia to break the Pullman strike. He said that public order was not threatened by the strike and that he intended to do nothing to alter the disposition of forces on either side of the struggle.

The railroad company lawyers, with the support of President Grover Cleveland's Attorney General Richard Olney appealed to a federal court for an injunction against the strikers. They put forward two arguments. One was that the strike was "in restraint of trade" and therefore violated the Sherman Anti-trust Act. (This act was passed by Congress in 1890 and ruled illegal "every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce. . .") The Sherman Anti-trust Act had been passed to break up monopolies rather than unions, but was invoked mainly against unions.) The second argument was that the strike interfered in the delivery of the federal mails. On July 3 the court ruled in favor of both charges and granted injunctions forbidding the ARU from continuing the strike. The injunction even prohibited Debs from communicating with the union's locals.

The ARU refused to honor the injunction and Debs was sentenced to six months in jail along with his fellow union officers. The U.S. Supreme Court upheld the conviction of the ARU leaders when it declared the injunction issued against the union was a legitimate device for the protection of interstate commerce and the mails. For thirty years after the Debs case, the injunction was a powerful weapon in the hands of

employers threatened with a strike. It would not be until the Norris La Guardia Anti-Injunction Act of 1932 that labor gained some protection against strike-breaking injunctions issued by federal judges.

See also: **American Railway Union, Eugene Victor Debs, Pullman Palace Car Company, Railroad Industry, Sherman Anti-Trust Act**

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PURDUE, JOHN

During the mid-nineteenth century John Purdue (1802–1876) became a very successful dry-goods merchant and businessman in Lafayette, Indiana. He accumulated a fortune by beginning a newspaper, *The Lafayette Journal*, in his adopted hometown of Lafayette. Toward the end of his business career, in 1869, Purdue was the primary benefactor in the founding of Purdue University. He endowed the school with \$150,000 and a mandate to maintain a college within the university to teach agriculture and “mechanic arts.”

John Purdue was born on October 31, 1802, in Huntingdon County, Pennsylvania, the son of Charles and Mary Purdue. Purdue was the only son in a family of nine children born to this Scottish immigrant and his wife. The family moved to Ohio during Purdue’s boyhood. In his twenties Purdue taught school for four years in the schools of Pickaway County, Ohio.

Not satisfied with teaching, however, John Purdue sought new opportunities farther west. He visited Lafayette, Indiana, and found it to be a flourishing trade center. He settled there in 1839. With his characteristic energy Purdue soon became one of the commercial leaders of the region. He conducted wholesale and retail dry-goods/grocery business for over 25 years. In addition, during the 1850s he and a partner operated a

profitable “commission house” in New York City. Purdue made a great deal of money, but his unsuccessful political ambitions and unprofitable investments in local manufacturing and railway enterprises caused him to lose money in far-sighted endeavors with the civic development of Indiana.

Influenced by his long-ago work in public schools, Purdue continued to promote all educational enterprises in Indiana. After Congress passed the Land-Grant College Act in 1862, the Indiana legislature gave legal status to the Indiana Agricultural College in 1865. To secure a location for the college in Tippecanoe county, near Lafayette, Illinois, Purdue donated \$150,000 in 1869. These funds supplemented certain lands and buildings already accrued by the citizens of the county with their \$50,000 donation. With his large donation, Purdue was able to specify that the institution bear his name, which it does.

John Purdue died on September 12, 1876, at age 73. He was buried, as he requested, on the campus of the university. An unmarked stone was placed at the head of his grave. Purdue never married; Purdue University was his legacy to the future.

See also: **Land Grant College**

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PURE FOOD AND DRUG ACT

June 30, 1906, was a red-letter day for those who sought progressive reform and consumer protection in the United States. On that date the U.S. government passed the Pure Food and Drug Act, the first in a series of legislation designed to regulate the quality of food

and pharmaceutical products. The act banned manufacturers from selling mislabeled products, from adulterating food with unacceptable ingredients, and from misleading consumers with false claims. The passage of the act marked a victory both over certain manufacturers who wished to avoid regulation, as well as some politicians who questioned the constitutionality of the act. Those who fought for consumer protection found that their battle was only just beginning, however, and that effective reform would take place only with a series of acts passed over many years. Government regulation of this kind strongly affected the ways in which foods and drugs were prepared, packaged, labeled, sold, and advertised in the United States.

FOOD SCAMS, SUCH AS APPLE SCRAPS AND HAYSEEDS SOLD AS “STRAWBERRY JAM,” CORRUPTED THE MARKETPLACE IN THE NINETEENTH CENTURY UNITED STATES. THE TIME WAS RIPE FOR REFORM.

Prior to 1906 the regulation of food production and commerce fell mainly on the state and local authorities. In the colonial period, the colonies followed the British precedent of establishing laws to ensure standards of decency for such mainstays as bread and butter, while coastal colonies called for mandatory inspection of fish and other seafood. The laws did not extend to drugs, however, and their production remained largely unregulated. State laws scarcely differed from the colonial legislation, which was often loosely enforced. Since food and drug consumption was for the most part safe, there was little reason to push for more stringent regulation.

It was not until the middle of the nineteenth century, with the rise of industrialization and increasing urban populations, that fraudulent practices in the manufacturing of food and drugs became all too common. Food processors often added fillers to extend and cheapen their products: Water thinned out milk, sawdust bulked up flour, and sand stretched sugar. The development of new chemicals that enhanced the color, flavor, and texture of food made it easier for manufacturers to mask their manipulations. Unbeknownst to consumers, dyed and jarred apple scraps and hayseeds sometimes sold as “strawberry jam.” With these practices corrupting the marketplace, consumers found it difficult to judge the “truth in labeling” of commodities. Health risks increased, and state laws seemed insufficient to protecting the vulnerable public. The time was ripe for reform.

Harvey Washington Wiley (1844–1930), professor of chemistry at Purdue University and evangelical

Christian, led a campaign to stop wayward manufacturers from selling elixirs and bottled medicine which was often no more than alcohol-laden placebo. Wiley was appointed chief chemist of the U.S. Department of Agriculture in 1883. He led a campaign for federal regulation of food production and commerce. He was not alone in his efforts: many upstanding, reputable manufacturers wished for regulations that would outlaw the shady practices of their dishonest competitors. Meanwhile state food and drug officials asked for the federal support necessary to effect such sweeping change. Wiley enlisted scientists to analyze the ingredients in adulterated foods and to conduct tests on harmful preservatives, food colorings, and other chemicals, effectively amassing evidence to present to legislators. Interested as much in the moral as in the medical implications of ingesting tainted foods, the chemist did everything possible to dramatize the issue and to galvanize the public.

Two events gave Wiley’s efforts a much-needed boost. The first event was the 1898 “embalmed beef” scandal, which highlighted the quality of food served to soldiers in the Spanish-American War (1898). The second event was the January 1906 publication of Upton Sinclair’s *The Jungle*, a deeply disturbing novel about unsanitary conditions in the Chicago meatpacking industry. Sinclair’s best-selling novel—with its grotesque descriptions of rats, filth, and even human body parts that found their way into goods sold as “pickled meats”—was the final straw. President Theodore Roosevelt (1933–1945), who did not always respond to Wiley’s sensationalist style of lobbying, reportedly read *The Jungle* with interest. It is no coincidence that the Pure Food and Drug Act was passed only five months after the book’s publication.

The bill was not as thorough as Wiley hoped it would be, but it did represent a triumph for consumer protection in the United States. It forbade the adulteration of food, the addition of harmful ingredients, and the use of erroneous or misleading labels. Interstate and foreign commerce of both food and drugs were to be diligently monitored, and drug manufacturing was to comply with purity standards listed in two authoritative pharmaceutical reference books. Critics of the bill noted the absence of a specific list of purity standards for food manufacturing, which made the law difficult to enforce in certain cases. A Bureau of Chemistry, operating under Wiley, was established to propose a system of enforcement, but the bureau (which was renamed the Food and Drug Administration [FDA] in 1927) often met with opposition from manufacturers and farmers who resisted regulation.

Amendments to the Pure Food and Drug Act—such as one that required manufacturers to list net weight on products' labels (1923) and another that specifically defined the quality standards of canned foods (1930)—helped to plug certain loopholes and ultimately made the bill more effective. The need for certain reforms required new legislation, though, such as the Food, Drug, and Cosmetic Act of 1938, which extended regulatory laws to cover the cosmetics and therapeutic device industries. The FDA gained power to set certain standards and to inflict penalties on those who failed to comply. Ultimately, the Pure Food and Drug Act and subsequent legislation effectively altered the ways in which manufacturing and commerce were conducted in the United States. The events of 1906 set into motion a trend toward consumer protection that persisted throughout the remainder of the twentieth century.

See also: Food Processing, Lever Food Control Act, Pharmaceutical Industry, Regulation

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PURITANS

The Puritans were members of a religious movement that began in England during the 1500s and lasted into the first half of the 1600s, when it spread to America. Influenced by the teachings of religious reformer John Calvin (1509–1564), the Puritans were so named because they wanted to purify the Anglican Church (also called the Church of England). They believed that too much power rested with the church hierarchy (its priests, bishops, and cardinals), and that the people (called the laity or lay members) should

have more involvement in church matters. Ceremonies should, the Puritans believed, be simplified to stress Bible reading and individual prayer. They defied the authority of the Archbishop of Canterbury, head of the Anglican Church, believing that each church congregation should control its own affairs through a council (called a presbytery) of lay members. The Puritans also had strong feelings about government. They maintained that people can only be governed by contract (such as a constitution), which limits the power of a ruler.

When King James I (1566–1625; ruled 1603–1625) ascended the throne of England in 1603, he was the first ruler of the house (royal family) of Stuart. The Stuart monarchs were Anglican or Catholic, but faced with the challenge of radical Puritanism, they tried to enforce national adherence to the Anglican Church, which stressed the ceremonial and traditional elements of worship. Further, the Stuart kings viewed the Puritan agitators as a threat to their authority.

Persecuted by the throne, groups of Puritans fled England for the New World. One group was granted a corporate charter for the Massachusetts Bay Company (1629). Unlike other such contracts, which provided the framework for establishing colonies in America, this one did not require the stockholders to hold their meetings in England. What is striking about the organization of the Puritan colony is the fact that their organization combined economic, political, and religious levels of meaning. Stockholders who made the voyage across the Atlantic would become voting citizens in their own settlements; the board of directors would form the legislative assembly; and the company president, Puritan leader John Winthrop (1588–1649) would become the governor. In 1630 the group settled in what is today Boston and Salem, Massachusetts, establishing a Puritan Commonwealth. By 1643, more than 20,000 Puritans had arrived in Massachusetts, in what is called the Great Migration. Puritans also settled Rhode Island, Connecticut, and Virginia during this period.

Puritans founded the Congregational Church. They also established grammar schools and colleges (including Harvard, Yale, and Dartmouth) in New England.

See also: Connecticut, Colonies (Corporate), Massachusetts, Rhode Island, Virginia

PUTTING-OUT SYSTEM

The putting-out system was a production method that was used in New England from the mid-1700s to

Pyramiding Reserves

the early 1800s. Under the system, merchants supplied raw materials (cotton, for example) to families, especially women and young girls, who would make partially finished goods (yarn) or fully finished goods (cloth) for the merchant. These manufactured goods were then sold by the merchant. Homeworkers who “put out” goods provided the needed manufacturing labor of the day. But the factory system of manufacturing was on the horizon.

In 1813 the Boston Manufacturing Company opened the first textile factory, in Waltham, Massachusetts, in which laborers operated spinning and weaving machines to produce woven cloth from start to finish. The advent of machinery had given rise to the factory system, and laborers were shifted from working in their homes to working in factories. While native New Englanders continued to provide the labor for the textile industry for the next two decades, an influx of immigrants in the mid-1800s provided the hungry manufacturers with a steady supply of laborers who were willing to work for lower wages and longer hours.

See also: Andrew Jackson, Lowell System, Samuel Slater, Samuel Slater Builds First Factory, Spinning Mills, Textiles

PYRAMIDING RESERVES

Pyramiding reserves refers to the practice of concentrating many small bank reserves in certain big city banks. The National Banking Acts of 1863 and 1864 established the requirement that banks maintain money reserves. Reserves are the portion of each deposit placed into the bank that is set aside in the form of vault cash or held deposits. The tempting high interest rates on inter-bank deposit balances offered by the larger banks led small rural banks to keep their reserves at large urban national banks. This practice led to the

pyramiding of reserves in central cities, especially New York City.

In the nineteenth century the need for liquidity (cash on hand) of the rural banks were driven by the needs of farmers. In the planting season farmers required currency to purchase farming implements and seed. At harvest cash deposited into banks increased as farmers sold crops. As a result rural banks withdrew their reserves from the urban banks in the spring to meet farmers’ demands for cash and deposited money back into the urban banks in the fall. The withdrawal of the inter-bank balances in peak agricultural season put seasonal pressures on the banking system. Consequently short-term interest rates varied seasonally by as much as six percentage points through the course of a year. Large urban banks could anticipate this demand most of the time and provide rural banks with all the cash they needed. The mere rumor, however, that a bank could not meet the needs of credit-hungry farmers and businessmen in the rural areas led to runs on banks by depositors demanding their money. Financial panics resulted in 1873, 1884, 1893, and 1904.

In an effort to end the recurring panics Congress passed the Federal Reserve Act of 1913. One of the Federal Reserve Act’s main purposes was to alleviate the liquidity crises and interest rate seasonal swings exacerbated by reserve pyramiding. The act established 12 Federal Reserve Banks around the country as depositories for required reserves that previously had been held predominantly in New York City banks. This regionalization eliminated reserve pyramiding and eased the seasonal strain. The central banking system could create additional reserves in a period of high liquidity demands.

See also: Federal Reserve Act of 1913, Federal Reserve System, Financial Panic, National Bank Act of 1863



QUANTITY THEORY OF MONEY

According to the quantity theory of money there is a direct relationship between prices, income, and the amount of money circulating in the economy. The quantity theory was first propounded in its most basic form by French philosopher Jean Bodin (1530–1596), who observed that the large amounts of gold and silver being brought back from the New World were driving up prices across Europe. Later two British philosophers, John Locke (1632–1704) and David Hume (1711–1776), noted that when the quantity of money grew, so did purchasing power and economic activity. Thus, if a government wanted to lower prices to combat inflation, according to the quantity theory, all it had to do was decrease the amount of money in circulation. Consumers would have less money to spend, demand would fall, and prices would drop. Over the next two centuries other economists elaborated on this basic interconnection between the quantity of money, income, and prices, and until the 1930s it remained the dominant theory for explaining inflation, deflation, and the nature of business cycles.

During the 1930s the quantity theory came under attack because its opponents argued that government attempts to increase the amount of money in circulation during the early years of the Great Depression (1929–1939) had almost no effect on consumer demand. The primary opponent of the quantity theory was British economist John Maynard Keynes (1883–1946). He claimed that increasing the money supply alone would never be enough to stimulate a contracting economy. Only high levels of employment could resuscitate demand and that meant the government had to create jobs for unemployed workers if the private economy could not.

Keynes's "fiscal policy" approach to economic growth ruled the world of economics until the 1960s when a new quantity theory of money arose to take its place. Led by U.S. economist Milton Friedman (1911–), the new quantity-of-money theorists agreed with

Keynes that government fiscal policy had an important role to play in stimulating the economy. However, they showed that during the Great Depression government officials had not really expanded the money supply fast enough or in large enough quantities to get the economy growing, so the Depression did not really disprove the quantity theory of money after all. Moreover, using new tools of economic research, the Friedman school of economists showed that increasing and decreasing the money supply did in fact have a direct effect on inflation and deflation.

***See also:* John Maynard Keynes, Milton Friedman**

QUEBEC ACT OF 1774

The Quebec Act was passed by the British Parliament on June 22, 1774, on the eve of the American Revolution (1775–1783). The legislation extended the province of Quebec south and west to the Ohio and Mississippi rivers, ignoring the western land claims of colonial Massachusetts, Connecticut, and Virginia. It also guaranteed that French civil law would be used in the enlarged Quebec, then a British colony that had been largely settled by the French. English criminal law would apply in the enlarged province. It also stipulated that the French could practice Roman Catholicism and that the Roman Catholic Church could collect taxes from its members. Historians believe the legislation was largely damage control on the part of the British, who faced the imminent revolt of their thirteen American colonies to the south. By passing the Quebec Act Britain intended to prevent the French colonists from joining the struggle of the American patriots and also to possibly gain their support should fighting break out. The Quebec Act was one of the five so-called Intolerable Acts (also called the Coercive Acts). British Parliament passed these acts the same year in an effort to assert its authority in the Massachusetts colony following the rebellion of the Boston Tea

Quotas

Party (December, 1773). These laws were severely resented by the American colonists and in many ways they precipitated the revolution. Shortly after fighting began in 1775, American colonists invaded Quebec but they were turned back. The province and its settlers, which included many loyalists who had fled the American colonies, remained neutral during the American Revolution.

See also: American Revolution, Boston Massacre, Boston Tea Party, Connecticut, Intolerable Acts, Massachusetts, Virginia

QUOTAS

Quotas, a form of trade barrier, are limits on the quantity of a commodity that can be imported or exported. Import quotas limit the amount of particular foreign goods that can be brought or imported into the country. Import quotas protect domestic production of those goods and keep prices high. Export quotas limit the production of certain primary goods in short supply in the rest of the world. Restricting production limits the amount that can be exported and keeps prices high. Export quotas stabilize export earnings. A prime example of the use of export quotas are oil producing nations agreeing to limit oil production, thus keeping world prices high.

Import quotas specify the maximum amount of a foreign good that can be imported. They may be legislated or negotiated with the foreign country. Import quotas are generally more effective at reducing imports than are protective tariffs, another form of

trade barrier which is a tax on imports. Tariffs only interfere with trade. If a foreign producer can lower his cost of production he could lower prices and increase imports into the country despite the tariff. Quotas either eliminate import of the product altogether or allow only so much in, after which consumers must buy the domestic product.

Major arguments for import quotas are: (1) protection of infant or emerging domestic industries allowing them to gain strength before having to compete against foreign firms; (2) protection of U.S. jobs against foreign firms; (3) stabilizing the balance of payments, the difference between money paid to and received from other nations; and (4) protection of national security by not allowing the United States to become too reliant on another country for a certain product, the supply of which could be cut off in time of war. On the other hand those opposed to trade barriers point out that a relatively small number of individuals, those domestically making the product, reap large benefits from quota restrictions while all individuals purchasing the item incur higher prices.

Goods for which the United States has enforced import quotas include sugar, meat, textiles, motorcycles, and color television sets. A classic example of restraints was applied to Japanese auto imports. In 1981 the United States negotiated with Japan to limit its auto imports to 7.7 percent below the 1980 level. The agreement saved approximately 44,000 U.S. auto industry jobs, but the price of U.S. cars rose by an average of \$660.

See also: Trade



RACKETEER INFLUENCED AND CORRUPT ORGANIZATIONS ACT (RICO)

The Racketeer Influenced and Corrupt Organizations Act (RICO) was an article of federal legislation enacted as Title IX of the Organized Crime Control Act of 1970, designed to combat organized crime in the United States. The Supreme Court ruled that RICO was not limited to organized crime, but could also be applied to legitimate businesses. RICO prohibits any person from using income received from a crime or a racketeering activity, and also applies to any unlawful, direct or indirect, racketeering activity. The purpose of RICO was to remove organized crime from the legitimate business community.

The RICO statute has been increasingly used in the context of organized labor prosecutions. One such case was the federal indictment of the International Brotherhood of Teamsters, where the Second Circuit Court found sufficient evidence to support a finding under RICO that a Teamster employee was associated with an organized crime figure and was subject to discipline. In another labor-related case, the *United States vs. Carson*, the government brought action against a former union officer under RICO, alleging that the officer committed racketeering acts that benefited organized crime. This charge was dismissed by the Second Circuit Court because the action allegedly occurred too far in the past to prosecute.

All RICO convictions require the government to prove that the defendant, based on two or more acts of racketeering activity, directly invested in, maintained an interest in, or participated in a criminal enterprise that affected either interstate or foreign commerce.

RADICAL UNIONS (ISSUE)

Anti-labor commentators in the nineteenth century would have argued that all unions are by their very

nature radical because they make “unreasonable” demands upon the owners of property. But in the era of the domestication of most labor organizations we can more closely define “radical” labor unions as those unions that espoused the goal of working towards the final collapse of the capitalist system.

One important precursor to radical unions was the Knights of Labor, led by Terrence Powderly and dedicated to the abolition of “wage slavery.” The Knights of Labor organized on a geographic basis, forming “local assemblies” that included workers from different employers (or even different sectors of industry) within the same organization. This furthered the cause of labor solidarity, but it complicated the process of winning strikes and securing contracts.

The most famous of these radical unions was the Industrial Workers of the World (IWW) whose members were generally known as the “Wobblies.” This union was organized in 1905 in direct opposition to the American Federation of Labor (AFL), an association of skilled trades unions organized in 1886. Whereas the AFL was a business union, the IWW was a revolutionary union. IWW leaders wanted to organize all the workers of the world to take control of all the means of production and abolish the wage system.

Among the founders of the IWW were Daniel DeLeon, leader of the Socialist Labor Party, Eugene V. Debs, leader of the Socialist Party of America, and William D. “Big Bill” Haywood, head of the Western Federation of Miners. The latter group was formed in Colorado in 1898 to oppose the hard conditions experienced by miners in all the western states. At first Haywood had hoped to redress the grievances of his followers through the law and the courts, but he soon became disillusioned and concluded that direct action would be the only feasible approach.

IWW strategy was to organize its members into 13 departments representing the 13 major industries of the country. When the moment was ripe, the “Wobblies” intended to call “one big strike” and seize control of



Jimmy Hoffa, the leader of the Teamster's Union, with his attorney, George Fitzgerald, as they are being questioned by the U.S. Senate Committee regarding racketeering activities.

all the industries. The nation's economy would then be in the hands of the workers, and socialism would replace capitalism.

The IWW opened its membership to those workers in the most oppressed industries. These included lumberjacks, textile workers, agricultural workers, longshoremens, construction workers, and meat packers. It also welcomed women workers, the unskilled as well as the skilled, and workers of all races. However, its main strength was among the immigrant workers of the East, the mine workers, and the migratory farm workers in the West.

The IWW never had a membership of more than 60,000 because it did not emphasize the building of permanent unions. It did not even believe in negotiating contracts with management. They said that a contract signified labor peace, and that there could be no peace between workers and capitalists. Instead, the IWW sought to attract people to its philosophy by means of winning strikes. The "Wobblies" would step into a dangerous situation, help win a strike against an oppressive employer, and then withdraw hoping that the workers had been won over to their socialist views.

A number of the "Wobblies" strikes were very successful. In 1906 they won wage increases for sawmill workers in Portland, Oregon, and in 1907, they

similarly aided the textile workers in Skowhegan, Maine. However, their most famous effort was the strike of textile mills in Lawrence, Massachusetts in 1912. Thousands of workers walked off the job in response to pay cuts. Joseph J. Ettor, an IWW organizer from New York, came to Lawrence to lead the strike. He worked effectively and called for peace, but violence broke out anyway. Many strikers were arrested. Then a worker was killed in a riot and Ettor along with Arturo M. Giovannitti, an Italian newspaper editor who was assisting him, were arrested. There was no evidence against them but they were freed only after massive demonstrations orchestrated by the IWW.

Because of its openly radical agenda the IWW was constantly under attack and its leaders were mercilessly persecuted, but it survived until World War I (1914–1918). When the United States entered the war in 1917, Wobbly leaders called upon the workers to oppose it and to refuse to serve in the military. Imperialists and profiteers, they said, were conducting the war. In response the government cracked down on the union and arrested many of its leaders. Haywood was one of them. He jumped bail and fled to Russia.

By the end of the war the IWW was nearly defunct. Many of its leaders had fled or were in jail and many of its members joined the newly formed Communist

Party of America (CPA). The IWW never ceased to exist, but its active period was over after the Lawrence strike.

The IWW had many weaknesses. It neglected to undertake political action, it failed to build stable unions, and its extremist philosophy left it vulnerable to attack. Nevertheless it was important. It influenced the thinking of many workers and won gains for thousands who had no other advocate. It also forced the AFL to be somewhat more progressive by focusing attention on the needs of the unskilled workers.

In 1920 the CPA formed the Trade Union Education League (TUEL) to be used as a vehicle for infiltrating main line (conservative) unions. The TUEL had relatively little success although for a time they were active in the International Ladies' Garment Workers Union (ILGWU), the furriers' union, and a few others.

Meanwhile, the Socialist Party of American (SPA) had for years been working to establish control of such unions as the Brewery Workers, the Boot and Shoe Workers, the International Ladies' Garment Workers, the International Association of Machinists, and the United Mine Workers (UMW). For varying periods between the 1890s and the 1920s, the Socialists experienced some successes, but never gained permanent control of these organizations.

The Great Depression (1929–1939) initially seemed like a catastrophe for labor. How could you organize unions when a high percentage of the workers are unemployed? After the labor movement began to recover from the seemingly hopeless obstacles associated with the high unemployment during the 1930s, the attitude of existing labor organizations seemed to toughen and unions began to confront their situation and to organize in a more aggressive manner.

The more combative union leadership (like John L. Lewis of the United Mine Workers) broke from the conservative trade unions associated with the AFL and in 1936 formed the Congress of Industrial Organizations (CIO). As the labor movement confronted the problem of organizing unions when the demand for labor is low, some of the most gifted organizers came from the ranks of the radicals. For one thing, they understood that organizing had to take place in the communities as well as on the job. Members of the Socialist Party and of the Communist Party understood the need to coordinate organizing among the employed and the unemployed workers. In Toledo, Ohio in 1934 a strike at an automobile parts plant won a contract when the Lucas County Unemployed League walked on the picket lines with the strikers. For a decade or

more, a portion of the labor movement was led by members of the CPA. These unions included the International Fur and Leather Workers Union (IFLWU); the International Longshoremen's and Warehousemen's Union (ILWU); the United Electrical, Radio and Machine Workers of America (UE); the International Union of Mine, Mill, and Smelter Workers (IUMUSW); the United Packinghouse Workers of America (UPWA); the Food, Tobacco, Agricultural and Allied Workers (FTA); the Farm Equipment Workers (FE); the United Office and Professional and Workers of America (UOPWA); the United Public Workers (UPW); the American Communications Association (ACA); the International Fishermen and Allied Workers of America (IFAWA); and the National Union of Marine Cooks and Stewards (NUMCS).

The left-led unions frequently advocated racial integration in their unions and in their strikes. As one historian writes, this effort to build labor solidarity across race lines could have significant outcomes for organizing—even as early as the 1930s: ‘Black workers—once their initial doubts about white-dominated unions had been overcome—especially in the South, were the first to join, were the most steadfast of members, and were the most militant. . . .’

In 1947 the Taft-Hartley Law stipulated that unions whose officers refused to sign an affidavit that they were not members of the Communist Party would not have recourse to the National Labor Relations machinery. This law was a severe blow to the radical unions, which were expelled from the CIO in 1949 and 1950, in spite of an estimated membership of 750,000–900,000. Thus, the CIO lost somewhere between 17 and 20 percent of its total membership. Eventually some of those expelled unions merged with others, passed out of existence, or, in a few cases, re-affiliated with the AFL-CIO. Their separation, however, brought an end to any significant influence of the U.S. labor movement's left wing.

See also: Eugene Debs, Industrial Workers of the World, Knights of Labor, Labor Movement, Labor Unionism, John Lewis

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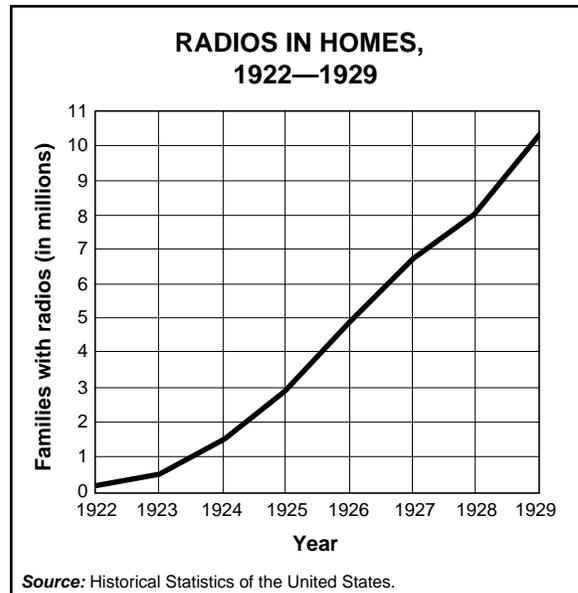
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RADIO

The radio, or “wireless,” was born in 1895, when Italian physicist and inventor Guglielmo Marconi (1874–1937) experimented with wireless telegraphy. The following year Marconi transmitted telegraph signals through the air from Italy to England. By 1897 Marconi founded his own company in London, Marconi’s Wireless Telegraph Company, Ltd., which began setting up communication lines across the English Channel to France and completed the project in 1898. In 1900 Marconi established the American Marconi Company. He continued making improvements, including sending out signals on different wavelengths so that multiple messages could be transmitted at one time without interfering with each other. The first trans-Atlantic message, from Cornwall, England, to Newfoundland, Canada, was sent and received in 1901.

At first radio technology was regarded as a novelty and few understood how it could work. But in January 1901 a Marconi wireless station at South Wellfleet, Massachusetts (on Cape Cod), received Morse code messages from Europe as well as faint music and voices. That event changed the perception of radio. Before long, Americans had become accustomed to receiving “radiograms”—messages transmitted via the wireless. In 1906 the first radio broadcast of voice and music was made. Ships within a radius of several hundred miles picked up the event, which originated at Brant Rock, Massachusetts, on Christmas Eve. That accomplishment resulted from the invention of another radio pioneer, U.S. engineer Reginald Fessenden (1866–1932), who patented a high-frequency alternator (1901)



Radios in the home steadily increased from 1922–1929, due to families having more leisure time and discretionary income.

capable of generating continuous waves rather than intermittent impulses; his invention became the first successful radio transmitter.

In 1910 U.S. inventor Lee De Forest (1873–1961), “the father of radio,” broadcast the tenor voice of opera singer Enrico Caruso over the airwaves. In 1916 De Forest transmitted the first radio news broadcast. Within three years of the first commercial radio broadcast, there were more than five hundred radio stations in the United States. National networks were organized, including the National Broadcast Company (NBC), the Columbia Broadcasting System (CBS), and the Mutual Broadcasting System (MBS). Congress tried to keep pace with the growth of the communications industry by passing the Radio Acts of 1912 and 1927 and setting up the Federal Communications Commission (FCC) to regulate the airwaves.

During the trying times of the Great Depression (1929–1939), President Franklin Roosevelt (1933–1945) spoke directly to the U.S. public using the new medium which broadcast his “fireside chats” from the White House. By the end of the decade radio was woven into the fabric of everyday American life. People across the country, in cities, suburbs, and on farms, tuned in for news and entertainment; they listened to broadcasts of baseball games and other sporting events as well as comedy and variety shows, dramas, and live music programs. Between the 1920s and the 1950s gathering around the radio in the evenings was as common to Americans as watching television is today. Networks

offered advertisers national audiences and corporate America eagerly seized the opportunity to speak directly to people in their own homes. The advent of television in the 1950s and its growing popularity over the next two decades changed the role of radio in American life. Having lost their audience to TV, radio programmers seized rock music as a way to reach a wide, albeit a very young, audience. Many argue that the rise of the musical genre kept radio alive. In the decades since, radio programming became increasingly music-oriented; talk and news programming were also popular.

See also: **Radio Act, RCA-Victor**

RADIO ACT

The advent of radio, first as a mode for sending wireless telegraphs (called radiograms) via Morse code and later as a broadcast medium, necessitated government regulation of the airwaves. Congress first stepped in to establish guidelines for radio in 1912, in the wake of the *Titanic* disaster. The legislation of the Radio Act of 1912 stipulated that ship radios be manned day and night, that they have an alternate energy source (other than the ship's engine), and that they have a range of at least one hundred miles (161 kilometers). Further, Congress required that all radio operators, including broadcasters, be licensed and adhere to certain bandwidths. The Secretary of Commerce was given authority to assign frequencies to new radio stations, thereby eliminating competition among operators for the same frequency.

As radio stations proliferated, the airwaves were jumbled; interference prevented the transmission of clear signals, particularly when a listener was located more than twenty miles (thirty-two kilometers) from the transmitter. Further, the distribution of radio stations was uneven: Eastern and Midwestern cities were well served by broadcasters, while people in the South and West had few stations to choose from. Congress responded by passing the Radio Act of 1927, setting up the Federal Radio Commission (FRC) as the licensing authority for broadcasters. The legislation tried to bring about the equalization of service throughout the United States. It stated that when applications for licenses or license renewals were considered, the licensing authority (the Federal Radio Commission) "shall make such distribution of licenses, bands of frequencies or wave lengths, periods of time for operation, and of power among the different States and

communities as to give fair, efficient and equitable radio service." When the FRC's authorization came up for renewal in Congress the following year, the Radio Act was amended (in the Davis Amendment). The amendment clarified the commission's objective to provide "equality of radio broadcasting service, both of transmission and reception" to all regions of the United States.

The Communications Act of 1934 provided comprehensive legislation for the government regulation of the radio broadcasting, telephone, and telegraph industries, which Franklin Roosevelt (1933–1945) classified, along with transportation and power, as public utilities. The act reformulated the Federal Radio Commission (FRC) to create the Federal Communications Commission (FCC), an agency charged with the broad authority to regulate interstate and foreign communications. Its purview includes all types of radio transmissions as well as television, wire, and cable transmissions. The agency assigns broadcast frequencies and issues broadcast licenses. It is empowered to modify or revoke licenses as well.

See also: **Radio, RCA Victor**

RAG MONEY

Rag money is a derisive term for paper currency. The name comes from the early days of paper money, when paper itself was predominately made from the cotton and linen fibers of rags. Since valued currency was issued in silver or gold coins by the established governments of Europe, it is not surprising that Americans greeted with skepticism paper currency that was little more than a promise of future payment in silver. The first bills that were issued by the U.S. government became worthless shortly after the Declaration of Independence (1776). In its effort to fund the American Revolution (1775–1783), the Second Continental Congress printed so many bills, called Continentals, that there was not enough silver to back them up. The expression, "that's not worth a continental" reflected that reality. The financial crisis that emerged did nothing to inspire American confidence in paper currency. So-called rag money continued to have its detractors even after the Revolution had been financed by European loans and the U.S. government had established the dollar as its unit of currency (1785).

See also: **American Revolution, Continental Congress (Second), Continentals, Currency**

RAILROAD GAUGES, STANDARDIZATION OF

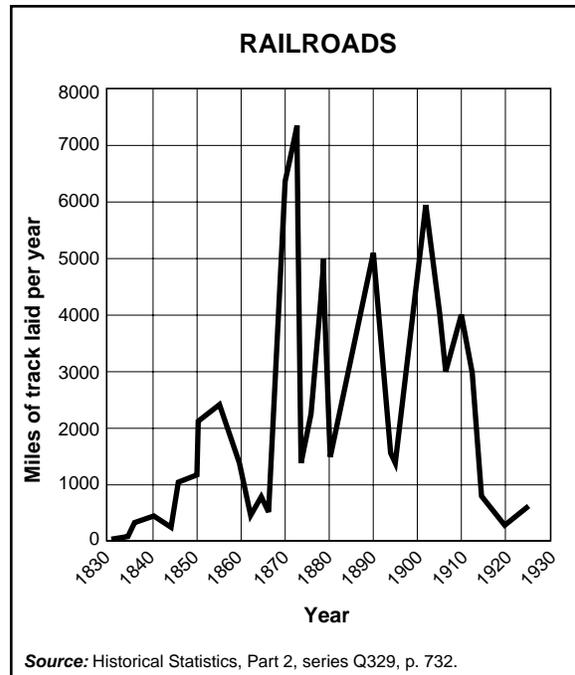
As railroads proliferated in the United States, rail companies guarded their areas of service by using various widths of road gauges (gauge is the distance between the inner sides of the heads of the two rails as measured $5/8$ inch, or 16 millimeters, below the top of the rail heads). Companies would use their own rail gauge width to prevent competitors' cars from passing to their line. By 1840 there were more than three hundred American railroad companies in operation and their tracks varied in gauge from four feet 8.5 inches (1.4 meters) to six feet (1.8 meters).

The practice of employing different-sized gauges, sometimes called the "battle of the gauges," interrupted transportation. A similar situation had unfolded in England and in 1846 British Parliament decided to set the standard at four feet 8.5 inches (1.4 meters); the Gauge Act of 1846 abolished all other gauges. In the United States, the completion of the first transcontinental railroad (1869) forced the issue of rail standardization. Freight shipped long distances had to be unpacked from one rail car and packed to another at junctions where rail gauge variances required a train transfer. The high cost of handling combined with the practicality of the narrower gauge (it required less clearance on either side and allowed for sharper turns in tracks) encouraged American railroads to adopt the standard gauge of four feet 8.5 inches (1.4 meters). This made rail lines accessible to any car or locomotive. By 1886 most rail companies had worked out agreements to handle the "rolling stock" (cargo shipped long distances) of other companies.

See also: Transcontinental Railroad

RAILROAD INDUSTRY

The U.S. railroad industry began with the founding of the Baltimore and Ohio Railroad Company in 1827. The Baltimore and Ohio was the first U.S. railroad chartered as a common carrier of freight and passengers. It was only two years earlier that John Stephens from Hoboken, New Jersey built the first steam locomotive in the United States. The railroad itself had originated some years before in Great Britain. Railroads achieved great significance later on when the western part of the North American continent was being settled. They enabled transport and expanded the possibilities of the agricultural industry. They also played an important role during the American Civil War (1861–1865).



According to the miles of track laid each year, the railroad's greatest decades of expansion followed the Civil War until 1910.

The first operating line on the Baltimore and Ohio Railroad carried passengers from Baltimore to Ellicott's Mills (later renamed Ellicott City). The line was only 13 miles long. In the 1830s railroad companies began to spring up in other parts of the country. By 1834 the tracks of the Baltimore and Ohio Railroad reached West Virginia.

Several other railroads came into being at around the same time as the Baltimore and Ohio. The South Carolina Canal and Rail Road Company completed construction of its gauge line from Charleston to Hamburg in 1833. It was the first railroad line in the United States that used a steam locomotive to run scheduled passenger operations. It was also the longest then operating in the United States. Eventually it became part of the 10,000 mile Southern Railway System.

The Galena and Chicago Union Railroad began operation in 1848 with the first locomotive in Chicago. The first line to run from Chicago to points along the Mississippi River started in 1854. As the railway industry expanded westward, many towns and cities came into being as railroad "division points." There eventually were nine major routes going from the Midwest or South to the West Coast. Cities and manufacturing centers were no longer dependent on water transportation after the onslaught of railroads. They could therefore be located away from rivers and canals.

In the early years of the railroad industry, state governments significantly aided railroad construction in the United States. The federal government gave land grants for building railroads after the American Civil War. The country had 30,000 miles of track on the eve of the war.

U.S. railroad companies were mainly based in the north of the country. This gave the Union (Federal) effort in the American Civil War an important advantage. The railway was used to transport troops and supplies. Construction of railroads was slowed down during the war, but resumed on a high level immediately following the war. The American Civil War was the first war in which railroads played a major role.

THE RAILROADS WERE THE FIRST TRULY BIG BUSINESS IN THE UNITED STATES.

The railroads became an essential means of transport during the era of industrialization in the United States. In the 1880s railroad construction reached a peak with 70,000 miles of track being built during that decade. The first transcontinental railway route had been completed shortly after the war. In 1969 the Union Pacific tracks met the tracks of the Central Pacific Railroad at Promontory Point, Utah.

The evolution of the railroad industry was strongly linked to other industries. In the late nineteenth century a decrease in the price of coal was brought about by an increase in anthracite coal mining. That lowered the price of coal-fueled steam engines as well. Innovations in the steel-making process introduced by Scottish-born U.S. industrialist Andrew Carnegie (1835–1919) made possible the production of more durable rails. Steel rails were first introduced in 1857 in England. Captain James B. Eads built the first steel bridge was built between 1867 and 1873, over the Mississippi River at St. Louis. Another type of bridge called the timber-truss was adapted to support trains shipping heavy loads. It had originally been developed by a number of U.S. inventors in the early nineteenth century.

The railroads were the first truly big business in the United States. As such, they were at the center of many protests and conflicts. During the 1870s a farmers' group called the Grange protested the high rates that the railroad charged for shipping. The Supreme Court eventually ruled that states would have the power to regulate businesses with a strong public aspect. However, no regulation was imposed on the national level. In 1877 railroad workers organized the first nationwide strike. Between 1881 and 1905 there

were 36,757 strikes throughout the country. As an outcome, the emergence of railroads resulted in the forming of the most prominent labor unions in the United States. The railroads were regulated by the Interstate Commerce Act of 1887. Yet rival companies in many industries, including the railroads, formed huge trusts despite the legal obstacles. This knocked out competition coming from smaller companies. In 1902 a suit was filed against the railroad monopoly founded by James J. Hill (1838–1916) and J.P. Morgan (1813–1890). The suit was directed by President Theodore Roosevelt (1901–1909).

The railroad industry continued to grow in the decades that followed despite all the setbacks. But by the 1950s and 1960s it started to decline as air travel and air shipping became less costly. By that time, railroads were used mostly for transporting materials such as coal, grain, and lumber. In the 1980s an increasing reliance on the trucking industry for transport represented another setback to the U.S. railroads. But by the end of the decade the industry had for the most part recovered due to technological innovations and industry deregulation. It was at its highest since it began to decline in the 1950s.

There were 535 registered railway companies in the United States in 1992. The 13 companies dominating the freight railroad industry employed around 200,000 workers. The largest of these was Union Pacific Railroad, with sales exceeding \$7 billion, with Amtrak (the National Railroad Passenger Corporation) dominating the passenger railroad industry. In the 1990s rail employees were overall the best paid segment of the working population.

The railroads continued to be linked to the development of other industries. The technological innovations that helped the resurgence of railroads in the 1980s mostly had to do with the telecommunications and computer industries. They also involved the development of high-speed trains using magnetic levitation systems along with the traditional wheel-on-rail trains. The railroad industry thus continued to play a significant role in economic development and on the transport service market.

***See also:* Baltimore and Ohio Railroad, Central Pacific Railroad, Great Railroad Strike of 1877, New York Central Railroad, Pennsylvania Railroad, Pullman Palace Car Company, Pullman Strike, Railroad Gauges (Standardization of), Railroad War Board, Railroads (Federal Land Grants to), Santa Clara County v. Southern Pacific Railroad, Transcontinental Railroad, Union Pacific Railroad Company**

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RAILROAD WAR BOARD

On April 11, 1917, five days after Congress declared war on Germany, and the United States entered into World War I (1914–1918), the president of the Baltimore and Ohio Railroad, Daniel Willard called a meeting of railroad executives in Washington, DC. The executives signed a resolution agreeing to support the war effort by running their lines in a coordinated manner to create a “continental railway system.” The conference set up a five-person Railroad War Board to oversee the plan. The plan’s objectives were to maximize use of all railroad potentials and speed up transport. Pools were organized; load weights were increased to utilize the full capacity of cars; the loading and unloading of freight were expedited. Shipping times of war-related goods (such as coal and iron) were speeded by prohibiting transport of non-related items during certain hours. Use of all in-service equipment was maximized and some passenger lines were eliminated in order to conserve coal.

The Railroad War Board and the companies it coordinated faced numerous obstacles in reaching their goals. One of them was a labor shortage that resulted from the draft: the passage of the Selective Service Act (May 1917) required men between the ages of twenty-one and thirty (later eighteen to forty-five) to register for military service. Some 70,000 of the draftees were rail workers. Shortages of equipment, parts, and capital also hampered the wartime effort. Nevertheless, the actions directed by the Railroad War Board and carried out by the railroads allowed carriers to operate as a unit. During World War I anti-trust laws were suspended because of the national emergency; corporations set

aside their private interests to run a nationwide rail service in support of the fight for democracy.

See also: Railroad Industry, World War I (Economic Impact of)

RAILROADS, FEDERAL LAND GRANTS TO (ISSUE)

Between 1850 and 1871 the United States government used a portion of the public domain (federally owned land) to assist and encourage the building of railroads. In all, during that twenty-one year period approximately 1.31 million acres of land were transferred to private ownership. This represented 9.5 percent of the public domain as it stood in 1850 (1.39 billion acres). The land was located in twenty-seven states, but the largest grants were made in California (11.5 million acres), Kansas (8.2 million acres), Minnesota (9.9 million acres), Montana (14.7 million acres), North Dakota (10.6 million acres), and Washington (9.5 million acres). Although the program began in 1850, most of the grants were made under the terms of the Pacific Railway Act of 1862. This law was in effect from 1862 to 1871 and its purpose was to encourage the construction of the transcontinental railroads.

The law provided that companies agreeing to undertake the construction of transcontinental railroad lines would be eligible for loans ranging from \$16,000 to \$48,000 per mile of track laid. The precise amount of the loan was determined by the difficulty of the terrain through which the construction passed. The government loaned a total of \$64,623,512 to the transcontinental companies. These loans were for the most part paid back at six percent interest. The law also provided that a company could be given up to twenty sections (a section is a square mile) of land for every mile of track put down. This land would be granted in alternate sections (a kind of checkerboard pattern) within an area lying forty miles on either side of the proposed right of way. To qualify for the subsidies a company had to agree to actually build track or forfeit the grant, and carry mail, government passengers, and freight at reduced rates.

Most of the loans and land grants distributed under the Pacific Railway Act went to the first five companies that built transcontinental lines. These were: the Union Pacific, the Central Pacific, the Northern Pacific, the Southern Pacific, and the Santa Fe. They received a total of 130 million acres of land, with the

largest single grant (of 44 million acres) going to the Northern Pacific line. The states added another 50 million acres of land grants. Local communities also subsidized railroad companies by giving them land for depots and rights of way and tax exemptions. The state governments granted a total of around 50 million acres of land. Whereas the federal and state land grant programs were designed to promote the building of trunk lines, these local subsidies were designed to facilitate the building of connecting lines. Even though not all lines were built in this way, the effect was to stimulate railroad building in general. Hence the national railroad system expanded from 9,000 miles in 1850 to 87,000 in 1885.

The total of public land grants given to the railroads by states and the federal government was about 180 million acres. At the time, the value of this land was about one dollar per acre, which was the average price realized by the government for sales in the land grant states during that period. Hence the total value of the land granted to these companies was approximately \$180 million. Later, much of the land was sold by the railroad companies at an average price of \$2.81 per acre. (Proximity to the rails increased the value of the land.) These sales offset a portion of the construction costs, which have been estimated at approximately \$168 million.

Although these figures are immense and would appear to suggest that the American railroad system was built largely on the basis of government aid, this is actually not the case. In fact, only 18,738 miles of railroad line were built as a direct result of these land grants and loans. This figure represents only eight percent of the total railroad mileage built in the United States between 1860 and 1920. The government program was important because the building of these lines opened up the trans-Mississippi West and stimulated settlement, but most of the railroads were built by private enterprise—in some cases with state and local support.

Not everyone applauded the subsidies. For example, the land grant-loan system under the Pacific Railway Act was subjected to harsh criticism by reformers who argued that it represented a vast giveaway of money and public property to assist businessmen who made vast fortunes. As a result, the program of federal aid was discontinued in 1871. However, the arguments of the reformers were not entirely correct. The loans were, for the most part, repaid and the railroad companies did not reap vast fortunes from the re-sale of their land grants. Moreover, the country benefited immensely from the rapid construction of the

railroads, which produced a viable transportation system connecting all portions of this vast nation. The railroads literally bound the states together thus contributing significantly to national unity.

See also: Transcontinental Railroad

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RAND, AYN

Ayn Rand (1905–1982) used her novels as a vehicle for her objectivist philosophy, which endorsed individualism by stressing "rational self-interest" over charity and the welfare state. Her best-known novels include *The Fountainhead* (1943) and *Atlas Shrugged* (1957).

Ayn Rand was born Allisa Rosenbaum on February 2, 1905 in St. Petersburg, Russia, the first of Fronz and Anna Rosenbaum's three daughters. Her father was a self-made Jewish merchant. Rand taught herself to read and write by age four and had decided to become a writer by age nine. Her greatest hero was author Victor Hugo (1802–1885). Rand's family barely survived the siege of St. Petersburg during World War I (1914–1918), and they later lost their possessions in the Russian Revolution. As a teenager, Rand learned to hate her country's new communist doctrine and vowed to make it her life's work to use the written word to prove that doctrine wrong.



Ayn Rand.

After graduating with a degree in history from the University of Leningrad in 1926, Rand immigrated to the United States. In her new country, she changed her name to Ayn Rand. She lived with relatives in Chicago, Illinois, for a few months before moving to Hollywood to work as a screenwriter and movie extra. There, she met actor Frank O'Connor, and the two were married in 1929. Rand became a U.S. citizen in 1931.

CIVILIZATION IS THE PROGRESS TOWARD A SOCIETY OF PRIVACY. THE SAVAGE'S WHOLE EXISTENCE IS PUBLIC, RULED BY THE LAWS OF HIS TRIBE. CIVILIZATION IS THE PROCESS OF SETTING MAN FREE FROM MEN.

Ayn Rand, *The Fountainhead*, 1943

Penthouse Legend, Rand's first play, was produced on Broadway in 1934. Two years later she published her first novel, *We the Living* (1936). It was set during the Russian Revolution and condemned communism and those who would follow its principle of sacrificing self for the state. Her next novel, *Anthem* was published in 1938. *The Fountainhead* (1943), Rand's most famous work, was initially turned down

by several publishers for being considered too intellectual for a mass market. The novel took four years to complete, but became the medium through which Rand defended her philosophical beliefs. Her hero, brilliant architect Howard Roark, blows up his own building when the architectural establishment alters its design. Using a classic metaphor, Roark symbolizes "good" while the establishment is "evil." The book was highly praised by critics and hit the national bestseller list several times during 1945. Hollywood even hired her to write the screenplay.

Rand's later works include *Atlas Shrugged* (1957), *For the New Intellectual* (1961), *The Virtue of Selfishness* (1965), *The Romantic Manifesto* (1969), and *Philosophy—Who Needs It?* (1982). *Atlas Shrugged*, concerned with the philosophical faults of collective societies, became her second most popular novel.

Rand spent a large part of her career defending her philosophy of objectivism. During the 1960s and 1970s, she was a visiting lecturer at the Nathaniel Branden Institute and other American university campuses, including Harvard and Yale. *The Ayn Rand Letter* and *Objectivist Bulletin* were circulated to promote her philosophy. Rand's pro-capitalist views are considered by some to have helped influence the collapse of the Berlin Wall. Ayn Rand died on March 6, 1982 in New York City.

See also: Capitalism, Laissez Faire

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RANDOLPH, ASA PHILIP

Asa Philip Randolph (1889–1979) was an American labor and civil rights leader. During the first half of the twentieth century he was considered one of the

most prominent of all African American trade unionists as well as one of the major figures in the African American struggle for civil rights. He maintained that African Americans could never be politically free until they were economically secure, and so Randolph became the foremost advocate of the full integration of black workers into the American trade union movement. In 1925 he organized the Brotherhood of Sleeping Car Porters (BSCP), which was the first African-American union in the country to sign a labor contract with a white employer.

In 1889 Asa Philip Randolph was born in Crescent City, Florida, the son of an African Methodist Episcopal minister. Randolph graduated from the Cookman Institute in Florida in 1907, at the top of his class.

Randolph was a good singer and actor. The idea of becoming a professional performer led him to New York, where he found himself working as a delivery driver, sales clerk, and a laborer on the railroad. In 1911 he moved to Harlem, where most African Americans in New York lived during that era. Harlem was the nation's capital of black intellectual life at that time and the center of what would later be called the Harlem Renaissance.

DURING THE FIRST HALF OF THE TWENTIETH CENTURY HE WAS CONSIDERED ONE OF THE MOST PROMINENT OF ALL AFRICAN AMERICAN TRADE UNIONISTS AS WELL AS ONE OF THE MAJOR FIGURES IN THE AFRICAN AMERICAN STRUGGLE FOR CIVIL RIGHTS.

In Harlem Randolph turned to politics instead of the stage. He began attending City College of New York (CCNY), studying history, philosophy, and economics. In college he made friends with political radicals and founded the Independent Political Council in 1913, a radical current affairs group. He also worked on the campaign of socialist John Royal who was running for city council.

By 1914 Randolph met Ernest Welcome and began working for Welcome's Brotherhood of Labor, an organization that brought workers from the South and helped them find jobs in New York. Randolph also married Lucille Campbell that year. She supported Randolph economically as he pursued his political activism. In 1915 Randolph began to emerge as a dominant voice in the "New Negro movement." In 1917 he co-produced the first issue of *The Messenger*, a journal that became what Randolph called "the first voice of radical, revolutionary, economic, and political action among Negroes in America." *The Messenger*

has been regarded by scholars as among the most brilliantly edited magazines in African-American publishing.

In 1925 Randolph became the leader of a campaign to organize the African American men who employed as porters aboard most trains in the United States. In 1937, after years of continuous work, the first contract was signed between a white employer and the Brotherhood of Sleeping Car Porters. This was a milestone for African American workers and the labor movement.

By 1940 Randolph was deeply involved in the black civil rights movement. During World War II (1939–1945) he planned a massive march on Washington, D.C. to protest the exclusion of African Americans from working jobs in defense industries. He agreed to call off the march only after President Franklin Roosevelt (1933–1945) issued Executive Order 8802, which banned discrimination in defense plants and created the nation's first Fair Employment Practices Committee.

In 1948 Randolph once again initiated strategic efforts to enhance civil rights for African Americans. He warned President Harry Truman, (1945–1953) that if segregation in the armed forces was not abolished, then masses of African Americans would refuse military induction. Truman soon issued Executive Order 9981, establishing "equality of treatment" in the armed forces.

Randolph continued his civil rights work on behalf of African Americans. In the 1950s he organized youth marches to integrate schools. It was Randolph who organized the famous march on Washington in 1963, when Martin Luther King, Jr. (1929–1968) gave his now famous "I Have a Dream" speech to a quarter million people who came to the nation's capital.

Randolph's career reads like a history of struggles for unionization, worker equity, and civil rights in the twentieth century. His efforts focused on securing political freedom for African Americans by creating greater economic security. He created unions and organized millions of people in the Civil Rights Movement. Randolph died in 1979, having realized many of his goals for African Americans and civil rights.

See also: Brotherhood of Sleeping Car Porters, Civil Rights Movement, Labor Movement

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RATIONING

Rationing refers to the equitable allocation of scarce or valuable resources among competing consumers who have varying degrees of demand or need. Resources can be rationed informally at the local level on a merchant-by-merchant basis, as was done by many U.S. businesses during the Great Depression. Resources can also be rationed systematically by the government. During World War II (1939–1945), President Franklin D. Roosevelt (1933–1945) and Congress, in an effort to eliminate from the economy every ounce of excess and waste, enacted legislation (1942) authorizing the president to establish the War Production Board (WPB) and the Office of Price Administration (OPA).

WPB was assigned the task of dividing scarce resources between the military and civilian production sectors, while the OPA was responsible for administering rationing plans. Both agencies had regional and state branches of enforcement. More than 100 million Americans were issued ration cards, coupons, and certificates, which restricted the quantity of goods that could be purchased and the uses to which they could be put. Windshields were stamped to indicate how much gasoline car owners could buy during a given week. Civilians working outside the defense industry, for example, could buy no more than three gallons per week. Horses, trolley cars, and walking quickly became popular modes of transportation. Rubber, gasoline, and sugar were rationed in 1942, meat and shoes in 1943. By the end of the war the list of items rationed in the United States included typewriters, bicycles, stoves, tea, coffee, canned and processed foods, fats, coal, and an assortment of leather items. Manufacturing stopped altogether for other items deemed unnecessary to the war effort and daily subsistence, such as

One of the most outstanding trademarks ever marketed was . . . the image of a dog (named Nipper) staring at an old phonograph with the caption “His Master’s Voice.” Nipper, along with the selling techniques of the newly formed company, helped this new invention of a “radio music box,” priced at approximately \$75, become one of the most popular inventions of its time.

curlers, electric toasters, waffle irons, cocktail shakers, and lobster forks.

Most Americans understood that it was their patriotic duty to make ends meet within the rationing system, but violations did occur and black markets sprang up around the country. Some amusing blunders befell the system as well: a Pennsylvania rationing office had to close because it failed to ration enough fuel for itself. Nonetheless, domestic rationing played a significant role in increasing the resources available to Allied cause.

See also: Black Market, Office of Price Administration, War Production Board, World War II

RCA-VICTOR COMPANY

RCA-Victor Company merged from two earlier companies—Victor Talking Machine Company and the Radio Corporation of America (RCA). The Victor Talking Machine Company was founded in 1901 after the development of the cylinder phonograph. It went into the business of producing phonographs, providing people with recorded sounds and music. The Radio Corporation of America was formed in 1919 by General Electric Company (GE), and spawned several supporting businesses, like RCA-Victor, to better manage its growing interests.

General Electric formed the Radio Corporation of America in 1919 in order to acquire the assets of the British-owned American Marconi. It was the only company operating in the United States equipped to handle transatlantic radio and telegraph communications. Franklin D. Roosevelt (1882–1945), then undersecretary of the Navy, strongly supported GE’s bid to acquire American Marconi. He spearheaded efforts to facilitate the purchase because Roosevelt believed that



This famous painting by Francis Barraud entitled "His Master's Voice" became one of the most famous trademarks for RCA.

Americans should own the only company in the nation able to handle transatlantic radio and telegraph communications.

General Electric succeeded and RCA went into business. Though GE was the main stockholder in RCA, American Telephone & Telegraph Company (AT&T) and Westinghouse Corporation also owned significant shares of the company. Between 1919 and 1921, AT&T and GE licensed their patents for long distance transmission. Westinghouse granted RCA access to all of its patents and offered its radio equipment to the public.

Under the combined resources of these companies, RCA flourished. In 1924, RCA transmitted the first radiophoto from New York to London. This photo-transmission paved the way for the development of television. At the same time, RCA was still heavily invested in radio, and it wanted to maintain control over the radio stations it owned. To better manage their operations, RCA formed the National Broadcasting Company in 1926.

Most phonograph companies during the 1920s did not express enthusiasm over the introduction of radio. However, David Sarnoff (1891–1971), a leader at RCA, had an idea to market a radio and a phonograph

together in one unit. The best way for RCA to do this was to acquire a phonograph company. In 1929, RCA purchased the Victor Talking Machine Company for \$154 million. The RCA-Victor Company was formed, with David Sarnoff serving as its president. The company began manufacturing radios and phonographs in Camden, New Jersey. Sarnoff became known as the "father of broadcasting."

One of the most outstanding trademarks ever marketed was purchased along with the Victor Talking Machine Company. It was the image of a dog (named Nipper) staring at an old phonograph with the caption "His Master's Voice." Nipper, along with the selling techniques of the newly formed company, helped this new invention of a "radio music box," priced at approximately \$75, become one of the most popular inventions of its time.

RCA also created two spin-off companies to manufacture key components in the RCA-Victor phonograph production. Shortly afterwards, the Radio Corporation of America's increasingly complex operations caught the attention of the federal government. The company became embroiled in legal issues regarding its near-monopoly status. Under federal pressure, General Electric, AT&T, and Westinghouse sold their interest in RCA in 1932. The company, renamed RCA

Reagan, Ronald Wilson

Corporation, became independent and was led by David Sarnoff.

RCA, still the parent company of RCA-Victor, introduced a new invention—the television—at the 1939 World's Fair. However, the company quickly turned to more basic matters as the United States entered World War II (1939–1945). RCA factories manufactured a variety of items to help with the war effort, including bomb fuses and radio tubes. A month after the war ended, RCA-Victor's television products found their way back to the market and were produced at a rapid rate. The television age had begun, and RCA-Victor was in the lead.

Under Sarnoff's continued leadership the Radio Corporation of America involved itself in a range of interests, including education, broadcasting, and sound system design. This trend set by Sarnoff continued through the end of the twentieth century, when RCA became an industry leader in digital high-definition television (HDTV) development.

See also: Radio, National Broadcasting Corporation, Telegraph

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REAGAN, RONALD WILSON

Folk wisdom holds that the burden of politics is much like the burden of fame. If that is true then no one knows that as well as Ronald Reagan. Born in Tampico, Illinois, on February 6, 1911, Ronald Wilson Reagan (1911–) grew up to become the fortieth president of the United States. Reagan was raised in several towns in the rural areas of northern Illinois. His family finally



Ronald W. Reagan.

settled down in Dixon when he was nine. Reagan graduated from Eureka College in 1932. After graduating, he began working in Davenport, Iowa, as a radio sports announcer. He also authored a sports column on a weekly basis for a Des Moines newspaper.

While covering a sports story on Catalina Island, near Los Angeles, Reagan caught the attention of an agent from the Warner Brothers movie studio. After doing a screen test for Warner Brothers, Reagan was signed to a movie contract with the studio. His first film was *Love Is on the Air* (1937). In the several years following, he was seen in a number of forgettable films. There were a few, however, that were exceptions, such as *Brother Rat* (1938), *Dark Victory* (1939), and *Kings Row* (1941). His most notable film was made in 1940, *Knute Rockne—All American*, in which he portrayed football legend George Gipp. With the onset of World War II Reagan found himself making air force training films.

He continued to act after the conclusion of the war but he also found himself becoming extensively involved in politics. During his early political years, Reagan was an active member of several liberal organizations, including the Americans for Democratic Action. Eventually he began to grow fearful of communist subversion and his political attitudes made a turn to the right. In 1947 he testified to the House Un-American

Activities Committee regarding the influence the communists had in the movie industry.

It was during the 1950s that Reagan's movie career faltered and he began working for the General Electric Company as a traveling spokesman and as the host of *General Electric Theater* (on television from 1954 to 1962). It was also during this period that he shifted from being a liberal and a Democrat to a conservative Republican.

Leadership was not unfamiliar to Reagan when he began to work in politics. By the time he co-chaired the Citizens for Goldwater-Miller Committee in 1964, he had already served on the board of directors of the Screen Actors Guild, serving as president from 1949 to 1952, and again in 1959. He had also served as chairman of the Motion Picture Industry Council in 1949. Two years after the Barry Goldwater campaign, Reagan successfully ran for governor of California against Democratic incumbent Edmund G. Brown.

Reagan's first term agenda as California's governor was to enact a freeze in state hiring, consequently restraining the growth rate of the state's bureaucracy. He also increased taxes to eliminate the state deficit and reduced social services. Welfare reform, reducing the caseload while increasing the payments to families with dependent children, was on the agenda for his second term. Reagan only had moderate success in promoting his programs.

In 1976 he made his first serious run for the U.S. presidency. His long-fought campaign against Gerald Ford was a lost battle and the Republican nomination went to Ford. Reagan was not deterred, and in 1980 he easily won his party's nomination and defeated the Democratic incumbent, Jimmy Carter, for the presidency.

Reagan's presidency was filled with substantial tax cuts. He reduced spending on domestic programs, increased military expenditures, and doubled the national debt. His moves are credited with decreasing the inflation rate, which had seen rapid growth in the 1970s, down to 3.5 percent during his tenure. On March 30, 1981, a 25-year old drifter named John Hinckley shot Reagan. His wounds were serious, but he recovered and the stories of his good humor while in the hospital added to his popularity.

In 1986 it was learned that the Reagan administration had participated in the shipping of arms to the radical Islamic fundamentalist government of Iran. This was apparently an effort to gain the release of American hostages who were being held by Iranian terrorists in Beirut, Lebanon. During investigations it

became clear that high-ranking officials in the National Security Council, an agency that advises the president, had covertly moved money from the Iranian arms deals to aid the U.S.-supported insurrectionists against the (Marxist) Sandinista government in Nicaragua. While others resigned or were prosecuted for their involvement, Reagan himself was left relatively unscathed by the scandal.

Reagan's foreign affairs policies may be the legacy which will stand the test of time. During Reagan's tenure he pushed for the largest peacetime military buildup in American history. In 1983 he unveiled a proposal for the Strategic Defense Initiative. His strong military build up led to the 1988 summit meeting with Soviet leader Mikhail S. Gorbachev where they signed the Intermediate-Range Nuclear Forces Treaty (INF Treaty) limiting the use of intermediate-range nuclear weapons. Arguably, this marked the beginning of the end of communist Russia. Many credit Reagan's policies with the end of communism in Europe and its reduction as a political alternative in much of the world.

Ronald Reagan retired to Santa Monica, California, with his second wife Nancy Davis Reagan (born Anne Frances Robbins). His last public act was to have President William Clinton inform the country of his Alzheimer's Disease.

See also: *Laissez Faire, Supply-Side Economics*

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REAGANOMICS

There was a story that circulated within the Washington Beltway during the 1980s that "Reaganomics"

Reaganomics

began as a doodle on a cocktail napkin as two economists employed by the Reagan administration sat whiling away happy hour in a Washington, D.C. cocktail lounge. The story may or may not be true, but at least it has the ring of truth. The term “Reaganomics” was derived from the name of its best-known supporter, fortieth U.S. President Ronald Reagan (1981–1989). Reagan, however, did not originate the theory. Reaganomics, also called supply-side economics or trickle-down economics, is based on a thing called the “Laffer Curve.” (It was the Laffer Curve that was supposed to be the subject of the doodle.) The economist Arthur B. Laffer is the true creator of the supply-side theory. He asserts that high marginal tax rates and government regulation of industries discourage private investment in areas that stimulate economic growth, and that if the taxes and the regulation go away, the additional capital available to the private sector will “trickle down” to the rest of the population. Supply-side theory gained popularity during the late 1970s, when tax rates were at an all-time high, inflation hovered around 15 percent, oil shortages brought high energy costs, foreign competition took profits from domestic operations, and the business community complained about confining government regulations.

The theories of Milton Friedman, the founder of monetarism and economic adviser to Reagan in the 1970s, also influenced Reagan’s economic policies. Monetarism claims that the level and direction of spending on the federal budget is more important than the amount of the deficit, and that a stable monetary policy allows borrowing to finance an unbalanced budget.

RONALD REAGAN HIMSELF ONCE REMARKED THAT “THE BEST SIGN THAT OUR ECONOMIC PROGRAM IS WORKING IS THAT THEY DON’T CALL IT REAGANOMICS ANY MORE.”

Although supply-side economics and monetarism are rival conservative theories, Reagan more or less combined the two when he administered a plan that relied on faith in free enterprise, not in government, as the basis for economic expansion. Reaganomics consisted of four main initiatives: (1) tax reductions that would encourage investment and production, (2) spending cuts that would reduce the size of government, (3) elimination of federal regulations that were constricting business growth, and (4) a stable monetary policy that would keep inflation under control.

In 1982 as a nation in recession witnessed tax cuts, defense weaponry buildup, and a reduction in services

for school lunch programs, the *New York Times* named Ronald Reagan’s economic agenda “Reaganomics.” By 1984 however, the economy had turned and inflation and unemployment dropped dramatically. The United States maintained an economic boom that lasted for the remainder of the Reagan administration.

The president’s policies have continued to be an issue of critical debate. Supporters of Reaganomics claimed that by adopting supply-side economics, the Reagan administration conquered the inflation that plagued the economy during the 1970s and set the economy on the tracks of the longest peacetime economic recovery in U.S. history. Opponents of Reaganomics argue that huge tax cuts were simply a gift to Reagan’s political constituency among the rich even though it brought a doubling of the federal deficit.

True to his agenda, Reagan brought some of the largest tax cuts in history. According to Reaganomics, lower taxes prompted corporations to invest, leading U.S. consumers to buy more. As the economy grew, thanks to increased consumer spending, they would indirectly raise government tax revenues. The trend would “trickle down” to benefit even the poorest U.S. citizens. An initial shock to these new policies led to a recession in the early 1980s, but by 1984 the economy began to surge, inflation leveled and unemployment dropped.

Still many experts believed that the middle class and the poor did not benefit from Reaganomics. It was widely reported that the share of income going to the wealthiest 20 percent of the nation’s population nearly doubled during the Reagan era, while the share going to the remaining 80 percent fell to its lowest level since the mid-1940s. Yet almost everybody but the very poor were better-off.

Reaganomics also encouraged many industries to deregulate during the early 1980s. At first, deregulation led to greater competition and lower prices for consumers. Diminished government supervision, however, also brought about problems. By the mid-1980s, the savings and loan industry collapsed amidst fraud and mismanagement. In the airline industry, deregulation led to the failure of many airlines, while others were bought out by rival airlines; the ultimate outcome was less competition and higher ticket prices.

The Reagan era also produced a large increase in the federal budget deficit (the difference between money the government spends and the amount it earns through taxes and other sources). When Reagan’s policies were put in effect in the early 1980s, tax cuts did stimulate the economy, but Federal spending continued to grow, because of the refusal of a Democratic

Congress to cut domestic spending as dramatically as Reagan wanted. There was also an increase in borrowed money to fund the creation of defense weaponry at the climax of the Cold War and.

Ronald Reagan served two terms as U.S. president. Reaganomics contributed to the creation of more than 20 million jobs and a \$1 trillion federal deficit. Some economists say that Reagan's policies were ultimately a failure that should never be repeated, although others argue that Reagan's policies have been clearly vindicated over time by our increasingly prosperous society. Regardless of opinion, the effects of Reaganomics were felt well past the end of Reagan's terms of office. Ronald Reagan himself once remarked that "the best sign that our economic program is working is that they don't call it Reaganomics any more."

See also: Milton Friedman, Alan Greenspan, Andrew Mellon, Monetary Theory, Ronald Reagan, Supply-Side Economics

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REAL WAGES

Real wages are wages adjusted for inflation, which reflect the actual purchasing power of goods and

services. Suppose an individual was paid \$10 per hour in 1997 and \$11 per hour in 1998. This increase in the nominal wage rate, wage in current dollars, is \$1 per hour. This represents a 10 percent raise. If the cost of goods and services also increased by 10 percent in the same time period, the purchasing power of an hour's wages or the real wage rate did not increase. The worker could buy the same amount of goods in 1998 for \$11 that he bought for \$10 in 1997. On the other hand, if the cost of goods and services did not increase, the workers' purchasing power or real wage rate would have increased by 10 percent. An hour of work in 1998 then buys 10 percent more than an hour's work in 1997.

Workers are more concerned with their real wages than with their nominal or money wages. To calculate the real wage rate the nominal wage rate is divided by a price index. The price index used might be the consumer price index or the gross domestic product (GDP). Using the above example, say the price index rose 5 percent between 1997 and 1998. Using 1997 as the base year the price index would be 1.00 in 1997 and 1.05 in 1998. The real wage rate is W divided by P, where W is the nominal wage rate and P is price index. In 1997 \$10 divided by 1 is \$10, so the real wage rate is \$10. In 1998 \$11 divided by 1.05 is \$10.48, so the real wage is \$10.48. These calculations demonstrate adjustments for inflation yielding the real wage rate in constant dollars. Research indicates that the higher the real wage rates the larger the labor supply, house wealth, and consumption of goods and services. Economic indicators tied to consumption expenditures will be positive.

In the United States real wages in manufacturing doubled between 1910 and 1940, only to double again between 1940 and 1970. Although nominal wages rose steadily, beginning in 1973 real wages for manufacturing non-supervisory workers began a downward trend that continued into the 1990s.

REBATES

Rebates are an extension of the coupon promotion. Also known as refunds, rebates reimburse a customer for part of the purchase price of an item after the sale. They differ from coupons in that coupons offer a discount in price at the time of sale. Rebates developed after the broad success of coupons in the latter half of the twentieth century.

The word "rebate" is derived from the Middle English word *rebaten*, which means "to deduct." The rebate is an attractive marketing tool to consumers

Recession

because its offer of partial reimbursement for a purchase is tax-free. The Internal Revenue Service considers rebates a reduction in the price paid for a product and not as income.

How do consumers learn about rebates? Manufacturers typically offer a rebate to all purchasers of a product for a limited time offer. At the time of purchase, the consumer receives a form, which must be completed and mailed with proper proof of purchase to a specified address. This address usually belongs to a large clearinghouse that processes rebate claims, not the manufacturer. The clearinghouse processes the rebate and issues a check in the name of the manufacturer.

Who offers rebates? A wide range of businesses offer rebates to consumers who purchase their products. Rebates may be offered for household appliances, like a refrigerator, for auto parts, and for health and beauty products, among others. The amount of money offered in a rebate varies from product to product and manufacturer to manufacturer.

During the twentieth century, the enticement of the rebate has played an appealing role in wooing customers in a competitive marketplace.

RECESSION

A recession is a downturn in the business cycle that occurs when the real gross national product (GNP)—the total output of goods and services produced by the U.S. population—declines for two consecutive quarters, or six months. Recessions are usually characterized by a general decrease in output, income, employment, and trade lasting from six months to a year. A more severe and long-lasting economic crisis is known as a depression.

Virtually all advanced world economies that are not controlled centrally have experienced recurring cycles of slump and recovery in business activity since the Industrial Revolution. The United States suffered through four severe depressions in the 1800s, as well as the Great Depression in the 1930s. These crises cost a great deal in terms of national wealth and personal hardship. Since then, however, sophisticated analysis of economic trends has combined with increased government intervention to prevent such extreme fluctuations in economic activity. In fact, no depressions have occurred in industrialized nations since World War II (1939–1945), although there have been many recessions. Governments monitor the business cycle closely and take various steps to stabilize the economy before

it reaches extreme peaks and troughs. Formerly, the typical stages in the business cycle were depression, recovery, prosperity, and recession. Today, the phases are usually defined using the more moderate terms, upswing, peak, recession, and trough.

See also: Business Cycle, Gross National Product

RECONSTRUCTION

Reconstruction (1865–1877) was one of our most controversial political eras. It followed the American Civil War (1861–1865), the bloodiest war in U.S. history, and saw the South's transformation from a slave to a free society. The U.S. government had to decide how to reintegrate the Confederate states into the union and how to assimilate almost four million freed slaves into the war-torn and hostile society of the South. Its economy was in shambles at the end of the Civil War, with manufacturing and transportation systems in disarray, banks insolvent, and Confederate currency worthless. The agricultural labor pool of slaves, who represented the most valuable asset that the South had possessed prior to the war—more valuable even than all the land in the South, was no longer legally available and the planters had little on-hand cash to pay wages. The freed slaves faced destitution.

President Abraham Lincoln (1861–1865) was anxious to get the Confederate states back into the union. As early as December 1863 he had issued a "Proclamation of Amnesty and Reconstruction" which detailed a lenient approach that he felt would receive wide acceptance in the South and hasten reunion of the eleven Confederate states. Prompted by considerations of how to smooth over the process of reunification of the nation, as well as by long-term political considerations for himself and the newly founded Republican Party, Lincoln's Reconstruction plan was called the "10 percent plan." Only ten percent of a state's electorate who had voted in 1860 had to take an oath of allegiance to the United States before its citizens could be granted pardons, their property restored, and their state governments recognized. Lincoln's plan did not include much in the way of provisions for post-war recovery of the South or safe-guards to protect the newly freed slaves from their former masters.

In July of 1864 Congress adopted a compromise Reconstruction plan which increased the requirements for reentry of the Southern states into the Union. Lincoln, however, vetoed this Wade-Davis bill, which proposed raising the 10 percent voter oath requirement to 50 percent and limiting participation of former Southern leaders in state constitutional conventions.

Realizing that few safeguards existed to protect the new found liberty of former slaves, Congress also established the Freedmen's Bureau in 1865 to help feed, protect, and educate them.

Fearing that rebel leaders would regain control of the South, some "Radical Republicans" in Congress (Congressmen who advocated strong measures against the former Confederacy) sought to grant voting rights to former slaves and even spoke of confiscating the wealthy Southern planters' property. A precedent existed for this land reform idea: in a few cases during the war union troops had allowed former slaves to occupy and farm the plantations of rebel planters, including the President of the Confederacy, Jefferson Davis. A rumor arose among the former slaves that the federal government was going to redistribute the land and give each slave family "forty acres and a mule."

But after the surrender of the southern armies and in the wake of the uncertainty that accompanied Lincoln's assassination in April 1865, a dispute arose between Lincoln's successor, former Vice President Andrew Johnson, and the Radical Republicans in Congress. Johnson, a small farmer and slave owner from Tennessee, believed blacks were inferior and envisioned a South economically dominated by white farmers holding property redistributed from wealthy planter's land. He seemed to believe that a conspiracy existed between the large plantation owners and the slaves against the small white farmers. Johnson adopted contradictory policies—on the one hand formally declaring that the Confederate military leadership would be executed and that slave holders would be denied the vote, and on the other, pardoning an unending line of petitioners from the southern planter class who flattered him and received full exoneration.

IN THE END . . . THE VAST MAJORITY OF SOUTHERN BLACKS REMAINED PROPERTYLESS AND POOR. BUT EXACTLY WHY THE SOUTH, AND ESPECIALLY ITS BLACK POPULATION, SUFFERED FROM DIRE POVERTY AND ECONOMIC RETARDATION IN THE DECADES FOLLOWING THE CIVIL WAR IS A MATTER OF MUCH DISPUTE.

Eric Foner, *American Heritage*, October/November 1983

During this period of confusion, the southern political elite adopted make-shift constitutions that abolished slavery and elected the surviving members of the pre-war political elite to Congress. At the same time, however, in their own state legislatures the former planter aristocracy was passing "black codes" that re-subjugated the former slaves to conditions that approximated slavery. Ex-slaves could were restricted

to farming jobs, they could be rounded up, charged with vagrancy, and put to work without compensation. They had to carry passes. They lived under curfew laws. Major race riots instigated by whites broke out in 1866 in Memphis and New Orleans with blacks receiving little protection from local law authorities. As these conditions became known in the first months after the southern surrender, the Radical Republicans successfully led a movement to exclude the southern congressmen who were being elected and sent to serve in Congress. A prolonged struggle erupted between the executive and legislative branches of the federal government pitting the president and his conservative program of restoring pre-Civil War conditions in the South against the Radical demands for extensive social and political change in the South.

Angered by the South's persistent and violent resistance to restructuring and disappointed with Johnson's views, Congress adopted a Radical Reconstruction strategy. First, over Johnson's veto, Congress passed the Civil Rights Act of 1866 which recognized blacks as citizens and guaranteed equal protection under the law. Congress included the Act's key provisions in the Fourteenth Amendment, which was approved in 1866 despite rejection by most Southern states. The amendment granted citizenship to all persons born or naturalized in the United States and directed that states could not deprive citizens of due process of law and equal protection of the laws. Next came the Reconstruction Acts between 1866 and 1868, also over Johnson's veto. The acts firmly established military control over the South with the eleven Southern states divided into five military districts. State governments that were recognized under Lincoln and Johnson were thrown out and the black codes eliminated. A Major General controlled each district by holding extensive authority over state officials. Between 1868 and 1870 all states were readmitted to the Union with new governments that were controlled by blacks, carpetbaggers (Northerners who came to the South to carry out Reconstruction programs), and scalawags (Southern collaborators). Though violence temporarily ceased and a number of postwar recovery measures were instituted (including a lasting public school system for both races), most Southerners viewed the governments as artificially contrived.

In 1870 the Fifteenth Amendment prohibited states from restricting voting rights on the basis of race. Congress followed with a series of enforcement acts until 1871. However, Northern support for Reconstruction measures began to fade in the 1870s as a national economic recession captured attention. President Rutherford B. Hayes (1877–1881) withdrew the

Reconstruction Finance Corp.

last federal troops in 1877 and Southern states once again assumed full control. Racism flourished. State Jim Crow laws established a racial caste system in the South during the last years of the nineteenth century. Some historians attributed the failure of Reconstruction to the failure to redistribute southern lands to poor farmers, both black and white. In any case, a new labor system involving sharecropping and crop liens replaced slavery. Black families farmed assigned portions of plantations in return for a share of the crop and necessary food and supplies. The new system, in which the new Southern ruling class of planters and merchants were subservient to Northern financiers, did not reestablish the prosperity seen before the war.

See also: Civil War (Economic Impact of), Confederate Dollar, Fourteenth Amendment, Freedman's Bureau, Jim Crow Laws, Sharecropping

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RECONSTRUCTION FINANCE CORP.

The Reconstruction Finance Corp. (RFC) was a U.S. government agency established by Congress on January 27, 1932, to provide financial aid to railroads, financial institutions, and business corporations during the Great Depression (1929–1939). In July 1932, with the passage of the Emergency Relief Act (ERA), the scope of the RFC was enlarged to include aid to agriculture and farms, and financing for state and local

public employment works. The RFC, acting as a domestic federal bank, contributed greatly in the recovery effort to climb out of the Depression. During World War II (1939–1945), the RFC was expanded greatly to finance the construction and operation of war plants and to make loans to foreign governments.

The RFC was intended to be an independent, non-political agency. As years passed, RFC funding grew. It began to assume the responsibility for disbursing huge sums of money, and began to become involved in politics. By 1948 congressional investigations of the RFC revealed widespread corruption; in 1952 it was reorganized. As a result of Eisenhower's efforts to limit government involvement in the economy, the RFC was dismantled under President Dwight D. Eisenhower (1953–1961). The RFC Liquidation Act terminated all of its lending powers. By 1957 its remaining functions had been transferred to other agencies.

The RFC was a useful agency during the Great Depression and World War II, as well as during post-World War II recovery in the United States, but by the late 1940s the RFC had outlived its financial stabilization function.

See also: Great Depression

RECYCLING PROGRAMS

Recycling programs comprise three elements in a continuum represented by the “chasing arrows” symbol: collection of recyclable materials from the waste stream, processing the commodities into new products, and purchasing products containing recycled materials. It has been estimated that each office worker in America produces from one-half to one and one-half pounds of solid waste each day, of which 70 to 90 percent is paper. Paper comprises at least 40 percent of American waste, and businesses contribute one-third of the nation's solid waste. For that reason, recycling programs in the business world commonly focus on waste paper. However, corporate recycling programs have come to include other types of waste, including glass, chemicals, oils, plastics, and metals.

Although the word “recycle” was not coined until the late 1960s, recycling has been a trash disposal option for centuries. Native Americans and early settlers routinely reused resources and avoided waste. Materials recovery was also a significant contributor to the United States' World War II effort, when businesses and citizens alike salvaged metal, paper, rubber, and other scarce commodities for military use. But the emergence of the “throwaway society” of the 1950s

helped extinguish the recycling impetus. With seemingly unlimited landfill space, disposable and single-use products and packaging became the norm in the ensuing decades. Recycling did not regain popularity until the late 1960s and early 1970s, when environmental concerns became prominent in the “green revolution.” The first national Earth Day celebration in 1970 heralded anti-litter campaigns, the creation of the Federal Environmental Protection Agency (EPA), and some municipal and corporate recycling programs.

See also: Environmentalism

REGRESSIVE TAX

A tax is a compulsory payment imposed by a government for public purposes. There are two major forms of tax assessment; direct taxes, which are imposed on an individual directly, and indirect taxes, which are imposed on a privilege or right which a person exercises. For example, the right to buy or sell real estate involves estate and inheritance taxes, or the right to make gifts of property involves gift taxes. In general, all taxes may be classified as proportional, imposing proportional rates on all incomes or property values, whether large or small; progressive, where taxes are graduated to impose the highest rates on the highest incomes, based on ability to pay; and the regressive tax, which takes a smaller percentage from higher income individuals than from lower income individuals.

A regressive tax is a tax that is graduated so as to impose the highest rates on the lowest incomes and property value. For instance, overall, Social Security is a regressive tax because there is a maximum income limit beyond which no further taxes are paid. Therefore, very wealthy individuals pay a lower percentage of their total income to Social Security than do lower income individuals. Throughout the U.S. tax code there are many examples of regressive taxes, despite efforts to use more proportional or progressive taxes to create a fairer system.

See also: Progressive Tax, Proportional Tax

REGULATION

The regulation of industries in the United States is based largely on a concern for the public interest. Industries, especially those with a high potential for monopoly (such as water, gas, and telephone service), will often be regulated by agencies of government for

the benefit of the public, so that consumers can be assured of quality services and products at reasonable rates. The rationale for the regulation of all or part of an industry is that if a monopoly exists, and competition is inappropriate, then monopolies should be regulated to avoid possible abuses of uncontrolled monopoly power. Regulation is a public sector (government) guarantee that consumers should benefit from the built-in economies of any monopoly. Regulators seek to establish customer rates that cover production costs and yield a “fair” or “reasonable” return to the enterprise.

There are problems associated with the regulation of business by the public sector. First, a regulated firm may resort to accounting manipulation to overstate its costs to obtain higher unjustified profits. Second, some regulatory commissions of the government function inadequately, sometimes even making “deals” with the industries they are regulating. Third, it is often uncertain which industries should be regulated. The trucking and airline industries both claim that if they were less regulated, they would be more competitive. In addition to the regulation of near monopoly industries and natural monopolies (like water and electricity), since the early 1960s, the public sector also regulates the conditions under which goods and services are produced, as well as the impact of production on society, and the physical quality of goods. This kind of social regulation is applied across the board to virtually all industries. Examples of social regulation includes the efforts of the Occupational Safety and Health Administration (OSHA), which regulates industries to protect workers against occupational injuries and illnesses, and the efforts of the Consumer Products Safety Commission (CPSC) which regulates minimum standards for potentially unsafe products. Though regulation itself can be controversial, few question whether it should exist. The primary question that any public sector regulation imposes is how and when it should be used.

See also: Monopolies, Monopoly

REINFORCED CONCRETE

Reinforced concrete is a composite building material that consists of concrete (a mix of cement, aggregates, and water that when hardened resembles stone) and steel rods, bars, or mesh. The material possesses the best qualities of concrete, which is able to withstand compressive (latitudinal) forces, and iron, which is able to withstand tensile (longitudinal) forces. Reinforced concrete was patented in 1867 by French gardener Joseph Monier (1823–1906), who used iron to

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strengthen concrete for tubs for his nursery. During the second half of the nineteenth century the material was used in the construction of bridges and buildings. In the early twentieth century concrete reinforced with steel came into widespread use. In the United States, the first building made entirely of reinforced concrete was the William E. Ward House, built in 1876, in Port Chester, New York. In 1903 Cincinnati's sixteen-story Ingalls Building (called the Transit Building after 1959) became the world's first skyscraper with a reinforced concrete framework. The success of the building project revolutionized the construction industry. Skyscrapers—many of steel-cage construction, but others built with reinforced concrete—transformed the appearance of the American city and were the country's contribution to twentieth century architecture.

Reinforced concrete was predominately used in the construction of factories. In the early 1900s, German-American architect Albert Kahn (1869–1942) expanded the Packard Motor Company plant in Detroit, Michigan, designing what became a series of factories using reinforced concrete and steel. Kahn's innovative designs enclosed large spaces, often all on one floor and with ample windows for natural lighting, ideal for manufacturing operations.

REPORT ON MANUFACTURES

In 1791 Alexander Hamilton (1755–1804), the first U.S. Secretary of the Treasury, submitted the third of three historic reports he had written which outlined a national fiscal (monetary) and economic system. The first two reports had been the Report on Public Credit (presented to Congress January 1790) and the Report on a National Bank (December 1790). On December 5, 1791, Hamilton presented the Report on Manufactures to Congress. The report outlined a plan for stimulating trade in the new republic and listed 17 viable industries that should be pursued by private citizens and encouraged by the federal government. As the leader of the Federalist Party, Hamilton advocated a strong central government. His party's position opposed that of Thomas Jefferson's (1743–1826) Democratic-Republicans, who favored a strict adherence to the U.S. Constitution (1788); the report, therefore, stressed the protection of personal liberties by a limited federal government.

In his Report on Manufactures, Hamilton argued that Congress should adopt certain measures that would help move the nation's economy away from its dependency on agriculture (which required importing most finished goods from other countries) and toward an economy that was diverse and balanced. To support

the development of American industry, Hamilton advocated charging duties on or prohibiting the import of rival products. Domestic manufactured goods, however, would be exempted from export duties and new inventions would be encouraged, "particularly those which relate to machinery." Hamilton maintained that by enlarging the nation's manufacturing sector the United States would achieve true independence by decreasing its reliance on other nations for military and essential supplies. Further, he foresaw the tremendous growth in population that would occur in the nineteenth century as more and more European immigrants arrived in American ports to make their homes in the new nation. Believing the only way to support a burgeoning population was to diversify the economy, Hamilton asserted that the government ought to promote manufacturing.

Hamilton's vision of the nation's future (which turned out to be highly accurate) and his recommendations for developing and stimulating the economy were not well received in Congress. Many felt the Secretary of the Treasury was promoting his own personal interests at the expense of agriculture. His plan was never put to a vote.

See also: Alexander Hamilton, Thomas Jefferson

RESEARCH AND DEVELOPMENT

Research and development (R&D) is the process by which scientific and technological breakthroughs are used to create new or improved products or technologies. R&D generally involves three basic processes. The first is "basic" or "pure" research, which is the kind of exploration scientists and other researchers perform when they are motivated not by a specific goal or end product but by the desire to advance scientific knowledge wherever it leads. "Applied research" is research that takes the findings of basic research and modifies or elaborates them for a specific purpose. Finally, "development" is the process by which the insights of basic and applied research are transformed into an actual product or new process. For example, basic research into the properties of light and silica-based materials might be applied toward developing fiber optics, which in turn might be developed into fiber-optic cables for carrying digital data. Basic and applied research is conducted in government, academic, and industrial research laboratories, and today most product development is performed in company-run development laboratories.

The first U.S. industrial laboratories were modest affairs set up in the 1860s and 1870s by companies like Cambria Iron Co. and the Pennsylvania Railroad. In the 1870s Thomas Edison's (1847–1931) Edison Electric Light Company became the first company to devote a substantial portion of its revenues to industrial laboratory research. In the years before World War I (1914–1918) such companies as General Electric, AT&T, Standard Oil, and Eastman Kodak also established R&D labs. World War I opened the eyes of many Western governments to the need for industrial research, a process that was hastened by the requirement for new technologies to fight World War II (1939–1945). After 1945 the United States was the preeminent technological power, and the federal government's R&D spending in the 1950s and 1960s was used by government, academic, and industrial laboratories to fuel an explosion of new electronics, computer, aeronautical, defense, and space technologies.

When the U.S. government cut back on R&D funding at the end of the Cold War in the early 1990s, private industry filled the gap. By 1997, for example, total R&D investments reached an all-time high of more than \$200 billion, two-thirds of which was conducted by private industry. The primary factors for this intensified industrial R&D were advances in biotechnology, electronics, and software; global competition; and years of strong profit growth. By 1996, 25 U.S. firms—led by General Motors, Ford Motor Company, and IBM—were spending more than \$1 billion annually on R&D.

RETAIL INDUSTRY

The major trend in the history of the retail industry has been the transfer of sales from individual, independent, single-product merchants to chain stores, department stores, supermarkets, malls, and catalogs. (The chain store actually dates back as early as 700 B.C. in China.) Modern retailing began in the United States in 1859, when The Great Atlantic and Pacific Tea Company (A&P) became the first chain store in the country, selling tea in New York City. Soon afterward department stores and catalog stores appeared, the latter making use of the first direct mail lists to reach customers in rural areas. By the early 1900s the beginnings of retail industry in the United States were well established.

The A&P tea emporiums were typical of early food stores which specialized in one type of item. A&P purchased tea in New York dockyards and sold it at

substantially lower prices (50 percent) than competitors. A&P was sophisticated in promoting its single product. Their tea emporiums were unlike the typical general store of the nineteenth century, for they tried to create the atmosphere of an oriental palace, evoking the Asian origins of their product. A&P also brought a new concept into food trade when it assigned brand names to bulk teas. It popularized these teas even further by organizing tea clubs in various cities. Tea club members received special discount rates on A&P products. The stores also printed colorful advertising pamphlets listing tea prices and delivery dates along with literary flourishes like poetry and essays. A&P offered money-back guarantees and it advertised in big national publications like *Harper's Weekly* as well as smaller religious publications, hoping to win the teetotaler market. When coffee became popular in the 1880s, A&P offered its own brand, Eight O'Clock breakfast coffee, which was sold in signature red bags. Though A&P would eventually expand into a chain of supermarkets, its tea emporium beginnings contributed much to the basic understanding of how a successful chain store should promote itself and its product.

During the same period early versions of department stores (Woolworths, 1879) and catalog retail stores (Sears, Roebuck & Company, and Montgomery Ward and Company, in the late 1800s) radically changed the look of sales for non-food products. These stores became institutions virtually synonymous with U.S. culture. Woolworths had great success with over 1,000 stores only 40 years after its founding. Sears, Roebuck & Company and Montgomery Ward grew to be the largest catalog retailers in the world. They began by selling only by mail order and they thus helped people in more rural areas keep up with home improvements.

The catalog sales were no doubt helped by direct mailing lists, which appeared as early as 1903. Multi-Mailing Company of New York gathered lists from phone books around the region—from New England to Ohio—with a total of 600,000 names. This was valuable information because farmers in rural areas installed their own telephone lines which were used by entire communities with as many as 100 people serviced by one line. Companies like Multi-Mailing sought out these telephone-line owners, believing that the rural telephone system identified prominent community members who held influence over their fellow villagers.

Around 1900 retailers owned either small general stores or grand downtown department stores. By World War I (1914–1918) the department stores were prominent. In the 1920s Sears, Roebuck & Company and Montgomery Ward opted to add retail stores to their

Revenue

catalog operations. As the number of stores spread, reaching even the more rural areas that had come to rely on catalog shopping, people increasingly opted to shop in the department stores themselves. A century after their beginnings, Sears and Montgomery Ward earned over three-fourths of their profits in their retail stores.

In the 1930s supermarkets appeared, imitating the department stores by offering the customer one-stop shopping. They quickly dampened business for individual merchants or single-item shops like A&P's tea emporiums. It was far easier to go to one place and pay once, than to make individual trips to the butcher, various produce stands, the bakery, and dry goods store. In 1930 the King Kullen supermarket was founded in New York City. Boasting that it was the first U.S. supermarket (a claim viewed skeptically by some industry historians), it was nevertheless a pioneer in that type of store. Its decision to outsource, or hire out, warehouse work led to a three-month labor strike. But the company maintained that the outsourcing decision was good because it allowed King Kullen to be more competitive by opening more new stores and by selling more products. In the years after World War II (1939–1945), the supermarket growth rate had peaked and small independent food retailers were driven out of business by tens of thousands of newly-opened supermarkets. Many remaining independent, individual, or small-chain retailers survived by pulling together into retail cooperatives.

For two decades after World War II, discount warehouses were the new trend in retail. These companies offered substantial discounts and they often managed to sell below manufacturer listed prices. Products were pushed out in high numbers with little overhead cost. This was possible because the stores greatly reduced services, and because they were usually located in the unfashionable shopping districts, which meant that they paid low rent for their retail space. These stores focused particularly on household electrical appliances. Later, the concept changed for discount stores—they became scaled-down department stores with lower prices and minimal services.

In the later part of the twentieth century the retail industry continued to experiment with new ways of reaching customers. Catalogs experienced a revival, especially for smaller companies that focused on a single product line with limited appeal such as Victoria's Secret's lingerie catalogs or Crate & Barrel's household items. These new-look catalogs were sized like magazines and introduced with high-quality design and paper. Other trends in the same period included shopping via television (viewing products on the

screen and then purchasing over the phone with a credit card) and shopping over the Internet.

The retail industry grew up with the grandchildren of the Industrial Revolution, whose lives were increasingly complicated by work schedules and the urban pace, and who sought as much convenience as could be found in all aspects of living. This, and the highly competitive race for the biggest share of the market, pushed retailers to be ever more creative in finding ways to reach customers and dazzle them with store interiors, new products, or shockingly low prices. It made economic sense to put as much as possible under one roof because the customers seemed to want it and overhead costs were greatly minimized in relation to profit. But the retail giants—supermarkets, department stores, and malls alike—were not entirely invulnerable to the whims of the market, as seen in 1998, when the last of the once-mammoth Woolworth empire of general stores was slated to be closed.

See also: Chain Stores, Department Stores, Mail Order House, Montgomery Ward and Company, Richard Warren Sears, Sears Roebuck and Company

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REVENUE

Revenue is a term commonly used in business. A company's revenue is all of the money it takes in as a result of its operations. Another way of defining a company's revenue is as a monetary measure of outputs, or goods sold and services rendered, with expense being a monetary measure of inputs or resources used in the production of goods or services. On the other hand, a company's net income or profit is determined by subtracting its expenses from its revenues. Thus, revenues are the opposite of expenses, and income equals revenues minus expenses.

For accounting purposes, income is distinguished from revenues. Income is an important concept in economics as well as accounting. Accountants prepare an income statement to measure a company's income for a given accounting period. Economists are concerned with measuring and defining such concepts as national income, personal income, disposable personal income, and money income versus real income. In each field the concept of income is defined in slightly different terms.

An example of revenue is when a store sells \$300 worth of merchandise, for which it originally paid \$200. In this example the company's revenue is \$300, its expense is \$200, and its net income or profit is \$100. Other expenses that are typically deducted from sales or revenues include salaries, rent, utilities, depreciation, and interest expense.

See also: **Income**

REVERE, PAUL

Paul Revere (1735–1818) is best known as an American patriot during the American Revolution (1775–1783). He is the man who helped carry news of the approach of British troops to Lexington, Massachusetts, in what became known as Paul Revere's midnight ride. When Revere wasn't fighting for American independence, he was a creative and successful silversmith.

Paul Revere was born January 1, 1735 in Boston, Massachusetts. He was the third of twelve children born to Apollos De Revoire, a Frenchman. De Revoire changed the family name to Revere to make it easier for Americans to pronounce. Apollos De Revoire was a silversmith and he taught the trade to his son.

Paul Revere married Sarah Orne in 1756 after serving for a short time in the French and Indian War (1754–1763). At age twenty-one he began work in his father's silversmith business. Revere was a talented silversmith and an innovator in processing commercial-grade bronze and copper. His skills made him a success in his trade.

In his early years as a silversmith Revere developed an intense interest in the issue of American independence from England. He became involved in revolutionary activities and attracted wide public attention when he used his engraving skills to create a number of political cartoons aimed at the issue of independence.

Listen my children and you shall hear / Of the midnight ride of Paul Revere, / On the eighteenth of April, in Seventy-five; / Hardly a man is now alive / Who remembers that famous day and year. / He said to his friend, "If the British march / By land or sea from the town to-night, / Hang a lantern aloft in the belfry arch / Of the North Church tower as a signal light,— / One if by land, and two if by sea; / And I on the opposite shore will be, Ready to ride and spread the alarm / Through every Middlesex village and farm, / For the country folk to be up and to arm."

Henry Wadsworth Longfellow, *Paul Revere's Ride*

Revere began to work closely with revolutionary leaders, such as Samuel Adams (1722–1803) and John Hancock (1737–1793). He also participated in the famous Boston Tea Party on December 16, 1773. He and other Boston protestors raided a British ship in Boston harbor and dumped the tea cargo into the ocean, dissenting against British taxes in the colonies. This protest was one of the crucial events leading up to the American Revolution (1775–1783).

In addition to his activities as a revolutionary, Revere directed his energies to a variety of areas. He pursued work on a wide-ranging field, from working with silver to the manufacture of gunpowder. In Massachusetts he created a mill that ground wheat and oats by using the swirling flow of river water to move grindstones. He designed and printed the first issue of U.S. paper money and was the first in the United States to discover the process of rolling sheet copper. In Canton, Massachusetts, he built the first copper-rolling mill in the country.

Revere was continually involved in the politics of his new nation. He served as an activist, a soldier, and a political thinker. He achieved great success as a silversmith and expanded his business efforts towards growing U.S. industries. Paul Revere was an entrepreneur and a patriot. He died in 1818.

See also: **American Revolution, Boston Massacre, Boston Tea Party**

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RHODE ISLAND

Rhode Island, the smallest state of the United States, has struggled to maintain its economic health. Born as a colony of dissenters and a haven for individual liberty, the state has not always matched its idealistic beginnings with its political and economic realities. It has experienced divisions between its old-line citizenry and the descendants of the immigrants who have staffed its factories. It reached an economic peak around the turn of the century but it has since fought competition from southern industries and has gone through periods of depression and recession. In the

latter half of the twentieth century, however, Rhode Island achieved a significant economic recovery.

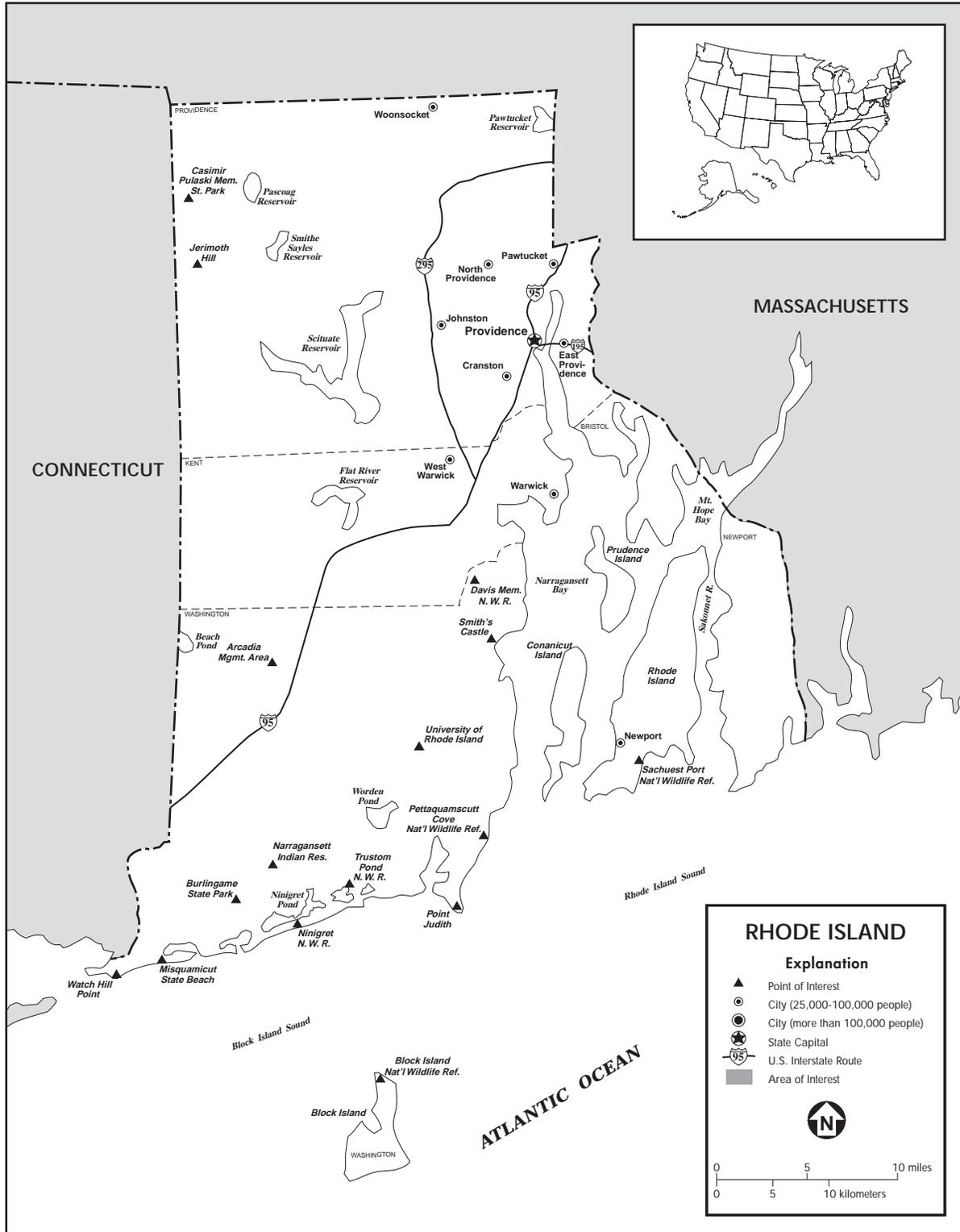
In 1524 the first European explorer of Rhode Island to arrive in the region was Italian Giovanni da Verrazano. In 1636 English clergyman Roger Williams established a colony at Providence seeking religious freedom for a group of nonconformists from the Massachusetts Bay Colony. As other towns developed in the area, Williams secured a charter from King Charles II for Rhode Island and Providence Plantations (which encompassed several towns), that guaranteed religious freedom and substantial local autonomy.

Rhode Island grew rapidly in agriculture and commerce, which included the slave trade. Its exports included naval stores, molasses, preserved meats, cider, and dairy products. Rhode Island was also a whaling center. As the colony with the highest degree of self-rule, Rhode Island was the first to declare its independence from England in 1776. Fearing too much federal power, however, it was the last state to ratify the U.S. Constitution (1790).

Rhode Island merchant ships in the early nineteenth century traded with China, India, the Baltics, and the East Indies, and later with the U.S. Pacific coast. The mid-nineteenth century in the state was marked by divisions between ordinary citizens and wealthy rural landowners who held nearly all the power in the legislature and who were the only ones allowed to vote. By 1843 a new constitution was formed which corrected some of the inequalities.

Meanwhile, the economy of the state had shifted from commerce to industry, with textile manufacturing as the most prominent. Samuel Slater established the first cotton mill in Pawtucket in 1790. Under the so-called "Rhode Island System," company-built housing was established for the workers and their families. Oftentimes mill owners employed entire families that worked from sunup to sundown. Between 1830 and 1840 the number of mills in the state almost doubled. After 1830 steam power replaced water power in the mills and also provided the power for steamboats and newly emerging railroads.

Other products were being manufactured such as jewelry (represented best by Gorham Silver) and steam engines. By 1860 less than an estimated three percent of the state's workforce was in the maritime industry; 10 percent were employed in agriculture, and 50 percent in manufacturing. Between 1776 and 1860 Rhode Island's population had increased two and one-half times, mostly through foreign immigration.



State of Rhode Island.

The port of Providence soon became the center for commerce in the region. With three rivers at the head of Narragansett Bay and a growing number of railroad termini, Providence boasted a large number of textile mills. It was also home to the metals industry, the banking and insurance sector, and the import-export business. Providence began to lose some of its prominence after 1845 when steamships found a more suitable port at Fall River, Massachusetts, and rail connections began to gravitate toward New York City.

As several southern states began seceding from the Union just before the American Civil War (1861–1865), Rhode Island still had some sympathies with the South because of its economic relationship with southern cotton planters. A slave-free state since 1807, Rhode Island even temporarily repealed its “personal liberty law” to make it easier for runaway slaves to be returned to their owners. Still, when the Union called for volunteers against the Confederacy, Rhode Island responded, exceeding its quota for troops. The state made great profits in the textile and other industries during the war. After the war, the town of Newport became a haven for newly rich Americans who built large mansions on its rocky shores. Many of which still survive as tourist attractions.

According to historian William G. McLoughlin the decades following the war were Rhode Island’s finest: “Its manufacturers hobnobbed with the rich and powerful who controlled the nation. . . . (It) had reached the pinnacle of success. . . .” Foremost among the rich and powerful people was Nelson W. Aldrich (whose daughter later married into the Rockefeller family) who, as a senator, controlled tariff schedules in the U.S. Congress. As chairman of the Finance Committee he was in a position to help protect businessmen against foreign competition and to encourage sound money policies. He also was instrumental in devising the Federal Reserve System.

The economic system in Rhode Island changed rapidly after World War I. French-Canadians, Irish, and Portuguese, encouraged to immigrate to provide cheap labor, began to outnumber people of the old Yankee stock. The state’s industries continued to prosper and they were especially productive during World War I (1914–1918). After the war, however, decreased production caused labor unrest and a widespread strike of textile workers in 1922 crippled an industry that was already plagued by competition from textile mills in southern states. Bitter divisions in the state at this time, coupled with the onset of the Great Depression (1929–1939), helped to precipitate the 1934 Democratic overthrow of longtime Republican rule in the state.

Improvements in Rhode Island’s economy have been slow in coming. Since the Depression years the state often had one of the highest rates of unemployment in the nation, reaching more than 15 percent by 1975. In the late 1990s about 30 percent of workers were still employed in manufacturing and many were working in low-paid jobs in the jewelry and textile industries. After a real estate boom in the 1980s the real estate market declined at the end of the decade. The state experienced a banking crisis in the early 1990s, which necessitated a government bailout of uninsured financial institutions. Rhode Island had slowly begun to recover from its economic doldrums, largely because of new jobs in the financial and electronic industries. Unemployment fell to around five percent by 1997.

See also: Rhode Island System of Labor

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RHODE ISLAND SYSTEM OF LABOR

The Rhode Island system of labor was initiated by English-born mechanist and businessman Samuel Slater (1768–1835), who built a water-powered cotton-spinning mill at Pawtucket, Rhode Island, in 1790. The machine, based on a mill invented by Englishman Richard Arkwright (1732–1792), was an immediate and unqualified success—introducing mechanization to manufacturing, which was previously done by hand. A few years after starting his mill, Slater began hiring whole families from the surrounding area, including children, to work the spinning machines. Child labor

had long been used in Britain's textile factories and Slater himself had worked in them as a youth. In the Rhode Island mills, the families made up the workforce. Wages were low and the hours were long. But the Rhode Island system of labor worked, and by the 1820s it was firmly established in American industry. In 1832 an estimated 40 percent of all factory workers in New England were between the ages of seven and sixteen.

As the textiles industry grew, the supply of labor did not keep pace with the demands of the industry. Slater hired families who often relocated to be near the factory, giving rise to mill towns. By the late 1830s, factory conditions in New England deteriorated. Increased competition in the textile industry (which was the model for other industries of the day) forced factory owners to cut wages and lengthen hours to stay profitable and keep up with production demands.

The opening of new lands in the west shifted much of the nation's agriculture from New England's coastal states to the interior. As the farming population moved west, it became more difficult to recruit mill hands from the resident farming population. During the 1830s the mill owners turned to the steady stream of immigrants to supplement the factory workforce. Labor systems, such as Slater's and that of Francis Cabot Lowell (who hired farm girls to work in his factories but took care to ensure favorable working and living conditions), were no longer necessary. During the second half of the century, women and children continued to supply much of the factory labor, but without the paternalistic labor systems of Slater and Lowell.

See also: Child Labor, Francis Cabot Lowell, Rhode Island, Samuel Slater Builds First Factory, Samuel Slater, Spinning Mills, Women in the Workplace

RICARDO, DAVID

David Ricardo (1772–1823) was an English stockbroker who, working at the beginning of the nineteenth century, emerged as a major economic thinker during the early years of the industrial revolution. He is often referred to as the founder of scientific economics, because he used mathematics and abstract examples in his writing. His view of economics was ultimately a pessimistic one. Ricardo saw European economy torn into warring groups. He believed that in the long run the hardworking industrialist was bound to lose and that the benefits of the Industrial Revolution would end

up in the hands of the already wealthy class of aristocratic landowners.

David Ricardo was born in April of 1772 in London, the third son of a wealthy Dutch-Jewish businessman. Ricardo's early passion for scholarship was delayed when he began to work in his father's investment business at age 14. He had a close relationship with his father and excelled in his work. At age 19, he married Abigail Delvalle, a Quaker, and eventually he left the family business to begin on his own, building a fortune by speculating in stock investing and other entrepreneurial ventures. In his late thirties, he began to write and published his first two books, *The High Price of Bullion* and *An Essay on the Influence of a Low Price of Corn on the Profits of Stock*.

In 1814, at age 42, David was wealthy enough to retire from his investment business. He could now give his full attention to intellectual pursuits, and by 1817 he had established his reputation as a leading thinker in England. His books by no means made him a cultural celebrity, but economically powerful, thoughtful people regarded him as one of the most influential intellectuals of his era. His life for the next 20 years centered largely around his continuing intellectual activity. He sat in parliament from 1819 to 1823, however, where he brought his knowledge about trade issues and finance to the British House of Commons and informed political debate of his day; thus, his writing had a role in rebuilding the English banking system after England's war with France ended in 1815.

Ricardo's approach to economics was new. Before him, economic writing was more literary than scientifically precise. It was a kind of loose-knit story involving many anecdotes. Ricardo chose to write about economics in a concise way, by eliminating numerous examples and instead explaining his ideas about the economy by using simple, easy-to-understand abstract models. Pursuing economic theory as a science, he explored economics by using basic principles and deductive reasoning to work toward his conclusions.

David Ricardo's notion of how the economics world worked was regarded as simple and elegant. He broke society into three parts: capitalists, landlords, and workers. The workers and the industrial capitalists, he argued, were in an impossible situation over the long run. The profits of hard-working creators of industry were eaten-up by the higher wage demands and by the costs of hiring additional help as business expanded. Ricardo maintained that ordinary workers wasted their income when their lives improved financially. For Ricardo the ordinary worker did not invest

his money but only produced additional children to create larger burdens for the entire society.

Ricardo claimed that the only people who really improved under capitalism were the aristocratic landowners, who simply raised and lowered rents as they pleased. Thus they would absorb the extra profits made by the workers laboring for the capitalist industrialists. Ricardo also claimed that landlords, who produced nothing, served no useful purpose.

Ricardo was gloomy about the long term prospects of capitalism. He envisioned industrialists and common laborers “in the same boat.” They were both being exploited by aristocrats who owned the land and who charged rent, based on the amount of money circulating in the economy. A situation he found unjust. But Ricardo’s dire prophecies never came to pass. Wealth earned from industry was growing faster than that generated by the traditional agricultural-based society. With the cooperation of the British government, the industrial capitalists of Ricardo’s era were able to reduce the power of the landowners, who were never able to dominate society as they had in the past.

Ricardo’s approach to writing about economics made it more of a science and far more accessible to common readers. His gloomy attitude about capitalism alerted many of his optimistic friends and caused them to question the economic future. Some scholars have written that Ricardo’s observations on capitalism led indirectly to the birth of a variety of socialist and progressive movements, all concerned with economic pathways that were not crowded with tax agents and Ricardo’s nemesis, the landlords. He died in 1823.

See also: Adam Smith, John Maynard Keynes

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RICE

Rice is a cereal grass grown in warm, moist climates. The native inhabitants of Southeast Asia probably began cultivating rice for food seven thousand years ago. The crop spread northward into China and Japan, and westward into India, where it was observed in about 325 B.C. by Greek soldiers under the command of Alexander the Great (356–323 B.C.). Like sugar, which was also observed in India by the Greeks about 325 B.C., rice did not reach Europe until Moors (North African Muslims) invaded the Iberian Peninsula (present-day Spain and Portugal) in A.D. 711. When Spaniards colonized the islands of the West Indies and lands in South America in the late 1400s and throughout the 1500s, they introduced rice in the Western Hemisphere. There rice joined sugar, indigo, and tobacco as a profitable export item for the better part of the 1600s. Rice was among the enumerated articles in the British Parliament’s Second Navigation Act (1660) which prevented colonies from exporting its products to anywhere except the British Isles. In 1671 rice was introduced into the North American mainland at South Carolina. By 1685 it became a commercial crop. Cultivation and production spread to North Carolina and Georgia. Because rice is a labor-intensive crop, rice plantations required numerous slaves for production. That way, along with tobacco and indigo, rice helped define the plantation economy of the South. After the American Civil War (1861–1865) and the abolition of slavery, southern growers could no longer support the crop. Production of rice moved westward. By 1900 Louisiana was supplying 70 percent of the U.S. rice production. In the early 1900s it was also introduced as a crop into California.

See also: Agriculture, Georgia, Indigo, Navigation Acts, North Carolina, South Carolina, Slavery, Sugar, Tobacco

RIGHT TO WORK

Right-to-work laws made it illegal for employees to be required to join a union as a precondition of employment. They were the opposite of closed-shop laws, which forbade workers from working for a firm unless they became union members.

Federal legislation passed during the New Deal of President Franklin D. Roosevelt (1933–1945) greatly strengthened the U.S. labor union movement. The

National Labor Relations Act of 1935 (also known as the Wagner Act) prevented companies from firing or unfairly treating workers who joined unions and required companies to bargain with duly elected labor representatives.

Although the number of unionized workers in the United States grew significantly because of the labor needs of World War II (1939–1945), in the postwar years an anti-labor climate emerged as a result of several major strikes, growing concern over communist infiltration of unions, and fears over the size and power of the unions. This environment resulted in the Labor-Management Relations Act of 1947 (usually called the Taft-Hartley Act). Surviving a veto by President Harry S. Truman (1945–1953), the law sharply curtailed union rights, though it did reaffirm the right of workers to organize and bargain as a group for higher wages and better working conditions. The law specifically gave workers the right not to join unions and outlawed closed shops.

The first U.S. state to ratify a right-to-work law was Florida, which in 1944—three years before Taft-Hartley—amended its constitution to ban closed shops. By 1998, when union representation was weakest, 21 states had right-to-work laws (mostly in the South and the West). Indiana, one of the few industrial states to adopt a right-to-work law, became the first state to repeal anti-closed shop legislation in 1965. In the same year President Lyndon B. Johnson (1963–1969) pushed hard to get the right-to-work clause of the Taft-Hartley Act repealed, but without success. In the mid-1990s, thirty U.S. states had some form of right-to-work provision for some state employees, and all employees of the federal government were covered by right-to-work protections.

Opponents of right-to-work laws argued that such laws enable non-union workers to enjoy the benefits unions secure for their members without bearing any of the costs and that union membership is generally beneficial. Among the arguments in favor of right-to-work laws is that forcing employees to join a union as a precondition of employment violates their civil rights.

See also: Closed Shop, Labor Movement, Labor Unionism, National Labor Relations Act, Taft-Hartley Act

RIPPLE EFFECT

When someone drops a stone into a still pond of water, the water moves in ripples across the entire

pond. A similar ripple effect occurs in economics. Economic ripples can be big or small, and the largest have an international impact. In 1998, when several of Asia's economies collapsed, primarily Japan, the effects came to the United States in both positive and negative ways. The negative ripple effect of the collapsed Asian economies was a sharp reduction in Asian demand for U.S. produced goods because of the sudden lack of disposable income. One area where the reduced Asian demand made itself felt was in the American Southeast, where the textile and apparel industries were weakened as overseas sales fell and foreign competition intensified. The U.S. automobile industry was also hurt because an increase in Asian demand for cheaper cars led Asian consumers back to purchasing cheaper Japanese-made vehicles rather than the often more expensive American-made imports.

The ripple effect in economics can have a positive side as well. The collapse of Asian economies led to an investment drain in the region. Investors pulled their money out of the now shaky Asian markets and back into the more stable U.S. market. With this increased investment in the United States, interest rates in the country dropped. Because of the Asian decline in 1998, the United States experienced a sharp bond rally and a drop in long-term interest rates, including mortgage rates. Many homeowners took advantage of the decrease in mortgage rates and refinanced their homes for a lower monthly payment.

The ripple effect, which occurs daily in many small ways throughout the world's economies, creates positive and negative effects which are largely unforeseeable. As world trade increases and nations work more closely together, the ripple effect's intensity increases. Asia's financial problems in 1998 were confined by International Monetary Fund (IMF) interventions, which kept the collapse contained to Asia. Without this intervention, the negative ripple effects could have wreaked more havoc in Latin America, where Brazil was vulnerable, and in Eastern Europe, creating a far deeper crisis for the U.S. economy.

ROBBER BARONS

The "robber barons" were industrial and financial tycoons of the late nineteenth century. They included banker and financier John Pierpont Morgan (1837–1913); oil industrialist John D. Rockefeller (1839–1937); steel mogul Andrew Carnegie (1835–1919); financiers James J. Hill (1838–1916), James

The robber barons (especially the railroad men and the financiers who gained control of rail companies through stock buy-outs) hired lobbyists to work on their behalf to gain corporation subsidies, land grants, and even tax relief at both the federal and state levels. They converted their business prowess into political might.

Fisk (1834–1872), and Jay Gould (1836–1892); and rail magnates Cornelius Vanderbilt (1794–1877) and Collis Huntington (1821–1900). Hailed by some for expanding and modernizing the capitalist system, lauded by others for their philanthropic contributions to the arts and education, these businessmen were viewed by many more as opportunistic, exploitative, and unethical.

Many factors converged to make the robber baron businessman possible: the country was rich in natural resources, including iron, coal, and oil; technological advances steadily improved manufacturing machinery and processes; population growth, fed by an influx of immigrants, provided a steady workforce that was often willing to work for a low wage; the government turned over the building and operation of the nation's railways to private interests; and, adhering to the philosophy of *laissez faire* (non-interference in the private sector), the government also provided a favorable environment in which to conduct business. Shrewd businessmen turned these factors to their advantage, amassing great empires. They reinvested profits into their businesses and their fortunes grew. The robber barons (especially the railroad men and the financiers who gained control of rail companies through stock buy-outs) hired lobbyists to work on their behalf to gain corporation subsidies, land grants, and even tax relief at both the federal and state levels. They converted their business prowess into political might. In Washington, D.C., politicians grew tired of the advantage-seeking representatives of the nation's business leaders. Reform-minded progressives complained that the robber barons lived in opulent luxury while their workers barely eked out a living.

After a decades-long domination of the robber barons over the U.S. economy, changes around the turn of the century worked to curb their influence. In 1890 the federal government passed the Sherman Anti-Trust Act which made trusts illegal (trusts are combinations of firms or corporations formed to limit competition and monopolize a market). Workers continued to organize in labor unions with which corporations were

increasingly compelled to negotiate. The Interstate Commerce Commission (ICC) was established in 1887 to prevent abusive practices. In 1913 the Sixteenth Amendment was ratified, allowing the federal government to collect a graduated income tax. Though many American businessmen and women would make great fortunes in the twentieth century, by the end of the 1920s the era of the robber barons had drawn to a close.

See also: Andrew Carnegie, Jay Gould, John P. Morgan, John D. Rockefeller, Sherman Anti-Trust Act, Sixteenth Amendment, Cornelius Vanderbilt

ROCKEFELLER, JOHN DAVISON

The name Rockefeller has become synonymous with the idea of enormous personal wealth. In ordinary language one may hear the phrase "rich as Rockefeller," an enduring popular legacy for the man who built the largest fortune ever up to that time seen in the United States. John D. Rockefeller (1839–1932) created an oil empire that helped fuel the Industrial Revolution.

John Davison Rockefeller was born in 1839 in Richford, New York. His Baptist upbringing taught the young Rockefeller to be frugal, hard-working, and self-reliant. He despised waste and had a quiet disposition. Rockefeller's subdued character masked an aggressive ambition that would take him to the heights of success. In 1855, at age 16, he graduated from high school and began work as a bookkeeping clerk in Cleveland, Ohio. After four years Rockefeller left bookkeeping behind to start his own business in the new and rapidly growing oil industry.

As an entrepreneur, Rockefeller drew on the qualities instilled in him at childhood to run a successful and profitable business. He tried to save costs where possible and constantly reinvested his savings into his business. Rockefeller's business philosophy was akin to Charles Darwin's evolutionary theory of the "survival of the fittest." He could be a ruthless businessman, using harsh and even unethical methods to succeed, often driving his competition out of business.

By the 1870s Rockefeller's oil business grew to include refineries, lubrication plants, pipelines, cooperage plants, and other enterprises. The wide reach of his investments created an unwieldy and



John D. Rockefeller.

complicated business that Rockefeller controlled with an iron fist.

Rockefeller delegated management of his oil properties to 40 allied firms that, in 1882, centralized his operations under the Standard Oil Trust. The Standard Oil Trust monopolized 90 percent of all oil business in the United States and extended its influence into other parts of the world as well. It stifled competition in the oil industry.

While Rockefeller's business grew, the oil industry expanded. Rockefeller's increasing control over this important industry caused the United States government to examine more closely the fairness of trade and competition in the industry. The Ohio Supreme Court first asserted the illegality of Rockefeller's Trust in 1892. In 1870 Congress passed the Sherman Anti-Trust Act in part as a response against vast and powerful empires such as Rockefeller's. However it wasn't until 1911, under President Theodore Roosevelt (1901–1909), that the United States Supreme Court prosecuted the Standard Oil Trust for violation of anti-trust laws and dissolved its practices as “a monopoly in

restraint of trade.” By the time the Supreme Court completed its case against the Standard Oil Trust, John Rockefeller had pulled away from active involvement in his company's practices. He turned his attention to business ventures in minerals and ore in northwestern United States, and he developed ore operations in Colorado, Washington, and Minnesota.

John Rockefeller was one of the most successful U.S. entrepreneurs. He amassed a fortune of close to \$1 billion, an outrageous sum for his day. Despite his enormous wealth Rockefeller did not forget his early upbringing. He regularly contributed to charity and created the Rockefeller Institute for Medical Research, the General Education Board, the Rockefeller Foundation, and the University of Chicago. John D. Rockefeller died at age 97 in Ormund Beach, Florida, on May 23, 1937.

See also: *Petroleum Industry, Robber Barons, Standard Oil Company*

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ROEBLING, JOHN AUGUSTUS

John Augustus Roebling (1806–1869) came to the United States and created in New York what has become one of the nation's best-known and earliest examples of suspension bridges, the Brooklyn Bridge.

John Roebling was born in Prussia in 1806. He received an excellent formal education and graduated in 1826 with a degree in civil engineering from the Royal Polytechnic Institute in Berlin. As a practicing civil engineer, Roebling was dissatisfied with the simple road building projects available in his homeland at that time. He set his eyes elsewhere in search of more challenging work.

Roosevelt, Franklin Delano

His search ended in the United States, where Roebing and his brother emigrated and established a 7,000-acre agricultural community in western Pennsylvania. Roebing was an unsuccessful farmer and found himself returning to his civil engineering interests and the building opportunities available in the United States.

IN PURSUIT OF HIS PHILOSOPHICAL IDEAL "TO BRING IN HARMONY ALL THAT SURROUNDS ME," JOHN AUGUSTUS ROEBLING BECAME A PIONEER OF SUSPENSION BRIDGES IN THE UNITED STATES.

He saw in his new country an opportunity to achieve the realization of his philosophical ideal of harmony. Creating order out of chaos was foremost in Roebing's life. The many bridge building projects he led, pioneering the design of the suspension bridge, were an extension of his desire "to bring in harmony all that surrounds me."

Drawn back into civil engineering, Roebing began his career in the United States first as a surveyor for the Pennsylvania Railroad. At the railroad he observed the thick, crude, and expensive rope used to haul heavy barges up hills to reach the canal systems and saw a way to improve the process. He invented and began manufacturing a smaller cable composed of many thin strands of wire twisted together to make a single cable, far stronger than the bulky rope then in use. Roebing was a leader in the manufacture of strong steel cables, and he later used their unique blend of strength and lightness in the construction of suspension bridges.

Roebing combined strength and lightness, extension-in-space and compactness, and the precision of steel cables with rolling Gothic arches in the stone towers of the bridges he created. His first suspension bridge was a highway bridge over the Monongahela River that runs through Pittsburgh, Pennsylvania. He then went on to construct a bridge across the Ohio River in Cincinnati, Ohio. Across the Niagara River in 1855, he built the first cable suspension bridge capable of handling human road traffic.

Roebing's last project, the design and construction of the Brooklyn Bridge, began in June 1869. The Brooklyn Bridge was the longest and most modern bridge ever attempted at that time. It spans New York's East River, connecting Manhattan and Brooklyn. Hanging from steel cables almost sixteen inches thick, the bridge boasts two Gothic towers along its 1,595 foot length.

During the first stages of construction, Roebing suffered an accident while inspecting the stone base-pilings of the bridge and his foot was crushed. An infection quickly set in and he died of tetanus complications on July 22, 1869.

The Brooklyn Bridge, finished in 1883, fourteen years after the death of its creator, is a symbol of American ingenuity as the nation emerged from a farming economy into an industrial nation. It was completed by Roebing's son, Washington, who carried out the realization of his father's dream.

See also: **Brooklyn Bridge**

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ROOSEVELT, FRANKLIN DELANO

Franklin Delano Roosevelt (1882–1945), known as F.D.R., was the thirty-second president of the United States. He was the only president elected to four consecutive terms of office. According to polls of historians and political scientists, F.D.R. is consistently ranked with George Washington (1789–1797) and Abraham Lincoln (1861–1865) as one of the United States' three greatest presidents.

Roosevelt's politics in fighting both the Great Depression (1929–1939) and World War II (1939–1945) was always realistic: he stood for humanity and against rigid ideology. Roosevelt seemed to work against the abstract ideologies of fascism, communism, and European imperialism in an effort to find practical ways to help common people.

Some Roosevelt critics in the wealthy business community said he was leading the United States into communism. During the Great Depression he said to his business detractors: "The test of our progress is not



Franklin D. Roosevelt.

whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little.”

Roosevelt is known as the president who lifted the United States out of its deepest economic despair and revolutionized the country’s way of life. While many businessmen opposed him, he understood that social security, unemployment compensation, stock securities regulation, farm price supports, minimum wages, and guarantees of collective bargaining were all ways in which capitalism could save itself, instead of surrendering to other systems and pulling itself apart.

Franklin Roosevelt was born into a prominent and wealthy family in Hyde Park, New York, in 1882. He received a traditional education at the respected Groton School and went on to graduate from Harvard University, then entering the Columbia University law school. Roosevelt became a lawyer without finishing law school, but his dreams seemed always to be about politics. He had great ambitions to become president, and as early as 1905 his fellow law clerks remarked how Roosevelt meant to enter politics and the White House.

In 1910 he was elected to the New York State Senate. From there, his career in public service went from the New York Senate to President Woodrow Wilson’s (1913–1924) Assistant Secretary of the Navy, then to the governor of New York in 1928, and ultimately to the presidency of the United States in

1933. He was re-elected to the presidency three times before his death in 1945.

THE TEST OF OUR PROGRESS IS NOT WHETHER WE ADD MORE TO THE ABUNDANCE OF THOSE WHO HAVE MUCH; IT IS WHETHER WE PROVIDE ENOUGH FOR THOSE WHO HAVE TOO LITTLE.

Franklin D. Roosevelt

In 1921, at age 39, Roosevelt became seriously ill with polio, and he was almost completely paralyzed. Through exhausting courses of physical exercise, he fiercely struggled to cure himself. He made progress in recovery, but never regained the use of his legs. Prior to his illness, Roosevelt was seen by many as a spoiled rich man dabbling in politics. Little of his later political seriousness was apparent before his bout with polio. When asked how he could be so patient with a political opponent, he said: “If you had spent two years in bed trying to wiggle your big toe, after that anything else would seem easy.”

Roosevelt ran for the presidency on the Democratic Party ticket in 1932, promising to balance the federal budget and provide direct aid to the needy. Though his Republican opponents saw Roosevelt as a dangerous “socialist” during the 1930s, they missed the point that Roosevelt’s efforts were to save American capitalism from its worst traits. He also planned to break with “foolish traditions” in order to relieve the misery of one-third of the population, mired in the hard times of the Great Depression (1929–1939). Roosevelt won the election and began his first term of office in 1933.

On March 9, 1933, he convened a special session of Congress, which lasted 100 days. During that period more important legislation was passed than at any other comparable period in U.S. history. Roosevelt called his reform, recovery, and relief efforts the New Deal. To accomplish his social and economic goals he needed to overcome the deep-seated public prejudices against a strong federal government. Roosevelt went on the radio and talked informally to the public about what he wanted to do. This combination of decisive action and personal persuasion was effective. The most popular New Deal measures voted in were aimed at relieving the suffering of the unemployed, who made up about 30 percent of the country’s workforce at the time. Roosevelt created federal jobs for the unemployed, assisted farmers ruined by the Depression, and protected citizens against loss of their homes by mortgage foreclosures. He also enacted the Social Security Act, which put in place an old-age pension system, as well as benefits to widows with children and the



As the war stripped the workforce of men, women were hired to perform factory jobs, such as using this rivet gun to assemble aircraft for the war effort.

chronically disabled. A combination of New Deal legislation and World War II (1939–1945) worked to return the United States to prosperity.

By 1938 the Republicans and conservative Democrats had won enough seats in Congress to halt substantial increases in New Deal legislation, which was never without controversy. Regardless of the many perspectives held on Roosevelt and his terms in office, it is impossible to deny the central role he and his New Deal played in the shaping of the modern United States. F.D.R. died of a cerebral hemorrhage in Warm Springs, Georgia, on the morning of April 12, 1945. He died knowing World War II was won, and the economy repaired.

See also: Great Depression, New Deal, Social Security Act, Unemployment, United Nations, World War II

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ROSIE THE RIVETER

“Rosie the Riveter” was the title of a song written in 1942, during World War II (1939–1945). The song quickly became a popular hit, and more importantly became the catch phrase that represented all women working in war-related industries.

The image of a woman war worker first appeared on the cover of the then-popular weekly magazine, *Saturday Evening Post*, on May 25, 1943. It was a painting by renowned artist Norman Rockwell of a woman worker; a muscular body, a cute saucy face, and very determined. She had a rivet gun, used for industrial assembly, resting across her lap, and the name “Rosie” painted on her lunchbox.

“Rosie the Riveter” became the major symbol of the more than six million women who joined the workforce during World War II. The women worked in naval shipyards, lumber mills, steel mills, and foundries. They worked as welders, mechanics, electricians, and boilermakers. They operated buses, cranes, tractors, and worked as engineers, police officers, taxicab drivers, and members of federal government services.

When the war ended in 1945, so did the extraordinary job opportunities for women. “Rosie the Riveter” disappeared as quickly as she had been created. “Rosie” represented the superb skill, ability, and patriotism of all U.S. women working on behalf of the domestic, industrial efforts on the “home front” during World War II.

See also: Women in the Workplace, World War II

RUBBERMAID INCORPORATED

Rubbermaid Incorporated was the product of two founding businesses—one, a maker of toy balloons, and the other, the designer of a better dustpan. The Wooster Rubber Company started in May 1920, when nine Wooster, Ohio, investors pooled \$26,800 to form a company to manufacture toy balloons, sold under the Sunshine brand name. Wooster Rubber was housed in a single building in Wooster—a small town 50 miles from Cleveland, Ohio. In 1927 Horatio B. Ebert and Errett M. Grable, two Aluminum Company of America executives, bought Wooster Rubber. By the late 1920s a new factory and office building had been constructed to house the prosperous business, but the fortunes of Wooster Rubber sunk during the Great Depression (1929–1939). In 1934 Ebert spotted Rubbermaid products in a New England department store, and he worked out a merger between the two firms.

Meanwhile, New Englander James R. Caldwell, who had first entered the rubber business as an employee of the Seamless Rubber Company in New Haven, Connecticut, looked around his kitchen during the depths of the Great Depression to see what he could improve. Caldwell and his wife conceptualized and developed 29 products, among them a red rubber dustpan. Although the rubber dustpan, designed and manufactured by Caldwell and his wife, cost \$1.00—much more than the 39-cent metal pans then available in stores—Caldwell “rang ten doorbells and sold nine dustpans,” as he recalled in an interview published in the *New York Times* on May 19, 1974. Convinced there was a market for his products, Caldwell gave his

enterprise a name—Rubbermaid—and expanded his line to include a soap dish, a sink plug, and a drainboard mat—products he sold in department stores throughout New England.

In 1934, Ebert spotted Rubbermaid products at a New England department store, and believing that such products could help his struggling Wooster Rubber, he engineered a merger of the two enterprises in July 1934. Still called the Wooster Rubber Company, the new group began to produce rubber household goods under the Rubbermaid brand name. With the merger, which was under Caldwell’s leadership, Wooster Rubber had a happy reversal in fortunes; sales rose from \$80,000 in 1935 to \$450,000 in 1941. Of the 29 new products Caldwell and his wife thought up in their kitchen in 1933, the company had marketed 27 of them by 1941.

ALTHOUGH HIS RUBBER DUSTPAN COST \$1.00—MUCH MORE THAN THE 39-CENT METAL PANS THEN AVAILABLE IN STORES, JAMES R. CALDWELL “RANG TEN DOORBELLS AND SOLD NINE DUSTPANS.”

In 1942 however, U.S. involvement in World War II (1939–1945) caused the government to cut back on civilian use of rubber, which was also had important military uses. This eliminated Rubbermaid’s housewares business, but the company was able to convert to military manufacturing. Beginning with rubber parts for a self-sealing fuel tank for warplanes, and moving on to other products such as life jackets and rubber tourniquets, the company manufactured military goods throughout the end of the war.

Following the war Wooster Rubber resumed its prewar production of rubber housewares. Because wartime shortages had not yet been completely redressed, no coloring agents were available and all Rubbermaid products were manufactured in black for several months. In 1947 the company introduced a line of rubber automotive accessories, including rubber floor mats and cup holders.

In 1955 the Wooster Rubber Company went public. This capital infusion allowed the company to branch into plastic products, and in 1956 a plastic dishpan was introduced. In 1957 the Wooster Rubber Company changed its name to Rubbermaid Incorporated to increase its association with its well-known brand name. The following year Rubbermaid began its first expansion beyond production of household goods when the company broadened its targeted market to include restaurants, hotels, and other institutions. Rubbermaid initially produced bathtub mats and doormats for these

clients. By 1974 industrial and commercial products provided 25 percent of the company's sales.

Following the 1970s, during which the company made ill-fated ventures into motorboats and snow sleds, Rubbermaid refocused on home and commercial products in the early 1980s. Rubbermaid also expanded through acquisitions. The company added the Contact brand of decorative plastic coverings in 1981; Little Tikes, a maker of plastic toys, in 1984; Empire Brushes, a leading U.S. maker of brooms, mops, and brushes, in 1994; the Graco brand of strollers, play yards, and infant swings in 1996; and Century Products, a manufacturer of car seats and strollers, in 1998. Then in March 1999, Newell, a housewares manufacturer based in Freeport, Illinois, purchased Rubbermaid for \$6 billion. Newell then changed its own name to Newell Rubbermaid Inc. in tribute to the reputation of the Rubbermaid name.

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RUDKIN, MARGARET FOGARTY

During an era when being a housewife was considered the appropriate goal of a woman, Margaret Rudkin (1897–1967) achieved acclaim as one of the most

successful female entrepreneurs in the United States. Her concern for her son's health prompted this already wealthy housewife to begin baking her own "health bread" and within 10 years her Pepperidge Farm ovens were producing thousands of loaves a day at a baking facility she herself designed. Her business was later acquired by the Campbell Soup Company, which further expanded the successful brand of baked goods Rudkin had developed.

Margaret "Peggy" Rudkin was born Margaret Fogarty on September 14, 1897, in New York City, one of five children born to Joseph and Margaret Fogarty. Her father drove a truck, and the family lived with their grandmother until Margaret was 12, when her grandmother died. The family then moved to Flushing, New York, where Rudkin later graduated from Flushing's City High School as class valedictorian in 1915. Following graduation she went to work as a bookkeeper in a bank in Flushing and eventually became a bank teller.

At age 22 Rudkin began working on Wall Street at the brokerage firm of McClure, Jones, and Co. where she became a customer representative, helping people understand their investment choices more clearly. She met her husband, Henry Albert Rudkin, at the brokerage house, where he was one of the firm's partners. They were wed on April 8, 1923 and made their home in New York City.

The first years of the Rudkins' marriage were prosperous. They had three sons, and in 1928 they decided to build a house in nearby Fairfield, Connecticut, where they had purchased 125 acres of land. The Rudkins named their large Tudor-style house and the surrounding acreage "Pepperidge Farm" in 1931, after an old Pepperidge (black gum tree) that was on the property. Henry Rudkin sustained a serious injury while playing polo, making their activities afterward more limited.

In 1937 the Rudkins' youngest son, John, was diagnosed with asthma. The allergist said the additives in store-bought foods were probably aggravating the condition. Hearing this, Rudkin began to make all of her son's food from scratch, including bread.

Having never baked bread before, Rudkin used a recipe from her grandmother's cookbook. The recipe called for butter, whole milk, honey and whole-wheat flour, which Rudkin ground herself. Her son's health improved so much that the allergist requested she bake more loaves for his other asthma patients.

At this point, Rudkin started to bake in earnest and began to think of baking as an occupation rather than as

a component of her son's health regimen. From this time on Rudkin, along with her husband and children, pursued the business.

Beginning in 1937 after she provided her son's allergist with some of the "health bread" she had made for her son, Rudkin began to explore the wider sales potential of her bread. She began by making bread for the upscale New York City market and before long her husband was delivering 24 loaves of bread a day to Charles and Co., a specialty food company in Manhattan.

By the end of her first year of baking, using ovens installed in one of the abandoned horse stables on their property, Rudkin was making and selling 4,000 loaves a week. Although the price was more than twice the price of a regular loaf of bread, people seemed drawn to the "old fashioned," homemade, and healthy image of Pepperidge Farm bread.

By 1940 Rudkin moved the bakery to a larger facility in Norwalk, Connecticut, where she was able to make 50,000 loaves a week. All this time, she was maintaining the high quality of all the ingredients. By 1947, launching a new bakery designed to Rudkin's own specifications, the Pepperidge Farm Co. was producing 4,000 loaves of bread per hour.

Growth and maintaining quality while expanding were Rudkin's main concerns. Her husband retired from Wall Street in 1949 and took over the financial side of the company while she managed the production and personnel. By this time, there were three bakeries: one in Connecticut, one near Chicago, and one near Philadelphia. Rudkin maintained quality control despite the massive expansion by specifying that her bread was not to be sold after two days on the shelf. When surplus bread was returned from the distributor, Rudkin used it to make poultry stuffing for a good profit.

In the 1950s Pepperidge Farm, under Rudkin's management, employed over 1,000 workers. By 1956 she introduced cookies that were "healthy," and in 1958 frozen pastries made their debut. By that time Pepperidge Farm (within 15 years of its inception) was a brand name recognized nationally; products were found in virtually every market. Among the growing list of products offered by the company during that period were rolls, coffee cake, Melba toast, stuffing, and Goldfish cocktail crackers.

By 1960 when Rudkin was 63, she and her husband decided to sell the Pepperidge Farm Company to the Campbell Soup Company for \$28 million in Campbell stock. However the Rudkins kept a controlling

interest in Pepperidge Farm itself, and for the next decade the company was run as an independent subsidiary of Campbell.

During the final years of her life Rudkin appeared in television commercials for Pepperidge Farm products and authored a cookbook in 1963. She also became a part-time public speaker as a kind of hobby. During this period the Rudkins divided their time between homes in Hobe Sound, Florida, and County Carlow, Ireland. Henry Rudkin died in 1966 and a year later Rudkin herself died of cancer in New Haven, Connecticut, at the age of 69.

Rudkin was clearly one of the most successful and nationally prominent businesswomen of her generation, a woman who started baking bread for her son and ended by making products with wide appeal among national consumers. During the 1950s and 1960s when the Pepperidge Farm product line was at the height of its popularity it is likely that the "homemade" quality of the products was the most appealing feature to the female shopper, who was likely making less homemade bread herself.

In the closing decades of the twentieth century Rudkin's legacy continued in the popularity of Pepperidge Farm products offered by the Campbell Soup Company, including garlic bread, gourmet cookies, fat-free croutons, stuffing, puff pastries, and Goldfish crackers. According to the 1997 Campbell annual report, the Pepperidge Farm line was considered one of the "jewels in [Campbell's] portfolio, delivering outstanding, double-digit sales growth." The report further stated that "a third of all American households with children now eat Goldfish" and singled out "Milano" as "the consumers' favorite Pepperidge Farm cookie."

Rudkin's managerial style allowed company growth in response to consumer demand while retaining quality control of Pepperidge Farm products as the production facilities grew. Rudkin made Pepperidge Farm a household name, largely by making an honest, high-quality product and not compromising quality to reduce price. She also succeeded in selling, with her bread, the idea of the store-bought "homemade" product. She did this just as fewer people were eating truly homemade foods in the 1940s and 1950s and as more and more foodstuff in the United States became commercially mass-produced.

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RURAL ELECTRIFICATION ADMINISTRATION

One of the most important New Deal programs for farmers was the Rural Electrification Administration (REA). This program, authorized by Congress in 1935, lent funds to rural cooperatives to generate and distribute electricity to areas not served by private utility companies. The impact of electrification in such isolated areas was enormous. In 1936, 90 percent of U.S. farms had no electricity. Without electric power, farm families had to perform back-breaking work by hand. They had to draw water from wells or pump it by hand, which made it impossible to have flush toilets. They lacked refrigerators, electric lights, and washing machines. All the farm chores, such as milking, also had to be done by hand. And without electricity, there was no access to radio or telephone. Life for farm families was exhausting and lonely, and lack of electric power was a major cause of poor health in rural areas. The REA, despite strong opposition from private utilities, made it possible for cooperatives to provide affordable electric power to the rural poor. By 1937, the program had enabled almost a quarter of a million farm households to obtain electricity; by 1945, that number had increased to 40 percent of the country’s farms. Electricity brought farm families into the twentieth century. Not only did electric power make their work easier and more efficient, it brought them into closer contact, through telephones and radio, with other parts of the country. In addition, electrification made it possible for farmers to improve their businesses after World War II by diversifying operations.

See also: New Deal, Tennessee Valley Authority

RUST BELT

The term “Rust Belt” refers to an economic region in the northeast United States, roughly covering the states of Michigan, Wisconsin, Indiana, Illinois, Ohio, and Pennsylvania, a region known as the manufacturing heartland of the nation. Many of the factories

and steel mills that produced the “American economic miracle” during and after World War II (1939–1945) were padlocking their gates by the 1970s. This was more than a downward phase in the business cycle. It was a structural crisis brought about by the aging of a generation of factories, the relative decline of the manufacturing sector, and increased global competition. The crisis brought unemployment to workers, and increased police and welfare costs to cities at the same time that it signaled a decline in tax revenues. When the factories shut down, the cities lost corporate and property tax revenues as workers followed jobs to the suburbs or to other parts of the country.

The term “Rust Belt” thus refers to a social crisis mostly affecting the cities. During the 1970s and 1980s, rust belt cities experienced deepening unemployment, out-migration of population, loss of electoral votes, and an overall decline in industry and the economy. Smaller industrial plants relocated to Mexico or to low-wage American Sun Belt states. Big steel companies dating from the nineteenth century, like Bethlehem Steel and U.S. Steel Co., became industrial dinosaurs in the mid-twentieth century, made obsolete by technological advances and competition from Japan and Germany (whose plants mostly dated from the post-World War II period).

One typical Rust Belt story is the Dodge Main plant in Hamtramck, Michigan, an older industrial suburb of Detroit. Built in 1910, Dodge Main for decades was the “flag ship” factory of Chrysler Motors Corporation. Because land was at a premium when the plant was built, it was six stories tall—a problem for assembly line production as the partially assembled units had to go from floor to floor. By the 1960s, as single story factories were being built in the suburbs or rural areas, the Dodge Main plant was obsolete. The plant was also the site of racial and union militancy, as African American workers formed the “Dodge Revolutionary Union Movement” (DRUM) to counter racial discrimination in the workplace and in the union.

By the early 1970s scores of factories that had once made up the Detroit skyline during the automotive boom were either razed or slated for destruction. The Chrysler Corporation in 1979 had to be bailed out of bankruptcy by the federal government and by concessions from its employees. The company revived, but Dodge Main went under the wrecker’s ball in 1981.

By the mid-1980s, the Rust Belt began to recharge. Steel mills and factories retooled, making the transition from outdated, inefficient, and often unsafe facilities to innovative and progressive ones. This transformation was accompanied by downsizing and deregulation,

which contributed to job insecurity for workers. Nevertheless, with these changes the name “Rust Belt” began to drop from common usage. By 1996, the double-digit unemployment rates of the 1970s had fallen to 4.4 percent. Some former Rust Belt states like Michigan began to experience lower average unemployment than the rest of the country. Part of this was due to low energy prices that favored energy-intensive manufacturing.

Several cities of the Rust Belt, such as Pittsburgh, Detroit, and Cleveland, have attempted to diversify their economies to escape the heavy dependence on manufacturing and have successfully made a transition to the “service and information economy.” The region

must still avoid complacency and guard against a shortage in skilled labor. The Federal Reserve Bank of Chicago reported in 1997 that improved access to education and skills was required for continued growth in the region. Educational reforms and an increase in the market base of their products are only part of the measures planned by the former rust belt states to maintain a competitive edge. The economic fortunes of the Midwest—as is clear from the experience in the automobile and steel industries—is tied to a competitive global market. The rusting experience of the 1970s provided the region with the opportunity to retool for world competition.

***See also:* Chrysler Motors Corporation, Sun Belt**



SAINT LAWRENCE SEAWAY

When Queen Elizabeth II, President Dwight D. Eisenhower (1953–1961), and other dignitaries gathered at the U.S. and Canadian border in June 1959 to officially open the St. Lawrence Seaway, it was the culmination of a project that had been discussed for almost 70 years. Ships could now travel along all of the Great Lakes, through the St. Lawrence River, and into the Atlantic Ocean. Along the way were such prominent U.S. port cities as Milwaukee, Chicago, Toledo, Cleveland, Detroit, and Buffalo. Following years of study and opposition by competing interests and in the U.S. Congress, joint Canadian and U.S. construction on the final phase of the Seaway began in 1954. It would cost nearly \$500 million and require the relocation of 6,500 citizens on both sides of the border before the Seaway officially opened in 1959. At over 2,300 miles the St. Lawrence Seaway linked North America's industrial heartland to the rest of the world's markets, serving as a boon to commercial shippers. However, both nations have lost money on the project over the years.

Canals had been built along the St. Lawrence River as far back as the 1680s (the river was named by explorer Jacques Cartier in honor of the saint on whose feast day Cartier discovered the waterway in 1535). These canals made it easier for fur traders centered in and around Montreal to ship their wares. In 1824 what is now known as the Lachine Canal was completed, linking Montreal with Lake St. Louis. Just a year later, however, New York's Erie Canal opened, attracting much of the region's shipping traffic, as it provided a shorter route between the Atlantic Ocean and the Great Lakes, as well as access to New York City through the Hudson River. Nonetheless the St. Lawrence River remained an important shipping route, especially to Great Britain.

In the 1890s Minnesota Congressman John Lind sponsored a resolution to look into a joint Canadian-American waterway which linked Lake Superior—the

westernmost Great Lake, which extends to Duluth, Minnesota—with the Atlantic Ocean. The St. Lawrence River was deemed to be the most feasible route. By 1900 a network of shallow canals already made it possible to travel from Lake Superior all the way to Montreal. Between 1912 and 1932 the Welland Canal, which a century earlier linked Lake Erie to Lake Ontario (located north of Ohio and western New York) was rebuilt to support the heavy traffic.

[A]LONG WITH ITS BENEFITS TO NATIONAL DEFENSE (A GREAT LAKES SEAWAY) WILL CONTRIBUTE TO THE PEACETIME WELFARE OF A MULTITUDE OF LABORERS, SMALL BUSINESSMEN, HOMEOWNERS AND FARMERS.

Franklin D. Roosevelt, President (1933–1945), 1940

In 1921 a joint commission issued a report recommending that the United States and Canada enter into a treaty to improve passage through the St. Lawrence River between Montreal and Lake Ontario. The cost of building the Seaway, the report said, would be proportional according to each country's benefits. But interests such as railroads, which were in competition with the shipping industry, opposed the seaway project. In 1932 Canadian Prime Minister R. B. Bennett and U.S. President Herbert Hoover (1929–1933) signed a treaty which agreed to build a seaway to the Atlantic Ocean. Both nations would share the work and costs involved. The U.S. Senate, however, rejected the treaty in 1934.

The issue remained unsettled until the early 1950s, when vast fields of iron ore were discovered in Canada. A complete seaway along the St. Lawrence was supported as the best way to transport the ore to U.S. and Canadian steel mills. Others suggested such a passage-way would also offer military advantages. As his predecessor Franklin D. Roosevelt (1933–1945) had been, President Harry S. Truman (1945–1953) was in favor of the seaway project. But both the U.S. House of Representatives and the Senate resisted approval of St. Lawrence Seaway bills. Canada, it appeared, would

Samuel Slater Builds the First Factory

move ahead with the project on its own. However, President Dwight D. Eisenhower, along with advocates in both houses of the U.S. Congress, successfully passed a bill to jointly build the St. Lawrence Seaway with Canada in 1954.

According to the original bill the Seaway would ultimately pay for itself through tolls paid by shippers. The project cost Canada \$336.5 million and the United States \$133.8 million. A separate project to harness the seaway for electrical power cost each nation an additional \$300 million. The construction would ultimately require entire towns and villages to be relocated and about 40,000 acres of farmland in both countries was flooded. In early 1959 both countries agreed to share toll revenues roughly proportionate to the amount they spent on construction.

The St. Lawrence Seaway was officially opened on June 26, 1959, though the waterway had actually been operating for a full three months to assess any potential problems. In its first year almost 19 million metric tons of cargo passed through the Seaway, a figure that climbed to 30 million in 1964, 40 million in 1966, and 50 million in 1973. A high of over 57 million metric tons was reached in 1977. The one-billionth metric ton of cargo passed through the Seaway in June 1983, a year before the Seaway would celebrate its 25th anniversary.

The Seaway, however, has not been the revenue producer both countries thought it would be and, because it invested more money, Canada's losses have been higher. Supporters of the Seaway believed general and bulk cargo would be shipped along the route in large quantities. But the development of container ships whose cargo can be carried just as easily by train or truck has made the route primarily one for bulk cargo, such as grains and minerals, reducing potential business. Into the 1980s and 1990s different combinations of toll hikes and reductions were used to encourage use and increase revenue. Nonetheless, in the early 1990s the Seaway had created over 44,000 jobs and generated nearly \$2 billion annually in personal income. Meanwhile, the Seaway's hydroelectric power project, at the Moses-Saunders Dam between Cornwall, Ontario and Massena, New York, supplied 1.6 million kilowatts of electricity to the surrounding area. In 1993 the Seaway registered its first total tonnage increase in five years, with almost 32 million metric tons floating through the Seaway. But this 2 percent increase was little more than half of the high achieved in 1977. However, into the mid-1990s annual tonnage shipped through the Seaway was increasing, moving closer to 40 million.

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SAMUEL SLATER BUILDS THE FIRST FACTORY

As a young British immigrant, Samuel Slater took credit for building the United States' first successful water-powered cotton mill in 1790. By producing replicas of innovative cotton-spinning machinery recently developed by the English, Slater was able to create a fully operational facility in Rhode Island. The construction of his factory represented a tremendous step forward for industry in the United States, which had been struggling to catch up to Great Britain in technological advancement. Slater became a textile entrepreneur whose style of factory construction and workforce management set the pattern for industrial development throughout New England. His contribution was so significant that President Andrew Jackson (1829–1837) once dubbed him the Father of American Manufacturers.

Prior to the Revolutionary War (1775–1783), England imposed many restrictions upon the colonial economy. Intent on maintaining an agrarian rather than an industrial economy in these regions, British legislators passed a series of acts to curb the development of industry in America. The first of these laws was enacted in 1719 and forbade the practice of metalworking. A 1750 law was more restrictive, explicitly prohibiting the use of a mill "or other engine for slitting or rolling iron, or any plating forge to work with a tilt hammer, or any furnace for making steel." Before the enactment of this law some of this forbidden machinery had already been operational in the northern colonies.

Restrictions such as these, which expressed the common understanding of the subordinate role of the colonies in the mercantilist system, made up part of the

complex set of motivations and complaints that eventually led to the separation of the colonies from England. Although the United States ultimately gained its independence, the British continued to hamper the new nation's industrial development by limiting the export of mechanical equipment. In response, the U.S. imposed protective tariffs on metalwork such as rolled iron, castings, and spikes, hoping to encourage a domestic capacity in these areas.

SLATER'S 1789 ARRIVAL MARKED THE UNFOLDING OF A FUTURE FOR INDUSTRY IN THE UNITED STATES: HE BROUGHT WITH HIM FROM ENGLAND A MENTAL BLUEPRINT OF THE STATE-OF-THE-ART MACHINERY USED FOR COTTON SPINNING.

The American Revolutionary War, the Embargo of 1807 (1807–1809), and, later, the War of 1812 (1812–1814), all of which involved blockades of American ports, impressed the U.S. political leadership with the necessity of fostering a domestic metalworking culture. For this reason, the United States Congress enacted patent law to provide incentive for industrial innovation although the patent process before 1836 was very lax and granted patents to “inventors” who were actually promoters. The same need to foster a metal-working culture led the new nation to found federal arsenals. The most famous one was in Springfield, Massachusetts, where in the last years of the eighteenth century inventors like Eli Whitney and Samuel Colt advanced and popularized the idea of standardizing machine parts. The United States endeavored to attain a degree of self-sufficiency in manufacturing and to move forward into industrial development, but it lacked both the workforce and the elements of technological know-how necessary to sustain industrial advancement. It continued to lag behind Western Europe, which had taken its first steps toward an industrial economy in the early eighteenth century.

This is what made Samuel Slater's 1789 arrival in New England so momentous. Slater brought with him from England a mental blueprint of the state-of-the-art machinery used for cotton spinning. British law sought to prevent the leakage of trade secrets, so Slater did not dare to carry written instructions or drawings on his passage overseas. Instead, he kept all of the information in his head, “smuggling” it into his new homeland.

Because England forbade the emigration of its skilled machinists, the 21 year-old Slater passed himself off as a farm laborer. In truth, he had already served as supervisor of machinery in a textile factory after completing an apprenticeship with Jedidiah Strutt, a

successful British manufacturer of ribbed stockings. (Strutt's partner was Richard Arkwright, who had built world's first cotton-spinning mill in 1768.) Slater was about as skilled as a machinist could be, and in the United States he was to find fame and fortune in the application of his knowledge. Slater's contribution was not so much as an inventor. He made few if any breakthroughs in creating new machinery. His importance lay rather in the fact that his purloined knowledge of English technology filled in a number of blank spaces in the understanding of mechanical principles among inventors in the United States. It marked the unfolding of a direction and a future for industry in the new nation.

At the time of Slater's arrival, textile production in the United States was very crude. The work was labor-intensive and the result was of poor quality. He took a temporary position at the New York Manufacturing Company, a small textile business that had been struggling to replicate British yarn-spinning technology. But the New York facility lacked the waterpower that was necessary to run the new machinery, and Slater soon looked for opportunities elsewhere. He relocated to Pawtucket, Rhode Island where he joined the textile firm of Almy and Brown, who also aimed to imitate the British water-powered system. Slater offered the Pawtucket firm the expertise that it sought: He became a partner almost immediately and set out to erect the United States' first cotton-spinning mill.

Slater put his memory of the British technology to work, designing and constructing three machines for the carding of wool, several drawing and roving frames, and two spinning frames. Not long after the first mill's completion, Slater embarked on the construction of a larger facility, which was operational in 1793. The waterframe machinery was simple to use and did not require much manpower; in fact, the labor force consisted of 100 children who ranged in age from four to ten. Determined not to replicate the inhumane practices of some British manufacturers, Slater treated his little workers comparatively well and supplied them with good food. He eventually established a Sunday school for them, one of the first such schools in the nation.

Meanwhile Slater's wife Hannah, whom he had met and married in Rhode Island, turned out to be an inventor in her own right: she developed a method for making high-quality cotton sewing thread (previously, all thread had been made of linen). In 1798 Slater and his father-in-law went into partnership to manufacture the thread. Samuel Slater and Company, as their business became known, constructed its own machinery and erected mills near Pawtucket. Later the company expanded, opening mills in Smithfield, Rhode Island

(later renamed Slatersville); Webster, Massachusetts; Jewett City, Connecticut; Amoskeag Falls, New Hampshire; and Manchester, New Hampshire. Slater had come a long way from introducing his first, modest-size facility. He had become one of several epicenters of industrial innovation in the United States. And with his good business and management sense he became something of a model for other U.S. manufacturers, who often emulated his practices.

Although Slater did not invent any new textile machinery, the construction of his first mill was often credited with launching the country's industrial revolution. Indeed, many other factories cropped up soon after his facility opened. Rhode Island's Blackwater River region, which surrounds the site of the original Slater mill in Pawtucket, became particularly dense with industry attracting immigrants and providing ample employment opportunities to whole families of mill workers. Around the country manufacturers of all kinds endeavored to construct their own machinery, promoting a trend that Slater had set in motion. The United States' transition from an agrarian to an industrial economy was underway.

See also: Rhode Island System of Labor, Samuel Slater, Textile Industry

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SANTA CLARA COUNTY V. SOUTHERN PACIFIC RAILROAD

In January 1886 a California circuit court heard the case of *Santa Clara County v. Southern Pacific Railroad Company*. The county government, the seat of which is San Jose, brought a complaint against the rail company over the issue of Southern Pacific's nonpayment of state taxes. The state had attempted to

collect taxes for fences (which it assessed as "improvements") that Southern Pacific erected between the roadway and adjacent lands. The railroad company argued that California did not have the authority to assess taxes on the roadway or the fences because it had no jurisdiction to these lands or the improvements made to them. Southern Pacific's lawyers maintained that the corporation had been granted the lands through a federal act that was approved by the state of California. The declared object of the act was for "the construction of a railroad and telegraph line from the Missouri river to the Pacific, which, for all purposes of communication, travel, and transportation, so far as the public and the general government are concerned, should be operated 'as one connected, continuous line.'" Therefore, the assessment was judged void.

The favorable ruling that Southern Pacific received in this case stirred public outrage. Not only did the railroad control most of California's transportation, it exerted a powerful political influence. Among Southern Pacific's most vocal opponents was William Randolph Hearst (1863–1951), who, as publisher of the *San Francisco Examiner* newspaper, launched an attack on the monopolistic practices of the rail company. In 1901 the Southern Pacific became a bigger power when financier Edward Harriman (1848–1909) acquired it along with Central Pacific Railroad; Harriman thus dominated rail traffic in the West. Harriman's monopoly became the object of an investigation by the Interstate Commerce Commission (ICC) in 1906–1907.

Southern Pacific's undoing came partly at the hands of politician Hiram Johnson (1866–1945), the Progressive Republican candidate for California governor in 1910, who toured the state with his promise to "kick the Southern Pacific Railroad out of politics." Winning the election, Johnson and his fellow reformers gained control of both houses of the state legislature in 1911 and then they passed legislation to regulate the railroads and other public utilities. In 1913 the U.S. attorney general prosecuted Southern Pacific and Union railroads, claiming their merger violated the Sherman Anti-Trust Act of 1890.

See also: Railroad Industry, Robber Barons

SANTA FE

Santa Fe, New Mexico, is the oldest capital city in the United States. Situated in the north-central part of New Mexico, it was founded by the Spaniards in 1609–1610 as an outpost for their exploration and missionary activities in the Southwest. The original name given by

the colonists was *La Villa Real de la Santa Fe*, which means the Royal City of the Holy Faith. Prior to the arrival of the Europeans, Santa Fe had been home to the Pueblo Indians, who were subjugated and converted to Christianity by the Spanish conquistadors. In a 1680 rebellion the Pueblo Indians reclaimed the city and occupied it again for the next twelve years, restoring native culture to the region. In 1692 the Spanish recaptured New Mexico and reestablished colonial rule. When Mexico gained independence from Spain in 1821, New Mexico became a province of the new country. Santa Fe flourished as a center for trade between the United States and Mexico. It prompted the establishment of a commercial route, the Santa Fe Trail, which ran from western Missouri, across the Plains, and along the Arkansas River to the Rocky Mountains, where the road turned south into Santa Fe. The wagon road was heavily used until 1880 when the railroad was completed, but the trains went through Albuquerque, not Santa Fe. By that time New Mexico had become a U.S. territory (1850). Santa Fe has remained New Mexico's capital city, although Albuquerque has far surpassed it as a commercial center.

See also: New Mexico, Pueblo Indians, Santa Fe Trail

SANTA FE TRAIL

The Santa Fe Trail was a major overland route for westward expansion during the 1800s. Like the Oregon Trail to the Pacific Northwest, it originated in Independence, Missouri. The Santa Fe Trail, whose terminus was Santa Fe in north-central New Mexico, proceeded westward along the prairie to Great Bend, Kansas. From there the route split into three branches. The western trail, also called the Taos Trail, followed the Arkansas River west to the Sangre de Cristo Range of the Rocky Mountains. Travelers then went due south through La Veta Pass (in south-central Colorado) into New Mexico. The middle trail also followed the Arkansas River westward into present day Colorado, traversing the grasslands in the southeastern corner of the state and following Raton Pass (south of present day Trinidad, Colorado) into New Mexico. The shortest route (and, due to Indian attacks, the most dangerous) cut southwest through Kansas, into the Cimarron Valley, and crossed the northwest corner of Oklahoma into New Mexico. From Santa Fe, another route, the Old Spanish Trail, extended westward to Los Angeles. After Mexico gained independence from Spain (1821), Santa Fe became the center of the country's trade with the United States. The Santa Fe Trail was about 1,200

miles (1,930 kilometers) long and took between 40 and 60 days to travel.

The Santa Fe Trail was first traversed in 1821 by Virginia-born trader William Becknell (1796?–1865), who in 1822 used wagons on the route. During the next two decades, less than one hundred wagons each year used the trail; by the late 1860s, the average number climbed to more than five thousand per year. The Santa Fe Trail remained a major commercial route until the 1880s, when the transcontinental railroad was completed.

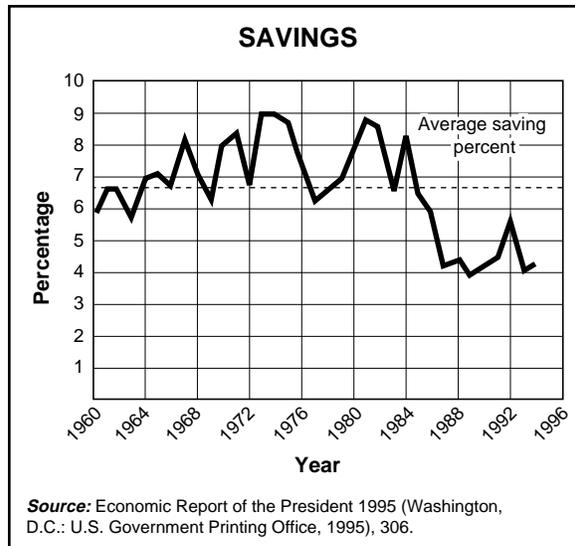
See also: California, Colorado, Kansas, New Mexico, Oklahoma, Oregon Trail, Santa Fe

SAVINGS

Savings are the amount of income left after a consumer has finished making personal expenditures and paying taxes. People save to pay for retirement, education, or vacations. They usually put their savings into bank savings or checking accounts, invest them in securities like stocks or mutual funds, or keep savings as cash. The percentage of personal income that people save depends on how optimistic they are about their future income, their own personal inclination to spend now or “save for a rainy day,” and the amount of interest or return they expect to get by saving or investing.

Economists generally regard saving as good because the economy can only grow if some consumers refrain from consuming and instead invest in the factories and equipment that enable companies to expand production. However, in a phenomenon called “the paradox of thrift,” economists have also shown that when economic growth is threatened by weak demand, too much saving will actually result in slower economic growth because consumers will be buying less.

The amount of income that people in the United States save has varied significantly throughout the twentieth century. During the Great Depression (1929–1939) for example, consumers needed all their income for necessities—saving rates were consequently negative. During World War II (1939–1945), however, government rationing and savings bond drives encouraged people in the United States to save. By 1944 U.S. citizens were saving 25.7 percent of their incomes—the highest savings rate in the century. In the postwar years, U.S. citizens have saved less and less. By 1981 consumers were saving only 9.4 percent of their incomes; by 1989 only 5.1 percent, and by 1997 only 3.8



The percentage of income saved by Americans has varied over the years, as demonstrated. Since the 1980s, saved income has generally declined.

percent—the lowest rate since the Depression. To encourage U.S. citizens to save more, Congress created Individual Retirement Accounts (IRAs) in 1982. IRAs did encourage consumers to invest more, but the savings rate continued to fall because easy-to-obtain credit cards and low home mortgage down payments enabled consumers to buy homes and other goods without first saving for them.

By the late 1990s some economists estimated that U.S. consumers were saving only a third of what they needed to maintain their standard of living in retirement. As the twentieth century ended, politicians debated several solutions for increasing national savings, including scrapping the income tax system in favor of a flat tax or a national sales tax and creating government-sponsored “Universal Savings Accounts” that would let U.S. citizens invest part of their taxes in mutual funds or bonds.

See also: Investment

SAVINGS & LOAN ASSOCIATIONS

Savings and loan associations (S&Ls), along with savings banks and credit unions, are known as thrift institutions. Thrifts and commercial banks are also known as depository institutions and are distinguished from non-depository institutions such as investment banks, insurance companies, and pension funds. S&Ls traditionally have taken savings, time, and demand

deposits as their primary liability, and made most of their income from loaning deposits out as mortgages.

The first savings and loan association was organized in 1831 as the Oxford Provident Building Association of Philadelphia. Like the building societies of England and the credit cooperatives of Europe, it was a membership organization that took savings deposits from its members and in turn made home loans to them. S&Ls soon accepted deposits from the general public and became public depository institutions. They also became the primary source of credit for working individuals to purchase their own homes at a time when commercial banks did not offer mortgages. By the end of the nineteenth century there were nearly 6000 S&Ls in existence.

See also: Savings and Loan (Failures of)

SAVINGS AND LOAN FAILURES

Since the early 1930s savings institutions had enjoyed more than 50 years of economic success. However, the end of the 1970s threatened industrial prosperity with unprecedented high inflation and interest rates. The financial structure of the typical thrift was at the core of the problem. Most institutions borrowed for short terms, in the form of depositors’ savings accounts, but lent for long terms through fixed-rate home mortgages. While interest rates remained stable, thrifts could earn acceptable profits. When market forces caused rates to soar, the delicate balance was threatened, as payments to depositors’ rose without a corresponding increase in receipts from mortgages. In 1978 regulators allowed thrifts to pay higher interest rates on certificates of deposit. This checked disintermediation (savers going to other institutions), but the cost of funds rose. Profits, therefore, shrank or turned into losses.

Thrift executives knew that erosion of net worth jeopardized the industry’s health. They sought relief from long-term, fixed-rate loans that tied them to low returns. The U.S. Congress was not prepared to back an industry-wide bailout. As a compromise, it passed the Depository Institutions Deregulation and Monetary Control Act (DIDMCA) in 1980, granting additional lending powers to thrifts. Most promising was the ability to originate short-term consumer loans and high-yield commercial real estate loans. Despite DIDMCA, about 36 percent of all thrifts were losing money by the end of 1980. Even worse, in 1981 about 80 percent of the industry lost money. Congress reacted with additional deregulation in 1982. It passed

the Garn-St. Germain Act, giving thrifts even broader investment powers.

The government also allowed thrifts favorable reporting treatment. Purchasers of failing institutions were given special accounting privileges. In addition, thrifts were authorized by the Federal Home Loan Bank Board (FHLBB) to utilize lenient Regulatory Accounting Principles (RAP). The FHLBB allowed thrifts to reduce their capital requirements from five percent to three percent between 1980 and 1982. This leniency was allowed to keep troubled thrifts from being taken over by regulators.

After deregulation, and with interest rates subsiding in 1983, the industry appeared to be heading toward prosperity. Thrifts attempted to grow out of their problems by generating more high-yield investments. The real estate market was booming, so thrift managers were tempted to invest in risky commercial ventures. They often disregarded such factors as lack of expertise, unfamiliar geographic territories, and questionable appraisals and underwriting. Loan brokers and junk bond brokers also found an eager market in the thrift industry.

Depositors continued to patronize savings institutions despite growing losses and failures. DIDMCA had increased deposit insurance coverage to \$100,000. With this level of insurance, depositors had little fear of losing their savings at faltering institutions. Indeed, the failing institutions often offered the highest rates.

In 1986 the Tax Reform Act repealed liberal depreciation and personal deduction provisions. Many commercial real estate deals were structured around such tax shelters. Without them, the enormous market for real-estate syndicates dried up. At the same time worldwide oil prices dropped, which negatively affected the economic health of states that relied on the oil industry. The real estate market in the Southwest went sour almost overnight, affecting real estate values throughout the country. The booming real estate market of 1983–1986 was transformed into an overbuilt market by 1987.

In 1988 the FHLBB committed nearly \$40 billion in 1988 to take over failing institutions, merge them into marketable packages, and sell them to investors. But the program almost bankrupted the Federal Savings and Loan Insurance Corporation (FSLIC). FHLBB Chairman Danny C. Wall either concealed the depths of the FSLIC insolvency or did not recognize the extent of the problem. Matters were made worse by errors in judgment on the part of thrift managers, by the greed of investors, by weak examination and supervision practices by regulators, and by numerous alleged cases of

fraud and misconduct on the part of thrift insiders, regulators, investors, and members of Congress.

When President George Bush (1989–1993) took over the presidency in 1989, he was extremely concerned about the unstable condition of the FSLIC and the accumulated losses at hundreds of thrifts. With the assistance of Richard C. Breeden, executive director of the White House Regulatory Task Force, Robert R. Glauber, undersecretary in the Treasury Department, and L. William Seidman, chairman of the Federal Deposit Insurance Corporation (FDIC), Bush drafted the Financial Institutions Rescue, Recovery, and Enforcement Act (FIRREA). In August, 1989, the act was approved by Congress and President Bush signed FIRREA into law a few days later.

FIRREA had four explicit goals. The first was to improve the ability of regulators to supervise savings institutions by strengthening industry capital and accounting standards. The second was to return the federal deposit insurance fund to a sound financial base. The third was to provide funds to deal with the disposal of failed institutions. The fourth was to strengthen the enforcement ability of regulators through reconfigured powers and a new organizational structure. An unstated goal of FIRREA was to return the emphasis of the business to its roots of home mortgage lending.

FIRREA featured several key provisions. It dissolved both the FSLIC and the FHLBB. The responsibility of insuring the thrift industry's deposits reverted to the FDIC. The duty of supervising the Federal Home Loan Bank (FHLB) system and individual thrifts was passed to a new organization, the Office of Thrift Supervision (OTS). Two new additional organizations were created. The Resolution Trust Corporation (RTC) was formed to dispose of the assets of failed thrifts. The Resolution Funding Corporation (RFC) was created as the fund-raiser for the RTC. The RFC was initially authorized to borrow up to \$50 billion, through bonds, to fund RTC activities.

Numerous thrift powers were restructured. FIRREA banned investment in junk bonds, limited investment in nonresidential loans, set loan-to-one-borrower limits to national bank levels, and placed strict limitations on loans to affiliated parties. Most important, it mandated that thrifts hold at least 70 percent of their assets in mortgage-related investments. Penalties for failure to comply were tough at both the corporate and the individual level.

FIRREA directed the OTS to set capital requirements for thrifts at levels no less stringent than those of

Savings and Loan Failures

national banks. Core capital requirements were set at three percent of total assets, and tangible capital was set at 1.5 percent of total assets. Thus, the definition of capital itself was altered. The previous reliance on RAP standards of accounting was abolished.

President Bush's stated intention was to fix the thrift industry permanently by closing down or selling hundreds of thrifts. His method of ensuring that old problems would not resurface was to subject surviving thrifts to the capital and accounting rules applied to national banks.

FIRREA was a sharp response to the thrift crisis. Considerable controversy arose in the business community, especially among the thrifts that were directly affected. Some analysts believed that the capital requirements would bankrupt more institutions than necessary. There was a large group of thrifts working slowly to recover from their problems. They were not grossly insolvent but they would not be able to meet new capital requirements for years. Continued weaknesses within the real estate markets did not help. Imposing stringent standards on a weakened industry pushed hundreds of these thrifts over the brink. This presented the RTC with a larger, more expensive task than the government had expected.

The short-run impact of FIRREA on the business community extended further than the thrift industry. FIRREA caused all lending institutions to tighten credit practices, so businesses had to postpone or cancel worthy projects. Tight credit contributed to a declining economic climate. Banking regulators tightened oversight and enforcement in their industry. Although inflation and interest rates were in check, banking became more conservative. Many banks were satisfied to watch profit margins improve through lower costs of funds. The resulting "credit crunch" contributed to job losses throughout the economy. Closings and mergers within the thrift industry meant an additional dramatic drop in jobs.

By the end of September, 1991, the OTS estimated that 464 thrifts (21 percent of the industry) were on the brink of takeover. These institutions had not been seized because there was no money available to do so. The OTS intended to take over all failing institutions and have the RTC either sell them intact or liquidate them piecemeal. To dispose of a thrift intact, the RTC had to make up any negative net worth. The goal was to entice investors, especially commercial banks, to purchase failing thrifts through the financial backing of bonds issued by the RTC/RFC. Unfortunately, FIRREA stripped thrifts of many powers that had made them attractive investments. Unless a thrift could open new

depository markets for a bank, it did not offer much advantage to the prospective purchaser.

FIRREA's objective of making depository insurance financially sound also failed to be met. FIRREA did not correct the problems that existed in the FSLIC; it merely pushed the problems onto the FDIC, jeopardizing its solvency. Because the \$100,000 insurance coverage was not changed, depositors and institutions remained susceptible to risk-taking. Since fixed insurance premiums were not changed, risky institutions were afforded the same degree of protection at the same cost as safe institutions.

Resolving the thrift crisis involved huge federal payments to honor commitments made by the FSLIC and new ones resulting from FIRREA. A substantial amount of the borrowing was to be repaid from the sale of assets of failed thrifts. Unfortunately, asset sales could not cover the large borrowings. This shortfall became the responsibility of taxpayers. Like the national debt, the FIRREA debt will likely fall on future generations of taxpayers.

Several lessons emerged from FIRREA and the events that led to its passage. First, deregulation in the early 1980s seemed to hamper thrift industry efforts to reverse losses. More lenient rules and broadened powers were not accompanied by stricter supervision. Second, the deposit insurance system encouraged carelessness on the part of depositors and depository institutions. Fixed-price premiums ignored risk and transgressed the cardinal rules of insurance. Third, FIRREA may have been based on sound intentions, but the effect was similar to that of overmedication of a sickly patient. Good principles applied abruptly may have led the industry toward extinction. Fourth, an improperly funded program cannot expect success. FIRREA was more ambitious than its budget would allow. The final costs may not be known for generations.

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SCALAWAGS

“Scalawag” was a derogatory term used by recalcitrant white southerners after the Civil War and during the dozen years of Reconstruction (1865–1877). It was applied to those white southerners who cooperated with the Union troops and with the Reconstruction State legislatures. Many of these “Scalawags” came from small farm, non-slaveholding backgrounds and in fact had resented the southern planter class and its slave system even before the Civil War. They felt correctly that the existence of slavery hurt them too, because slave labor depressed the bargaining power of wage labor. They argued that slaves would always impoverish its non-slave-owning white neighbors. The Scalawags and many former slaves tried to join the Republican Party in the South to secure their status as full southern citizens. The majority of southern whites, however, looked at the Scalawags with contempt. In their eyes, the Scalawags were traitors to the southern cause and to their fellow whites. Some of these defeated members of the Confederacy joined paramilitary groups like the Ku Klux Klan and the Mississippi “Red Shirts” and others. They wanted to intimidate or, in some cases, to kill both the former slaves who were trying to secure their new rights and the Scalawags, who were trying to build an alliance with the ex-slaves in the southern Republican Party. The intimidation worked, for the most part, and the Republican Party never established itself in the post-Civil War South.

See also: Carpetbaggers

SCARCITY

Scarcity and its opposite, abundance, are relative and vague descriptions as to the availability of useful resources for human purposes. Resources that command a price in economic transactions, like fertile land, machines, or human talent, may be considered scarce. This market oriented definition of scarcity can be summed up in the following way: scarcity exists in a marketplace when a resource of any type commands a price in the market which make some producers forgo otherwise rewarding applications of the resource. The

price of a resource in unrestricted economic transactions is a useful way to measure the scarcity of the resource. The more scarce a resource, the higher its price will tend to be. At times, when there is a limit to the availability of a resource, the resource will obviously be regarded as scarce in the marketplace. This scarcity will tend to drive prices up, or will cause the market to look elsewhere for more plentiful and less costly alternatives. Questions are always raised as to how human societies will respond to the depletion of resources, and how society will respond during times of acute general scarcity to avoid catastrophic suffering and mortality. Historically, scarcity has frequently caused changes in lifestyle, land migration, consumption-patterns, increased exploration for new material, development of general ecological awareness, and ecologically-oriented technology, so as to minimize the scarcity of resources needed for subsistence.

SCHUMPETER, JOSEPH ALOIS

Joseph Alois Schumpeter (1883–1950) was an Austrian economist who significantly shaped the development of economic theory in Europe. He taught economics at various universities in the Austro-Hungarian Empire and later at Harvard University in the United States. His many publications furthered the public’s understanding of business cycles, the role of the entrepreneur, capitalist development, and the use of mathematics in economics.

Schumpeter was born in Triesch, Moravia (present-day Czech Republic), on February 8, 1883. He was the only son of Alois Schumpeter, a clothing manufacturer who died when Joseph was four years old. His mother, Joanna Gruner, later married an Austrian general. The family moved to Vienna and Joseph was raised in a traditional, aristocratic manner. In 1891 Schumpeter graduated with honors from the Theresianum, a distinguished boys’ school. He then studied law and economics at the University of Vienna.

In 1906 Schumpeter completed his law degree and went to England where he spent a year doing research at the London School of Economics and the British Museum. He spent the following year in Cairo practicing law at the International Mixed Court of Egypt. It was there that he wrote his first book, a study of economic methodology entitled *The Nature and Essence of Theoretical Economics*. In this book Schumpeter tried to paint a picture of the field of theoretical economics for a German audience because he felt that they were not really familiar with the workings of

Schumpeter, Joseph Alois

“pure economics.” Economic theory was not even taught at German universities at the time.

Schumpeter obtained a position teaching economics at the University of Czernowitz (present-day Chernovtsy, Ukraine) in 1908 at the age of 26, making him the youngest professor in the Austro-Hungarian empire. In 1911 he joined the faculty at the University of Graz where he published *The Theory of Economic Development* (1912), which is often regarded as his most important work. In this book Schumpeter first argued that the entrepreneur was key to stimulating the business cycle, an idea that he would later expand.

During the 1913–1914 academic year Schumpeter went to Columbia University in New York as a visiting professor. Apart from that visit, Schumpeter remained at the University of Graz until 1918. His third major book was published in 1914 and was titled *Economic Doctrine and Method: A Historical Sketch*. This book was written as part of a handbook in economics and therefore was not as provocative as his first two publications. Nonetheless, the historical aspect of economics greatly interested Schumpeter and he would return to this topic later in life.

At the end of World War I (1914–1918) the Austro-Hungarian empire was broken up and Austria became a small republic. At this point Schumpeter left academic life to pursue a career in finance and to dabble in politics. Schumpeter briefly served as the secretary of finance in the new socialist government, but was forced to resign even before presenting his financial proposals to the parliament. Schumpeter’s next career move was becoming president of a private bank in Vienna. When the bank failed in 1924, Schumpeter went bankrupt and returned to academic life.

The 1920s were a difficult decade for Schumpeter in all aspects of his life. His professional exploits outside of academia had failed. Though he was able to find employment again, he found it difficult to produce another book for quite a while. To make matters worse his mother, his new wife, and his newborn child all suddenly died, leaving Schumpeter depressed for many years.

In 1924 Schumpeter was appointed professor of public finance at the University of Bonn in Germany. He visited Harvard University in 1927 and again in 1930. At Harvard he helped found the Econometric Society, which focused on using statistics and mathematics in economic analyses. In the early 1930s Schumpeter was passed over for the position of economic theory department chair at the University of Berlin, Germany’s most prestigious university. He was bitterly disappointed and decided to leave Europe.

While this period had not been especially creative for Schumpeter, he did produce more than 70 articles between 1919 and 1932. In 1932 Schumpeter finally accepted a permanent position at Harvard as a professor of economics where he remained for the rest of his life, becoming a U.S. citizen in 1939.

In 1939 Schumpeter published his next book, *Business Cycles*, a theoretical, historical, and statistical analysis of the capitalist process. In this two-volume study Schumpeter argued that innovation was the chief agent of social change and that business cycles were a product of innovation. In 1942 Schumpeter published his next major work, *Capitalism, Socialism, and Democracy*, which was highly regarded by critics. In it Schumpeter maintained that capitalism would eventually become a victim of its own successes and die away. As business grew, it would become conservative in the worst sense of the word, thus eliminating risk-taking, innovative entrepreneurs from the decision-making process. Business would stagnate, and growing unrest among the people would lead to the triumph of socialism. In fact, his last book was on socialism, which he titled *Imperialism and Social Classes* (1951). When Schumpeter died of a cerebral hemorrhage in 1950, he left an unfinished manuscript behind him, *History of Economic Analysis*. This, his final work, was edited and published in 1954 by his third wife, Elizabeth Boody Schumpeter.

Schumpeter was a prolific writer; throughout his career he authored 15 books and pamphlets and over 200 articles, book reviews, and review articles. He also left hundreds of aphorisms in his private papers. Although he suffered from bouts of depression most of his life, Schumpeter was able to focus his energy on what he loved best and made a great contribution to the field of economics.

See also: Business Cycle, Capitalism, Entrepreneurship, Joseph Schumpeter, Socialism

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SCIENTIFIC MANAGEMENT

Scientific management, also known as Taylorism, is a system to gain maximum efficiency from workers and machinery. This system was developed by American industrial engineer Frederick Winslow Taylor (1856–1915). As foreman in a steel plant, Taylor undertook time and motion studies and conducted experiments to determine the “one best way” to do any given job. He developed detailed systems to yield the highest possible productivity levels. Taylor first presented his theories in 1903 to the American Academy of Mechanical Engineers. Efficiency was the cornerstone of Taylorism: production processes should not waste time or materials. He published his ideas in the landmark work, *The Principles of Scientific Management* (1911), and he became a well-known engineering consultant who was contracted by companies eager to maximize their output.

The doctrine of scientific management was soon embraced by U.S. industry. As transportation networks improved and U.S. population grew rapidly in the early 1900s, expansion of markets placed great demands on industry. Applying Taylor’s scientific management, manufacturers were able to boost productivity by as much as 200 percent.

Because Taylorism broke production processes into individual tasks, each with its own best practice, new workers could be quickly and easily trained; adherents believed this was another benefit of the concept. Scientific management had many advocates, including engineers Frank Gilbreth (1868–1924) and Lillian Gilbreth (1878–1972). These two furthered Taylor’s work by publishing volumes such as *Primer of Scientific Management* (1911), *Psychology of Management* (1912), and also studies on motion, fatigue, and time. Among those who applied scientific management were Ford Motor Company (in developing the assembly line for the Model T); Boston retailer Filene’s (one of the first commercial enterprises to use the method); and Bethlehem Steel (which conducted experiments in the loading of pig iron).

Scientific management also had its detractors; Taylorism was criticized for having a dehumanizing effect on labor. In making every job routine, some charged, the system separated the minds of workers from their hands. The system was also criticized for eliminating the need for skilled workers and giving

management absolute control over production processes. Theories concerning worker output were modified during the second half of the twentieth century. Nevertheless, principles of scientific management remained evident in the workplace in the late 1990s. The adoption of scientific management is credited with boosting American productivity and increasing stockholder profits.

See also: William Edwards Deming, Peter Drucker, Frederick Winslow Taylor

SEARS, RICHARD WARREN

Richard Warren Sears (1863–1914) and his partner A. C. Roebuck founded the first large-scale mail-order business in the United States and one of the world’s largest retail stores. The company’s extensive catalog eventually became a fixture in U.S. homes and changed the way people shopped. The company also helped foster the growth of the mail-order industry worldwide.

Richard Sears was born on December 7, 1863, in Stewartville, Minnesota, to Eliza A. Benton and James Warren Sears, a successful wagon maker. When Richard was 15, his father lost his substantial fortune in a stock farm venture; his father died two years later. Young Richard then took a job in the general offices of the Minneapolis and St. Paul Railroad to help support his widowed mother and his sisters.

Once he had qualified as a station agent Sears asked to be transferred to a smaller town in the belief that he could do better there financially than in the big city. Eventually he was made station agent in Redwood Falls, Minnesota, where he took advantage of every selling opportunities that came his way. He used his experience with railroad shipping and telegraph communications to develop his idea for a mail-order business.

In 1895 Sears married Anna Lydia Mechstroth of Minneapolis and they had three children. Sears retired from business in 1909 and lived his remaining years on his farm north of Chicago before his death on September 28, 1914.

The man who was known as the “P. T. Barnum of merchandising” had a humble and unremarkable start in business. As a railroad station agent in a small Minnesota town, Sears lived modestly, sleeping in a loft right at the station and doing chores to pay for his room and board. Since his official duties were not time

consuming, Sears soon began to look for other ways to make money after working hours. He ended up selling coal and lumber and he also shipped venison purchased from Native American tribes.

In 1886 an unexpected opportunity came his way when a jeweler in town refused to accept a shipment of watches because no rail freight charges had been paid. Rather than having the railroad pay to return the shipment, Sears obtained permission to dispose of the watches himself. He then offered them to other station agents for \$14 each, pointing out that they could resell the watches for a tidy profit. The strategy worked and before long Sears was buying more watches to sustain a flourishing business. Within just a few months after he began advertising in St. Paul, Sears quit his railroad job and set up a mail-order business in Minneapolis that he named the R. W. Sears Watch Company.

Offering goods by mail rather than in a retail store had the advantage of low operating costs. Sears had no employees and he was able to rent a small office for just \$10 a month. His desk was a kitchen table and he sat on a chair he had bought for 50 cents. But the shabby surroundings did not discourage the energetic young entrepreneur. Hoping to expand his market, Sears advertised his watches in national magazines and newspapers. Low costs and a growing customer base enabled him to make enough money in his first year to move to Chicago and publish a catalog of his goods.

In Chicago Sears hired Alvah C. Roebuck to fix watches that had been returned to the company for adjustments or repairs. The men soon became business partners and they started handling jewelry as well as watches. A master salesman, Sears developed a number of notable advertising and promotional schemes, including the popular and lucrative "club plan." According to the rules of the club, 38 men placed one dollar each week into a pool and chose a weekly winner by lot. Thus, at the end of 38 weeks, each man in the club had his own new watch. Such strategies boosted revenues so much that by 1889 Sears decided to sell the business for \$70,000 and move to Iowa to become a banker.

Sears soon grew bored with country life, however, and before long he had started a new mail-order business featuring watches and jewelry. Because he had agreed not to compete for the same business in the Chicago market for a period of three years after selling his company, Sears established his new enterprise in Minneapolis, Minnesota. He hired Roebuck again and this time he dubbed the product of their partnership A. C. Roebuck and Company. In 1893 Sears moved the

business to Chicago and renamed it Sears, Roebuck and Company.

Once established in Chicago, the company grew rapidly. The first edition of the Sears catalog published in the mid-1880s had included a list of only 25 watches. By 1892, however, it had expanded to 140 pages offering "everything from wagons to baby carriages, shotguns to saddles." Sales soared to nearly \$280,000. A mere two years later the catalog contained 507 pages worth of merchandise that average Americans could afford. Orders poured in steadily and the customer base continued to grow. By 1900 the number of Sears catalogs in circulation reached 853,000.

Sears was the architect of numerous innovative selling strategies that contributed to his company's development. In addition to his club plan, for example, he came up with what was known as the "Iowazation" project: the company asked each of its best customers in Iowa to distribute two dozen Sears catalogs. These customers would then receive premiums based on the amount of merchandise ordered by those to whom they had distributed the catalogs. The scheme proved to be spectacularly successful and it ended up being used in other states, too.

Such tremendous growth led to problems, however. While Sears was a brilliant marketer (he wrote all of the catalog material), he lacked solid organizational and management skills. He frequently offered merchandise in the catalog that he did not have available for shipment, and after the orders came in he had to scramble to find the means to fill them. Workdays were frequently 16 hours long; the partners themselves toiled seven days a week. Fulfilling orders accurately and efficiently also posed a challenge. One customer wrote, "For heaven's sake, quit sending me sewing machines. Every time I go to the station I find another one. You have shipped me five already." Roebuck became exhausted by the strain of dealing with these concerns and he sold his interest in the company to Sears in 1895 for \$25,000.

With his partner out of the picture, Sears badly needed a manager. He eventually found one in Aaron Nussbaum, who bought into the company with his brother-in-law, Julius Rosenwald. By 1895 the company was grossing almost \$800,000 a year. Five years later that figure had shot up to \$11 million, surpassing sales at Montgomery Ward, a mail-order company that had been founded back in 1872. In 1901 Sears and Rosenwald bought out Nussbaum for \$1.25 million.

According to John Steele Gordon's article published in *American Heritage*, it was Rosenwald, not

Sears, who transformed Sears, Roebuck “from a shapeless, inefficient, rapidly expanding corporate mess into the retailing titan of much of the twentieth century.” He streamlined the system by which orders were processed, employing a color-coding scheme to track them and an assembly-line method of filling them. These efficient new techniques enabled the company to meet the challenge of handling an ever-increasing number of orders. By 1906, for example, Sears, Roebuck was averaging 20,000 orders a day. During the Christmas season the number jumped to 100,000 orders a day. That year the company moved into a brand-new facility with more than three million square feet of floor space. At the time it was the largest business building in the world.

In 1909 Sears resigned as president of the company he had founded. His health was poor and many of his extravagant promotional schemes had begun to run into opposition from his fellow executives, including Rosenwald. He turned the company over to his partner and retired to his farm north of Chicago. At the time of his death in 1914, Sears left behind an estate of \$25 million and an enduring legacy of success in the highly competitive world of retailing.

Richard Sears had a genius for marketing and he exploited new technologies to reach customers nationwide via mail-order. At first he targeted rural areas: People had few retail options there and they appreciated the convenience of being able to shop from their homes. Sears made use of the telegraph as well as the mails for ordering and communicating. He relied on the country’s expanding rail freight system to deliver goods quickly; passage of the Rural Free Delivery Act made servicing remote farms and villages even easier and less expensive.

However, the rapid growth of the mail-order business dominated by Sears, Roebuck had a negative impact on smaller retailers. Unable to compete with both the industry giant and its main competitor, Montgomery Ward, some merchants angrily began referring to the company as “Rears and Soreback” or “Shears and Rawbuck.” They steadily lost customers to Sears’ lower prices, wider selection, and aggressive promotional campaigns. But the growth of Sears, Roebuck had one positive impact nationwide. As residents of rural areas found themselves able to purchase the kinds of goods that had once been available only in big cities, they came to feel a greater sense of social connection with the rest of the country.

See also: Chain Stores, Department Stores, Montgomery Ward, Sears Roebuck

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SEARS, ROEBUCK AND CO.

Retail giant Sears, Roebuck and Co. can trace its roots to a shipment of unwanted pocket watches that Richard W. Sears (1863–1914) was able to sell to his fellow freight agents on the Minneapolis and St. Louis Railroad in 1886. After selling \$5,000 worth of watches in six months, Sears quit the railroad and founded the R. W. Sears Watch Company in Minneapolis. Sears built his business by buying up discontinued lines from manufacturers and selling them at a discount to his customers. Business expanded so quickly that he moved to Chicago in 1887 and hired Alvah Roebuck as the company’s watch repairer.

In 1888 Sears published its first mail-order catalog, 80 pages of watches and jewelry. Within two years it had grown to 322 pages, and clothing and durable goods such as sewing machines and bicycles were added. The advent of the rural free delivery system in 1891 helped Sears reach its primary customer, the rural farmer, more easily. The 1894 catalog cover proclaimed Sears the “Cheapest Supply House on Earth.” Much of the company’s success was due to Richard Sears’ innovative unconditional money-back guarantee, by which the company stood.

In 1893 Sears and Roebuck became partners and the firm changed its name to Sears, Roebuck and Co. A shrewd and aggressive salesperson, Richard Sears believed in continuous expansion and risk-taking. That made Alvah Roebuck uneasy and two years later he sold his interest to Sears, remaining on as a repairer. In 1895 the company reorganized with a capitalization of \$150,000 split three ways among Richard Sears, local

In fact, the cover of the May 1993 issue of *Fortune* featured the logos of Sears, IBM, and General Motors with the prominent headline, “Dinosaurs!” While normally I would not speak on behalf of other companies, my response to that headline paraphrases Mark Twain: “reports of our deaths are greatly exaggerated.” At Sears, we took that cover, that story, that entire experience, as a challenge. What could have been a serious setback to our progress and morale became quite the opposite and important rallying point in our ongoing re-invigoration and revitalization. The momentum was underway—our fire was lit. If that allusion to extinction hastened our pace, so much the better.

Arthur C. Martinez, CEO of Sears, Roebuck and Co., 1997

entrepreneur Aaron Nusbaum, and Nusbaum’s brother-in-law Julius Rosenwald. When Nusbaum was forced to sell out in 1901 after clashing with Sears, his one-third share in the company was worth \$1.25 million.

The company went public in 1906, in part to raise money for a new headquarters on Chicago’s West Side. Wall Street appeared leery of Sears’s tactics so he resigned as president in 1908. He remained as chairman and retired in 1913, never having presided over a board meeting. He died in 1914.

Leadership of Sears, Roebuck fell to Julius Rosenwald and under his skillful direction sales increased sixfold from 1908 to 1920. In 1911 Sears began offering credit to its customers. At a time when banks would not consider extending credit to consumers, this move helped Sears to sell more big-ticket items. In 1913 the parcel post rate was introduced and Sears quickly became the parcel post’s single largest customer. Rosenwald became one of the richest men in the world and also a noted philanthropist, donating more than \$63 million in his lifetime, mainly to Jewish causes and to improve the education of Southern African Americans. He was named a trustee of the Tuskegee Institute and he became a good friend of its founder, Booker T. Washington (1856–1915).

Sears was exclusively a mail-order operation until 1925, when it opened its first retail outlet in Chicago. By the end of the decade it had 324 retail stores and in 1931 retail sales surpassed catalog sales. Sears’s entry into retailing has been credited to Robert Wood, a

former executive at rival cataloger Montgomery Ward and Company, who joined Sears in 1924. Wood, nicknamed “The General,” earned a reputation for genius through his long career in merchandising.

Wood became president of Sears in 1929 and he ran the company until 1954. Sears was becoming more involved in the affairs of its suppliers, many of whom depended solely on Sears for business. In 1929 two suppliers, Upton Machine and Nineteen Hundred Washer Company, merged with Sears’s help to form Nineteen Hundred Corporation, which would become Whirlpool in 1950. In 1931 Sears diversified by creating its Allstate subsidiary to sell auto insurance.

In 1941 sales reached a new all-time high of \$975 million, boosted by military spending and a consumer buying panic as U.S. involvement in World War II (1939–1945) appeared likely. During the war Sears supplied the military with a wide range of goods and some of the factories belonging to Sears suppliers were converted to munitions plants. Raw material shortages caused sales to suffer, however; the company refunded \$250 million in orders that could not be filled. Around this time Sears began its first foreign ventures, opening a store in Havana, Cuba, in 1942 and several stores in Mexico in 1947.

Sales reached the one billion dollars mark in 1945 and doubled the next year. Correctly anticipating an economic boom after the war, Wood launched an aggressive expansion program that put Sears well ahead of its competition. New stores were located in the path of suburban expansion, which took off in the late 1940s and 1950s. By 1954 Sears’s sales had grown to three billion dollars; Sears became a symbol of U.S. prosperity. During the 1950s Sears began to stock more clothing as sales of durable goods slackened. The company also strengthened ties to its suppliers and adopted a decentralized management structure.

The 1960s were another good decade for Sears. In 1960 the firm established its own shopping center development subsidiary, Homart Development. In 1963 sales were \$5.1 billion and surveys showed that one in five U.S. consumers shopped at Sears regularly. In 1967 monthly sales topped one billion dollars for the first time.

As the 1970s began, Sears dominance of U.S. retailing was unchallenged. Construction of the Sears Tower in Chicago, the tallest building in the world for many years, was completed in 1974. At the same time skyrocketing oil prices led to nationwide recession, and a \$170 million decline in profits for Sears. Sales remained flat for the next several years. Also during

this period, competition in the form of specialty shops and discounters began to capture a greater share of the retail market. Within the company, decentralization introduced in the 1950s had resulted in widespread inefficiencies and rivalries among the different territories. As net income continued to decline from 1978 to 1980, it was clear that the company's poor financial performance required a solution.

Under the guidance of Edward Telling, who assumed control in 1978, Sears undertook a major reorganization in 1981. The company was organized into three major business groups: the Merchandise Group (buying and merchandise), Allstate Enterprises (insurance and financial services), and the Seraco Group (commercial and residential real estate). In addition, Sears became more involved in the growing financial services sector with the 1981 purchase of the nation's largest real estate brokerage Coldwell Banker Company, and securities firm Dean Witter Reynolds Inc. Further diversification took place in 1984 when Sears, along with IBM and CBS, launched Prodigy, an online service similar to America Online and Compuserve.

In 1985 Sears introduced the Discover Card, which combined credit and financial services and also offered savings accounts. In 1988 the company acquired Eye Care Centers of America, Pinstripes Petites, and Western Auto Supply. Its workforce swelled to an all-time high of 520,000. The company's stock continued to lag, however, and from 1986 to 1990 corporate profits slipped from \$1.3 billion to \$892 million. However, by 1991 Sears's financial services businesses began to contribute more earnings. Combining this with layoffs and other cost-cutting measures, Sears posted a profit of nearly \$1.3 billion.

Following an unexpected loss of nearly \$2.3 billion on sales of \$53.1 billion in 1993, Sears began to sell off some of its non-core business assets. Eye Care Centers and Coldwell Banker's residential real estate operations were sold. Dean Witter and the Discover Card services were spun off. After a service fraud scandal and a 20 percent drop in sales, the Automotive Group stopped making repairs and then filled vacant bays through a deal with Pennzoil's Jiffy Lube. In 1994 the Homart division was sold, and Allstate was spun off.

Perhaps the most dramatic changes took place in the Merchandising Group. Under the direction of Arthur C. Martinez, who would become head of Sears in 1994, the company began to cater to female customers, who accounted for as much as 70 percent of merchandise sales. With an advertising campaign touting "the softer side of Sears," Martinez brought in more famous name clothing for women. The catalog

was discontinued in 1989 after a 101-year run, although specialty catalogs were reinstated in 1994. The workforce was trimmed to 361,000, and unprofitable stores were closed while other stores were expanded.

In 1994, with the Sears Tower put in trust for transfer in 2003, company headquarters was moved to a 200-acre campus west of Chicago. During 1995 Martinez, now head of Sears, added 152 Circle of Beauty cosmetic boutiques, and Sears introduced its own line of denim sportswear, Canyon River Blues, which turned out to be a resounding success. In addition, Sears moved durable goods into their own free-standing buildings called Sears Hardware, Sears HomeLife, and Sears franchise stores. These stores would service customers who had previously ordered through the Sears catalog, especially in rural areas. Sears also began a new line of automotive after market stores called PartsAmerica, opening 30 stores in 1995 and another 60 stores in 1996. When the year was over Sears posted a solid profit of \$1.8 billion on sales of \$34.9 billion.

Having turned Sears around and put it back on the right track, Martinez was named *Financial World's* "CEO of the Year." From 1995 through 1997 Sears enjoyed rising sales, but the cost of spinning off divisions, reorganizations, and bad credit card debt cut into profits, which declined to \$1.2 billion in 1997. Still a healthy retail giant, Sears had a network of 833 full-line mall-based department stores and 2,697 freestanding specialty stores in the United States in 1998. Having spun off many of its non-core businesses, the company was focused on selling apparel, furniture, hardware, and automotive merchandise.

See also: Chain Stores, Department Store, Mail-Order House, Retail Industry, Richard Sears

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SEASONAL UNEMPLOYMENT

Individuals in the labor force searching for work may be subject to seasonal unemployment. Seasonal unemployment results from variations in employment patterns because of seasonal change. This is a common occurrence in the agricultural industry, where harvesting season naturally demands more workers than are needed during other months.

A similar situation occurs in the construction industry, which experiences a higher rate of unemployment in the winter months than during the spring or summer. This is not always the case. California is less likely to experience an intense employment fluctuation in its construction industry because of relatively mild seasonal change. Michigan, on the other hand, is much more apt to be affected with increased unemployment in its construction industry during the winter months.

Why do workers remain in such industries? Those employed in the construction industry are often attracted to the high wages. However, agricultural workers do not receive high compensation for their efforts. Harvesting work may often be completed by migrant workers. Migrant workers are individuals who move from region to region looking for employment. For instance, a worker from Latin America may migrate to California for harvesting work and then return home with his or her earnings at the end of the season.

Seasonal unemployment does not affect every part of the country. It varies from region to region.

See also: Agriculture Industry, Migrant Workers, Structural Unemployment, Unemployment

SECOND NEW DEAL

The Second New Deal was the name given to a series of federal programs passed by Congress between 1935 and 1938 to counteract the Great Depression. Several of the first New Deal programs proposed by President Franklin D. Roosevelt (1933–1945) had earlier been declared unconstitutional by the U.S. Supreme Court. Roosevelt's Second New Deal included higher taxes for the rich, stricter regulations for private utilities, and increased subsidies for rural electrification. Three federal acts formed the heart of the Second New Deal. The National Labor Relations Act of 1935, also known as the Wagner Act, established a set of fair employment standards and guaranteed the right of workers to organize and collectively bargain with management through union representatives. The Social Security Act of 1935 created a retirement fund,

unemployment insurance, and welfare grants for local distribution, including aid for dependent children. The Fair Labor Standards Act of 1938 was the final significant piece of the Second New Deal. It prescribed the maximum hours employees could be required to work without being paid overtime and also prescribed the minimum wage they could earn.

Second New Deal programs fared better before the Supreme Court than did their predecessors. Fueled by his decisive victory in the 1936 presidential election, Roosevelt began his second term by proposing a "court packing" plan that would have allowed him to increase the size of the nation's high court by adding justices with a disposition favorable to his programs. Although Congress rejected the plan, the Supreme Court got the message, as the nine Justices began validating the constitutionality of more federal legislation. With the onset of World War II (1939–1945) America's attention turned from domestic policy to international affairs, and the president's New Deal programs faded into the background of an economy mobilizing for military production.

See also: Fair Labor Standards Act, Great Depression, National Labor Relations Act, New Deal, Franklin D. Roosevelt, Social Security Act

SECTIONALISM

Sectionalism is the belief in and support of political, social, and economic interests particular to a region or section of the country. By the mid-1800s the United States encompassed an enormous area of almost three million square miles following the addition of lands in the Louisiana Purchase, Texas, Florida, the Oregon Territory, and land ceded by Mexico. Although ruled by one government, people living thousands of miles apart developed their own political and economic interests and social causes, often not agreeing with other Americans on these issues. New leaders emerged who represented their own sections of the country rather than the country as a whole, increasing sectional conflict. The country seemed divided into three regions: the North, the South, and the West.

Economics is the major contributing factor to sectionalism. Consequently, well before the great expansion of the United States, the Constitution's framers were familiar with sectional differences. The North's cool climate and rocky soil proved unsuitable for large farms. Its economy soon depended on trade and the

growth of industrial cities. The South's economy depended on farming and large plantations worked by black slaves from Africa. Sectional debate during the Constitutional Convention revolved around the slave trade, export taxes, and shipping.

By the 1850s sectionalism bitterly erupted over the issue of slavery and state's rights culminating in the American Civil War (1861–1865). American loyalties to their section overshadowed loyalty to the nation. Though the Civil War abolished slavery, sectionalism continued through Reconstruction and into the twentieth century with the Solid South acting as a political bloc into the 1960's. Another product of sectionalism was the Populist Party formed by farmers in the West and South in the late 1800s to compete against political groups led by Northeastern industrial interests. As the twentieth century came to a close, the North, South, and West still competed for federal money. Environmental issues consequently divided East and West. Many Easterners believed the vast Western lands needed protection while many Western economies relied on natural resource development. Despite the ongoing disputes, however, sectionalism will probably never again divide the United States as bitterly as it had in the mid-nineteenth century.

See also: Civil War (Economic Causes of), Populist Movement, Slavery

SECURITIES AND EXCHANGE COMMISSION

The Securities and Exchange Commission (SEC) is an independent, non-partisan regulatory agency. Created by Congress in 1934 under the Securities Exchange Act, the agency is tasked with regulating the United States investment industry. It ensures that U.S. securities markets operate fairly and honestly and can enforce punishments when violations are made.

SEC regulations are designed to hold publicly held entities, broker-dealers in securities, investment companies, and other securities market participants accountable to federal law. There are six main laws the SEC oversees: the Securities Act of 1933, the Securities Exchange Act of 1934, the Public Utility Holding Company Act of 1935, the Trust Indenture Act of 1939, the Investment Company Act of 1940, and the Investment Advisers Act of 1940.

The Securities Act of 1933, known also as the "truth in securities law," requires investors be provided with information concerning securities offered for

public sale. This information often comes in the form of a "prospectus," a brochure detailing the security's history and performance. The act also set regulations to prevent fraud in securities sales.

The information disclosure statements established in the 1933 Securities Act were extended the next year under the Securities Exchange Act. This act extended the disclosure of information to all securities listed and registered for public trading on U.S. securities exchanges, such as the New York Stock Exchange. Disclosure law was further extended in 1964 with the Securities Act Amendments, which made similar provisions for equity securities in the over-the-counter market (securities markets where previously issued securities are re-traded).

The Public Utility Holding Company Act of 1935 regulates interstate holding companies involved in the electric utility industry or the retail distribution of natural or manufactured gas. These businesses are required to file detailed information concerning their operations and holdings.

Regarding bonds and other debt securities, the SEC has the power to regulate under the Trust Indenture Act of 1939. Debt securities offered for public sale and issued under trust agreements must adhere to guideline concerning trustees and capital, including high standards of conduct and responsibility on the part of the trustee.

In addition, the SEC monitors the principles set forth in the Investment Company Act of 1940, regulating the activity of companies engaged primarily in the securities industry—investing, trading in securities, and offering their own securities for public sale.

While the SEC oversees the application of all these laws and guidelines, it is a regulatory agency only and does not supervise any individual company's investment activities. It does have more supervision regarding investment advisers. The Investment Advisers Act of 1940 established a system requiring all persons or organizations who advise about securities investments (and receive compensation for this advice) be registered with the SEC and conform to their established procedures of investor protection.

Because of SEC oversight, investors in U.S. securities markets are better protected from fraud, whether it be by investment advisers or companies engaged in criminal securities schemes.

See also: New York Stock Exchange, Over-the-Counter Market

SELECTIVE SERVICE ACT

The Selective Service Act was passed by Congress in May 1917; it required the registration of all American males between the ages of twenty-one and thirty for possible draft into military service. When the United States entered World War I (1914–18) on April 6, 1917, the U.S. armed forces were comprised of roughly 200,000 volunteers. In the weeks following Congress's declaration of war on Germany, not enough men signed up for service so Congress responded by enacting legislation to boost the number of enlisted men. Secretary of War Newton Baker (1871–1937) made clear that the registration could not be evaded. And George Creel, the head of the newly created Committee on Public Information, oversaw the production of an astounding output of propaganda including 75 million pamphlets and posters whose aim was to stimulate patriotism and hatred of anything German.

By June 5, 1917, more than nine million men had registered. Congress widened the registration requirement to include all men between the ages of eighteen and forty-five, and by the end of the war twenty-four million men had signed up. While 340,000 men failed to show up when called and four thousand were classified as conscientious objectors, nearly five million men served in the armed forces during World War I, two million of them in France alone. The typical soldier was a drafted man between the ages of twenty-one and twenty-three; he was white, single, and poorly educated. 400,000 soldiers were black and roughly 18 percent of the soldiers were foreign-born.

To ensure that the troops knew what they were fighting for, a copy of President Woodrow Wilson's (1913–1921) war message was included in every soldier's gear. Women volunteered in the navy as clerks and they joined the U.S. Signal Corps and Nurse Corps. Although defense-industry workers were able to receive deferments of service, the draft depleted the male labor force by 16 percent. Women stepped in to pick up the slack. When the fighting ended with Germany's surrender and the signing of the armistice on November 11, 1918, countries tallied their dead and wounded. Some 50,000 American soldiers died in battle; another 62,000 died from disease (a worldwide flu epidemic claimed many American soldiers' lives); and 200,000 were wounded.

Two decades later, in 1940 the United States braced itself for possible involvement in World War II (1939–1945). The first peacetime military draft in U.S. history began after the passage of the Selective Service Act of 1940. This system was in effect from 1940 to 1973. When the United States entered World War II in



This familiar Uncle Sam poster was placed near recruiting headquarters to inspire new recruits. The poster made its debut in WWI.

December 1941, the number of people on active duty was less than two million. In 1945 the number of men and women serving in the armed forces peaked at over twelve million. Both in 1942 and 1943, over three million men were inducted into the armed forces. Such numbers were required in fighting a war on two fronts—one in Europe and another in the Pacific.

At the end of World War II in 1945 the U.S. military had quickly demobilized almost 7 million soldiers. Only three years later, however, the Cold War extended the life of the Selective Service System. In 1948, in response to deteriorating relations between the Union of Soviet Socialist Republics (USSR)—and the United States, Congress restored the Selective Service System. It required the registration of all U.S. men between the ages of eighteen and twenty-five, with men between nineteen and twenty-five to be inducted for a twenty-one-month period of service. Registration began August 30, 1948; the program continued for twenty-five years.

During the Vietnam conflict, the numbers of soldiers peaked during the late 1960s. The Selective

Service System inducted 382,010 young men into the armed forces in the single year of 1966. As a result of criticism that the student deferment allowed the more affluent members of society to avoid the draft, President Richard Nixon instituted reforms in the way that the Selective Service System was run. First, in 1971, Nixon eliminated the student draft deferment. Rather than the local draft board determining who would be drafted, the system was nationalized through a draft "lottery." When a young man turned 19 years old, he immediately knew his likelihood of being drafted, depending on his birthdate in relation to a nationally run lottery drawing. This was a politically prudent move on President Nixon's part, because it was the *uncertainty* of being drafted that agitated the Vietnam generation. Eliminating this uncertainty went a long way towards containing the antiwar movement.

In 1973, as the U.S. shifted to the "all volunteer army," the draft ended. The Selective Service System remained in place, however, in case the U.S. ever gets involved in a big war.

See also: Vietnam War, War and the Economy, World War I, World War II

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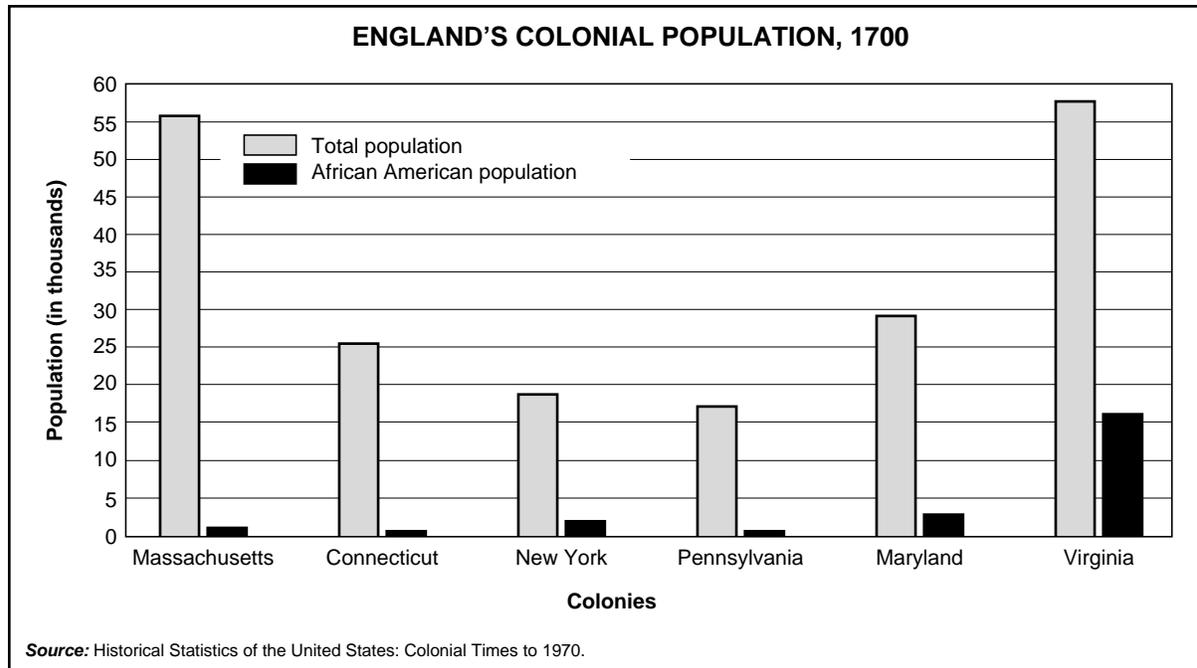
SETTLEMENT AND ECONOMIC DEVELOPMENT: THE COLONIES TO 1763 (OVERVIEW)

In 1585, Richard Hakluyt the elder assured English readers of his pamphlet, *Inducements to the Liking of the Voyage Intended towards Virginia*, that North America held the economic potential to form the basis of a great English commercial empire. English colonization would open lucrative new American markets for "the Woollen clothes of England" and "sundry [of] our commodities upon the tract of that firme land." The "situation of the climate" and the "excellent soile" would in turn make North America an excellent source of "Oade [a blue dye], Oile, Wines, Hops, Salt," all of which English people could expect to obtain "better cheape than we now receive them."

Hakluyt anticipated that the abundance of North American hides, whales, seals, and fish would all give England an edge in a market for these goods which was traditionally dominated by Russian merchants. The "excellent and fertile soile" on both sides of North America's "greate and deep" natural waterways promised "all things that the life of man doth require," and whatever settlers wanted to plant they could expect to harvest in abundance sufficient to "trafficke in."

Over the next 178 years, enterprising merchants and traders and hard-working Native Americans and settlers slowly made into reality Hakluyt's vision of North America as an integral part of a British North Atlantic commercial system. The first to feel the effects of this transformation were the Native Americans, who met English vessels at the shore with valuable furs which they readily exchanged for prized English goods such iron tools, glass beads, and woven cloth. Most early English settlements depended heavily on such trade to repay investors who had financed their voyages, and some economies such as New York's continued to rely significantly on the "Indian trade" through much of the colonial period. The fur trade also exerted a profound impact on Native American economic life as imported European goods began displacing traditional tools, weapons, utensils, apparel, and ornamentation. The historian James Axtell has termed this process "the first consumer revolution" in which Native Americans' appetite for European goods spurred the growth of a Native market for European products that extended rapidly into the interior of North America. Trade with Europeans altered nearly everything about Native life, disrupting and redirecting traditional trading patterns, producing a strain on the natural environment through over-hunting and over-trapping, and changing the way that American Indians clothed themselves, cooked their food, cultivated their soil, and hunted their game. Iron tools replaced implements of bone and stone, woolen garments replaced buckskin, muskets replaced arrows and spears. By 1700 many eastern woodland Indians had become permanently dependent on European commerce, and their participation in colonial commerce contributed greatly to North American economic growth.

Settlers of Jamestown, the first successful English settlement in North America, shared with the adventurers of the earlier, ill-fated Roanoake settlement of 1585 the hope of tapping into precious sources of New World mineral wealth. The founding settlers expected to exploit Virginia's game, fishing, and agriculture, and establishing a lucrative trade with the neighboring Powhattan empire. Nearly all these hopes were dashed



The English population in the American colonies was well established by 1700. The highest populations were in Massachusetts and Virginia.

as the Chesapeake colony teetered on the brink of failure for more than a decade. They found no gold or gems, manufacturing enterprises such as a glassworks failed, their Old World work habits ill-prepared them for the demanding task of tilling and planting virgin soil, they were continually racked by disease, and their repeated provocation resulted in perpetual strife with their Indian neighbors.

THE "EXCELLENT AND FERTILE SOILE" ON BOTH SIDES OF NORTH AMERICA'S "GREATE AND DEEP" NATURAL WATERWAYS PROMISED "ALL THINGS THAT THE LIFE OF MAN DOTH REQUIRE," AND WHATEVER SETTLERS WANTED TO PLANT THEY COULD EXPECT TO HARVEST IN ABUNDANCE SUFFICIENT TO "TRAFFICKE IN."

Adapted from Richard Hakluyt's *Inducements to the Liking of the Voyage Intended towards Virginia*, 1585

Tobacco, which the settler John Rolfe began cultivating in 1610, eventually became the staple crop that saved the colony. Europeans loved the crop in spite of the denunciations of smoking by prominent figures, including King James I himself. Jamestown planters were soon cultivating the "stinking weed" wherever they could find suitable land. Tobacco plantations began springing up along Chesapeake estuaries, creating a growing demand for labor and land as successful planters increased their holdings to put even more

tobacco into cultivation. Settlers who founded the colony of Maryland in 1634 quickly began following the example of their Virginia neighbors. For much of the seventeenth century, Chesapeake planters relied mainly on the labor of indentured servants from England, occasionally supplementing that labor force with captive Indians or Africans whose status varied from person to person. English indentured servants bound themselves to work for a period of four to seven years, after which they were released. Many Africans brought to North America before 1660 shared that status, but a growing number came as slaves for life. Disease and malnutrition made life miserable for both European and African servants. When the supply of European servants began dwindling after 1660, planters turned increasingly to African slaves. By 1700, the economies of Virginia and Maryland had come to depend on the labor of lifetime slaves of African descent who cultivated the main export crop.

A very different economy emerged in the colonies of New England as families migrated to Plymouth, Massachusetts Bay, New Haven, Connecticut, Rhode Island, and New Hampshire to escape pressure to conform to the state-sanctioned ceremonies of the Church of England. The colder northern climate prevented the cultivation of staple crops common in England, but the land was suitable for traditional English farming methods. Significant equality in the size of family property was insured in many parts of

New England by an orderly process of land distribution. The New England governments granted large tracts to incorporated towns, which would in turn grant parcels to heads of households on the basis of present and future need. Commerce boomed during Massachusetts Bay's first decade of settlement as earlier settlers prospered by producing goods for sale to the thousands of new arrivals who took passage each year. Yet when the flow of migration ceased after the outbreak of the English Civil War in 1642, the nascent market economy dried up.

Massachusetts officials sought to compensate by developing overseas markets, successfully establishing a trading partnership with British colonies in the West Indies that continued throughout the colonial period. Yet the bulk of the New England economy rested on family farms. Their production was oriented toward achieving, not the exorbitant profits sought by great tobacco and sugar planters, but a "competence" in which members and heirs of each household could expect to enjoy an adequate diet, clothing, housing, and the modest comfort and enjoyment of family and community life.

Other seventeenth-century Anglo-American economies varied somewhat from these two early models. The Hudson River settlements, founded by the Dutch in 1613 and captured by the English in 1664, early centered on the fur trade but also developed a significant agricultural base. The New York agricultural economy was distinguished by the great Hudson River estates on which a few large landholding families such as the Livingstons achieved great wealth from the large numbers of tenant farmers who farmed their lands. The economies of Pennsylvania and the Jerseys rested on family farming by English, German, Scottish, and Scotch-Irish settlers. South Carolina, like Virginia, became a slave society which produced agricultural goods—in this case rice and indigo dye—for a lucrative European market. Many colonies, like North Carolina, also provided England with important sources of goods such as naval stores—white pine masts for ships, turpentine, pine tar, and hemp for rope.

By 1650 the commercial output of England's colonies had grown large enough to begin enriching many English planters as well as the Dutch merchants who transported tobacco and sugar from the English West Indian and Chesapeake markets to European ports. With the Restoration of Charles II to the throne of England in 1660, Parliament and royal officials began an energetic effort to shape a more consistent policy of colonial commerce that would favor English merchants and shippers while cutting the Dutch out of

Anglo-American trade. The Navigation Act of 1660 restricted colonial trade to ships constructed in either England or English America which carried a crew at least 75 per cent English or Anglo-American. In addition, the act listed certain "enumerated goods"—tobacco, sugar, cotton, indigo, dyewoods, and ginger—that could be transported only to England or another colonial port. Over the next forty years Parliament refined its commercial policy by passing further Navigation Acts and developing the colonial administrative body that eventually became the Board of Trade. The system, never perfect, suffered from periodic abuse and neglect and was regularly circumvented by smugglers. Nevertheless, by the time the Act of Union united Scotland and England under one Parliament in 1707, a workable administrative framework for Anglo-American trade was in place, fostering the growth of a dynamic eighteenth-century empire of goods that benefited both Britain and her North American colonies.

Most historians agree that the colonial economy grew slowly but steadily during the first half of the eighteenth century, stimulating a corresponding rise in the volume of imported British goods. After 1740, however, the volume of cheap British imports to the colonies began an exponential rise in what some historians have termed an Anglo-American "commercial revolution." English manufacturers using traditional methods of production found ways to make more goods available at cheaper prices than ever before, and English merchants found ways to get these goods to prospective buyers through innovative marketing techniques such as paid newspaper advertisements and attractive shop displays. As the volume of imports rose and the prices dropped more colonists purchased more goods each year. In 1700, for example, only the wealthiest colonists could afford to drink tea regularly, and their homes alone were graced with elegant tea sets. Yet by 1760 tea, like the sugar that sweetened it, had become a "decency" enjoyed by the "middling sort" of colonist as well as the wealthy. The building of market roads and the clearing of river channels carried imported English goods a little further inland every year, and colonists found ways to acquire or reallocate the extra income needed to purchase a growing array of items. They could dress in a widening variety of European fabrics adorned with a growing selection of European lace and buttons, and complete their outfits with fashionable silk stockings, gloves, and wigs. They could pane their windows with imported glass, decorate their parlors with fashionable imported candlesticks, and set their tables with inexpensive ceramic tableware.

Sharecropping

This growing participation in a transatlantic market of goods exerted a variety of pressures on eighteenth-century American life. The colonial appetite for imports produced a chronic trade imbalance between the colonies and England, resulting in a perpetual drain of hard currency from the colonies. Colonists responded in a variety of ways such as borrowing from European merchants against the value of future export crops and authorizing the issue of paper currency to expand the money supply. American Indians' increasing dependence on European goods began producing a backlash after 1740 as native prophets such as Neolin called upon Indians to purge themselves of European textiles, tools, and rum to reassert their native identity and regain their spiritual vitality. In contrast, the growing consumption of British goods contributed to a growing commonality of tastes, experiences, and identity among Anglo-American colonists who came to think of themselves increasingly as British Americans. Indeed, colonial protest and Revolution are almost inconceivable without this process. The Stamp Act and Townshend Duties that sparked the protest might not have been passed if the volume of colonial trade were not so great by the 1760s, and the protest might never have been so widespread or popular had not so many Anglo-Americans felt the sting of taxes on the British goods they wished to purchase.

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SHARECROPPING

Sharecropping is a system of agriculture whereby the farmer who works the land receives proceeds of a portion of the crop harvest in return for his labor. After the American Civil War (1861–1865), the South was in ruins. Former plantation owners, now without slave



Poverty plagued the lives of many sharecroppers, who played a major role in the American agricultural system.

labor, also lacked the resources to hire wage laborers. Further, many freedmen disliked the idea of working for wages. Hearing of a rumored promise of "forty acres and a mule" at the end of the fighting, black men in the South wanted their own farms. Two systems of agriculture emerged: One was sharecropping and the other was tenant farming. Plantation owners divided up their land and arranged the tracts to be farmed by one of these two methods.

A sharecropper was furnished with a house and a plot of land. The landowner, however, retained ownership; the property was simply the sharecropper's to use to work the land. Often the house was nothing more than a shack, frequently the housing that had been supplied to the slaves. The sharecropper was provided with seed, fertilizer, tools, and other implements necessary to cultivate the land. Most, if not all, the labor in the fields was performed by the sharecropper and his family. If there were any wage laborers working under the sharecropper, they were under the supervision of (and were paid by) the landowner. At the end of the harvest, the yield was turned over to the landowner, who took it to market. Once the harvest was sold, the costs of the supplies were deducted from the proceeds, and the farmer was given between one-third and one-half of the remaining sum as payment for the sharecropper's labor. If the weather had been poor during the growing season or if the market price of the crop had dropped, the sharecropper often wound up in debt. As there would be little return on the harvest, the sharecropper would be unable to pay the landowner for the supplies. Most sharecroppers found themselves in this situation, particularly after the South's economy became based on a single crop—cotton. In the days following the Civil War, landowners were eager to

make money. At the time cotton was the crop most easily converted to cash, since it was in high demand. But overproduction of cotton soon caused its price to plummet. In 1866 it sold for 43 cents a pound; between 1882 and 1902 the price never exceeded 10 cents a pound.

While the majority of sharecroppers were perpetually in debt to the landowners, some were able to turn a profit, which eventually afforded them increased independence as farmers. Some became tenant farmers (who rented the land from the landowner), while a few established their own farms.

See also: **Tenant Farming**

SHAYS' REBELLION

The years after the American Revolution (1775–1783) were very hard for most Americans. The former colonies, many of them saddled with large war debts, were struggling to find ways to pay their creditors. Soldiers from the Continental Army returned to their family farms to find their lands neglected, in need of extensive clearing and reworking before they were ready to produce a crop. A great postwar depression also meant that prices for farm produce in general were low. In the five years after the end of the Revolutionary War farmers sunk deeper and deeper into debt. Many of them had their lands and other property seized when they were forced to default on their debts. Such a tense environment erupted in a rebellion led by Daniel Shays in 1786–1787 as a protest against the Massachusetts government's refusal to provide economic relief to the struggling farmers of the state.

Conditions were especially bad in Shay's state of Massachusetts. The merchants and traders of colonial Massachusetts' seaports relied on trade with the British Empire for most of their income—especially England itself and the West Indies. The American Revolution had closed these imperial ports to American shipping, forcing merchants to pay for foreign goods and service with hard money, or specie—coined gold or silver—which was in short supply in the United States. The Massachusetts government, which also had to pay many of its creditors in specie, was similarly short of cash. In addition, the federal government (itself chronically short of cash) was defaulting on promises to pay wages and pensions owed to Revolutionary War veterans. Massachusetts responded to the crisis by raising revenue from taxes on land and other sources. Land taxes alone increased by over 60 percent in the three years between 1783 and 1786. Farmers who could not



Daniel Shay led the violent protest against the Massachusetts government's refusal to provide relief to struggling farmers.

pay had their property seized. In severe cases, they were even sent to debtors' prison.

FOR GOD'S SAKE, HAVE MATTERS SETTLED PEACEABLY: IT WAS AGAINST MY INCLINATIONS I UNDERTOOK THIS BUSINESS; IMPORTUNITY WAS USED WHICH I COULD NOT WITHSTAND, BUT I HEARTILY WISH IT WAS WELL OVER.

Captain Daniel Shays, Letter to a friend, December, 1786

At first, the farmers tried remedies similar to those colonial leaders had tried with the British government in the decade before the American Revolution. Farmers petitioned government officials (including Massachusetts governor James Bowdoin) and the state legislature (then known as the General Court) to close the debtors' court and to print paper money so the farmers could make purchases and pay their taxes. Both Bowdoin and the General Court rejected the farmers' petitions, insisting that the power of the courts be respected. They also condemned the push for a paper currency on the grounds that it promoted inflation, making the money owed creditors worth even less. The General Court's new taxes for 1786 amounted to more than 30 percent of the average citizen's income, and it was payable only in cash.

Sheep Herders

When the General Court announced in the spring of 1786 its intention to again raise taxes throughout Massachusetts, several Continental Army veterans decided to take action. Former brevet major Luke Day led the resistance in Springfield, while Captain Job Shattuck provided leadership in Groton. The third leader in the struggle was Daniel Shays of Pelham in the western part of the state. Shays was, by all accounts, a reluctant leader. Although he had obtained a captain's commission in the Continental Army, by 1784 he had returned to farming and grown seriously in debt. During the summer of 1786 Shays emerged as a leader of the protestors in the western half of Massachusetts. By late August, armed groups of men numbering up to 1,500 were closing courthouses around the state.

Throughout the fall of 1786, the protestors organized themselves into an army. Calling themselves the Regulators, they continued to intimidate and threaten local and state officials. In response the General Court of Massachusetts authorized the raising of a 4,400-man militia and placed it under the command of Major General Benjamin Lincoln. Secretary of War Henry Knox even offered Governor Bowdoin a federal army if the state's resources proved inadequate. Despite efforts by Shays and others to negotiate a resolution to the growing problem, the Regulators continued to grow in numbers. By late January 1787, they had made plans to occupy the town of Springfield, Massachusetts and seize weapons stored at the arsenal there.

At 4:00 on the afternoon of January 25, 1787, Daniel Shays and 1,500 Regulators marched into Springfield headed for the arsenal. As they approached, they were fired upon by General William Shepard, who commanded the militia defense. When his warning shots were ignored, Shepard ordered his cannon to fire directly into the ranks of the Regulators. Four of the rebels were killed and another 20 were wounded. Shays' attack was driven off from such unexpected force. Over the next week and a half, General Lincoln drove the Regulators into the western half of the state. On the morning of February 4, he surprised Shays and the Regulators at Petersham, capturing a 10th of the force, and driving the others into the hills.

Lincoln's victory at Petersham ended the armed part of Shays' Rebellion. The General Court and local courts quickly took action to suppress the political aims of the rebels. Courts in Berkshire and Hampshire counties sentenced 14 men to die and fined or imprisoned hundreds more. The legislature met in mid-February to pass a special Disqualifying Act that pardoned former Regulators but disenfranchised them and barred them from jury duty and certain types of jobs for three years. A special commission led by

General Lincoln offered pardons to many more of the former rebels. Shays himself sought refuge in Vermont until his pardon was granted, but he never returned to his Massachusetts farm and instead settled in New York, where he died in 1825.

The long-range effects of Shays' Rebellion were more positive for the poor farmers of rural Massachusetts. The state elections of April 1787 saw the defeat of Governor Bowdoin and better than half of the sitting legislators. The new General Court quickly began work to address the concerns of the rebels, eliminating the Disqualifying Act, distributing pardons, reducing taxes, and allowing persons to use property as well as specie to pay debts. Shays' Rebellion also helped convince thousands of Americans in Massachusetts and other states of the need for a strong national government, which could stabilize the currency, control and levy taxes, and maintain public order. The following year, Massachusetts ratified the U.S. Constitution.

See also: Massachusetts, Whiskey Rebellion

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SHEEP HERDERS

Sheep herders, workers in charge of tending sheep on the open range, proliferated in the last three decades of the 1800s. Following the end of the American Civil War (1861–1865), the open lands of the western United States saw an influx of ranchers. The U.S. government had fought a series of wars to put down rebellions staged by Native Americans, including the Sioux Uprising of 1862, and stockmen were encouraged to move onto the open range. By the end of the 1860s, the longhorn cattle industry, which originated in Texas,

was flourishing. By the mid-1870s sheep ranchers appeared in significant numbers. In 1886, at the height of the open-range livestock boom, Montana alone had roughly a million sheep (and 664,000 head of cattle) grazing its lands.

Ranchers engaged in the practice of purchasing tracts of land adjacent to public lands, and then allowed their livestock to graze freely throughout the area. This method of open-range ranches allowed ranchers to control thousands of acres of land, but by 1890 sheep herders found themselves in conflict with the cattle raisers, as the seemingly endless open range became increasingly limited. Growth of the livestock industry meant that western lands were crowded with 26 million head of cattle and 20 million head of sheep. The industry continued to grow, and small ranchers and sheep herders were soon dominated by big business.

See also: **Open Range, Westward Expansion**

SHEPPARD-TOWNER ACT

The Sheppard-Towner Act, officially the National Maternity and Infancy Protection Act, was passed by Congress in April 1921. It provided matching funds to states for prenatal and children's health centers. The legislation was introduced in the House of Representatives in 1919 by Montana Representative Jeannette Rankin (1880–1973), the first woman elected to U.S. Congress. In December of that year, two similar bills were introduced in the Senate, one by Morris Sheppard, and the other by Horace Mann Towner. Women's advocacy groups joined the Children's Bureau (a federal statutory agency founded in 1912 and a leading force in the child welfare movement) to vigorously support passage of the legislation. In the wake of winning suffrage, American women proved a formidable lobbying force. Further, statistics provided a strong case for government support of a health program dedicated to the needs of women and children. At the time, childbirth was the second leading cause of death for women; one in five children died during their first year of life; and one in three died before the age of five. The Sheppard-Towner Act was passed into law sixteen months after it was introduced.

Under the legislation, using matching federal funds, states established health centers where nurses and physicians cared for pregnant women, infants, and children, and taught women prenatal, delivery, postnatal, and infant care. The program's objective was to reduce maternal and infant mortality rates, which, in studies carried out by the Children's Bureau, were revealed to be higher among lower income groups.

Research showed that as family income doubled, the infant mortality rate dropped by 50 percent. Activists concluded that an outreach program was necessary to instruct all women, regardless of their circumstances, on proper health care for themselves and for their children. The health program set up by the Sheppard-Towner Act was formulated in 1917 in the Children's Bureau's annual report, authored by reformer Julia Lathrop (1858–1932), the head of the agency. Lathrop proposed a nationwide effort modeled on a New York City program, run by pediatrician Sarah Josephine Baker (1873–1945), that gave inner city mothers access to health care and provided routine physical examinations for children. Baker headed a New York City health care program that reduced the city's infant mortality rate to the lowest of all major cities worldwide. When the Sheppard-Towner legislation was passed, Lathrop became its administrator.

The Sheppard-Towner Act remained in force until 1929, when Congress failed to renew funding for the program. Critics charged that lawmakers had fallen prey to the influence of the American Medical Association (AMA) and others, who viewed the federally supported health care program as moving the nation one step closer to socialized medicine. This fear was shared by prominent physicians who exited AMA's Section on Pediatrics to found the American Academy of Pediatrics (AAP).

Though the program was relatively short-lived, its influence was lasting. The funding provided by the Sheppard-Towner Act helped countless women and children. The clinics also raised awareness of the importance of preventive health care in lowering mortality rates of expectant women and children. Another improvement was the introduction of the idea that state and local agencies could play an important role in personal health.

See also: **Family and Medical Leave Act, Nineteenth Amendment**

SHERMAN ANTI-TRUST ACT

The Sherman Anti-Trust Act was passed by Congress in 1890 in an attempt to break up corporate trusts (corporate trusts are combinations of firms or corporations formed to limit competition and monopolize a market). The legislation stated that "every contract, combination in the form of trust or otherwise, or conspiracy in the restraint of trade" was illegal. While the act made clear that anyone found to be in violation of restraining trade would face fines, jail terms, and the

Sherman Silver Purchase Act

payment of damages, the language lacked clear definition of what exactly constituted restraint of trade. The nation's courts were left with the responsibility of interpreting the Sherman Anti-Trust Act; the Justices proved as reluctant to take on big business as was Congress.

The legislation was introduced in Congress by Senator John Sherman (1823–1900) of Ohio, in response to increasing outcry from state governments and the public for the passage of national anti-trust laws. Many states passed their own anti-trust bills or made constitutional provisions prohibiting trusts, but the statutes proved difficult to enforce, since big business found ways around them. When the legislation proposed by Sherman reached the Senate, conservative congressmen rewrote it; many charged the Senators with being deliberately vague. In the decade after the legislation's passage, the federal government prosecuted only eighteen anti-trust cases, and court decisions did little to break up monopolies. But after the turn of the century, reformers demanded that government regulate business.

In 1911 the U.S. Justice Department won key victories against monopolies, breaking up John D. Rockefeller's Standard Oil Company of New Jersey and James B. Duke's American Tobacco Company. The decisions set a precedent for how the Sherman Anti-Trust Act would be enforced, and they demonstrated a national intolerance toward monopolistic trade practices. In 1914 national anti-trust legislation was further strengthened by the passage of the Clayton Anti-Trust Act. This act outlawed price fixing (the practice of pricing below cost to eliminate a competitive product); it was also illegal for the same executives to manage two or more competing companies (a practice called interlocking directorates); and a corporation was prohibited from owning stock in another competing corporation. The creation of the Federal Trade Commission (FTC) that same year provided further insurance that U.S. corporations engaging in unfair practices would be investigated by the government.

See also: Clayton Anti-Trust Act, Monopoly, Tobacco Trust

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SHERMAN SILVER PURCHASE ACT

The free coinage of silver became a political debate in the United States following the Panic of 1873. The period of economic hardship between 1873 and 1878 motivated the demand for cheaper paper money. The market price of silver dropped sharply after 1873 because it was used less often in American and European currency, and it was becoming more expensive to mine.

Although there were still "Greenbackers" around who associated the Civil War paper money with the dynamic northern economy during the Civil War, most of those in favor of inflation did not support the trend toward paper-money and turned instead to silver, believing its free coinage would be as adequate as greenback cash. Silver miners obviously also supported silver coinage. This demand resulted in the 1878 passage of the Bland-Allison Act, which required the government to buy at least \$2 million worth of silver bullion each month at market price to coin as legal tender silver dollars. While the act was a law, however, the country's presidential leaders weakened its effect by purchasing only the minimum amount of bullion. The Bland-Allison Act was never able to stop the decline of silver prices or to increase the circulation of money.

The nation's regional preferences for money lead to a clear divide in the country. In the eastern United States, businesses preferred the gold standard and opposed inflated money. In the West and South, however, indebted farmers needed inflation to boost the prices of their products, while owners of the silver mines prevalent in the western territories wanted free silver coinage to stimulate their own financial interests.

By 1890 the political influence of silver advocates in the West had grown so strong that on July 14, the Sherman Silver Purchase Act was passed as a compromise to appease all interests. Named after Ohio Senator John Sherman, it replaced the Bland-Allison Act as a measure to provide a greater government purchase of

silver. The Sherman Silver Purchase Act required the U.S. treasury to more than double its monthly purchase of silver to 4.5 million ounces. The direct effect of the Sherman Act was a threat to the U.S. Treasury's gold reserves and a \$156 million increase in the amount of paper money in circulation.

Ultimately, the Sherman Act did little to please anyone. Western farmers and silver miners remained dissatisfied with government compromise measures and felt threatened by the 1892 presidential election of Grover Cleveland (1893–1897), another supporter of the gold standard.

The U.S. Treasury's depleted gold reserves led to the Panic of 1893. To restrain public fear of the abandonment of the gold standard, President Cleveland called a special session of Congress, and the Sherman Silver Purchase Act was repealed in the autumn of that year.

See also: William Jennings Bryan, Cross of Gold Speech, Currency, Free Silver, Gold Standard, Gold Resumption Act, Greenbacks

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SHERMAN'S MARCH THROUGH GEORGIA

From mid-November to late December, 1864, General William Tecumseh Sherman led 62,000 Union soldiers on a march through Georgia towards the sea, leaving in their wake a trail of destruction sixty miles wide. During this Civil War (1861–1865) expedition, which started in Atlanta and ended in the port-city of Savannah, Sherman and his men sought to demolish

not only the state's military resources but also its economic structure. The Union troops worked to cut off food supplies by setting fire to cities; stripping fields, barns, and houses; and raiding villages for food and livestock. The men laid waste to Georgia's commercial infrastructure city-by-city. Sherman's ultimate goal was to crush the Confederate states' will to fight, and his tactics were merciless and un-renting. The war did not end here, however, though the general's campaign did accomplish nearly all of its objectives. The march was long remembered as an epic gesture of violence that swept the North toward its victory.

General Sherman, the son of a Supreme Court justice, hailed from Lancaster, Ohio. A graduate of the United States Military Academy at West Point, Sherman served as second lieutenant in the Second Seminole War (1835–1842) in Florida, then as first lieutenant on assignment in South Carolina. At the onset of the Mexican War in 1846, he was assigned to the Pacific Division in California. In 1853 he resigned from the military and set out for San Francisco, where he briefly pursued a banking career; economic unrest in California, however, put an end to that venture in 1857. After another short-lived career as a lawyer in Kansas, Sherman returned to his former vocation in the army accepting a superintendent post at the state military academy in Alexandria, Louisiana. Upon that state's secession from the Union in January 1861, Sherman went north out of loyalty. In May of that year he was appointed colonel of the 13th infantry, beginning a decorated Civil War career.

YOU CANNOT QUALIFY WAR IN HARSHER TERMS THAN I WILL. WAR IS CRUELTY, AND YOU CANNOT REFINES IT.

William Tecumseh Sherman, Letter to the Mayor of Atlanta, September 12, 1864

After fighting at Bull Run in July 1861, Sherman rose to the position of brigadier general of volunteers. His first campaign in Kentucky was unsuccessful, which earned him a reputation for being unstable and manic-depressive. In April 1862, he regained the confidence of his peers following a victory at the Battle of Shiloh. Promoted to major general, Sherman took charge of the Union troops that occupied Memphis, Tennessee, in 1862. The following year, after a victory under Lieutenant General (and post-war president) Ulysses S. Grant at Vicksburg, Mississippi, he rose again in the ranks, assuming command of the Army of Tennessee. But it was in Atlanta, Georgia, that Sherman secured his place as a key figure in the war. His 1864 campaign, which lasted from May to September,

Shipbuilding Industry

ultimately ravaged the metropolis—fire consumed numerous buildings, and the Union soldiers used brute force to demolish or disable the city's machinery. It was this destruction of the commercial infrastructure of the South for which Sherman became known and feared.

The general's march through Georgia represented a continuation of his "total war" strategy. Leaving the burning city of Atlanta behind, he led two massive columns of troops, which operated under Generals Oliver H. Howard and Henry W. Slocum, on an eastward course. Supplying his men only with bread, Sherman organized raiding parties that allowed them to live off the food and livestock of the land. In a December 16 letter to Lieutenant General Grant, Sherman described in explicit detail the way in which his troops weakened Georgia's cities while reinforcing themselves: "We started with about 5,000 head of cattle, and arrived with over 10,000; of course, consuming mostly turkeys, chickens, sheep, hogs, and the cattle of the country. As to mules and horses, we left Atlanta with about 2,500 wagons, and our transportation is now in superb condition."

After Atlanta Sherman set out for Milledgeville, where his high-spirited men held a mock court session in which they repealed Georgia's secession ordinance. From Milledgeville they went on to the state capital, then to Sandersville, Louisville, and Millen, ravaging and pillaging along the way. Wildly outnumbered by Sherman's men, the Confederate troops could do little to halt the trend of violence. Ultimately, on December 21, 1864, Sherman ended his hell-raising march just as he had planned: by nearly demolishing Savannah, the port city at the end of his route. The victory followed a campaign to cut-off food supplies to the city and to take possession of its rice fields and mills. After a 10-day siege Sherman forced out the Confederates and took control of the city, presenting it grandly to President Lincoln as a "Christmas present."

In the end Sherman estimated that his Georgia campaign amounted to \$100 million in damages. A large portion of that sum represented the destruction of the state's economic resources, which crippled its cities and left them open to occupation by Union forces. Pleased with the success of his total-war campaign, Sherman went on to organize an equally devastating march through the Carolinas. Although the general found much of his strength in numbers, he refused to take on African American soldiers. Clearly racist, he disburdened his troops of freed slaves, issuing an order that allowed them to inhabit land rather than join the war. Nevertheless, the general succeeded in his campaigns. Sherman went on to vanquish Confederate troops under Generals Robert E. Lee and Joseph

Johnston, and, in 1869, to succeed Lieutenant General Grant as commander of the U.S. Army.

See also: Civil War (Economic Impact of), War and the Economy

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SHIPBUILDING INDUSTRY

From its earliest days the shipping industry was driven by the need to make contact with other people for migration, trade, and exploration. Many of the colonists arriving in what would become the United States brought a strong seafaring background with them. To facilitate transportation in the New World, they also settled along sea and river ports. These settlements invited participation in an already strong international sea trade. The abundance of forests on the coast offered easy access to materials for shipbuilders.

The shipbuilding industry was of such importance to the new nation that the first Congress in 1789 passed legislation to encourage the use of U.S.-made ships. The bill provided a 10 percent rebate on tariffs if the ship carrying the products was built in the United States. This incentive was important, because the young nation was bringing in a lot of finished goods and industrial products from Europe and sending back raw materials and agricultural products. But this was the last major legislation that Congress would pass for another 50 years to directly help the industry grow. The industry was already independently strong (ship-building was an important industry going back to colonial times) and the government wanted it to remain a private enterprise. However, the government did pass a Navigation Act of 1817 that protected coastal shipping from foreign competition.

It was significant that the government did not offer any subsidy, or government-funded bonus, to the industry until 1845, when the Postmaster General was authorized to subsidize steamships for transporting mail. These steamships were favored because they could be converted into warships. Nevertheless, the subsidy was soon revoked when, in 1858, it was considered to be a drain on national funds. By 1850, left mostly to itself, the U.S. shipbuilding industry soared to the enviable position of second in size behind England. By this time U.S.-manufactured “Clipper Ships” could be found in almost every port in the world. They were widely believed to be among the world’s premier vessels.

During the American Civil War (1861–1865) the industry suffered. U.S. merchant ship owners faced the possibility of capture by privateers and they had to pay huge insurance rates due to the risks of sailing ships bearing the United States flag. It is not surprising that, in order to save their private enterprises (and ships), many ship owners transferred their vessels to foreign registries. The United States forbade these ships from ever returning to United States registries and consequently lost a great number of excellent ships to foreign competitors. In addition, the United States was lagging behind new technological advances. This gave foreign builders a substantial boost due to the new steel-hulled steam-propelled ships, which were considerably cheaper to produce. U.S. law prohibited the registration of foreign-built ships and the costs of building domestic ships made investment in U.S. shipbuilding quite unreasonable.

Various attempts by Congress to reinvigorate the industry were made between 1900 and 1914 but it was not until World War I (1914–1918) began that the United States was jolted into real action. U.S. ports were clogged with cargo and there were no ships to transport the exports. Faced with a potential economic disaster if export revenue disappeared, the government made the radical decision that foreign-built ships of any age could be registered with the United States fleet for use in foreign trade. The Shipping Act of 1916 established a Shipping Board of Directors that oversaw the acquisition and regulation of ships and the procedures of sale or disposal of these ships to U.S. citizens. The Act also called for a substantial boost in production of new ships and it provided funds to back the legislation. The government maintained that the industry would be privately owned and operated even though public funds were driving it. In 1920 the Merchant Marine Act addressed the transfer of publicly-owned vessels to private firms, as well as various issues surrounding maritime commerce, including regulation,

federal aid, and claims settlements among carriers. Congress passed various bills aimed at providing financial incentives for private industry to take possession of publicly-owned ships. But investment in the shipping industry was still viewed with skepticism. Ultimately surplus ships were sold below cost.

With the opening of the Panama Canal, intercoastal shipping boomed. The Merchant Marine Act of 1936 provided subsidies to the shipping industry. The act also outlined policy on privately-owned ships, government production of ships when private industry was unable to keep up with demand, and regulations related to publicly-run ships.

The boom in production was at its height when World War II (1939–1945) broke out. The war boosted the industry and U.S. shipyards made many innovative contributions to shipbuilding, including the switch from rivets to welded seams and multiple production of standardized models. Once again, though, with the end of the war the government found itself with a surplus of ships. From the late 1940s to the early 1960s, demand for ships fluctuated widely, and the industry suffered. Shipyards had invested in modernizing their facilities, but the international competition, combined with the erratic character of demand, left shipbuilders drained.

The government tried to keep a quota of shipyards running by dividing its contracts among different shipyards in New England states, Louisiana, Florida, and on the Atlantic, Pacific, and Gulf Coasts. Ultimately the industry became dependent on government contracts and subsidies for its survival. The fact that other countries were also engaged in subsidizing their own shipping industries during the 1970s resulted in a glut of ships. It was a period of cut-throat competition among the ship-builders of different countries. Comparatively inexpensive ships brought lower shipping rates; thus foreign carriers won bigger freight contracts. The U.S. shipbuilders were still so far from making the transition to civilian markets that they had little chance of winning these contracts. The Reagan administration in the 1980s killed the last subsidies that were keeping the few remaining U.S. shipyards competitive and boosted Navy defense spending, further locking the U.S. industry into relying on the government for defense contracts.

The history of the shipbuilding industry in the United States appears to be a long change from the original hopes for a privately competitive industry to the complete opposite—an industry dependent on government contracts for survival. During periods of expanding demand the U.S. ship-building industry pioneered methods for using nuclear power on submarine

Shortage

and surface ships. It also developed fully submergible hydrofoils and applied the technology of missile systems to ships. Toward the end of the 1980s the U.S. approach was to convince foreign governments with highly-subsidized industries to minimize or withdraw their subsidies, but these attempts failed. The U.S. shipbuilding industry was caught between utilizing subsidies which had proven to be damaging in the long run and making an industry that was once privately operated into an entity utterly dependent on government contracts for its survival.

See also: Clipper Ships, Steamboat Act of 1852

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SHORTAGE

A shortage exists when there is a greater demand for a product or service than there is a supply of the product or service. A shortage usually occurs when the price of a product or service in the marketplace is below its equilibrium price. The equilibrium price is the price at which there is neither an insufficient supply nor an over abundance of the product or service. When the price of a product or service is less than equilibrium, consumers will demand more of the product or service than the suppliers are willing to sell, which in turn creates a shortage. Consumers will then bid up the price of the product or service until it reaches its equilibrium. The equilibrium price is the one that brings the market into balance by equating supply and demand. If the government interferes with or takes control of a shortage situation, a black market may

develop. A shortage may also be referred to as an excess demand.

See also: Price, Surplus

SINCLAIR, UPTON BEALL, JR.

Upton Sinclair (1878–1968) was a popular writer and social critic, a muckraker (exposing political and commercial corruption) writing during the first half of the twentieth century. During the sixty years of his life, Sinclair focused on subjects of ordinary American daily life, which he believed involved violations of decency and democracy. His most famous book, *The Jungle*, helped change the nature of the food processing industry in America by initiating a public outcry that led to strong government legislation regulating food processing and clean meat-packing. A socialist in his politics, he regularly took the side of the ordinary American consumers and he fought consistently for the civil liberties of working people.

Upton Beall Sinclair, Jr. was born on September 20, 1878, in Baltimore, Maryland, the only child of Upton and Priscilla Sinclair. He was born into a distinguished but impoverished Southern family. At age ten Sinclair went with his family to live in New York, where he rushed through eight years of school in just three, and at age fourteen entered City College of New York, where he majored in English literature. While in college, Sinclair began living on his own, supporting himself by writing regularly for comic papers, pulp magazines, and other adventure story magazines of the time.

In 1897, at age nineteen, he graduated from the college with a Bachelor of Arts and entered Columbia University for graduate work, where he studied French, German, and Italian. Sinclair continued to publish his writing while in school, supporting himself and, later, his mother.

YOU DON'T HAVE TO BE SATISFIED WITH AMERICA AS YOU FIND IT. YOU CAN CHANGE IT. I DIDN'T LIKE THE WAY I FOUND AMERICA 60 YEARS AGO, AND I'VE BEEN TRYING TO CHANGE IT EVER SINCE.

Upton Sinclair, Jr., *San Francisco Sunday Chronicle*, April 8, 1962

Disillusioned by the materialistic atmosphere of New York at the beginning of the twentieth century, Sinclair abandoned the city in 1900 and went to live in a shack in the woods near Quebec, Canada. There he

met and married his first wife, Meta Fuller, in 1901. His first and only son was born a year later.

From Canada Sinclair moved to Princeton, New Jersey, one of the intellectual and academic centers of the American Eastern seaboard. He continued writing but focused on socialist ideals and muckraking. His novel, *The Jungle*, made him famous, exposing in detail the appalling working conditions in the food packing industry. In this book he also graphically depicted the unsanitary conditions of the American meat-packing and meat-handling industry.

The publication of *The Jungle* awakened the American public to the dangerous practices of an unregulated food industry which was exploited for huge profits by careless businessmen. In 1906 President Theodore Roosevelt (1901–1909) invited Sinclair to the White House. After consulting with Sinclair the president ordered an investigation of the meat and food processing industries, which led to the passage of the first government regulated pure food laws in America.

During this time Sinclair continued to publish books exposing America's social problems and his writing continued to make a strong impact on his readers. In his muckraking style he exposed the shoddy and shallow lifestyles of New York's high society, as well as unethical and illegal practices of some Wall Street financiers.

Sinclair's political concerns were about the increasing problems of democracy trying to survive in the midst of the Industrial Revolution. This, combined with his moral sentiments, led Sinclair to take full advantage of the Progressive era. He aimed to educate Americans, many of them immigrants, as to how they were being cheated. Sinclair also encouraged his readers to join forces. He advocated forming guilds, organizations for democracy, and unions in order to combat those who pursued business merely as single-minded profiteers. Sinclair himself was one of the early founders, along with Clarence Darrow (1857–1938) and Helen Keller (1880–1968), of the American Civil Liberties Union (ACLU), an organization providing legal support in matters concerning civil liberties.

Sinclair's later years continued to be active. He was a vegetarian and maintained good health and vitality into advanced age. Sinclair remained involved with the Democratic Party, though he always regarded himself as a socialist and an anti-communist. Upton Sinclair died in 1968. His writings and advocacy live on in the society he believed he could change for the better.

See also: Cattle Industry, Trust-Busting

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SINGER, ISAAC MERRIT

In 1851 Isaac Singer (1811–1875), invented the first modern mass-produced sewing machine with an overhanging arm; this machine made it possible to sew any part of a garment. He also patented the foot treadle and the spring-equipped presser for holding down fabric while sewing with both hands.

Though people have been sewing for the last 20,000 years—joining pieces of material using bone needles, awls, and animal sinews for thread, or using iron needles which began in the fourteen century—it was not until the eighteenth century, when mechanical sewing machines were invented, that sewing and the textile industry could grow into one of the largest and most basic industries in the world.

Arguably, it was Isaac Singer who brought sewing out of the dark ages of crude stitching into the modern industrial age of mass-produced clothing and upholstered furniture. The French were the first to manufacture the sewing machine and used it to speed up the production of army uniforms in 1841. However, the innovations that Singer made in 1851 while repairing a clumsy Lerow and Blodgett sewing machine brought about what is now regarded as the first truly modern and mass-produced commercial and domestic sewing machine in the United States. This sewing machine, the Singer Sewing Machine, has been known to U.S. households for generations.

Isaac Singer left home at age 12 to work for the next seven years at a variety of unskilled jobs. He had little formal education but much real-life experience. At age 19 he took a job for a few months as an apprentice, but he left this shortly and began a 9-year period of wandering from state to state. He earned a



Isaac Singer.

living by mostly relying on his mechanical cleverness and experience. A lover of music and theatrics, as well, Singer spent part of his early adulthood as an actor, traveling the country with a theatrical troupe known as the Merritt Players. Plagued by money problems, the group eventually disbanded, leaving Singer destitute.

Singer officially became an inventor at age 28, while working in Illinois. He obtained his first patent from the government in 1839 for a rock-drilling machine. Singer, however, quickly spent the money he made from that invention; he also sold the patent rights and left himself with nothing. Ten years later, at age 38, he patented a wood and metal-carving machine. He then obtained financing to build a small factory in order to produce this device. Life and business were looking up for Singer, but then a boiler explosion occurred in the factory, destroying it. And again Singer was left penniless.

In Boston two years later, while working in a machine shop repairing a sewing machine, Singer again tried his hand at inventing. His employer told him that if he could make a practical, reliable, and mass-producible sewing machine, his fortune would be made. Within a few hours Singer drew a sketch of a new kind of sewing machine, and he built a prototype within 11 days.

Singer immediately applied for a patent on this machine, which he received on August 12, 1851. He then organized what became I. M. Singer and Company and began manufacturing sewing machines. Though he had some competition in the market, the fact that his machine could perform continuous stitching, put it in great demand almost immediately.

Singer fought off law suits from other sewing machine manufacturers, but he had achieved success. By 1854, despite losing some of the law suits, his company had reached and retained a commanding position in the industry. Singer created improvements on his original design and attached the improvements to his original patent, creating what is called a pooling of patents, where many patented ideas are brought together into a kind of giant and complicated product patent, making it difficult to steal.

Singer's greatest service to the consumer, both in the home and in industry, was that he had developed the first domestic sewing machine brought into general use. He made his machines available to many people by creating a time-payment program for buyers, possibly the first such program in U.S. business. Singer also aggressively fought the psychological barrier to mass consumer sales of sewing machines—the false belief that women of his era could not operate complicated machinery. Singer provided many demonstrations to manufacturers that anyone could use his sewing machine with a little training. Clearly the development of Singer's practical sewing machines and the ease with which they could be used contributed to the growth of the ready-made clothing industry in the nineteenth and twentieth centuries. Moreover, Singer contributed to the enhanced general employment of women.

Singer retired at age 51, a multi-millionaire. He lived a flamboyant life-style in New York City and throughout Europe, and left an estate of \$13 million at his death in 1875.

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SIT-DOWN STRIKE

Sit-down strikes began in 1936 as an aggressive method of calling attention to the needs of non-unionized workers in mass production industries. Because the American Federation of Labor (AFL) was not interested in organizing these workers, a handful of radical leaders rose to the challenge and began to push for the industry-wide unionization of unskilled labor. Workers in mass production industries, however, were reluctant to join unions because they were not convinced that labor had the power to mount successful strikes without the support of the majority of workers. Sit-down strikes showed that a minority of workers could effectively halt production and force management to pay attention to their demands.

The first sit-down strike occurred in 1936, when workers at three rubber plants in Akron, Ohio, went on an unauthorized strike as part of a campaign to force their employer to recognize the United Rubber Workers as their legitimate bargaining agent. Instead of setting up a picket line at the factory gates (which makes the strikers publicly visible but has little effect on production activities) they occupied the company buildings and refused to leave. This unprecedented and disruptive tactic, which stalled production and cut into company profits, shocked both industry and more moderate labor leaders but was extraordinarily effective. Sit-down strikes soon spread throughout other industries. The single most significant sit-down strike occurred in January and February 1937, when the United Auto Workers (UAW) confronted General Motors Corporation (GM) in the GM “company town” of Flint, Michigan. With only 122 members at the Flint strike plant, the UAW local was able to stop GM production. Strikers took over Fisher Body Number 1 plant, where GM kept the dies for all of its 1937 car models, making it impossible for the company to continue manufacturing. Crippled, GM was able to turn out only 150 cars per week, and by February agreed to accept the union. The Chrysler Corporation soon followed in March 1937.

Though sit-down tactics were nonviolent, management sometimes attempted to break the strikes by force and bloodshed was not an uncommon result. Sit-down strikes were highly effective in bringing unskilled labor into unions. After the strike against GM, UAW membership increased from 98,000 in February

1937, to 400,000 by that summer. By late 1937, federal laws to prohibit sit-down strikes and court decision upholding these laws eliminated the labor movement’s ability to use this method. Though sit-down strikes could no longer be used by labor, it remained an effective means of protest. Sit-down tactics were later used effectively by Civil Rights activists and students protesting the Vietnam War (1964–1975).

See also: American Federation of Labor, Labor Movement, Labor Unionism, Strike, United Auto Workers

SIXTEENTH AMENDMENT

Proposed in Congress on July 12, 1909, and ratified February 3, 1913, the Sixteenth Amendment to the U.S. Constitution gives the federal government (specifically, the U.S. Congress) authority to levy and collect income taxes. The amendment states that incomes may be taxed “from whatever sources derived” and without regard to population. In other words, it is up to Congress to determine the level at which citizens of the country are taxed, and this may be done without apportionment among the individual states.

THE CONGRESS SHALL HAVE THE POWER TO LAY AND COLLECT TAXES ON INCOMES, FROM WHATEVER SOURCE DERIVED, WITHOUT APPORTIONMENT AMONG THE SEVERAL STATES, AND WITHOUT REGARD TO ANY CENSUS OR ENUMERATION.

Sixteenth Amendment, U.S. Constitution

One hundred years before the Sixteenth Amendment was approved, Congress had begun eyeing income tax as a way to collect funds for government use. Lawmakers first considered levying an income tax to help pay for the War of 1812 (1812–1814), which the new republic fought against Great Britain over shipping disputes. During the American Civil War (1861–1865) Congress imposed an income tax for the first time, charging workers and businessmen between three and five percent of their earnings and establishing (in 1862) a Bureau of Internal Revenue to administer the tax program. The war over, income taxes were phased out. In 1894, responding to increasing economic and political pressures, the legislature again passed an income tax law (two percent on all incomes over \$4,000), as part of the Wilson-Gorman Tariff Act, but the law was struck down by the U.S. Supreme Court, which declared it unconstitutional in the case of *Pollock v. Farmers’ Loan and Trust Company* (1898). In

the early 1900s the idea of an income tax received widespread political support for the first time. Progressive politicians could see that the nation's wealth was poorly distributed, as the gap between rich and poor was growing wider. Conservative politicians worried that the government would not be able to respond to a national emergency if it lacked resources. These political factions found a single voice in favor of a graduated income tax (a tax based on level of income—those who earn more, pay higher taxes). To circumvent the U.S. Supreme Court it was necessary for Congress to propose an amendment to the Constitution. In ratifying the amendment the states gave Congress the authority to set rates and collect income tax.

Tax rates have fluctuated ever since the passage of the Sixteenth Amendment, reaching their highest mark during World War II (1939–1945), when the rate soared to 91 percent. The war effort also brought the innovation of automatic withholdings: Taxes were deducted directly from paychecks. In 1953 the Bureau of Internal Revenue was dramatically reorganized to create the Internal Revenue Service (IRS). Over the decades tax laws (collectively called the Tax Code) have become increasingly complex, prompting a recent movement in favor of a flat (versus the graduated) tax, where all taxpayers are charged at the same rate.

See also: Flat Tax Provision, Pollock v. Farmers' Loan and Trust Company, Progressive Tax, Regressive Tax

SLATER, SAMUEL

Samuel Slater (1768–1835) was an English-born manufacturer who introduced the first water-powered cotton mill to the United States. This invention revolutionized the textile industry and paved the way for the Industrial Revolution.

Samuel Slater was born in Derbyshire, England, on June 9, 1768. His father was a prosperous yeoman farmer who owned a farm near the Derwent River. Along the same river, in the town of Cromford, the first spinning mill driven by waterpower was built in 1771. This mill was owned by Jedediah Strutt and Richard Arkwright, the inventor of a revolutionary water-frame spinner. In 1776 Strutt and Arkwright dissolved their partnership, and Strutt started his own mill in Belper, where Slater lived. At the age of 14 Slater began an apprenticeship at the Strutt mill. Three years later he was promoted to supervisor of machinery and mill construction. In this position Slater learned everything

about textile production, including the construction of machines.

In 1789 Slater began looking for other opportunities for advancement in the textile industry. He decided that the industry had reached its peak in England, but remained undeveloped in the United States, which was still largely agricultural and where handicraft methods of production still prevailed. No U.S. inventor had yet been successful in building a spinning machine, and British law prohibited the export of such machines. In an effort to preserve their dominance in industry, Britain also prohibited the emigration of skilled mechanics. In order to leave the country unnoticed Slater had to disguise himself as a farm laborer. He left England without notifying family and friends and only took his indenture with him to prove his familiarity with Strutt's cotton mills.

Slater sailed for 66 days to reach the United States, and upon his arrival he began working for the New York Manufacturing Company. Slater became dissatisfied with the mill, however, because it was poorly equipped and lacked sufficient water supply. Around that same time the owners of a machine-spinning mill in Pawtucket, Rhode Island, were looking for a mechanic familiar with the English system of production. Moses Brown and William Almy were impressed by Slater's experience and quickly hired him into their company. His primary role was to build a duplicate model of the Arkwright machine, for which he was paid one dollar a day.

[I]F I DO NOT MAKE AS GOOD YARN AS THEY DO IN ENGLAND, I WILL HAVE NOTHING FOR MY SERVICES, BUT WILL THROW THE WHOLE OF WHAT I HAVE ATTEMPTED OVER THE BRIDGE.

Samuel Slater, 1790

Although many Americans had attempted to copy the British machines prior to Slater's arrival, none had been successful. A cotton factory in Beverly, Massachusetts, built by John Cabot and Joshua Fisher, had the distinction of being the first textile mill in the United States. Due to imperfections in their machines, however, the mill produced products of poor quality, and it soon closed. On April 5, 1790, Slater signed an agreement with Almy and Brown to make equipment for the "spinning of cotton by water." Upon signing the agreement, Slater said, ". . . if I do not make as good yarn as they do in England, I will have nothing for my services, but will throw the whole of what I have attempted over the bridge." Despite the limited materials available in New England, Slater accomplished

his mission in less than a year. On December 20, 1790, Slater's cotton mill began production with the Arkwright system.

Even though the new mill had Arkwright models it nonetheless experienced some initial problems. In particular there was difficulty securing good-quality raw cotton, and the equipment frequently broke down. Slater was especially disappointed in American cotton, which was poorly cleaned. Fortunately, just three years after Slater's first mill opened, Eli Whitney (1765–1825) invented the cotton gin, which properly cleaned the cotton in large enough quantities to satisfy Slater. Despite these initial setbacks the business quickly expanded. In 1793 Almy, Brown, and Slater constructed a new mill on the Blackstone River. It was called the Old Slater Mill and consisted of three carders and two spinning frames containing 72 spindles. In the same year Slater's wife, Hannah Wilkinson Slater, invented cotton-sewing thread. Prior to this time, linen thread was used for sewing. Hannah realized that twisting two strands of cotton yarn into one thread created a stronger and smoother thread than the linen. Slater was interested in this new invention, but did not develop machines for producing thread until much later.

Though Almy, Brown, and Slater became a successful company, Slater later disagreed with his partners over the management of the mill. Slater retained his interests in Almy, Brown, and Slater, and in 1798 organized a new firm called Samuel Slater and Company. In 1801 Slater built another mill based on the Arkwright system, this one in Massachusetts. He then helped build other cotton mills in Rhode Island, Connecticut, Massachusetts, and New Hampshire. By 1828 Slater was involved in 13 partnerships for processing cotton.

Not only did Slater mechanize the textile industry in the United States but he also introduced a new production system. Due to the fact that the family was such an important social institution in New England, Slater incorporated this into the production process. He introduced a family labor system where duties were divided according to age and gender. Men worked as laborers or skilled artisans, women cleaned raw cotton, and children worked in the mill. Slater's production system also featured a partnership or single-proprietorship form of ownership, personal management, small-scale production, and the use of waterpower. This production system is often referred to as the Slater system or Rhode Island system of manufactures.

Slater's system was facilitated by production villages. The families employed by Slater lived in company-owned housing near the mills; they shopped at

company stores and went to company schools and churches. One of the first of these mill villages was called Slatersville and was located on the Branch River. By 1807 Slatersville consisted of the Slatersville Mill, two tenement houses for workers, the owner's house, and a company store.

Slater dedicated his entire life to building the textile industry and turned his company into a family business. By the 1830s Slater's health was declining. In 1833 while he was bedridden from rheumatism, President Andrew Jackson (1829–1937) visited New England to witness the growing textile industry. Upon meeting Slater, President Jackson named him the "Father of American Manufactures." Two years later, on April 20, 1835 Samuel Slater died in the mill village of Webster, Massachusetts.

See also: Cotton, Rhode Island System of Labor, Samuel Slater Builds First Factory, Textile Industry

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SLAVE CODES

Beginning in the mid-1600s, the American colonies began enacting slave codes into law. These laws enforced the system of bondage by depriving slaves of their civil rights, protecting the rights of the owners, and designating slaves as the property of their masters. Slaves were prohibited from owning weapons, receiving an education, meeting among themselves, moving about without their master's permission, and from testifying against white people in a court of law. Slaves were also treated differently than whites within the justice system: if a black man broke the law, he

Slavery (Issue)

was punished more severely than was a white man who broke the same law; less severe punishments were given to white men who committed crimes against blacks.

After the American colonies fought for and won independence from Britain (in the American Revolution, 1775–83), slavery began to disappear from the northern states. Abolitionists (those who opposed slavery and lobbied for it to be abolished) grew in number and the economy of the North became increasingly industrial. The existence of northern “free states” and Great Britain’s abolition of slavery throughout its empire (1833) gave rise to the “underground railroad.” Along this route, escaped slaves traveled from station to station where they were harbored until they reached freedom in a free state or in Canada. The escape of slaves threatened the South’s economy, which had become increasingly dependent on agriculture and slave labor. Southerners complained the fugitive slave law passed by Congress in 1793 did not go far enough to protect their interests. In 1850, a second and more stringent fugitive slave law was passed. The law accompanied the Compromise of 1850, which dealt with the admission of Texas to the Union and the territories in the Southwest that were newly annexed from Mexico (in the Mexican War, 1846–48). The 1850 law required all citizens to obey the 1793 law; it also prohibited a jury trial for fugitives and denied them the right to testify.

In the 1800s southern lawmakers enacted legislation at the state level to further tighten the slave codes: Any action by a black or a white person that threatened the system of bondage was made into a serious crime. The slave codes, harsh and desperate attempts to preserve the South’s agrarian lifestyle, fueled the abolitionist movement to end slavery. The American Civil War (1861–65) spelled the end of bondage but it would be another one hundred years before the civil rights of the nation’s African American citizens were adequately protected by the legal and justice systems.

See also: Abolition, Slavery, Underground Railroad

SLAVERY (ISSUE)

The Portuguese were the first Europeans to enslave Africans. They began this practice during their explorations of the West African Coast in the fifteenth century. They usually acquired their slaves from other Africans and took them back to Europe where they were employed as servants or laborers.

Christopher Columbus opened the New World to Europeans in 1492, and soon Spain, Portugal, and other European states had established colonies. Regardless of whether the Europeans concentrated on mining precious metals (as the Spanish did), grew and refined sugar cane (as was true of virtually all the European powers), or settled down to grow staple agricultural exports (as in the English case), they soon had to confront the need for labor. The Spanish and, later, the English attempted to enslave American Indians, but that did not work well (in part because the lack of immunity to European diseases decimated the native populations), so they began to import laborers from Africa.

Actually, the English colonists turned first to their own poverty-stricken population of peasants who had been driven off the land by the conversion of crop land into sheep pasture during the sixteenth century. This displacement of the English peasantry was called the enclosure movement. It produced an army of desperate and angry peasants who wandered the English countryside looking for work, poaching game on the gentry’s land, or engaging in robbery, for which many were hanged. Of the peasants who remained in England a good number would eventually make up the country’s wage labor force as textile manufacturing changed England from an agricultural to an industrial economy. But tens of thousands of poor Britons also immigrated to the New World as indentured servants. Tobacco farming was profitable but labor-intensive and the Chesapeake colonies of Virginia, Carolina, and Maryland employed these bonded laborers. Until the late seventeenth century, most of the work force in the English mainland colonies were indentured servants, working an average of seven years to pay off the debt of ship passage. Some of these bonded servants eventually became prosperous in the America; many died from overwork, disease, and mistreatment, or else, after their debt was paid, migrated to the back country and lived as subsistence farmers.

By the last quarter of the seventeenth century, an improving employment picture in England dried up the stream of available indentured servants. The practice of many white servants of escaping and passing themselves off as independent laborers or small farmers as well as the fact that many of the popular protests and rebellions in the New World, like Bacon’s Rebellion (1675–1676) involved poor former indentured servants, also led the colonial elite to consider an alternative labor source.

That source was African slaves. A lucrative system known as Triangular Trade provided this new labor source. Traders took rum, guns, powder, and

SLAVES AND SLAVEHOLDERS, 1860

States	Holders with 1-9 Slaves	Holders with 10-20 Slaves	Holders with 20-50 Slaves	Holders with 50-100 Slaves	Holders with 100-500 Slaves	Holders with 500-1000 Slaves	Holders with Over 1000 Slaves	Total Slave- Holders	Total Slaves
Alabama	21,793	5,906	4,344	1,341	346			33,730	435,080
Arkansas	941	142	56	10				1,149	111,115
Delaware	562	25						587	1,798
Florida	3,368	976	603	158	47			5,152	61,745
Georgia	27,191	7,530	5,049	1,102	211	1		41,084	462,198
Kentucky	31,819	5,271	1,485	63	7			38,645	225,483
Louisiana	14,886	3,222	2,349	1,029	543	4		22,033	331,726
Maryland	11,203	1,718	747	99	16			13,783	87,189
Mississippi	19,559	5,489	4,220	1,359	315	1		30,943	436,631
Missouri	21,380	2,400	502	34	4			24,320	114,931
North Carolina	24,520	6,073	3,321	611	133			34,658	331,059
South Carolina	16,199	5,210	3,646	1,197	441	7	1	26,701	402,406
Tennessee	28,389	5,523	2,550	335	47			36,844	275,719
Texas	16,292	3,423	1,827	282	54			21,878	182,566
Virginia	37,577	8,774	4,917	746	114			52,128	490,865
Total	275,679	61,682	35,616	8,366	2,278	13	1	383,635	3,950,511

Source: United States Census, Agriculture of the United States in 1860, p. 247.

Slavery was widespread in 1860, however the majority of slave holders owned less than 10 slaves.

trinkets to Africa where they were exchanged for slaves. The slaves were shipped below decks to the West Indies where they were sold. Then the traders hauled cargoes of sugar, and other products to North America, where the sugar was converted to rum, or else they sailed back to Europe. The trip to the New World was hideous for the slaves. They were packed into the slave ships like sardines and many died en route. This infamous leg of the Triangular Trade was known as the Middle Passage. In this fashion the slave trade continued for 300 years and millions of people were deported from Africa in the process.

Slavery may have been introduced in the English colonies as early as 1619 when a Dutch trading vessel brought 20 Africans to the Jamestown Colony. (Historians disagree on whether this particular group of Africans was enslaved or not.) At any rate, towards the end of the century as the settlers' tobacco plantations grew larger, their need for workers also grew and they found that Africans better served their needs. Africans could not pass themselves off as free men and their total subjugation meant that their exploitation was governed by cold calculation of how hard to work them.

In the Caribbean the cost of replacing slaves who died from overwork was low enough that it made economic sense to work the slave to death. That calculus of exploitation worked the other way in the mainland colonies. Slaves were sometimes worked to death, but the price of replacing slaves was high enough that they were often allowed enough food and just enough sleep to live an abbreviated life-span and even to replace their numbers through informal families in the slave quarters.

Between 1620 and 1670, through court decisions and legislative actions, African servitude was made permanent and the institution of slavery was born. It was based not only on the need for labor but also on the ideology of white supremacy. The British colonists clearly regarded the Africans as inferior.

By 1700 there were about 27,000 African slaves in British North America, a number which represented approximately 10 percent of the population. South Carolina had the greatest number of slaves, followed by Virginia. The number of slaves was relatively small in North Carolina, the Middle Colonies, and New England. The demand for slaves intensified in the eighteenth century because of the expansion of agriculture. In Virginia, for example, the number of slaves increased from 12,000 in 1708 to 120,000 in 1756. The slave trade also continued to expand and it was estimated that more than five million slaves were imported into all areas of the New World during the eighteenth century.

As the number of slaves increased, fear of uprisings intensified. By 1700 all the colonies had laws known as Slave Codes which governed the status of the slaves. Slaves were considered property, had no rights, and could be killed for misbehavior. There was no legal limit on lashings. These laws also restricted the movement for slaves, for example, under the Virginia Code, no slave could leave the plantation without permission.

Fear of resistance was not unfounded. There was an aborted slave revolt in Virginia in 1687, and a bloody uprising in New York in 1712. There were several outbreaks of violence in South Carolina in the 1720s and 1730s, and in 1741 panic swept New York

Slavery (Issue)

City when it was rumored that slaves and poor whites were conspiring to seize control of the city. The New York City conspiracy did not materialize but more than 150 people were arrested and many of them were executed.

Anti-slavery sentiment on the part of whites emerged in the late 1600s. The Pennsylvania Quakers issued a formal denunciation of slavery known as the “Germantown Statement” in 1687 and anti-slavery pamphlets began to appear during the eighteenth century. One of the best known of the early pamphleteers was John Woolman. And in 1775 Benjamin Franklin (1706–1790), Thomas Paine (1737–1809), and James Otis (1725–1783) founded the Pennsylvania Abolitionist Society.

The American Revolution (1775–1783) created a paradox with respect to slavery. The Declaration of Independence stated that “all men are created equal,” but this was clearly not true in America where, in 1776, there were nearly 500,000 slaves. Moreover many Revolutionary leaders, including George Washington (1732–1799) and Thomas Jefferson (1743–1826), owned slaves. Even though they were critical of the institution of slavery they believed Africans to be inferior to whites and freed very few of their slaves during the struggle. Even so there were some changes after the war. Between 1777 and 1786 all of the northern states provided for either the immediate abolition, or gradual emancipation, of slaves. Moreover the Northwest Ordinance of 1787, prohibited slavery in the Northwest Territory (the area that eventually became the states of Ohio, Indiana, Illinois, Michigan, and Wisconsin). These changes resulted from a combination of economic and humanitarian forces. Slavery was not profitable in those areas where there were no large plantations and there were those who believed deeply that the practice was immoral.

But, at the same time cotton production was expanding in the South. When Eli Whitney invented the cotton gin in 1793, cotton farming became more profitable and the demand for slaves in that region suddenly increased. At the same time, southerners began to defend slavery as a virtuous institution rather than a necessary evil. As cotton culture expanded it came to be concentrated in the Lower South—South Carolina, Western Georgia, North Florida, Alabama, Mississippi, and Louisiana. By 1840 there were about 2.5 million slaves in the South, most of them concentrated in these states.

Cotton production continued to rise and by 1860 it represented 57 percent of all U.S. exports. This in turn led to an increased demand for slaves. Even though the

importation of slaves was illegal after 1808, it is estimated that at least 300,000 were smuggled into the country between 1807 and 1860. Slaves were also bred, like cattle. A vigorous internal slave trade developed in which thousands of human beings were sold at auction.

Both the militant defense of slavery and militant opposition began to appear in the 1820s. Southerners argued that they had a constitutional right to hold property, including slaves. Southern pro-slavery advocates went on to quote Bible passages that mentioned the existence of slavery in Old Testament days. Others argued that a menial class was a requirement upon which to build civilized society—indeed, they held that slavery was the very condition of democracy in the South. And, of course, southern apologists for slavery also propounded the white supremacist doctrine that Blacks were perfectly suited to their subordinate role because they were physically strong and mentally inferior.

The anti-slavery movement evolved from the moderate pipe-dream of re-colonizing emancipated blacks in Liberia, in Africa. The American Colonization Society, founded in 1817, included prominent figures like James Madison and John Marshall. It proposed to free the slaves, compensate the owners, and return the freed slaves to Africa. But the size of the slave population even in 1830 precluded such a solution. Still, by publishing newspapers and pamphlets, the American Colonization Society at least began the process of education and advocacy of freeing the slaves.

A more radical solution was simply the immediate freeing of the slaves. This was the demand of the “abolitionist” movement that grew up around William Lloyd Garrison, of Massachusetts. Beginning in 1831, Garrison and his associates published *The Liberator* and broadcast the demand that slavery be ended immediately, by force if necessary, and without any compensation to the slave owners. In 1832 Garrison founded the New England Anti-Slavery Society and helped to found the American Anti-Slavery Society in 1833. These developments evoked fear and hatred in the South. Nonetheless, the abolitionist movement grew rapidly and was very active. It sponsored lectures on the subject. It sent the eloquent former slave, Frederick Douglass to England to spread the abolitionist message there.

Abolitionism was the culmination of a generation of reform movements: the temperance movement, the “asylum” movement for the humane treatment of the mentally ill, and the protest movement against the forcible relocation of the Cherokee Indian nation. The

abolitionist movement was the biggest and most passionate of these reform movements. It was also uncompromising: at one point, Garrison publicly burned a copy of the Constitution because it had made provisions for slavery. By 1840 there were 250,000 abolitionists organized into 2,000 clubs or societies in fifteen states. Meanwhile, however, the institution of slavery continued to grow. By 1860 there were nearly four million slaves in North America.

If there was to be a resolution of the slavery issue, most people expected it to come through the political system. In the end, the political system failed to solve the problem or contain the explosive force of the slavery issue, but for a time it looked as though it might succeed. Political leaders like “the Great Compromiser,” Henry Clay, approached the slavery issue optimistically as a series of questions that might be balanced off against one another. Indeed, almost since the founding of the nation, the process of bringing new states into the union had been guided by the unwritten principle of balancing the admission of free and slave states. It was this spirit of patching together a compromise that animated the architects of the Missouri Compromise in 1820, the elements of which were that Missouri was brought in as a slave state; Maine was separated off from Massachusetts and admitted as a free state; and no more slave states were to be carved out of territory north of the southern boundary of Missouri.

The issue of slavery drove politics from 1820 to the Civil War. Throughout this period the pro-slavery southerners demanded that their “property rights” (to own slaves) be protected by the government through measures such as fugitive slave laws. This recalled the words of John Locke, the most influential philosopher for the generation that made the American Revolution. Locke declared that all men, as an essential condition of being human, had the “inalienable” right—in society as in the “state of nature,”—to defend their “life, liberty, and property.” In drafting the “Declaration of Independence” in 1776, Thomas Jefferson had air-brushed that phrase to read “life, liberty, and the pursuit of happiness.” But, regardless of that cosmetic change, the slavery issue forced the nation to decide which was the more important ingredient of humanity—liberty or property. It was the controversy over Missouri’s application to join the union as a slave state that led the aging Thomas Jefferson to declare that the slavery question was like a “fire-bell in the night,” waking the nation to the possibility of secession.

Slavery endured because it was profitable to the owners of slaves even though its presence inhibited the diversification of the Southern economy. Thus it was

probably inevitable that the institution would be ended only by force. It was not until April 1865, when the Civil War ended, that slavery was declared dead. Its demise was finally promulgated in the U.S. Constitution with the ratification of the thirteenth Amendment in 1866.

See also: **Africans Arrive in Virginia, Henry Clay, Indentured Servants, Missouri Compromise,**

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SLOAN, ALFRED PRITCHARD, JR.

Alfred P. Sloan Jr. (1875–1966) was one of the most influential executives in twentieth century American manufacturing. As chief executive officer, president, and chairman of the board for the automaker General Motors (GM) over several important decades, Sloan was responsible for implementing strategies and practices that helped GM emerge as one of the most successful American companies of the century. In 1998, over thirty years after Sloan’s death, GM still held the number one position in American business, leading *Fortune* magazine’s list of the Top 500 American enterprises.

Sloan was born in New Haven, Connecticut in 1875, the son of Alfred P. Sloan Sr. and Katherine Mead Sloan. His father was a machinist with investments in a number of businesses, including a tea and

Sloan, Alfred Pritchard, Jr.

coffee import company. When Alfred Jr. was five the family moved to Brooklyn, New York, where he excelled academically in its public schools. As a teen, he passed the entrance examination for Massachusetts Institute of Technology, but was denied admission because of his youth. He was allowed to enter at the age of seventeen and earned his degree in electrical engineering within three years.

Sloan married Irene Jackson and maintained a home on New York's Fifth Avenue. According to the profiles of him published during his lifetime in magazines like *Time* and *Forbes*, Sloan was the quintessential mid-century auto executive, with no interests or hobbies outside of the office. He and his wife had no children, but Sloan was close to a half-brother, Raymond, who was eighteen years his junior. When Raymond died in the 1940s, Sloan was deeply saddened, and increased the funding and time he gave to the Sloan-Kettering Institute for Cancer Research. His half-brother had been a hospital administrator and had drawn Sloan into medical philanthropy. Sloan was also known to be generous with his resources when he learned of a GM family in trouble; he once spent a Christmas holiday working toward finding the best medical care for the burned child of a plant manager, neither of whom he had ever met. He also refused to publish his autobiography, *My Years with General Motors*, until all of the people mentioned had passed away. Sloan himself died just two years later on February 17, 1966, and is buried in Cold Spring Harbor, New York.

Sloan's father was an investor in a New Jersey business called the Hyatt Roller Bearing Company, which made billiard balls. After Sloan Jr. received his degree from the Massachusetts Institute of Technology in 1895, he went to work at Hyatt as a draftsman. In just under a decade he had risen through the ranks to become its president. Part of the reason for both his and Hyatt's success came from Sloan's recognition of Hyatt's ability to expand its business by producing steel roller bearings for the auto industry. Through his sales to the executives who were usually the founders of their firms and pioneers in the auto industry, Sloan came to know many of the most important names in the business; Henry Ford (1863–1947) for example, was both a customer and a friend of Sloan's.

Hyatt Roller Bearing's success in making and marketing the anti-friction bearings used in the auto industry led to an investment involvement with one automaker, the United Motors Corporation. This company had originated a practice of linking to its parts suppliers in a mutually beneficial relationship. Sloan and Hyatt teamed with United in 1916 to become its

only supplier of steel roller bearings. The investment of \$13.5 million made Sloan a vice president when United Motors merged with General Motors two years later.

The General Motors Company had been founded in 1908 by William C. Durant (1861–1947), a promoter and salesman. Durant's erratic management style and his determination to expand the size of the company regardless of the business climate caused the company to go into receivership in 1910. A consortium of bankers ran the company until Durant regained control with financial backing from the chemical industry magnate, Pierre Du Pont. Durant hired Sloan as a vice president and director of the GM Corporation. Sloan's management style, in contrast to Durant, was methodical and organized. Sloan nearly quit in 1920. He was not the only member of GM's management who was frustrated with Durant. He encouraged his close friend Walter P. Chrysler (1875–1940), who was head of the Buick operations, to strike out on his own and launch what would become the number three auto maker, the Chrysler Corporation.

ACCORDING TO THE PROFILES OF HIM PUBLISHED DURING HIS LIFETIME IN MAGAZINES LIKE TIME AND FORBES, SLOAN WAS THE QUINTESSENTIAL MID-CENTURY AUTO EXECUTIVE, WITH NO INTERESTS OR HOBBIES OUTSIDE OF THE OFFICE.

In 1920 Sloan went on a trip to Europe with his wife and returned prepared to resign only to learn that Pierre Du Pont had helped to ease Durant into retirement. Du Pont took over as Chief Executive Officer. During this period Sloan developed a critique of the amorphous management culture at GM. When he became head of the company in 1923 he helped moved GM in the direction of rational and predictable growth. During his first years as president in the 1920s, GM doubled its manufacturing output and broke sales records. It also absorbed much of its competition, and some of the smaller carmakers either folded or were merged into General Motors during this time. Its biggest competitor was another Detroit-run operation, the Ford Motor Company, and under Sloan's direction GM surpassed Ford in just a few years.

Sloan's talent for running a thriving financial enterprise is one of the most significant success stories in twentieth century American business. GM was so financially sound that it was barely affected by the Great Depression; despite the Wall Street crash of 1929, its stock continued to pay shareholder dividends. In 1937 Sloan was elected board chair, and continued

as both chair and CEO until 1946; he remained chairman of the board of directors until 1956, when he officially retired.

Sloan's restructuring of GM earned him a reputation for excellence both as a practical manager and as a management theorist. Automobile management theory before Sloan was most strongly influenced by Henry Ford. "Fordism" was dedicated to the mass production of a single product. Ford was reported to have said that the customer could have any color Model T that he wanted, as long as it was black. "Sloanism," on the other hand, paid attention to the customer as a choice-maker. Sloan encouraged diversity in product choices. But diversity did not mean chaos. His management accomplishments involved shaping the company rather than allowing the separate automobile companies that GM owned to go off in their own directions, guided by their own autonomous decisions in design, engineering, and production. Thus, Sloan transformed GM from a conglomerate of different companies overlapping each other in price range, technology, and product into a company guided by a single intelligence applied to five separate but interlocked divisions, each producing and marketing cars aimed at a particular segment of the market. On the low end was the affordable Chevrolet. In the middle range were Pontiac, Oldsmobile, and Buick. On the high end were the elegant Cadillacs. The divisions were able to share development, production, and engineering costs among themselves, which added greater profit to the higher-priced luxury models. And the design feature of automobile manufacture became an important generator of car sales through the institution of annual model changes.

When Sloan became chair of GM's board of directors in 1937, he was the highest-paid executive in the country. The mammoth size and economic success of General Motors led to labor unrest and the founding of the United Auto Workers union. Sloan's refusal in 1936 to meet with its representatives to address grievances over job security, wages, and safety resulted in a sit-down strike at GM plants, and the eventual legal recognition of the United Auto Workers a year later, a significant moment in American labor history. Not surprisingly, Sloan was a staunch supporter of Republican politics.

Sloan would also be remembered as a great philanthropist. At the height of the Great Depression in 1934, he founded the Alfred P. Sloan Foundation. It gave grants primarily for research into science and technology; in 1996 it bestowed \$53 million. The auto executive also endowed the Sloan School of Management at his alma mater, the Massachusetts Institute of Technology. At its founding in 1931, it was one of the first

graduate programs of its kind for executives already established in their careers. He also endowed the Sloan-Kettering Institute for Cancer Research at New York City's Memorial Hospital.

See also: **Walter P. Chrysler, Chrysler Corporation, Ford Motor Company, Henry Ford, General Motors, United Auto Workers**

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SLUMS

Slums are severely overcrowded urban areas characterized by the most extreme conditions of poverty, dilapidated housing, and crime.

Slums began appearing as immigration into the Northeastern cities increased following the War of 1812 (1812–1814). Within 35 years New York City grew from 100,000 to over half a million inhabitants as the result of immigration from England, Ireland, and Germany. To accommodate the massive influx of poor immigrants, large rooms of once fashionable dwellings were subdivided into smaller rooms with no light or ventilation and primitive sanitary facilities.

Housing structures, tenements, were hastily constructed on every available parcel of land in New York, Philadelphia, and Boston. Over 290,000 individuals per square mile packed New York's East Side. In 1832 filthy conditions spawned the spread of cholera. By the 1880's poverty, illiteracy, drunkenness, and crime thrived in frightfully overcrowded districts of Northeastern cities and Mid-Western cities, such as Chicago.

New York passed the first housing codes in 1867, 1879, and 1901, which established light, ventilation, and housing regulations for new construction. They did nothing, however, to improve existing buildings, and

often tenements built according to code still had major defects. For example, the New York City code required that “model” tenements be built with air shafts for ventilation. But the shafts proved only to be a source of fowl odors, thus perpetuating the miserable conditions. (Jacob Riis raised public awareness with his photographs of New York slums published in 1890).

Between 1880 and 1920 the mix of immigrants shifted to predominantly eastern and southern Europeans. Slums were housing minorities whose assimilation into the mainstream of American life was often more difficult than the earlier northern European immigrants. Later immigrants came from the American South, East Asia, and Latin America.

The term ghetto, which originally was used to designate the Jewish area of Venice, Italy, now described the segregation of minorities in crowded sections of the inner cities. Between 1910 and 1970 approximately 6.5 million blacks moved to the North. Although most were underemployed and lived in the ghetto, many found good jobs in steel, rubber, and automobile industries. With the civil rights changes of the 1960’s middle class blacks moved to the suburbs, but the ghettos remained as a home to the poor and a blight on the urban landscape. To help eliminate slums, the U.S. government focused on building public housing in the inner cities, but this effort was inadequate to counteract the endemic problems associated with poverty. By the end of the twentieth century, a self-perpetuating condition of despair created an underclass of individuals born in the slums and likely to remain there all their lives.

See also: Ghetto, Tenements

SMITH, ADAM

Adam Smith (1723–1790), a philosopher and lecturer at the University of Glasgow, taught Natural Theology—the search for design and order in the confusion of the cosmos—in eighteenth century Scotland. Smith became intrigued with economic theory, seeing economics as a largely ignored subject of philosophy. In 1776 he published an enormous book, a “living picture” of the economic circumstances of England, known as *The Wealth of Nations*, without promoting any social class, or advocating any ideology. The book had been called the “bible of capitalism,” but that was misleading. *The Wealth of Nations* was a profound effort to describe a “system of perfect liberty,” which was the way Smith referred to the small-business commercial capitalism of his era. His book, involving issues of personal self-interest, and

competition, has become a classic economics text, and Smith was regarded as the seminal organizer of thoughts and ideas about the economics of capitalism.

Adam Smith was born in June 1723, in Kirkcaldy, Scotland. His father died prior to his birth, and Smith was raised by his mother, in comfortable circumstances in a home near Edinburgh. Smith’s close relationship with his mother was life-long. She died at age 90, when Smith was in his 40s. He lived most of his life quietly in Scotland, reading, writing, and teaching. He was highly regarded as a teacher, and was considered to be a genius who was eccentric and absent-minded in most practical matters. Smith’s education included three years at the University of Glasgow, Scotland, and seven years at Balliol College at Oxford University, England.

In 1751, not yet age 28, Smith was offered the Chair of Logic at the University of Glasgow, and shortly thereafter was given the Chair of Moral Philosophy. He gained considerable reputation and prestige in 1759, publishing a book called *The Theory of Moral Sentiments*, a work examining moral approval and disapproval.

In 1764, Smith went to France for 18 months. To relieve periods of boredom he felt there, Smith began work on a treatise of political economy, which formed the beginnings of his book, *The Wealth of Nations*. It was in France, working on his treatise, that he hit on one of his greatest insights: labor, not nature, was the source of what we call “value”. He spent much time in his book elaborating this theme: labor as a source for all value. The book was published in 1776, a 900-page outpouring of a whole epoch. Smith had borrowed his ideas from many other philosophers—*The Wealth of Nations* mentions over 100 names specifically in his treatise. It is a brilliant synthesis of economic and philosophical thinking.

The Wealth of Nations was indeed a revolutionary book. Smith had no particular ideology and apologized for no particular class of people. He was concerned with the flow of goods and services consumed by everyone, constituting the ultimate aim and end of economic life. Smith’s primary interest was in laying bare the mechanism by which society hangs together. He constructed a formulation of the laws of the marketplace, discovering what he called in Nature “the invisible hand,” whereby private interests and the passions of men are led in the direction most agreeable to the whole society.

Smith’s laws of the market were simple. The drive of individual self-interest in a community of similarly motivated people results in competition. If left

untampered by any deceitful means, competition among people will result in the provision of goods that society wants, in the amount society desires, at the price society is willing to pay.

Smith's explanation of free-market commerce was an excellent explanation for its era prior to the Industrial Revolution. Large problems arose when restraints of any kind came into play to eliminate Nature's "invisible hand" in matters of the economy. Adam Smith did not anticipate the intervention of governments with their regulations of commerce. In fact, he viewed such intervention as harmful to a free market economy. He did not, as well, anticipate huge industrial monopolies that owned entire areas of the economy, artificially rigged prices, and lowered worker wages. Since the eighteenth century, when Smith woke the world with his great explanation of general economics, the marketplace has changed vastly. Self-interest still plays the major hand, but it is more difficult to compete, since a variety of interests block much competition.

Despite the idea that Smith wrote largely as an apologist for capitalists and businessmen, nothing could be further from the truth. Smith wrote: "No society can surely be flourishing and happy if which by far the greater part of the numbers are poor and miserable," hardly the words of a corporate apologist. Yet, a capitalist class rising in the nineteenth century during the Industrial Revolution ignored much of Smith's work, and focused on his one remark—"let the market alone." Smith's bias, if he had one, was neither anti-labor nor anti-capital. Instead, he described a sensible economic analysis that, at bottom, favored the consumer. He said: "Consumption is the sole end and purpose of all production."

Adam Smith was a scholar and analyst of pre-industrial capitalism. *The Wealth of Nations* became a masterwork of political economy. More so, it was a rational classic guide to understanding the forces of competition and self-interest as the major conception of the human adventure in the Western world. Adam Smith died in 1790, but his economic theories have endured throughout the twentieth century.

See also: Capitalism

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SMOOT-HAWLEY TARIFF ACT

Reed Smoot and Willis Hawley were members of the U.S. Congress, who introduced a bill known as the Smoot-Hawley Tariff of 1930. This tariff (a tax on foreign imports) came to be synonymous with a major public policy blunder and failure. Smoot-Hawley was signed into law by President Herbert Hoover (1929–1933) after the stock market crash of 1929. Some historians argue that the tariff was so high that it created unprecedented foreign retaliation against the United States. According to this view, Smoot-Hawley helped convert what would have been a normal economic downturn in the U.S. economy into a major worldwide depression, the Great Depression (1929–1939).

The creation of the Smoot-Hawley Tariff presumably did the following: create the highest tariff rates in U.S. history, frighten the stock market, deepen the Great Depression (by reducing the foreign goods available to U.S. consumers), outrage foreign governments into retaliation, and create an open trade war in the midst of economic depression. On the other hand, there are scholars who argue that there is no compelling evidence that this tariff made the Depression worse. Several of them have even suggested that Smoot-Hawley has become a scapegoat for explaining the extended misery of the Depression. But, regardless of its effect in 1930, the Smoot-Hawley Tariff became a metaphor for underestimating the importance of the nation international trade policies.

See also: Great Depression (Economic Causes of), Tariff

SOCIAL GOSPEL

The Social Gospel was a Christian reform movement originating in the late nineteenth century. It was espoused by Protestants, who preached social responsibility as a means to salvation. Adherents believed that the social, economic, and political ills produced by

unrestrained capitalism could be addressed by teaching religious values to the working class. They also believed that human nature could be improved by changing the conditions in which people lived and worked.

In addition to building churches in impoverished neighborhoods of American cities, Social Gospel reformers worked within the communities to urge businesses to adopt socially responsible practices. Movement leaders, including clergymen Washington Gladden (1836–1918) of Columbus, Ohio, and Walter Rauschenbusch (1861–1918) of Rochester, New York, acted as mediators between employees and employers. They also wrote books on applying Christian beliefs to alleviate social ills and they worked to lessen the effects of poverty.

The Social Gospel movement was one aspect of a greater progressivism of the late 1800s and early 1900s. Activists—including many young, middle-class individuals—were outraged by the living and working conditions of the urban poor. They argued that government needed to regulate big business—they argued that the doctrine of *laissez faire*, which opposes government interference in the economy, had only resulted in a capitalist society run amok. This view was at least partly responsible for government legislation imposing some regulations on U.S. industry. It also inspired a spirit of charitable works among many Americans. The reform movement resulted in the passage of building safety codes, enactment of anti-trust laws, approval of health safety standards for the food industry, establishment of settlement houses in inner cities (where residents could participate in educational and social activities), and urban beautification projects.

The legacy of the Social Gospel movement lasted well beyond the first three decades of the twentieth century. Protestant pastor Harry Emerson Fosdick (1878–1969) asserted that leaders such as Rauschenbusch had “ushered in a new era of Christian thought and action.”

See also: **Muckrakers**

SOCIAL SECURITY ACT

As the Great Depression (1929–39) in the United States continued in the early 1930s, growing unemployment created widespread fear and insecurity. Between 1929 and 1933 the unemployment rate rose from 3.2 percent to 25.1 percent. Funds from charities and local government were almost completely drained. Many demands were placed on the federal government

to design and implement economic and social reforms to help abate social tensions.

One of the groups that arose during this crisis was composed of senior citizens. Led by an elderly California physician by the name of Francis E. Townsend, the “Townsend Plan” involved a government program of monthly checks of \$200 to citizens over the age of 60. The only way to stay on the program was to spend all of the money each month. According to Townsend, this requirement would put money in circulation and stimulate the economy. Beginning in 1933, the group formed a network of “Townsend Clubs” with a combined membership of over 5 million, mostly older, Americans who agitated for the reform.

President Franklin D. Roosevelt (1933–45) responded to these and other concerns by appointing the Special Committee on Social Security, chaired by Secretary of Labor Frances Perkins. The committee’s recommendations became the foundation for one of the most significant federal social policies in U.S. history, the Social Security Act of 1935. The Social Security Administration provided unemployment insurance, aid to the poor, and pensions for the elderly.

The Social Security System acted as a non-profit insurance company, raising funds through taxes on employers and employees for old age insurance. The size of each pension was based on how much the worker contributed to the fund. Increased earnings resulted in increased pensions. In order to build up the fund, these social security pensions were not to be dispersed before 1942. Originally, this protection did not apply to non-workers who could not contribute to a pension fund. It also did not apply to family members of a deceased pensioner and to farmers and domestic laborers (who were usually poor).

Congress amended the Social Security Act in 1939 to authorize pension payments to survivors of deceased Social Security recipients. In 1965 Medicare was added to provide health care for eligible retirees. In 1989 Social Security covered 38 million people (nearly all the elderly), and it accounted for nearly a quarter of the one trillion-dollar federal budget. In the late 1980s the poverty rate among the elderly was just below that of the general population. In 1998 discussions began about shoring up the social security program. As the 76 million baby boomers reached retirement age, there would be fewer workers paying taxes compared to the number of people drawing benefits. Without revisions, experts predicted, funds would begin to run out early in the twenty-first century.

The Social Security Act included other programs as well. Unemployment insurance was developed to

provide some security against joblessness; it was funded by employee and employer taxes. In 1938 minimum wage and child labor laws were implemented, while federal disability insurance was added in 1956. In the 1960s and 1970s government assistance programs grew significantly in response to demands of liberal activists. In 1965 Medicaid was added to help support health care for the poor. In the 1960s and 1970s the food stamp program was developed, which helped the poor buy food. In 1972 the Supplemental Security Income system was enacted to provide assistance for the elderly and disabled poor.

THE SOCIAL SECURITY SYSTEM ACTED AS A NON-PROFIT INSURANCE COMPANY, RAISING FUNDS THROUGH TAXES ON EMPLOYERS AND EMPLOYEES FOR OLD AGE INSURANCE. THE SIZE OF EACH PENSION WAS BASED ON HOW MUCH THE WORKER CONTRIBUTED TO THE FUND.

Another arm of the Social Security Act that significantly impacted the country's social structure and created much controversy was Aid to Dependent Children (ADC). Originally, ADC was designed to help widowed mothers who could not adequately support their families. In 1950 Congress amended ADC to provide grants not only to single parents but also to their children. The program was renamed Aid to Families of Dependent Children (AFDC). Additional amendments broadened coverage to include poor, two-parent families. By the late 1980s more than three million families were receiving AFDC benefits. The growth of this program over the years sparked debate about its role in creating an underclass. While most agreed that the program provided many families with temporary assistance, as was its original intent, critics charged that it stigmatized recipients and conveyed in them a sense of hopelessness, and that it in the same time caused resentment among taxpayers. In the 1980s the focus of anti-poverty programs turned to single mothers receiving AFDC. Initially, these programs provided work training and job placement and, as incentives, they also offered childcare assistance and Medicaid for a year after the recipient began to work. In 1988 the Family Support Act required mothers without children under three to work. In the early 1990s President Bill Clinton (1993–) allowed 42 states to change their AFDC programs in any way they saw fit. These states were not required to provide job training; they could impose time limits on adults receiving assistance and they could also withdraw assistance from those who did not comply with certain conditions. Because of these changes critics predicted a potential rise in single,

working poor women who were not equipped to adequately support their children.

Over the years the Social Security Act was successful at protecting a large number of individuals from various forms of suffering. However, even though social security programs have grown and expanded to provide for the poor and disadvantaged, still in 1989 about 15 percent of Americans were poor and 37 million Americans had no medical insurance. In the late 1990s conservatives and liberals, as well as special interest groups on both sides, continued to debate the advantages of restricting or expanding social programs into the twenty-first century.

See also: Great Depression, Medicare, Medicaid, Franklin D. Roosevelt, Townsend Clubs, Welfare Policy

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SOCIALISM

The word *socialism* was coined in 1832 by Pierre Leroux, editor of the Parisian journal, *Le Globe*. The doctrine of socialism took on many different meanings as it grew and expanded from western Europe to Russia, the United States, Asia, and Australia. In the days of the Soviet Union, it was a common popular misconception that Russians invented both socialism and communism and exported them, when in fact they

Sod Houses

borrowed these creeds from western Europe and developed their own versions.

All socialist theories are critical of wealth and the concentration of wealth in private hands; all of them advocate the elimination of poverty by equalizing the distribution of wealth, most often by some degree of collective (i.e., public) ownership. The most extreme socialist creeds have advocated the total elimination of private property. Because socialism also advocates some form of collective action, it can be defined not only as a theory but also as a movement.

The many varieties of socialism evolved in part from the disagreement on the means by which a more equitable distribution of wealth in society is to be achieved. Marxist socialism proposes the forceful establishment of a workers' dictatorship; conservative social democrats advocate parliamentary reform and trade unions; syndicalists favor a general strike of the workers; Christian socialists advocate a stringent application of the principles of the Bible.

SOD HOUSES

Sod houses were made of blocks of sod or layers of turf. Early settlers of the Great Plains constructed sod houses where there were no trees to supply lumber. The structures may have first appeared on the open prairie of Nebraska; as a building material, sod became known as "Nebraska marble." Homesteaders cut sod with spades into square blocks which they piled up to build walls. Roofs were made of thatch or of sod blocks supported by a mat of branches, brush, and long grasses. The dwellings (called soddies) were less than ideal: though they remained cool in the hot summers and provided good insulation from the winter cold, they were prone to infestation by vermin. They were also full of dirt, which fell from the walls and ceiling in particles. Sod houses were improved or replaced with new dwellings around the turn of the century: Carrying building supplies such as timber, railroad lines reached into previously remote regions of the former frontier by 1900.

See also: **Homesteaders**

SOLE PROPRIETORSHIP

A sole proprietorship is a form of business organization owned and operated by one person. A proprietorship requires no formal legal process except appropriate licensing, if necessary, to begin providing goods

or services for profit. The proprietor owns all assets and liabilities of the business. Although sole proprietorships are not limited in the number of workers employed, they generally are small in size. Sole proprietorships are a common form of organization with professionals, consultants, farmers, service businesses, small retail firms, and small local restaurants. The owner keeps records of revenues and costs that he must report on Schedule C of the personal federal income tax return.

Organizing a businesses as a sole proprietorship offers several advantages. In addition to their ease of formation, proprietorships afford the owner total flexibility and freedom in decision-making, management, and control since consultation with others is not required. The owner may retain all business profits as income, a strong incentive for doing well.

Economic disadvantages include the ability to raise capital. Most sole proprietors have limited personal financial resources, rarely sufficient for long term expansion. Specialization is also problematic. The proprietor may have an excellent talent or skill to start the business, but later must provide marketing and financial expertise that he may not possess. Sole proprietorships have limited life. If the owner dies or wants to quit, legally the business itself ceases to exist. Lastly, the largest risk in a sole proprietorship is unlimited liability. The owner is personally responsible for all the liabilities or debts of the business. If the business does poorly, both the firm's assets and the owner's personal assets may be taken to satisfy creditors.

Through the 1980s and 1990s, the percentage of total firms in the United States organized under sole proprietorships and their total sales remained relatively constant. In 1993 approximately 75 percent of all firms were sole proprietorships, representing almost 16 million businesses. However, they accounted for less than six percent of total sales, or about \$757 billion.

SONY CORPORATION

Since its post-World War II (1939–1945) founding in Japan, the Sony Corporation revolutionized the consumer electronics field. The Sony name became familiar throughout the world for such innovative products as the transistor radio, the Trinitron television, the Walkman cassette player, and the compact disk (CD). The company also joined in other diversified industries such as entertainment, battery manufacture, life insurance, and sports equipment. By the end

of the twentieth century it cooperated with the People's Republic of China to produce television sets. Sony had become a major player on the international market.

After the devastation of World War II Japan was ripe for all kinds of business developments which would bring the country back to normal life, but at the same time, revolutionize its business practices and institutions. In 1946, with borrowed capital, Akio Morita and Masuri Ibuka set up the company known as Tokyo Tsushin Kogyo (Tokyo Telecommunications Engineering Corporation), the forerunner of Sony. They first developed a rice cooker, which was a failure, but they soon succeeded with a tape recorder. When Norio Ohga, a student of opera, wrote to complain about the tape recorder's sound quality, Morita and Ibuka invited him to present his critiques in person and later asked him to join the company, and he eventually became president and chairman.

In 1952 the two directors first heard of a tiny new capacitor called a transistor, which had been developed by Bell Laboratories and used by Western Electric to manufacture hearing aids. Ibuka obtained a patent license to begin producing the first transistor radios in 1954. They named the radio "Sony," after the Latin word for "sound" and the word "sonny," or little son. Prior to the Sony transistor radio portable radios were fairly large because of their vacuum tubes. Consumers were amazed at the compactness of Sony radios and were eager to buy them.

To market his product in the United States, Morita himself traveled to New York to meet with representatives of several large retail businesses. In 1958 Morita and Ibuka decided to change the whole name of the company to Sony Kabushiki Kaisha (Corporation). Within a year the company had developed a transistorized television.

Sony began to expand rapidly, establishing trade offices in Switzerland, the U.S., and England. A subsidiary was also set up to provide the adhesives and plastics needed for manufacturing. Other transistorized products were also developed such as the AM/FM radio and a videotape recorder. Sony's biggest gamble during the 1960s was the Trinitron television, which, at the time, used the most advanced color technology. Norio Ohga also headed a new venture called CBS/Sony, which became the largest manufacturer of phonograph records in Japan.

In the 1970s Sony was the pioneer in the development of Betamax video-cassette recorders (VCRs), yet by the end of the decade the Beta format had been

superseded by the video home system (VHS) format introduced by Sony's competitors. A market war ensued between Sony and manufacturers of VHS systems—Sony refused to market a VHS line until the late 1980s and began to lose market share.

A more successful venture at Sony was the introduction of the Walkman compact cassette player in 1979. By using a small player and lightweight headphones a person was able to enjoy music while walking. The term "Walkman" soon became the generic name for similar products produced by Sony's competitors.

Norio Ohga became president of Sony in 1982 after Ibuka and Morita had begun to cut down on their duties. Ohga reached out to institutional markets as well as to individual consumers; he also focused attention on research and development. In partnership with the Dutch firm Phillips, Sony developed the first laser disk recorder, or compact disk (CD), which greatly improved sound quality. By the 1990s the CD format used by Sony and several competitors had virtually eliminated old phonograph systems.

From its bitter experience with the Beta-VHS conflict Sony officials had learned that a superior product alone would not guarantee sales. When the company developed a lightweight video camera in 1985 it did so in conjunction with over 100 competitors to ensure that future cameras would be compatible with its 8mm format. Sony also bought a company which manufactured the new digital audio tape (DAT), with hopes to ensure future compatibility among recording systems. Sony also sought to increase its institutional sales and to continue to diversify. It purchased Apple Computer's hard-disk technology operations, the Digital Audio Disk Corporation, CBS Records, and Columbia Pictures Entertainment. In 1990 Sony posted a 38.5 increase in earnings over 1989.

Like many other companies in the global economy Sony experienced a downturn in the 1990s. Appreciation in the value of the Japanese yen adversely affected the company's export sales in the mid-1990s. In 1995 Morita relinquished his chairmanship in favor of Ohga, and Nobuyuki Idei was named president. Despite setbacks the Morita era had led to Sony's great success. Sony occupied a pre-eminent place in a worldwide, consumer electronics industry—the company had 173,000 employees and annual sales of \$51.2 billion in 1998. Morita had been the most visible spokesman for the company, as well as an effective purveyor of ideas. He created the Sony name and several of the product names—Walkman, Handycam, and Watchman. Under

Soo Locks

his leadership Sony engineers developed an astounding array of revolutionary electronic products which are now accepted as everyday necessities.

In 1998 Sony Electronics Inc. (SEL), the largest component of Sony America, became an independent company. Its president, Teruaki Aoki (responsible for Sony's entry into the digital video disk (DVD) market), told *Electronic Engineering Times* that SEL would be "an autonomous company now serving as a good partner for Sony Corporation." In the late 1990s Sony also began marketing an interactive video game console called PlayStation (and later PlayStation II), whose major competitor was the Sega Dreamcast system. In creating these practical luxuries the Sony Corporation has made their products essential to daily life as well as erasing the negative image once attached to products wearing the label "Made in Japan."

See also: Akio Morita

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SOO LOCKS

Early settlers arriving in the upper peninsula of what became Michigan found only one way to get from Lake Superior to the other Great Lakes, the St. Mary's River. Because of its formidable rapids, the river was a challenge to travel and transportation. Settlers needing to cross the river were forced to carry their canoes around the rapids. As settlement and trade increased, boats arriving at the river had to unload their cargo, haul them around the rapids in wagons, and reload them in other boats before continuing on their journey.

The Northwest Fur Company constructed the first canal (called the "Soo Lock") in 1797. Based on the Canadian side of the river, the thirty-eight foot lock allowed small boats to navigate the St. Mary's rapids. A lock is a section of a canal that can be closed and

opened to control water level, which is raised or lowered to transport a vessel from one level to another. This first lock was destroyed during the War of 1812 (1812–1814).

THE SOO LOCKS SERVE SMALL PASSENGER VESSELS AS WELL AS LARGE FREIGHTERS CARRYING OVER 72,000 TONS OF CARGO. IN THE LATE 1990S, THE LOCKS AVERAGED TRAFFIC OF 10,000 VESSELS PER YEAR.

For the next four decades the only way boats could pass between the Great Lakes was by a system of land rollers, which were used to circumvent the St. Mary's River rapids. In 1850 the railroad reached the region and improved transportation, but a traversable waterway was still necessary. Around the same time Michigan's Upper Peninsula was found to be rich in various ores including iron and copper. The U.S. mining industry pressed the government for a completed canal to facilitate shipment of these raw materials for use in the nation's growing manufacturing sector.

In the era when the federal and state governments were building roads and canals, and subsidizing privately owned transportation ventures (such as railroads), Congress granted 750,000 acres of Michigan public land (in lieu of monetary payment) to the Fairbanks Scale Company, which would construct the canal. The Fairbanks Company had extensive mining interests in the Upper Peninsula. Construction began in 1853 and was completed in 1855, meeting a two-year deadline set by the state. The company constructed a canal containing two locks (the State Locks), 350 feet in length, which would raise or lower sailing vessels to different water levels. The locks were turned over to the state of Michigan in May 1855.

Because of the expense of operating the locks, the state ceded management of the waterway system to the federal government in 1881. Managed by the Army Corps of Engineers, the State Locks were enlarged and an additional canal constructed (the North and South canals). In 1895, Canada built a canal on its side of the St. Mary's River which contains a single lock.

The Canadian canal, containing one lock, and the two Michigan canals, with four locks, are together known as the Sault or Soo locks (Soo is a phonetic version of Sault). They successfully allow commerce to flow between the Great Lakes and have supplied water-transported material to U.S. military forces in every major U.S. war and conflict since the 1800s. A variety of commodities pass through the locks, including grain and coal. The Soo Locks serve small passenger vessels as well as large freighters carrying over

72,000 tons of cargo. In the late 1990s, the locks averaged traffic of 10,000 vessels per year. A hydroelectric power plant supplies power to the Soo complex as well as to the power grid of Michigan's eastern Upper Peninsula.

SOUTH CAROLINA

South Carolina was carved out of a much larger piece of territory than other states, and it eventually became one of the most important states in the Old South. For good or ill, it is known for the most rabid opposition of any state to protective tariffs and northern antislavery movements, two issues that led the nation into a civil war. Its history has been marked by several divisions: between the English and other northern European patricians who settled the cosmopolitan city of Charleston and the less educated farmers of the interior, between whites and blacks, and between labor unions and anti-union advocates. In recent decades, however, the state has made the most of its resources by profiting from its important water ports, its good transportation networks, and an improving industrial climate.

Spanish and French explorers were the first Europeans to attempt settlements, all unsuccessful, in the present state of South Carolina. Under English King Charles I, the first permanent settlement was established as a proprietorship in 1670. The first colonists were "adventurers" from the English sugar cane producing island of Barbados. The first crop that was grown in the coastal swamps was rice, which was cultivated by imported black slaves. The agricultural know-how to construct the often elaborate system of channels and dams to irrigate the rice was contributed by the slaves who came from a similar rice-cultivation culture in western Africa. By the mid-1700s inland areas were beginning to develop. At first simply called "Carolina," the colony included the future colonies of North Carolina and Georgia, as well as South Carolina, which broke apart from the north and became a royal colony in 1721. South Carolina supported the American Revolution (1775–1783) and ratified the U.S. Constitution in 1788.

Transportation networks soon grew from the port of Charleston, through the upcountry, and on to western territories. Several canals were constructed, and the first railroad, from Charleston to Hamburg, was the longest railroad in existence in 1833. South Carolina also boasted the first steam engine built for public

railway service. However, in the mid-1800s constructing railroads through the mountains in the middle of the state proved impossible.

Any visitor to modern-day Charleston can sense the city's important history. Because it grew faster than any colonial city, historian Louis B. Wright called it "a city-state ruled by an intelligent and cultivated oligarchy of great families who managed to monopolize control, generation after generation." The political and economic power naturally flowed to the city of Charleston, which controlled the colony (and later the state) for decades. Trade in products like rice, cotton, corn, pitch, and indigo flourished in the port of Charleston, as did the slave trade. Upcountry farmers were generally looked down upon by the elite of Charleston city.

SOUTH CAROLINIANS HAVE ALWAYS BEEN READY TO DECLARE THAT THEIR LAND WAS ONLY A LITTLE LESS DESIRABLE THAN EDEN.

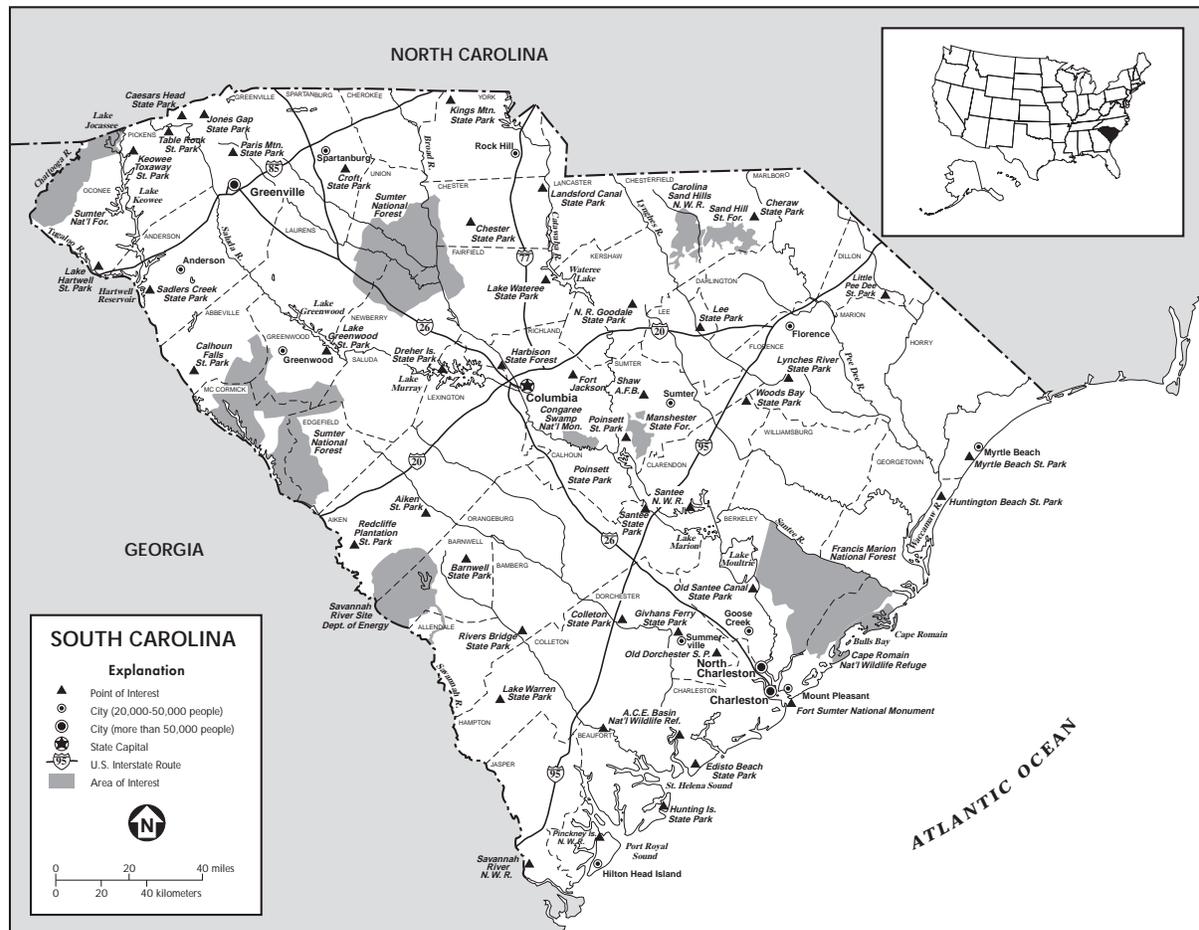
Louis B. Wright, *South Carolina: A Bicentennial History*, 1976

Under the political leadership of Senator John C. Calhoun, in the mid-1800s South Carolina took the lead in congressional discussions on slavery and tariffs. The state greatly disliked the protective tariff which benefited northern manufacturers, raised the prices of manufactured goods, and reduced the ability of the British and the French to buy cotton from South Carolina and other southern states. In 1828 Calhoun outlined his argument for nullification (a rationale permitting a state to deny the viability of a federal regulation). The immediate issue was settled in the 1830s by a compromise devised by Henry Clay, but these divisions over the southern slave economy and the northern industrial system inevitably led to the American Civil War (1861–1865).

When South Carolina became the first state to secede from the Union in 1860, over half the population of the state consisted of black slaves. When federal troops occupied the state during Reconstruction, South Carolinians blamed northern "carpetbaggers" for depleting the treasury of the state and running it into serious debt. They also blamed the economic chaos following the war on ex-slaves, thus reinforcing a legacy of racism which plagued the state for generation after generation.

After the war an economy based on slave labor had to reorient itself. The cultivation of rice in the state completely disappeared in a few decades following the war, but planters tried to keep producing cotton. A

South Carolina



State of South Carolina.

system of tenancy and sharecropping developed, in which a small farmer would pay the landowner shares of his crop for renting the land. This system kept many small farmers in debt and perpetuated the class divisions between rich and poor. After much postwar political and economic turmoil the economy of the state gradually shifted from rice and cotton to tobacco, soybeans, and truck farming. Railroads devastated by the war were rebuilt, connecting most towns and cities. Tired of trying to make a living through sharecropping, poor farmers—both black and white—moved to the cities to find employment in textile mills, which after 1900 became the state's biggest industry.

Textiles dominated South Carolina's economy until after World War II (1939–1945), when attempts to diversify brought the chemical, paper, and other industries to the state. The harbors of Charleston, Port Royal, and Georgetown were also improved to facilitate commerce. After many textile mills closed in the 1970s and 1980s the textile industry dropped to second place in the state, behind chemical and allied products.

Although manufacturing industry is now the state's leading employer, agriculture is still important. Some of the major farm products in the 1990s included tobacco, cotton, food products, and soybean oil for newsprint ink. Along with forestry and forestry products, agriculture contributes about 25 percent to the state's economy.

A major blow to South Carolina's economy came in 1989 with Hurricane Hugo, the tenth strongest hurricane to ever hit the United States. The storm wreaked havoc, particularly in Charleston and other coastal towns, killing 37 people and causing over \$700 million in property damage. In 1993 severe flooding and subsequent long-term drought were responsible for an estimated \$226 million in crop loss.

After experiencing significant population loss from 1940 to 1970 the state rebounded, attracting a net gain of 210,000 between 1970 and 1980. In the late 1990s the state continued to suffer from a bad reputation as an industrial employer because of its low wage rates, its relatively untrained work force, and its anti-union

climate. In fact only 3.3 percent of all South Carolina workers were unionized in 1996. Yet real per capita income increased faster than the national norm during the 1970s and early 1980s, reaching thirty-ninth in the nation by 1995. Increased investment from foreign and domestic sources and a growing tourist industry have aided the economy's continued growth.

South Carolina's Department of Commerce has been quite successful in attracting foreign companies, especially to the Piedmont region of the state. In the late 1990s the state government exempted all new industrial construction from local property taxes (excluding school taxes), and assessed industrial property very leniently. Moreover, local and regional authorities have cooperated in providing both low-interest industrial bonds and the infrastructure needed by new businesses. Business was also attracted by the state's conservative fiscal policies, its low pay scales, and its negative attitude toward labor unions.

See also: Rice, Tariff of Abominations

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SOUTH DAKOTA

In 1742 the first explorers traveled the area that is present day South Dakota, opening up the Upper Missouri Valley to French traders who bartered with the Indians by offering them metal pots, pans and tools for animal furs.

In 1762 France gave Louisiana to Spain during the French and Indian War. But when France was defeated in 1763, Britain gained control of French lands in Canada and east of the Mississippi. Later, in 1800, French emperor Napoleon Bonaparte forced Spain to return the land of Louisiana to France. And in turn

Napoleon sold the Louisiana land to the U.S. for \$15 million in order to finance his wars in Europe. The U.S. benefited greatly in this deal because its territory was doubled in size.

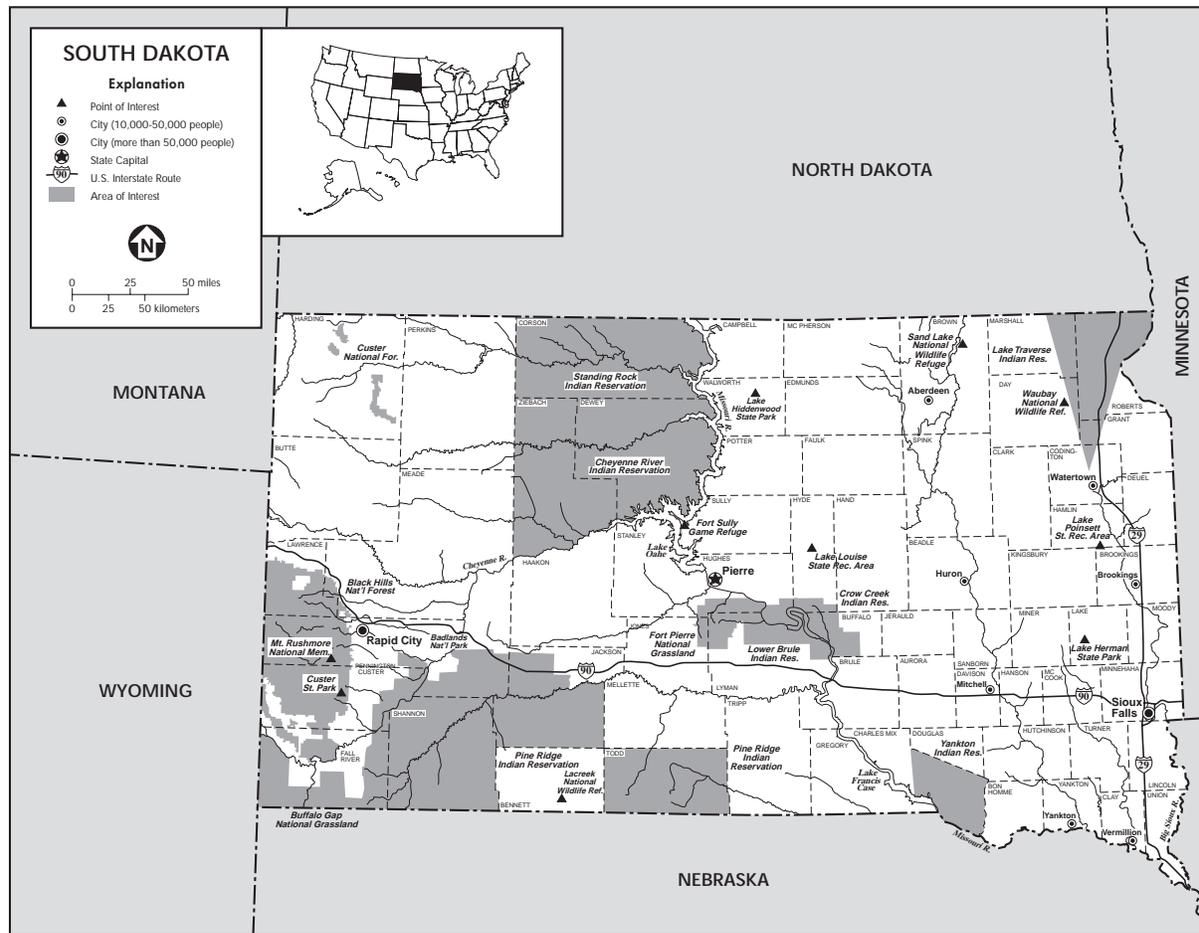
The next year President Thomas Jefferson (1801–1809) sent Captain Meriwether Lewis and Lieutenant William Clark (leaders of the Lewis and Clark expedition) to explore the region. In 1817 fur trading had begun to take place on the Missouri River at "Fort Pierre."

In the 1850s the fur trade was in decline. Fort Pierre was sold to the U.S. Army and soldiers took up the task of keeping peace between Indians and white settlers. Pierre would become the capital of South Dakota. Slowly over the years groups of Indians gave up their land and moved onto reservations. The land parcels they left behind were then purchased by land companies for farming, forestry, and building stone. These companies pressured the government to assign territorial status to the land, and in 1861 President James Buchanan (1857–1861) signed a bill which designated it as the Dakota Territory. The region included what is now North Dakota and South Dakota and most of the land in Montana and Wyoming.

During the 1860s and 1870s transportation networks opened up the Dakota Territory for additional markets making migration to the area much easier. Thus, when gold was discovered in Montana in the 1860s thousands of miners were able to travel from the east through Dakota. Federal money was also secured to begin building roads to Montana. When the Pacific Railroad to Sioux City, Iowa, was completed in 1868, farmers could transport wheat to eastern markets. Bridges were constructed over the Vermillion and James rivers which made it easier to reach the railroad at Sioux City. And when the Dakota Southern Railroad between Sioux City and Yankton opened in 1873 Yankton became an important stopover on the river which, in turn, helped attract more settlers to the area.

Immigrant farmers—Swedish, Danish, and Czech—entered the territory through Sioux City and settled in the territory to farm. These pioneers could purchase 160 acres for \$1.25 per acre. The Homestead Act of 1862 allowed pioneers to claim the same amount of land for free if they worked the land for five years. (Farm crops often included corn, potatoes, onions, beets, beans, and other vegetables.) Life on the prairie was not easy for the pioneers; ever-present was the threat of blizzards in winter, fires in spring and fall, and drought in summer which could destroy homes, fields, and crops. Only the heartiest settlers could withstand the utter devastation possible in the difficult climate.

South Dakota



State of South Dakota.

In 1874 gold was discovered in the Black Hills. However, the Sioux Indians considered the Black Hills sacred ground. (Although most of Native Americans lived on reservations some still roamed the area.) The U.S. government was aware of this Native American belief and agreed in the Laramie Treaty (1868) to protect the area. However, when news spread that gold was discovered more than 800 miners flocked to the area to mine for gold illegally. When the government tried to buy the Black Hills from the Sioux for \$6 million they refused, and instead attacked mining camps over the next few years in what was known as the Sioux War of 1876. The Sioux eventually agreed to surrender the Black Hills and most of the Native Americans settled in reservations. Miners settled in the area. At the height of the gold rush in 1877 more than 25,000 people lived in the Black Hills. The towns they populated included restaurants, laundries, grocery stores, saloons, and gambling houses.

At the same time as the Black Hills gold rush, cattle ranchers began to establish themselves in the

area. Texas longhorn steers were driven from Texas to the lush range surrounding the Black Hills and the popularity of sheep ranching also grew. In 1884 more than 800,000 head of cattle and 85,000 sheep grazed the land. Not only did people in the Black Hills region purchase meat for food but as additional railroads were built ranchers were able to transport cattle and sheep to eastern cities for slaughter. In 1885 amid this period of heightened settlement and economic activity, South Dakota and North Dakota were approved for statehood.

When World War I (1914–1918) started prices of crops and livestock increased while the demand for farm products rose. This helped to bolster South Dakota's economy. However, after the war ended the price for these items fell. Because farmers received less income they couldn't repay debts; many lost their farms, and left the state. Soon after, The Great Depression (1929–1939) devastated many South Dakotans who were already affected by the state's economic crisis. In addition the 1930s brought drought, grasshopper plagues, dust storms, and crop failures which

lasted for nearly ten years. Assistance arrived when President Franklin D. Roosevelt's (1933–1945) New Deal put 25,000 men to work planting trees for windbreaks and building recreational facilities. The government gave South Dakota \$35 million to build schools and other public buildings, bridges, and roads. The federal government also purchased cattle and sheep and taught farmers to grow drought-resistant grass.

The start of World War II (1939–1945) helped lift South Dakota out of the depression because meat, dairy and grain products were needed for the war effort. The Sioux Falls Air Force Training Base and the Ellsworth Air Base outside Rapid City were built and machine shops and foundries were constructed all over the state.

After the war incomes from farming were on the upswing again. Many who had lost their farms were able to buy them back. Between 1945 and 1966 the government developed and implemented a plan that improved the state's economy and made it less dependent on farming for income. To control flooding and irrigation, dams were built on the Cheyenne, Grand, and Moreu rivers and on Rapid Creek. The Missouri River also was dammed in four locations to provide electric power, flood control, and irrigation. The Oahe, Francis Case, Sharpe, and Lewis and Clark lakes were created by damming the Missouri River, also known as the "Great Lakes of South Dakota," they have become a tourist attraction.

Severe weather continued to affect the state's economy. In the blizzards of 1966 and 1975 several people died and thousands of cattle were killed. The Rapid City Canyon Lake Dam burst in 1972, flooding the city, killing 238 people, and causing \$100 million worth of property damage. In 1988 a drought in the state caused millions of dollars in damage to the wheat, rye, and corn crops. The drought also caused the Black Hills National Forest to catch fire; a lightning strike set \$4.4 million worth of timber ablaze.

During the 1980s Native American unemployment on reservations reached 80 percent due to cuts in federal spending. Also, farm incomes fell as prices for farm products decreased while mortgages rose causing many people to lose their farms. In response to public suffering the state government provided \$40 million in 1987 for low-interest loans to help new and expanding businesses. The state supported specific industries including plastic products, electronic components, women's clothing, surgical instruments, and life insurance, hoping that this initiative would create jobs for both Native American and non-Native American residents as well as attract other businesses.

In the 1990s Citicorp, the largest bank-holding company in the United States, set up a credit card operation in Sioux Falls. In the early 1990s manufacturing also expanded up to 10 percent each year, and in 1994 the state produced record corn and soybean crops. Casino gambling also became an important source of revenue after it was legalized in the state in 1989.

In 1995 the median household income was \$29,578 with 14.5 percent of all South Dakotans below the federal poverty level.

See also: Dry Farming, Native American Policy

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SOUTHWESTERN INDIANS

The pre-colonial Indians of the American Southwest included the Mogollon, Hohokam, Anasazi (or "Cliff Dwellers"), and the Anasazi's Pueblo descendents. Some historians refer collectively to their mutual forebearers as the Paleo-Indians. A few scholars also believe that the Paleo-Indians arrived in the area between 10,000 and 9,000 B.C..

The Southwestern Indians settled across present-day Arizona, New Mexico, northern Mexico, southern Utah, southern Colorado, and parts of Nevada. Their languages were classified as Aztec-Tanoan.

The Southwestern Indians began farming around 1500 B.C.. They grew corn, beans, and squash, and raised turkeys. Farming was difficult in the arid region, so they developed ways of irrigating the land. The Hohokam built a system of canals to carry water to their crops. The Anasazi developed techniques for dry farming. By 900 AD the various farming cultures were flourishing.

Sovereignty

As settlers the Southwestern Indians crafted various conveniences for themselves—housewares, permanent homes, and roads. The Mogollon were skilled potters who made smooth clay pots and bowls, which they fired and painted with geometric designs and figures of animals and humans. The Hohokam were accomplished weavers of cotton cloth. The Anasazi produced various kinds of wicker containers and muralists. Southwestern Indians were also capable builders. They did not have beasts of burden; transportation was on foot, therefore, The Southwestern Indians built extensive road systems. They applied their construction skills to homebuilding as well. Living quarters were usually built above-ground using masonry techniques. Anasazi homes were carved out of the sides of cliffs and the walls of canyons.

The Apache and Navajo—descendants of the Anasazi—are also grouped as Southwestern Indians. These north woods groups arrived in the Southwest later and were very different from the earlier arrivals: they were predominately hunters and gatherers. They lived in tepees or brush shelters, and were fierce fighters who even raided the Pueblo settlements they encountered. By the time the Spaniards arrived (around 1540) both the Navajo and Apache were living in the Southwest. Unlike the Apache, Navajos adopted many Pueblo practices and also learned new ways from the Europeans.

When the Spaniards came to the region they unleashed drastic changes in the lives of Southwestern Indians. The Spaniards brought with them the first horses, mules, cattle, sheep, and hogs ever seen in the region. Intent on converting the native inhabitants to Christianity, the Spaniards established missions across the region. But the arrival of the Europeans also preceded the decline of Southwestern Indian culture. Combined with drought, the arrival of Europeans was responsible for the decline of the Southwestern Indian cultures by 1600. Many were killed in rebellions, others were subjugated, and some fled the region.

See also: Anasazi, Arizona, Colorado, Nevada, New Mexico, Paleo-Indians, Pueblo Indians, Southwestern Indians, Utah

SOVEREIGNTY

Sovereignty is the supreme power of an individual, country, or state to govern internal affairs without interference from any other comparable authority. Sovereign countries can conduct foreign affairs with other nations including negotiating treaties, engaging in international commerce, and making war and peace.

Sovereignty defines political authority within the modern nation.

Sovereignty first applied to a king's divine right to rule his subjects. Unlimited power was believed to flow from God to the king enabling him to rule his kingdom. The term evolved through time to represent the power of a state to take every action necessary to regulate itself. In democratic countries, the ultimate source of sovereignty or government power lies with the people.

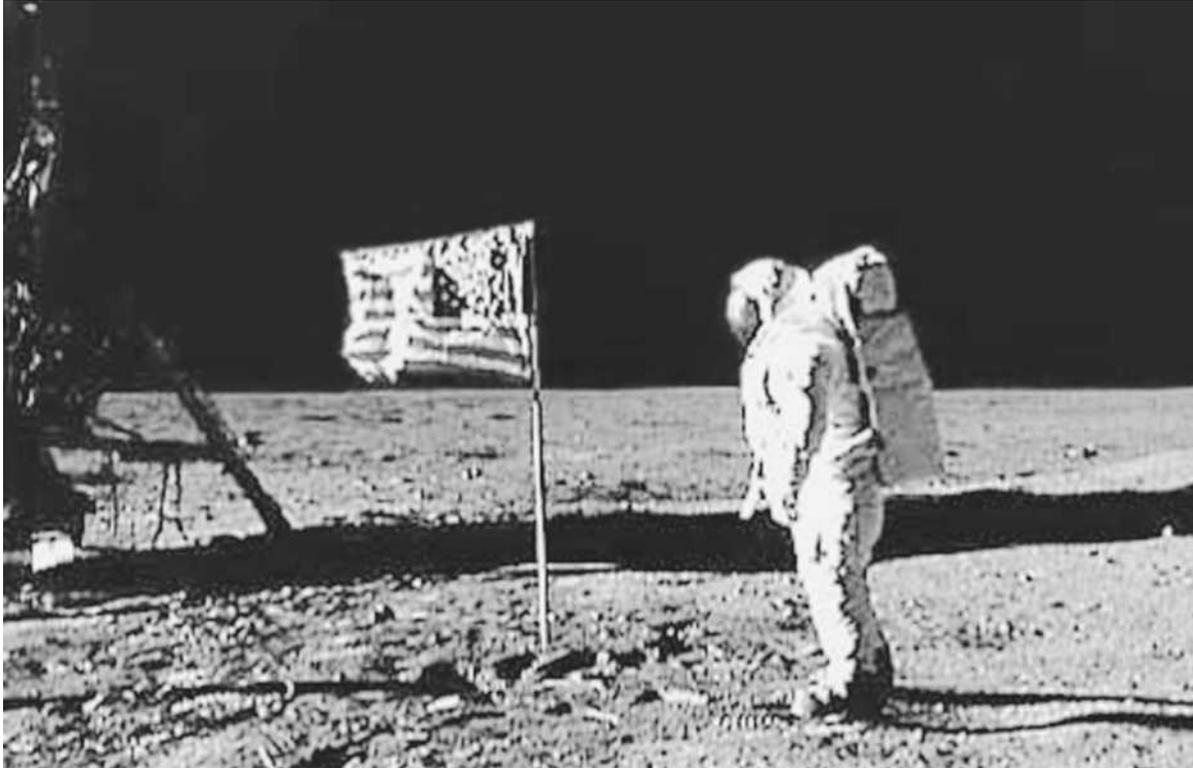
In 1777, the Second Continental Congress of the United States adopted the Articles of Confederation giving Congress a few powers typical of an independent sovereign nation. Congress alone had the power to conduct foreign affairs, negotiate treaties, control a national army, coin money, and operate a national postal system. The Articles did deliberately keep the central government weak by limiting sovereignty. Each state had its own state court to settle disputes. All important Congressional decisions required approval of at least nine states, and these resolutions were mere suggestions to the states. This limited sovereignty granted to Congress proved ineffective and ten years later the U.S. Constitution was ratified. It was followed by ratification of the Bill of Rights in 1791. The Tenth Amendment of the Bill of Rights states, "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." The United States is a sovereign nation in external affairs but the states do hold certain attributes of internal sovereignty, such as providing for public schools. The U.S. Constitution, the supreme law of the land, is the ultimate determinant of sovereignty powers in the nation.

"Popular sovereignty" is another variant of the term sovereignty in U.S. history, referring to the principle of allowing settlers to decide on their own a territory's slavery policy. The Kansas-Nebraska Bill of 1854 embraced popular sovereignty. Another use is sovereign rights of territorial waters. The United States has sovereign ocean rights extending 12 nautical miles from shore. These rights include fishing, shipping, navigation, and use of natural resources.

See also: Article of Confederation, Continental Congress (Second), Kansas-Nebraska Act

SPACE RACE

During World War II (1939–1945) Germany developed the world's first long-range guided missiles, firing warheads into English cities. Upon Germany's



On July 20, 1969 America won the space race when the crew of the Apollo landed on the moon. Edwin “Buzz” Aldrin, Jr. erected the American flag to serve as a permanent mark of the nation’s accomplishment.

defeat and the end of the war, the United States recruited German rocket scientists, including Wernher von Braun (1912–1977), to help begin the U.S. missile program. The United States and Russia had become engaged in an intense military global rivalry, the Cold War. The resulting arms race between the two “superpowers” included the development and stockpiling of thermonuclear weapons and intercontinental ballistic missiles.

Under supervision of the U.S. Air Force, missile testing began at Florida’s Cape Canaveral launch facilities in the early 1950s. However, the Soviet Union, known to excel in large missile development, shocked the United States when it became the first nation to place a satellite, *Sputnik 1*, in orbit around Earth in October 1957. A second Russian satellite went up the following month carrying a dog. Suddenly, the “space race” was on and the United States, in desperation, greatly accelerated its space program. Not only did Americans feel vulnerable to direct foreign attack but the U.S. claim to scientific superiority was shaken.

The United States attempted an orbiting satellite launch in December 1957, but the Vanguard missile embarrassingly exploded on lift-off. The following

month *Explorer 1* blasted successfully into orbit. Through the 1950s the United States and Russia increasingly focused on manned space flight. The United States established the Project Mercury program with its original seven astronauts, a select group of daring Air Force test pilots. To oversee the civilian space program Congress created the National Aeronautics and Space Administration (NASA) in October 1958, taking over control from the military.

In April 1961, a second jolt rippled through the United States when Russia placed the first human, Yury Gagarin (1934–1968), in orbit around the Earth. The United States responded on May 5, 1961, as Alan Shephard (1923–) became the first American in space, riding the somewhat unreliable Redstone rocket into a suborbit trajectory.

With U.S. leadership clearly shaken by Russia’s progress, President John F. Kennedy (1961–1963) on May 25, 1961 proclaimed a national goal to land an astronaut on the moon by the end of the decade and safely return him to earth. The pronouncement came as a surprise even to many in the space program. With the moon identified as the finish line for the space race, a clearly difficult goal was publicly set.

Later in 1961 John Glenn (1921–) became the first American to orbit the Earth. Four more manned Mercury flights were followed by Project Gemini in March 1965. Gemini, in its brief existence, introduced two-man space capsules, the first space walks, docking exercises, and more extended flight times. Project Apollo, the heart of the U.S. lunar program, followed in late 1966. A tragic capsule fire in January 1967, killed the first of three Apollo astronaut crews while sitting atop a missile on the launch pad. No further manned space flights occurred until October 1968. Then on Christmas Eve 1968, the first Apollo mission to orbit the moon sent back spectacular pictures to Earth, again captivating the public. Soon afterwards, on July 20, 1969, Apollo 11 astronauts Edwin “Buzz” Aldrin (1930–) and Neil Armstrong (1930–) became the first humans to walk on the moon. An estimated half a billion people around the world watched the event 240,000 miles away on live television. The space race was won.

ON JULY 20, 1969, APOLLO 11 ASTRONAUTS EDWIN “BUZZ” ALDRIN AND NEIL ARMSTRONG BECAME THE FIRST HUMANS TO WALK ON THE MOON. AN ESTIMATED HALF A BILLION PEOPLE AROUND THE WORLD WATCHED THE EVENT 240,000 MILES AWAY ON LIVE TELEVISION. THE SPACE RACE WAS WON.

Five more Apollo missions led to extended walks on the moon and the use of lunar roving vehicles. American society, however, had changed radically since the 1961 Kennedy pronouncement. The United States was in the throes of a highly controversial foreign war in Southeast Asia and domestic unrest was at a peak. Urban riots were tearing apart the national social fabric. Many questioned the billions of dollars spent on a program of debatable scientific value when there were such pressing social issues at home. After the Apollo 17 mission in December 1972, the program came to an abrupt end as funding was curtailed, canceling three more planned Apollo missions. With the space race over, the U.S. space program turned to unmanned exploration, the space shuttle program, and even collaboration with Russia on the *Mir* space station program and other related projects.

The United States’ effort in the space race is recognized as one of the greatest peacetime national efforts in history involving government, the military, science, and industry. In 1966 the \$6 billion space budget constituted over four percent of the entire federal budget, exceeding amounts spent on housing and community development. The Apollo program

alone cost over \$25 billion. At its peak, over 400,000 people were employed in the effort. With public relations a major facet of the space race, the astronauts became public heroes of almost mythological proportions.

However, accomplishments stemming from the space race were largely political. Geologic research objectives were only partially met with the 841 pounds of moon rock collected. The limited scientific benefits went largely to the medical field with advances in digital imaging, biomedical telemetry techniques, and other technological developments. In all, however, an amazing technological feat involving tremendous political and economic commitments had been accomplished within a decade’s time.

See also: **Arms Race, Cold War**

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SPANISH-AMERICAN WAR

The 1898 war between the United States and Spain lasted only four months, yet its effects are still felt today. It ended in a relatively easy victory for the United States, which, just over a century after its birth as an independent nation, seemed eager to claim its place as a world power. In what Secretary of State John Hay (1898–1905) called “a splendid little war,” the country demonstrated an intent to protect its economic interests abroad and to promote its own expansion. The brief conflict also marked an increased U.S. involvement in global affairs and a step away from the 1823

Monroe Doctrine, which suggested that the country would assert its power only within its own hemisphere. Significantly more far-reaching were the war's effects on Cuba, Puerto Rico, Hawaii, Guam, and the Philippines, whose destinies remained unalterably changed by the events that occurred between April and August of 1898.

The United States' initial impetus for going to war was its interest in Cuba—an interest that was primarily economic in nature. One of the last and largest remaining colonies of Spain, Cuba had been gearing up for a revolution throughout the nineteenth century. Its politically active population craved independence, and the United States sympathized with that plight. Already engaged in a guerrilla war with Spain, Cuban rebels looked to their country's larger neighbor for support. The United States supplied that support for reasons that were clearly apparent: It had \$50 million invested in Cuba, and its annual trade with the sugar-producing island amounted to \$100 million. Moreover, the United States had long opposed Spanish rule in Cuba for humanitarian reasons. The American press printed passionate coverage of Cuba's troubled relations with Spain: William Randolph Hearst and Joseph Pulitzer's national newspapers—the so-called yellow press—declared the situation “intolerable.” And the American public apparently agreed.

A tragic event ultimately motivated the country to take action: On February 15, 1898, the U.S. battleship *Maine* mysteriously exploded and sank in the Havana Harbor, where it apparently had been making a courtesy visit. Although the cause of the sinking, which claimed 266 lives, remains unexplained to this day, a naval investigation at the time surmised that the explosion was external in origin. The Spanish government approached the issue in a conciliatory manner, wishing to avoid conflict with the United States. But Madrid would not negotiate on the one issue that would have prevented war: the granting of independence to Cuba. Responding to an angered public, President William McKinley (1897–1901) and Congress took action, ordering the withdrawal of Spanish forces from Cuba on April 19 and officially declared war on April 25.

The war strategy of the United States included a blockade of Cuba; a naval campaign in the Philippines; an attack with ground forces in Santiago, Cuba; and a dispatch of troops to San Juan, Puerto Rico. The media reported that the blockade of Cuba, which involved the mobilization of hundreds of thousands of volunteer and army troops, was poorly organized. Soldiers lacked supplies; sanitary conditions were poor; and the food was unacceptable. Although by the war's end only 379

American men died in combat, thousands perished of disease. The Spanish military suffered from its own insufficiencies, particularly the decrepitude of its fleets, which remained vulnerable to U.S. naval power.

It did not take long for the United States to claim victory in the war, which ended on August 12 with the signing of a peace protocol. The final terms were set on December 10 with the negotiation and signing of the Treaty of Paris. Cuba was to gain its independence, while Puerto Rico, Guam, and the Philippines were to belong to the United States. The U.S. paid nothing for Puerto Rico and Guam, but it gave Spain \$20 million for the Philippines. The Filipinos, however, continued to revolt and finally achieved independence in 1946. Eager for global expansion, President McKinley had already annexed Hawaii in July. Thus, the nation made the transition from hemispheric power to world power in one fell swoop.

The outcome of the war was an economic boon to the United States. The country was able to protect its interests in Cuba, and it even managed to gain potentially lucrative territory overseas. With the Hawaiian Islands the United States gained fruitful sugar plantations and a promising fishing industry. Of course, the United States paid dearly for its conquests: The war cost the country \$250 million. Political unrest in the Philippines, which struggled for its own independence, was to be a source of grief for many years. But for the most part the American public wholeheartedly approved of the terms of its victory. Advocates of U.S. expansion and global prowess particularly exulted in their triumph, which secured the nation's place as a world power.

See also: Imperialism, Philippines

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SPECIAL INTEREST GROUPS

Toward the end of the twentieth century, special interest groups exhibited several defining characteristics. First, special interest groups are associations joined voluntarily by individuals sharing at least one common interest or belief that defines the group's purpose. The National Education Association's (NEA) members teach. Members of the Sierra Club are interested in environmental issues. Members work together to focus and articulate issue positions and strategies designed to actively influence public policy.

A special interest group's key element is purposefully influencing government policy, whereas Elks Clubs, university alumni associations, and Boy Scouts of America are apolitical groups primarily interested in service and social activities. Second, special interest groups have organizational structure whether formal or informal where persons routinely gather to assist their group. The NEA and Sierra Club are formal organizations with dues paying members. A neighborhood group may not have dues, officers, or bylaws, but meets regularly to support or oppose issues of local concern. Third, special interest groups are non-governmental, neither agencies nor political parties. Though interest groups often endorse candidates, they do not nominate candidates. Groups generally fall into one of two categories: trade associations or unions seeking economic betterment for their members; or, cause-related groups promoting some issue such as clean environment, gun control, or ban on abortions.

Although the pervasiveness of interest groups influencing politics is clearly a twentieth century phenomenon, discussion on the role of groups in the United States appeared in James Madison's *Federalist 10* (1787). Frenchman Alexis de Tocqueville described the United States as a nation of frequent joiners in his book *Democracy in America* (1835–1840). One of the earliest interest groups in the United States was the National Grange, founded in 1867, which advocated government railroad regulation. Interest group formation has occurred in a series of waves in U.S. history. The first arrived between 1830 and 1860 with groups such as the Grange and Abolitionist organizations. Next, in 1880 with intense industrialization, the American Federation of Labor (AFL), Knights of Labor, and various manufacturing associations sprang up. Between 1900 and 1920, many new organizations formed, such as the U.S. Chamber of Commerce, American Medical Association, and National Association for the Advancement of Colored People. The 1960's and 1970's witnessed a proliferation of cause-oriented and

economic organizations including Common Cause and Ralph Nader's Public Citizen.

Near synonymous terms are pressure groups, public interest groups, lobbies, and vested groups.

See also: Abolition, American Federation of Labor, Knights of Labor, Ralph Nader, National Grange

SPECIE

Specie is metallic money in all of its forms, gold or silver traditionally, but including nickel and copper as well. Specie is distinguished from other forms of money such as paper money or credit instruments like checks, money order, credit cards and the like. The term specie is also occasionally applied to gold and silver bullion, which is ordinary gold and silver, as opposed to coins with collectible value. Since January of 1934, the gold coin is no longer routinely coined by the U.S. government, nor is it routinely in ordinary circulation in the United States. Public law 91-607, enacted in December of 1970, initiated the creation of non-silver dollars and half-dollars minted for general circulation. Coinage of the former 40 per cent silver half-dollar, pursuant to the *Coinage Act of 1965*, was discontinued in January of 1971. The Coinage Act also brought an end to the silver quarter and the dime, which are now coined with some silver and mostly baser metals, like copper and nickel. All coins in common circulation in the U.S., currently minted, are composed of baser metals, and specie is largely a form of metallic money of the past.

See also: Money

SPECULATION

Speculation is an economic term used to describe financial risk taking. For example, an individual investing money in a start-up business venture, where the outcome of profit or loss is unknown, is engaging in speculation. A speculator can calculate a variety of factors and forecast a possible result for an investment, but performance outcomes can never be definitively determined. To continue with the example of a start-up venture, the performance of the new business can be estimated through market studies regarding consumer demand for a product and how that demand is or is not presently being met in the marketplace. The start-up business may predict that its product is innovative and will quickly find a niche in the market, generating

profit for the company. If this is true, the analysis proves accurate. However, if the economy experiences an economic downturn and enters into a depression as the business opens, the needs of the marketplace may change and the outcome may result in loss.

Speculation may be compared to gambling. However, the two are not the same. Gambling is an artificial form of risk taking and has no relation to business operations or market forces. Speculation relies on the marketplace and is subject to the whims of the economy. Speculation may also be confused with investment, which also takes place in the marketplace and is subject to the ups and downs of the economy, but these are also not the same. Investment involves a limited risk of capital and is usually designed to make a profit over the long-term. Speculation often involves larger amount of money and attempts to achieve a high profit in a short time frame.

See also: Capital, Investment

SPINNING MILLS

Spinning mills were introduced to the United States in 1790 by English-born mechanist and businessman Samuel Slater (1768–1835). The twenty-one year old had worked as a textile laborer for more than six years in an English mill, where he learned about the workings of a cotton-spinning machine invented (1783) by Richard Arkwright (1732–92). The British considered the Arkwright mill the cornerstone of their booming textile industry and laws prevented anyone with knowledge of the mill from leaving the country. Eager to seek his own fortune, Slater disguised himself in 1789 to evade the authorities and sailed from England to recreate the spinning mill in America.

Arriving in Providence, Rhode Island, Slater formed a partnership with the textile firm Almy and Brown. From memory Slater began building a spinning mill based on the Arkwright machine. The spinning mill debuted December 20, 1790, in the village of Pawtucket, Rhode Island, where the wheels of the mill were turned by the waters of the Blackstone River. The machine was a success and soon revolutionized the American textile industry, which had previously relied on cottage workers (the putting-out system) to manufacture thread and yarn.

Slater's innovation earned him the title "Father of American Manufactures" from President Andrew Jackson (1829–37), as well as the title "father of the American textile industry." He was credited with spawning the factory system in the United States.

Within the first three decades of the 1800s, New England became the center of the nation's textile industry: the region's ample rivers and streams provided the necessary water power and the commercial centers of Boston and New York City readily received the finished products. Labor proved to be in ample supply as well: Because mill machinery was not complicated, children could operate it (and often did). Slater hired children ages seven to 14 to run the mill—a practice that other New England textile factories also adopted. The Jefferson Embargo of 1807, which prohibited importing textiles, also aided the industry. New England's mills provided the model for the American factory system. Slater had helped bring the Industrial Revolution to America.

Slater eventually broke away from Almy and Brown to open Samuel Slater & Company at Pawtucket, Rhode Island. He later operated mills in Connecticut and New Hampshire. The Pawtucket mill where he demonstrated his innovation is now the Slater Mill Historic Site and has been called the Cradle of American Industry.

See also: Connecticut, Andrew Jackson, Napoleonic Wars (Economic Impact of), New Hampshire, Samuel Slater, Slater Builds First Factory, Samuel Slater, Textile Industry

SPOILS SYSTEM

The spoils system is the political practice of playing favorites. Used throughout U.S. history, it commonly takes the form of filling appointive offices with loyal supporters. Among the nation's early presidents Thomas Jefferson (1801–1809) made particular use of the practice to place his allies in influential civil service posts.

By the time President Andrew Jackson (1829–1837) took office in 1829, this method of rewarding one's political allies was an integral part of the workings of government. Jackson's friend, Senator William Marcy (1786–1857) of New York, coined the phrase "spoils system" in 1832, when he stated, "to the victor belong the spoils of the enemy."

The spoils system grew in size as a result of the bitter competition that characterized the two party system during Jackson's presidency. During his first term of office (1829–1833) he assembled a group of unofficial advisers who reportedly met in the White House kitchen, earning them the nickname Kitchen Cabinet. Members included then-Secretary of State Martin Van Buren (1782–1862), who later served as

Springfield Armory

Jackson's vice president and then as president (1837–1841); Francis P. Blair (1791–1876), editor of the *Washington Post*, and an active participant in politics who would help Abraham Lincoln (1809–1865) during his presidential campaign (1860); and Amos Kendall (1789–1869), a journalist and Jackson administration speech writer who later became U.S. Postmaster General. The informality of the Kitchen Cabinet invited the mixing of politics and special interests. It operated outside the official institutions of government and yet was influential in formulating policy during the Jackson administration. Jackson drew harsh criticism for relying on his cronies in this way, and when he reorganized the federal Cabinet in 1831, the informal Kitchen Cabinet was disbanded.

ANDREW JACKSON'S FRIEND, SENATOR WILLIAM MARCY (1786–1857) OF NEW YORK, COINED THE PHRASE "SPOILS SYSTEM" IN 1832, WHEN HE STATED, "TO THE VICTOR BELONG THE SPOILS OF THE ENEMY."

The Kitchen Cabinet closed its doors, but the spoils system continued to influence policy when Martin Van Buren succeeded Jackson as president. Van Buren had been a leader of the Albany Regency which was the Democratic Party machine in New York state. This group of New York Democratic party leaders used the spoils systems to reward members and to maintain strict party discipline.

After the Civil War, the spoils system became an obstruction to good government. Placing political allies in important public service positions often failed to involve a determination of whether or not the person in question was qualified to hold the job. The practice bred corruption and inefficiency and reached staggering proportions by the time Ulysses Grant (1869–1877) became president. His administration was notoriously prone to graft-ridden awards of government contracts.

The failure of the spoils system brought on tragic consequences when in 1881 a frustrated office-seeker shot President James Garfield (1881) in a train station. Garfield's successor, Chester Arthur (1881–1885), though himself a creature of the spoils system, worked to dismantle it. The Pendleton Act of 1883 initiated reform of the system by establishing a federal Civil Service Commission and creating a class of government workers (14,000 out of a total of 100,000) who now had to take an examination to be awarded a government job. Though limited in size, the Civil Service Commission grew in later years.

The system was further refined in the twentieth century. To further separate civil service from politics, the Hatch Act (1940) forbid civil servants from political campaigning. The Hatch Act was revised in 1993 to allow most civil servants to participate in political activity on their personal time. Measures like the Civil Service Commission and the Hatch Act have been successful in limiting the use of the spoils system in the political process, but they haven't eradicated the practice. The spoils system is still (unofficially) practiced in some federal, state, and local government offices.

See also: Civil Service Act, Andrew Jackson, Thomas Jefferson

SPRINGFIELD ARMORY

The southwestern Massachusetts town of Springfield, on the Connecticut River, first became an important weapons center during the American Revolution (1775–83) when a sizeable arsenal was built there in 1777. The town was considered to be ideally situated—close to two major overland routes and on a strategic waterway, but far enough inland from the Atlantic Ocean to be defensible. Springfield had been the site of a militia training field since the 1600s; during the war, the Continental Army added barracks and storehouses, which held muskets, cannons, and other weapons. The new republic continued to keep arms at the site after the war was over. In 1794 a U.S. Armory was established at Springfield; it was one of two federal arsenals personally selected by President George Washington (1789–96); the other was Harpers Ferry, in present-day West Virginia.

In 1795 musket manufacturing began at Springfield, with forty workers producing 245 muskets per month. Soon Springfield became a center for innovation in arms production. In 1819 American inventor Thomas Blanchard (1788–1864), who worked at the armory for five years, developed a lathe (a machine for shaping metal) that allowed for the mass production of rifle stocks. During the Industrial Revolution the Springfield Armory focused on mass production of interchangeable parts, which had the advantage of being replaceable (in case of malfunction) on the battlefield.

In 1903 the Springfield rifle was approved for production. Nicknamed the "Springfield Model '03" (the gun was marked with 'M1903'), it soon became standard issue for U.S. Army troops. The model was improved in 1906 to accommodate new ammunition; the resulting model, called the Springfield .30-06, was one of the most reliable and accurate military firearms in history. By the time World War I (1914–18) began,

the armory had manufactured just over 840,000 Springfield rifles; during the war, it made another 265,000.

The Massachusetts city, which was incorporated in 1641, remained home to the weapons facility until 1974. Another milestone in the history of the armory was the 1786–87 siege by rebel leader Daniel Shays (1747?–1825) during the so-called Shays Rebellion. Just downstream from Springfield, American inventor Samuel Colt (1814–62) opened an armory in 1853 at Hartford, Connecticut, where he utilized 1,400 machine tools to revolutionize the manufacture of small arms.

See also: American System of Manufactures, Colt's Manufacturing, Harpers Ferry Armory, Harpers Ferry Raid, Industrial Revolution, Massachusetts, Shays' Rebellion

STAGFLATION

“Stagflation” is a combination term, bringing together two words, “stagnation” and “inflation.” In economic terms, stagflation exists when there is slow or no growth in the real (inflation-adjusted) economy, accompanied by economic inflation (rising prices). A period of stagflation exists, for instance, when unemployment rates are high and the rates of inflation of products are also high. In 1982 the Council of Economic Advisers reported that there was no known reason to expect any regular or systematic association between the unemployment rate and the average rate of price-level change (inflation). The term came into existence during the 1970s, when the effort to reduce high inflation by trading inflation for increased employment actually resulted in both more inflation and rising unemployment: stagflation. Some economists argued that a permanent reduction in inflation brings about a permanent rise in the rate of unemployment, a famous economic tradeoff implied by the ‘Phillips Curve,’ developed by English economist A.W. Phillips. Phillips’ theory was based on his study of English unemployment between 1862 and 1957, where it appeared that any economy would need to accept some growing rate of reasonable inflation in order to lower unemployment. The Phillips Curve data has never been proven to be accurate, according to data gathered in the United States, and the rare and episodic economic conditions of stagflation are still not clearly understood, except that the effort to reduce inflation by artificially increasing employment is by no means reliable, and may result in the paradoxical situation of stagflation, where prices on consumer items increase, but consumers are unable to afford the higher prices.

UNEMPLOYMENT AND INFLATION, 1960–1985



Source: Data from Department of Labor, Bureau of Labor Statistics.

When both the rates of unemployment and inflation are high, a state of “stagflation” exists.

STAMP ACT (1765)

The Stamp Act, passed in March, 1765, was the first direct tax ever placed by the British government on the American colonies. The Act, which was to take effect November 1, 1765, required an official stamp on about 50 different types of documents, ranging from playing cards to newspapers and college diplomas. The stamp’s cost depended on the value of the document. King George III’s Prime Minister George Grenville, who led Parliament from 1763 to 1765, felt that such a tax was needed to help pay for the costs of the French and Indian War (1754–1763). Great Britain was deeply in debt from the expenses of winning the war against France, and the revenues it gathered from the colonies did not come close to paying the costs of collecting them. Because of the expenses of the war, the country’s national debt had increased by more than 50 percent in the space of seven years, from 75 million pounds sterling to 137 million pounds sterling. In addition, Grenville wanted to keep the peace between Native Americans and settlers along the North American frontier and to crack down on colonial smuggling. The Stamp Act, which Grenville believed would raise about 100,000 pounds sterling per year, was meant to help pay the costs of these programs.

The colonists objected to the Stamp Act in part because it infringed on their rights as English citizens, but also because it put a tremendous financial burden on them. The colonies were in the middle of an economic depression which had its origins in the destruction caused by the French and Indian War, and

Angry mobs in other colonies followed Boston's example, using force to intimidate would-be stamp distributors. In Rhode Island the nominee for tax collector, Augustus Johnston, abandoned his duty before the end of August. Connecticut Sons of Liberty forced Jared Ingersoll out of office, while in Maryland Zachariah Hood had to leave the colony after anti-tax rioters burned his home.

cash was very scarce. The tax on stamps was payable only in hard cash—gold or silver. Paper colonial money (often devalued so much that it was practically worthless) was not accepted. Hard currency was also difficult to find in the colonies because English imports (including most manufactured goods) had to be paid for in cash, not colonial notes. In addition to setting colonists the problem of finding the money to pay their taxes, the act also threatened their material prosperity. The Stamp Act allowed officials to try accused law-breakers in royal vice-admiralty courts, which did not use juries, as well as in regular criminal courts. These vice-admiralty courts, it was believed, would be less sympathetic to colonial viewpoints.

Local politics and class rivalry also played a role in resistance to the Stamp Act, particularly in Virginia and Massachusetts. Virginian lawyer Patrick Henry made the act the subject of his first speech in the colony's House of Burgesses in May, 1765. Henry's opinions on the Stamp Act were narrowly passed by the House and they, as the Virginia Resolutions, inspired open opposition to the Act in other colonies.

In Boston opposition to the Stamp Act was even more conspicuous. At that time a small clique of wealthy families, related by marriage, held most of the royal offices in the colony. These families included Governor Francis Bernard, Thomas Hutchinson (lieutenant governor and chief justice), and the brothers Andrew Oliver and Peter Oliver. This "royalist faction" was opposed by a coalition of poorer men known as the "popular faction," including the lawyer James Otis, Jr. and Boston politician Samuel Adams. The popular faction spread the idea that the royalist faction was behind the Stamp Act, and they were supported in this belief by two of Boston's largest gangs.

In the summer, 1765, Andrew Oliver was appointed distributor of stamps for the Boston area. On August 14 of that year, a dummy made up to look like Oliver was discovered, along with an old boot (a symbol for

Lord Bute, George Grenville's predecessor as Prime Minister), hanging from an elm tree near Boylston Market in Boston. Despite the efforts of the town sheriff, until sundown, the objects remained on the elm, which became famous as the Liberty Tree. At that point a crowd, including members of the popular faction, gathered and removed the effigy. These "Sons of Liberty", led by shoemakers Ebenezer Macintosh and Henry Swift, paraded the effigy of Oliver to the waterfront, where they attacked and destroyed a warehouse the tax collector had built. The crowd—by this time a mob—then built a bonfire in front of Oliver's house and, when they ran low on firewood, began stripping the trees and buildings on his property. For over an hour, the Boston mob continued to dismantle Oliver's home, smashing his furniture and mirrors and scattering his valuables. Within a week another crowd confronted the tax collector and extorted from him a promise that he would resign his office. Later that month the Sons of Liberty attacked and destroyed the homes of Thomas Hutchinson and customs administrator Benjamin Hallowell in an effort to intimidate them as well.

Angry mobs in other colonies followed Boston's example, using force to intimidate would-be stamp distributors. In Rhode Island the nominee for tax collector, Augustus Johnston, abandoned his duty before the end of August. Connecticut Sons of Liberty forced Jared Ingersoll out of office, while in Maryland Zachariah Hood had to leave the colony after anti-tax rioters burned his home. More conservative protesters tried less violent means to express their dissent. In October, 1765, 27 delegates from nine colonies assembled in New York City to present their grievances as a united body: the Stamp Act Congress. Merchants in major port cities, such as New York, Philadelphia, and Boston, agreed to start an economic boycott of British goods with the goal of seeing the Stamp Act repealed.

On November 1, 1765, the day that the Stamp Act was to be put into effect, colonial government, communications, and commerce all came to a halt. In late November and December, however, the Sons of Liberty and other activists persuaded businesses, courts, and newspapers to begin work again in defiance of the Stamp Act. By this time, however, the government that had passed the Stamp Act had long since fallen. George III found Grenville distasteful and replaced him with Charles Watson-Wentworth, Marquis of Rockingham, in July, 1765. Rockingham, who was much more sympathetic to the American point of view than Grenville had been, launched a campaign to repeal the Stamp Act. On February 22, 1766, the House of Commons, led by William Pitt, repealed the Stamp Act. As an

omen of things to come, however, they passed another law: the Declaratory Act (1766), which asserted Parliament's right to tax and make laws for the colonies.

See also: American Revolution, Intolerable Acts, Sugar Act, Townshend Acts

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STANDARD & POOR'S

Standard & Poor's Corporation (S&P) is the largest statistical service organization in the United States. It specializes in the securities field and includes a range of corporate investments, like stocks, bonds, mortgages, notes, scrip, rights, options, etc. Standard & Poor's Corporation (a division of the McGraw-Hill Companies in the 1990s) is the result of a merger between the Standard Statistics Company and Poor's Publishing Company. The Standard & Poor's Corporation, known by its trademarks "Standard & Poor's," "S&P," and "S&P 500," produces for investors useful collections of periodic reference publications containing financial statistics. S&P services include a weekly investment advisory service, a stock guide, a bond guide, industry surveys, and corporation records, as well as many other specifically targeted economic marketplace service sector guides. S&P has for many years produced its famous *S&P 500 Corporate Stock Index* in which 500 important companies, producing various large company or "blue chip" commodities, are averaged together with weights representing their importance in the total indexed selling value of their stocks. This index represents an aggregate view of the

primary marketplace in the United States and illustrates statistical trends in both growth and weakness. The Index presents an ongoing series of statistical "snapshots" of the market to aid investors. The only real competitor of S&P as a leading publisher of investment data is Moody's Investor Service, Inc.

See also: Stock Market

STANDARD OF LIVING

Standard of living refers to the level of material well-being enjoyed by an individual or group. The standard of living is generally measured by the collective cost of goods and services that is considered to represent the essential consumption of any society's members. By some measures, the standard of living will also include certain publicly provided services, such as education, health services, transportation, and intangible quality of life factors like clean water and air, and cultural and leisure activities.

The term standard of living may also refer to the goals that individuals or groups obtain for themselves as consumers in terms of services, housing, furnishings, or automobiles. In the United States during the 1960s, the United States government's definition of poverty was developed as a variant of the general concept of the standard of living in the country. In 1996, for example, the average poverty line for a four-person family was a little over \$16,000. The indexes used to measure poverty and create specific dollar amounts to define poverty are based on arguably variable statistics, but the fact that a poverty index has been established bears witness that U.S. society appears to recognize what seems to be a baseline financial standard of living and is able to approximate those who are living below the current indexed standard during any given year.

STANDARD OIL COMPANY

The origins of the Standard Oil Company date from 1863 when John D. Rockefeller (1839–1937), son of a modest businessman, and two others purchased a refinery in Cleveland, Ohio. Rockefeller foresaw the potential of refining Pennsylvania crude oil, which would revolutionize the way people lighted their homes, fueled their vehicles, and powered their industries. With easy access to railroads and the Great

Standard Oil Company

Lakes, Rockefeller's home city of Cleveland, Ohio, soon became the hub for crude oil refining, thanks to the business acumen of Rockefeller and his partners.

After seven years of local success the company was incorporated in 1870. Rockefeller then began a series of shrewd business maneuvers, which included several mergers, the absorption of the next three largest refiners in the nation, and the use of favorable railroad rebates. (Rockefeller was such a hard-nosed negotiator that he talked the railroads not only into giving Standard Oil rebates; they even paid him rebates on his competitors' shipping!) In ten years, Rockefeller controlled \$33 million of the \$35 million annual refining capacity of the United States. By 1878 Rockefeller and partner Henry Flagler (1830–1913) had consolidated most of the oil refining in the nation, and Rockefeller became one of the five wealthiest men in the country.

The already gigantic company was growing at such an remarkable pace that it alarmed the "muckraker" exposé journalists of the late nineteenth century, like Ida Tarbell (1857–1944), who denounced Standard Oil as an "octopus," or a monopoly, strangling the forces of competitive capitalism, ruining the small businessman, and trampling on the rights of labor.

Standard Oil was, as the muckrakers said, a monopoly. Because it was able to establish dominance over its competitors in the field of refining, it was a "horizontal monopoly." And because it branched out from its original concentration on refining into the drilling of crude oil and the sale of petroleum products, it also became a "vertical monopoly."

One of Rockefeller's main contributions was in devising ways to structure this economic power. In 1882 Rockefeller and his associates established the first trust in the United States, which consolidated all of the company's assets under the New York Company, in which Rockefeller was the major shareholder. The 30 companies in the trust controlled 80 percent of the refineries and 90 percent of the oil pipelines in the country.

In an effort to check the monopolization of the economy, Congress passed the Sherman Anti-Trust Act in 1890. In 1892 the Ohio Supreme Court dissolved the Standard Oil Trust. The company, however, took advantage of the newly liberalized laws in New Jersey and incorporated there under a consolidated corporate structure. This maneuver enabled Standard Oil to continued to operate as a Trust.

Standard Oil accumulated \$830 million in profits from 1899 to 1911. In 1906 a federal lawsuit against Standard Oil broke up the New Jersey trust. While

Jersey Standard retained a number of smaller companies, it lost the largest refineries held in other states and its monopoly on production of oil and pipelines. Jersey Standard, still handling Rockefeller's trusts, acted quickly to acquire oil supplies in other states, particularly Texas. Although it eventually lost its domination of the oil market, the company was still huge and ripe for criticism.

In 1888 the first foreign affiliate of Standard Oil was created. The Anglo-American Oil Company Ltd. of London allowed Standard to begin securing interests outside the United States. It acquired companies in Latin America in the 1920s, particularly in Venezuela, and also expanded marketing companies abroad.

As more and more automobiles and trucks began to dominate transportation in the 1920s, Standard Oil's sales shifted from kerosene to gasoline. By 1950, however, the top-selling products were still fuel oils used as substitutes for coal to power ships and industrial plants; distillates used for home heating and diesel engines were also important products. The big profit earner, even in the early 1990s, remained crude oil, and not gasoline sales.

The legal confrontation finally came to a head in the United States Supreme Court in 1911. The Court ordered Standard Oil of New Jersey to divest itself of its 33 subsidiaries. Later the company changed its name to Esso, using the abbreviation from Standard Oil (S. O.). This caused protest from the companies that were still using the Standard Oil name, so the company officially changed its name to Exxon in 1972.

See also: Exxon, Monopoly

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STANDARD TIME

Standard time was introduced in 1884; it was the outcome of an international conference held in Washington, DC, to consider a worldwide system of standard time. The international agreement divided the world into twenty-four different “standard” time zones; within each time zone, all clocks were to be set to the same time. The device of standardized time zones was necessitated by the expansion of industry: businesses, particularly those in the transportation industry, could not coordinate schedules when each community used its own solar time (the local time as determined by the position of the sun). Railroad schedules had been extremely complicated before the establishment of standard time zones, which the railroads readily adopted.

Each time zone spans 15 degrees of longitude, beginning at zero longitude (called the “prime meridian”), which passes through the observatory at Greenwich (a borough of London), England. Time zones are described by their distance east or west of Greenwich. The model also dictates that each time zone is one hour apart from the next. However, the borders of the time zones have been adjusted throughout the world to accommodate national, state, and provincial boundaries, further facilitating commercial activities. The contiguous United States has four time zones: Eastern, Central, Mountain, and Pacific. Waters off the Eastern seaboard are in the Atlantic time zone; Alaska, Hawaii, Samoa, Wake Island, and Guam each have their own time zones. Congress gave the Interstate Commerce Commission (ICC) authority to establish limits for U.S. time zones in 1918. This authority was transferred to the Department of Transportation in 1967. In navigation, ship operators typically use the local time (solar time) at Greenwich, which is called Greenwich mean time (GMT) or universal time (UT).

Standard time, while clearly borne out of necessity of the Industrial Revolution, has become only more critical in the decades since its adoption; the global business community relies on standard time to coordinate its activities.

STANFORD, LELAND

Leland Stanford (1824–93) was an industrialist and politician who amassed a large fortune from the development of the railroad industry in the west. He was one of the founders of the Central Pacific Railroad Company that helped build the first transcontinental railroad. He also served as governor of California and as a United States Senator. He donated a large portion



Leland Stanford.

of his fortune to found Stanford University in Palo Alto, California.

Leland Stanford was born on March 9, 1824, in Watervliet, New York, the fifth of eight children. Stanford received a sound education; he first studied at the Clinton Liberal Institute and then at Cazenovia Seminary in New York. After finishing school he began working in a law office and he was admitted to the bar in 1848. He later established his own practice in Port Washington, Wisconsin but a fire destroyed it in 1852 and Stanford decided not to rebuild his practice. Instead he moved to California, where his brothers had already settled, to join their business of selling supplies to miners.

It was in California that Stanford first became involved in politics. He actively participated in the formation of the California Republican Party, and he ran unsuccessfully for State Treasurer in 1857. Despite this loss Stanford continued to pursue a career in politics and in 1859 he ran for governor of California but lost again. However, in 1861 Stanford won the gubernatorial election by a plurality, due to a split in the Democratic Party. His most important political act as governor was keeping California in the Union during the American Civil War (1861–65).

Around the time when Stanford was elected governor he also became interested in the possibility of building a transcontinental railroad. He joined forces

Stanford, Leland

with Collis P. Huntington (1821–1900), Charles Crocker (1822–88), and Mark Hopkins (1814–78) to form the Central Pacific Railroad Company in 1861. Stanford and his associates were referred to as the Big Four. They were eventually responsible for building the western half of the first transcontinental railroad. Stanford served as president of the company from its formation until his death.

The Big Four had little knowledge of the railroad industry and very little capital to invest in the venture so they relied on their political talents and connections to support the project. As governor of California Stanford approved several public grants for the railroad work done in his state. In addition he used his political contacts to acquire generous federal grants for the railroad, which included land grants for railroad construction and loans for financing the project. Stanford generated large sums of public money for a company in which he had a major personal interest as a stockholder.

When his term as governor ended in 1863 Stanford devoted all of his energy to the railroad industry. At that time the Central Pacific began building its part of the transcontinental railroad with construction of tracks eastward from Sacramento, California. The Union Pacific Railroad Company built the westward line from Omaha, Nebraska and the two lines met at Promontory Point, Utah, on May 10, 1869. The Central Pacific laid 1,086 miles of track, while the Union Pacific had built 689, which was advantageous for Central Pacific, because government subsidies were based on mileage. The Big Four profited nicely from this venture, however, great hardships were encountered before the project was accomplished; many lives were lost. Construction crews consisting mainly of Chinese immigrants worked through two harsh winters in the high Sierras. The goal was to complete the project as quickly as possible.

Once that rail line was completed Stanford and his associates developed other rail and water transportation systems in California. They bought out competing lines such as the California Pacific Railroad Company and the San Francisco and San Jose Railroad. They organized the Southern Pacific Railroad, of which Stanford served as director from 1882 to 1893. This company built a second transcontinental railroad from California to New Orleans.

The Big Four believed that their business could remain profitable only if they maintained their rail monopoly in California. Their policy was one of aggressive defense by which they would prevent competitors from forming other entry points into the state. They also purchased major river and ocean shipping lines. The Big Four dominated the railroad industry in

the 1890s; their company was frequently criticized for being a “monopolistic octopus.” Nonetheless Stanford personally remained popular among the public.

After 1870 Stanford became less involved in the daily activities of the railroad company and he retreated to his ranch in Palo Alto, California. In 1885 he returned to political life and was elected to the United States Senate. As a U.S. Senator, Stanford advocated private rights in business. He opposed the Interstate Commerce Act of 1887 because it allowed for government regulation of businesses. Stanford also served on minor congressional committees and supported popular legislation such as the exclusion of Chinese laborers, industrial co-operatives, and soft money. He represented California in the Senate until his death in 1893 at the age of 69.

Leland Stanford accumulated a fortune from his railroad interests. Stanford was not known for his philanthropy but he donated to particular charities to ensure his family name would become an institution. In 1885 Stanford’s 15-year-old son died of typhoid fever while on vacation in Europe. Stanford was keenly interested in the boy’s education and as a memorial to his son Stanford provided a 20 million-dollar endowment to found the Leland Stanford Junior University in Palo Alto. The school opened in 1891 and grew to become one of the country’s most prestigious universities.

See also: California, Central Pacific Railroad, Monopolies, Railroad Industry, Transcontinental Railroad

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STATES' RIGHTS (ISSUE)

Because of its fundamental relationship to the political and constitutional foundations of the United States, the issue of states' rights has been an enduring problem throughout the history of the United States. At its core, the matter raised questions of sovereignty and authority, and often overlapped other questions, like whether the country should have a centralized or decentralized government. Moreover, it had strong implications for the American economy, especially regarding trade, tariffs, banking, and labor, among others.

In the early eighteenth century the thirteen colonies of British North America had more in common with the Crown, especially economically, than they did with each other. But as that relationship slipped into acrimony—especially during the American Revolution (1775–1783)—the fight against a common foe, the forces of independence, the communication between the respective social classes in the different regions of the country and the evolution to statehood forged a greater sense of unity among the former thirteen colonies. Under the Articles of Confederation (adopted in 1777) the states retained political autonomy. The Confederation Congress had little authority and was unable to exert any effective control over the economic activity of individual states as well as the states' relations with foreign countries and with each other. The national government could not levy taxes, issue money, or enforce a uniform tariff on imports and exports. Congress could only ask the states for funds with which to fight the war and carry out the work of government.

When the framers of the Constitution assembled in the spring of 1787, they were faced with the sobering evidence of what independence had wrought. The machinery of government was clearly too cumbersome for the tasks that it had to accomplish. Yet they also remained dedicated to their revolutionary ideal of more liberty and less government. In the end, the Constitution that they produced reflected both realities. In the Tenth Amendment, the framers granted to the states a kind of states' bill of rights which specified that “. . . powers not delegated to the United States by the Constitution; nor prohibited by it to the States, are reserved to the States respectively. . . .” The Constitution did give the federal government the powers to tax, borrow, and coin money, regulate foreign and interstate commerce, establish a postal service, and issue patents and copyrights, but it also imposed constraints on the government's ability to regulate trade. The federal government could not impose duties on exports, could not discriminate against the ports of any

state in its commercial regulations, could not restrict a carrier's freedom to enter or leave a state without stopping in another, and finally, could not extend any trade barriers between the states themselves.

When the First Bank of the United States (1791–1811) was chartered, the issue of states' rights was again raised. According to its charter, the First Bank was allowed to operate in all states, which gave it a considerable edge over state banks that could only operate in the states that chartered them. The First Bank maintained a large banking network in various parts of the country and it was also able to hold more notes than state banks. Proponents of states rights and advocates of free commerce, therefore, were instrumental in defeating legislation to re-charter the First Bank in 1812. They feared that it posed obstacles to the growth of state banks. This controversy continued when, years later, many critics blamed the Second Bank of the United States (1816–1836) for the panic (the word that was used for depression) of 1819. Maryland, Tennessee, Georgia, North Carolina, Kentucky and Ohio enacted laws to tax branches of the Second Bank out of existence. However, the Supreme Court handed down decisions in *McCulloch v. Maryland* (1819) and *Osborne v. United States Bank* (1824) which declared unconstitutional any state law that restricted the activities of the Second Bank of the United States.

During the 1820s and early 1830s, during heated Congressional debate over tariffs, the issue of states' rights again came to the fore. Southern states complained that the North was benefiting from tariffs at the expense of the South. Then Vice President John C. Calhoun (1782–1850), himself a southerner, put forth a states' rights constitutional doctrine called “Nullification”. In what came to be known as the “nullification crisis” the legislature of South Carolina declared that the tariffs of 1828 and 1832 were “unauthorized by the Constitution” and therefore “null, void . . . [and] . . . not binding upon this State, its officers or citizens.” The passage of that declaration of nullification, in the view of Calhoun and the legislature of South Carolina, automatically made the disputed law unconstitutional. Then the U.S. Congress was obliged to pass an amendment to the Constitution explicitly affirming the constitutionality of the law. At that point, the state had the option of either abiding by the law or else peacefully seceding from the Union.

Such a doctrine would have severely limited the central power of the federal government. Although the president at the time, Andrew Jackson, was on some issues friendly to states' rights, he was enraged over

Steamboat Act of 1852

this challenge to the sovereignty of the national government. He threatened to have Vice President Calhoun hanged, he mobilized the U.S. Navy, and had the U.S. Congress pass a “force bill” to ensure the effective implementation of the disputed tariff laws.

The nullification crisis was only a part of the cause for Southern economic and political discontent. The episode represented growing sectional differences between North and South. Tariffs, which tended to favor manufactured goods over raw goods, reaffirmed the agrarian South’s subordinate relationship to the North. After the Panic of 1837, Southern cotton went into a sustained decline while industrial commerce in the North continued to prosper. Moreover, because western expansion in the United States afforded Northeastern business interests other sources for raw goods, manufacturers became less dependent on the South as a supplier of raw materials.

Southerners believed that they were victims of a sinister conspiracy supported by Northern bankers, merchants, manufacturers, and their political agents. Southerners accused them of rigging prices, of manipulating the money market, and of causing much of the wealth of the South to flow steadily into the hands of the northern economic elite. On top of this, the South resented the Abolitionist Movement against slavery. In reaction to the anti-slavery movement, Southerners began to extol the differences between their agrarian economy and that of the industrialized North. Southerners characterized the institution of slavery as essential to their economy and their way of life. Slavery was a necessary labor regime, they argued, and the slaves themselves were almost like family members. Accordingly, they rooted their economic arguments in agrarian values and paternalistic notions of family and grounded their political voices in the rights of each individual state.

When the Southern vote against then-Presidential candidate Abraham Lincoln (1861–65) proved futile in the election of 1860, most South Atlantic states turned to what they believed was their only legal recourse—the right to secede from the Union. Secession was most popular in the deep South wherever the plantation system and slavery were well established. While many people in the upper South felt strong ties to the Union, they had a strong affinity for vested southern values, the southern agrarian economy, and the institution of slavery. Coupled with a strong belief in the rights of the states which dated back to Thomas Jefferson and James Madison, the issue of states’ rights was never so strongly articulated as when the southern states exercised what they believe was a Constitutional right to

secede. The outcome of that action, the Civil War and Reconstruction, resulted in settling the questions of precedence—the rights of states or the superior authority of a republican form of government.

See also: **Bank of the United States (First National), Bank of the United States (Second National), Civil War (Economic Causes of)**

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STEAMBOAT ACT OF 1852

The Steamboat Act of 1852 was the U.S. Congress’ second attempt to ensure safety of the steamboats that dominated the nation’s waterways, principally the Mississippi River, where “packet” steamboats regularly ferried passengers and freight between St. Louis and New Orleans. The legislation improved an earlier (1838) law that had proved a weak attempt to enforce vessel operators’ compliance with certain safety standards and measures: vessels were required to undergo periodic hull and boiler inspections and to carry basic lifesaving and fire-fighting equipment. In the eight months preceding passage of the 1852 act, seven boiler explosions aboard steamboats claimed more than seven hundred lives. Congress responded to these maritime disasters by establishing precise standards for steamboat boiler construction, including rules about safety valves and operating pressures. It also set up a licensing system for all operators of passenger steamboats. Licensing came under the purview of the U.S. Department of Treasury, which hired civilian inspectors. The Steamboat Act of 1852 was the basis

for the U.S. Steamboat Inspection Service, whose authority was steadily strengthened by subsequent acts of Congress—most of them in response to further disaster along American waterways. In 1865 the boiler blew up on the steamboat *Sultana*, which was en route between Memphis, Tennessee, and St. Louis, Missouri. The explosion and resulting fire claimed the lives of more than 1,500 of the 2,300 people on board—many of them Union soldiers recently released from Confederate prisons. Since the Steamboat Inspection Service had certified the *Sultana* to carry only 376 passengers, it was cleared of any blame; the vessel's operators were held responsible for the disaster. Nevertheless, Congress subsequently passed a series of steamboat safety laws to aid the Inspection Service's efforts to enforce safety. An 1871 act gave the service the authority to issue licenses to masters, pilots, and engineers. In 1903 the service was moved from the Treasury Department to the Department of Commerce and Labor. When that department split in 1913, the service came under the purview of the newly formed Department of Commerce. In 1932 the Steamboat Inspection Service was merged with the Bureau of Navigation (established 1844), which became known as the Bureau of Marine Inspection and Navigation.

See also: Mississippi River, New Orleans

STEAMBOATS

Steamboats were first developed in the late 1700s and became commercially viable in the early 1800s. There were two types of steam-driven vessels—those designed for the deep coastal waters along the eastern seaboard of the United States and those designed to navigate the shallower inland rivers of the nation's interior. Steamboats are propelled by steam engines, which drive paddle wheels (either along the boat's side or stern) to move the vessel through water.

The first workable steamboat was demonstrated by Connecticut-born inventor John Fitch (1743–98) on August 22, 1787, on the Delaware River. He launched two larger vessels in 1788 and 1790, receiving a patent for his design in 1791. But Fitch's fourth boat was ruined by a storm in 1792 and the innovator lost the support of his backers.

The first commercially viable steamboat was designed by Pennsylvania engineer and inventor Robert Fulton (1765–1815); the *Clermont* made its maiden voyage on August 17–22, 1807, when it sailed up the Hudson River from New York City to Albany in thirty

hours, and then returned. The vessel was 133 feet long and had only a seven-foot (considered shallow) draft. The *Clermont* was the forerunner of the “western” steamboats that would soon dominate the interior waterways and Gulf Coast. In 1817 the stern paddle steamboat the *Washington* completed the first round-trip voyage between Louisville, Kentucky, and New Orleans, Louisiana—traveling along the Ohio and Mississippi rivers. By the end of that year dozens of steamboats were in operation on those two principle rivers and their tributaries; by 1840, there were more than two hundred on the Mississippi alone; by 1860, this number had swelled to more than one thousand. Mississippi steamboat traffic and trade had by 1850 pushed New Orleans to exceed New York City in volume of shipping, with New Orleans' outbound cargo accounting for more than half the nation's total exports.

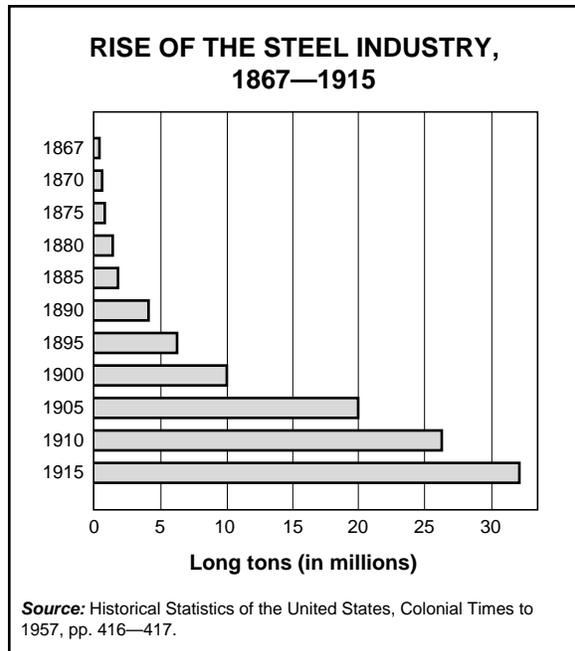
Steamboat technology was put to use on many kinds of vessels. Packets were the most common kind of steamboat; they carried passengers and cargo from city to city. There were also towboats (which pushed cargo barges), showboats (outfitted for the entertainment of the paying public), ferries (which carried covered wagons and other vehicles across waterways in the absence of bridges), dredges (to deepen existing waterways), and light tenders (which conducted maintenance along rivers). This variety of steamboats made settlement possible by permitting travel from West Virginia in the East to the Rocky Mountains in the West, and from Minnesota in the North to Louisiana in the South.

The development of transcontinental railroads later in the 1800s caused steamboat use to decline. For decades more, however, they maintained a place in the nation's ever-expanding transportation network, particularly up and down the Mississippi River.

See also: Robert Fulton, Steamboat Act of 1852

STEEL INDUSTRY

Steel is an alloy of carbon and iron that is harder and stronger than iron. While the first ironworks were established in British North America in Jamestown, Virginia (1621), the U.S. steel industry did not develop on its own until after the American Civil War (1861–1865). Up until that time steel was too expensive to manufacture by the methods then available. Its use prior to the American Civil War was confined primarily to high-value products, and the United States imported nearly all of its steel until after the American Civil War.



The growth of the steel industry is measured by the amount of steel produced. As illustrated, steel production skyrocketed in the 20th Century, making the U.S. the largest steel producing country in the world.

The coming of the steam age in the early part of the nineteenth century created a huge demand for iron. Up to this time most iron mines, forges, and blacksmiths were small operations. Steam created a demand for rolled iron to be used in making boilers. Using iron boilers, as the railroads and paddle-wheel river boats of the time did, was dangerous because the iron was not strong enough to contain the steam pressure and they often blew up, causing death and carnage. In addition, more than 30,000 miles of railroad track with iron rails were laid in the United States between 1830 and the beginning of the American Civil War. As a result iron mills became major enterprises, but the iron rails frequently warped because of temperature extremes, causing derailments.

Two inventions in the 1850s resulted in the rapid rise of the steel industry, which supplanted the iron industry by the end of the nineteenth century. One was the Bessemer process for making steel, developed by British engineer Henry Bessemer in 1856. The second was the Siemens-Martin open-hearth method, introduced in 1858. These processes, once perfected, greatly reduced the cost of producing steel. The first Bessemer converter in the United States was built in 1864, and the first open-hearth furnace, which was better suited to American iron ore, was built in 1868, and they both spurred steel production in the United States. By 1873 the United States was producing nearly 115,000

tons of steel rail, approximately one-eighth of all U.S. steel production. As the price of steel continued to drop, steel rails replaced iron rails. The “iron age” was over.

BY 1910 THE UNITED STATES WAS PRODUCING MORE THAN 24 MILLION TONS OF STEEL, BY FAR MORE THAN ANY OTHER COUNTRY. UNTIL WELL AFTER WORLD WAR II, THE STEEL INDUSTRY WOULD BE THE MEASURE OF THE NATION’S ECONOMY.

Between 1880 and 1900 U.S. steel production increased from 1.25 million tons to more than 10 million tons. The industry underwent consolidation as mill owners sought to benefit from economies of scale and to avoid what they called “ruinous competition.” Led by Andrew Carnegie, Henry Clay Frick, Charles Schwab, and others, the modern steel industry took shape. It was a period of violent labor disputes, most notably the Homestead strike of 1892. The companies managed to hold off unionization until the 1930s. In 1901 financiers J. Pierpont Morgan and Elbert H. Gary formed the United States Steel Corporation. With a capitalization of \$1.4 billion, it was the largest industrial enterprise in the world. By 1910 the United States was producing more than 24 million tons of steel, far more than any other country. Until well after World War II (1939–1945), the steel industry would be the measure of the nation’s economy.

In 1969 U.S. steel production peaked at more than 141 million tons. It was a time when international competition, led by newer and more efficient Japanese and European steel plants and by lower labor and transportation costs, began to challenge the U.S. domestic steel industry. The industry underwent a major shakeout in the early 1970s, and by 1975 U.S. steel production had fallen to 89 million tons. The industry suffered a major depression from 1982 to 1986. By 1988 production was up to more than 102 million tons, with greater efficiencies resulting in a smaller but more productive workforce. Then in 1991 it slipped to less than 90 million tons as an economic recession set in.

During the 1990s, restructuring, increased automation, new production techniques and upgraded facilities made U.S. steel-makers more productive. In the early 1990s approximately three-quarters of all U.S. steel production was accounted for by traditional integrated steel mills, which undertook every step of the steel making process, converting mixtures of iron ore, limestone, and coke (made from coal) into molten iron using a blast furnace. The molten iron was then converted into steel using basic oxygen furnaces (BOFs),

after which the steel was cast into ingots and shaped. Some mills utilized a process called continuous casting that bypassed the production of ingots. The top six firms accounted for \$25 billion worth of steel, or 40 percent of all shipments in 1992.

A second, fast-growing steel producer, known as “minimills,” accounted for one-quarter of U.S. steel production in the early 1990s. Minimills are non-integrated mills that feed scrap iron or steel into an electric arc furnace (EAF) rather than a blast or basic oxygen furnace. By 1997 minimills had the capacity to produce in excess of 50 million tons per year of carbon, alloy, and specialty steels—more than 40 percent of the total U.S. raw steelmaking capacity of 120 million annual tons. About 80 firms operated more than 100 scrap-fed electric steel plants in the U.S. in 1997. Minimills were projected to account for nearly half of all steel buyers’ needs by 2000.

By the mid-1990s the U.S. steel industry was in good economic shape. From 1992 to 1998 it spent an aggregate of \$50 billion to modernize its plants, and steel companies improved their financial position by reducing debt, underfunded pension plans, and other liabilities. After two strong years industry performance slackened slightly in 1996 as some plants suffered breakdowns after running at full capacity. Raw steel production during 1996 was 99.4 million tons, up from 97.1 million tons in 1995. Steel shipments rose in 1997 to 105.9 million net tons, then fell 3.5 percent in 1998 to 102.1 million tons.

Strong demand in the United States for steel in 1997 and 1998 resulted in a significant increase in imported steel of various kinds. Cheap imports from Russia, Japan, Brazil, and other countries forced the price of commodity grade steel down more than 10 percent in just a few weeks. To prevent other countries from dumping steel into the United States market, the U.S. steel industry could file antidumping petitions with the U.S. International Trade Commission, under the U.S. Department of Commerce, and the International Trade Administration. (“Dumping” refers to the practice of one country selling commodities or finished products in another country at below cost or fair market value.)

Since 1980 the steel industry used antidumping complaints as a tool to curb imports, and in 1998 it filed complaints against Japan, Russia, and Brazil. However, the wave of imported steel, coupled with a projected slowdown in the growth rate of the U.S. economy and excess world steel producing capacity, signaled that 1999 would see a decline in the U.S. steel industry.

See also: Bessemer Process, Andrew Carnegie

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STEEL PLOW

The steel plow was invented in 1837 by American John Deere (1804–1886). A blacksmith’s apprentice for many years, Deere opened his own shop in Grand Decatur, Illinois, in 1836. Customers complained that their wood or iron plows proved ineffective in turning the prairie sod, which stuck to the implement’s surface. Deere began tinkering with a smooth steel surface to make a plow that could successfully do the job. Using the steel from an old circular saw, he fashioned the first steel plow the next year. It worked as expected; the prairie grass fell away from the plow’s smooth surface. The invention was a success and it proved to be a boon to corn farmers in the region. By the mid-1840s Deere and a business partner were manufacturing one thousand steel plows each year.

After the American Civil War (1861–1865) many farmers moved westward, encouraged by the land grants provided by the Homestead Act of 1862. Settling the Great Plains, these homesteaders created a growing demand for Deere’s steel plow, the only implement capable of turning the prairie sod of the plains. By this time Deere had improved the quality of the steel he used and he had gone into business for himself, setting up John Deere and Company in 1868. The business he founded continues to manufacture steel plows and other agricultural machines, including tractors.

See also: Agricultural Equipment Industry, John Deere, Homestead Act

STEVENS, JOHN

John Stevens (1749–1838) was an engineer and inventor who was one of the earliest U.S. experimenters with steamboats. He built his career on promoting better transportation, not only with steamboats but also with railroads. Stevens built the first steam-powered locomotive in the United States. He firmly believed that efficient transportation on both land and water would be the main source of progress and prosperity for the country.

John Stevens was born to a wealthy family in New York in 1749. His father was a merchant and ship owner who was also politically active. Stevens was raised in Perth Amboy, New Jersey, and educated in small schools devoted to business training. He graduated from King's college (now Columbia University) in 1768 and then studied law. Three years later Stevens began working as a practicing attorney for the royal governor of New York. He soon discovered that he was more interested in politics than law and he became treasurer of New Jersey during the American Revolution (1775–1783). He rose to the rank of colonel through his fundraising efforts for the patriot cause.

In 1782 John Stevens married. Two years later the couple bought a large estate on the west side of the Hudson River, in what is now Hoboken, New Jersey. It was there that Stevens became fascinated with the idea of steam-powered transportation. Stevens bought a ferry service between Hoboken and New York and sought to improve it with steam-powered boats. He was inspired by John Fitch's steamboat, which ran along the Delaware River in 1788. At age forty Stevens taught himself the engineering science behind steam power. Soon he was able to draw his own designs for boilers and engines. Stevens then petitioned the New York legislature to grant him the exclusive privilege of steam navigation in the state, but he was unsuccessful. He was also unsuccessful in several other states, so he instead turned to his political connections in Congress and petitioned for the first federal patent laws in 1790. In August, 1791, Stevens was awarded a patent for improving steam machinery.

In 1797 Stevens joined his college friend Nicholas I. Roosevelt, and his brother-in-law Robert R. Livingston, in a partnership to build and operate steamboats. The partners disagreed over technical matters, such as the proper way to apply steam and they never built a successful boat together. In 1804 Stevens did manage to build a prototype, however, with the help of his sons.

The boat, called *Little Juliana*, used a new high-pressure steam engine and two screw propellers. Meanwhile, Stevens' brother-in-law Livingston had purchased a temporary exclusive contract for steamboats on the Hudson River. Livingston believed that Stevens' boat did not meet the contract's speed requirements, so he instead convinced inventor Robert Fulton (1765–1815) to produce his five-mile-an-hour steamboat in the United States. Stevens was offended by Livingston's actions and he refused a place in the partnership of Fulton's future steamboat. In 1807 Fulton's boat, the *Clermont*, made its historical round trip voyage from New York to Albany.

Soon afterwards Stevens launched his first ocean-going, 100-foot steamboat called the *Phoenix*. In June of 1809 his son, Robert Livingston Stevens, captained the boat on its maiden voyage to Philadelphia. Because Fulton monopolized the use of the Hudson River, Stevens operated a ferry service on the Delaware River between Philadelphia and Trenton.

Stevens decided to pursue other transportation interests and around 1810 handed his steamboat interests over to his sons, who had also become capable and respected engineers. He turned his attention to adapting steam technology to the railroad, educating Congress on the advantages of the railroad over canals. Stevens succeeded in persuading Congress to pass the first U.S. railway act, which then led to the formation of companies to construct railroads, including a line from the Delaware to the Raritan River. Stevens also invented and constructed the first steam locomotive built in the United States. In 1825 he ran the experimental locomotive on a circular track on his estate in Hoboken.

Stevens dedicated his life to improving transportation and educating others about the benefits of efficient modes of transportation. He became a leader in promoting the utility of steam railroads in the United States. He also explored other transportation improvements before his death in 1838. For example, he designed a bridge and underwater tunnel from Hoboken to New York, and he also planned an elevated railroad system for New York City.

See also: Baltimore and Ohio, Fulton, Robert, Steamboats

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STOCK

Stock is a form of ownership interest in a company and a way for companies to fund their growth. A share of stock in a company represents a fraction of ownership or equity in that company's assets and growth. In exchange for giving the shareholder a piece of ownership, the shareholder takes the risk that the earnings of the company will decline, which could reduce the value of the shareholder's initial investment. The buyer of a company's stock is willing to take this risk because if the company's earnings grow rapidly the stockholder gets to share proportionately in that wealth. For example, an investor bought \$1000 of stock in Digital Equipment Corporation in 1991 saw the investment fall in value to \$651 by 1996. But an investor who invested \$1000 in the stock of EMC Corporation in 1991 saw that investment increase to \$18,700 five years later. Some investors prefer investing in bonds because bonds assure them of a specific return on their investment. No bond, however, can promise the eighteen-fold growth EMC gave its stockholders between 1991 and 1996.

There are two basic forms of stock: common and preferred. In addition to an ownership stake in the company, common stock, also called "ordinary shares," entitles the shareholder to periodic payments of dividends, which are a share of the company's earnings, as well as a claim on the assets of the company if it goes bankrupt. Most common stock also gives the shareholder a right to vote on changes in the company's bylaws, on the election of corporate directors, and on any mergers with other companies. Holders of preferred stock usually do not have the same voting rights as common stockholders, but if the company goes bankrupt their share in its assets must be paid first before common stockholders receive their assets. Finally, the dividends that common stockholders are paid

depend on the company's actual earnings, whereas preferred stockholders are always guaranteed a fixed dividend.

The practice of selling shares of stock arose as a way for companies to raise large amounts of capital for their projects. For example, the joint stock companies that took the financial risk of settling the New World did not need to rely only on banks or governments to raise funds—they could have raised the money they needed by selling shares to investors. Even in the late twentieth century many new companies started out as privately owned firms with a few owners and grew through bank loans or the investments of a few private investors. Many private firms reach a point in their growth where the only way to fund the massive investments they need to continue growing is by "going public," that is, to sell a stake in their ownership of their company to the broad public. In 1995, 107 billion shares of stock changed hands, and by 1997 the total value of all the stock traded on the New York Stock Exchange alone was \$7.6 trillion.

See also: Bond, Capital, Investment, Joint Stock Company, Stock Market

STOCK MARKET

Like a grocery market, a stock market is a place specifically designed to facilitate the purchase and sale of certain goods. Instead of selling food and supplies like a grocery, the stock market provides a venue for trade in companies, ventures, and other investments through the buying and selling of stocks, bonds, mutual funds, limited partnerships, and other securities. There are several regional stock exchanges throughout the United States, but the U.S. stock market is dominated by two exchanges: the New York Stock Exchange (NYSE) and the National Association of Dealers Automated Quotation (system), better known as NASDAQ-Amex. In 1996 investors could buy and sell the shares of about 3000 companies on the NYSE and some 5400 companies on the NASDAQ-Amex.

The NYSE was the first stock exchange established in the United States. It began operations on the island of Manhattan in New York, in 1792. The American Stock Exchange (Amex) started trading in the 1850s. At first the number of companies investors could buy shares in was quite small, but as the U.S.



Close up view of a ticker tape machine used to follow the stock markets.

economy exploded in the nineteenth century, businesses found it harder to fund ambitious new undertakings, like railroad construction, by relying only on their own resources or loans from banks. To raise the needed capital, companies turned to the stock market, where they sold stock (shares of which represents part ownership in the company) to the public.

THE STOCK MARKET ENTERED THE DAILY LIVES OF MILLIONS OF AMERICANS DURING THE 1920S, WHEN ECONOMIC GROWTH AND THE DESIRE TO STRIKE IT RICH QUICK DROVE STOCK PRICES TO AN ALL-TIME HIGH IN AUGUST 1929.

While individuals may invest in the stock market for a variety reasons, one of the primary motivators is to make a higher return on their money than may be available through a traditional, conservative bank savings account. The stock market, however, has more risk attached to it than does money in the bank. For instance, if a new telecommunications company offers its stock for sale on the market and performance outlooks for this company are promising, investors may rush to buy the stock, its value will go up, and the company will raise lots of capital. If, however, by the

end of the year, the company has posted poor earnings and the performance outlook has turned sour, the same investors who rushed to buy stock in the company may now rush to sell, causing the value of the stock to drop.

The stock market entered the daily lives of millions of Americans during the 1920s, when economic growth and the desire to strike it rich quick drove stock prices to an all-time high in August 1929. Stock prices, however, were not in line with companies' actual earnings, and many people bought shares only through heavy borrowing, so at the first signs of uncertainty in the market in September 1929, the market collapsed, hitting rock bottom in July 1932. In the 1930s, the government took steps to reform the stock market and established the Securities and Exchange Commission to regulate stock trading. The 1950s and 1960s were periods of great growth in the number of companies selling shares on the stock market and in the number of investors buying stocks. In 1971 the NASDAQ was formed to provide a stock market for "over-the-counter" stocks, i.e., stocks not listed on the regular stock exchanges. One of the greatest bull markets in stock market history began in 1982, and 16 years later the NASDAQ and Amex merged to compete more effectively with the NYSE.



Trying to cover his Wall Street losses, this man attempts to sell his roadster on the streets of New York for \$100 cash.

See also: Bond, Capital, Investment, Stock, Stock Market Crash of 1929

STOCK MARKET CRASH OF 1929

During the 1920s increasing numbers of Americans became interested in Wall Street and in buying stocks. A prospective buyer did not have to pay the full price of a stock in order to buy. Instead the practice of “buying on margin” allowed a person to acquire stock by expending in cash as little as ten percent of the price of a stock. The balance was covered by a loan from a broker, who was advanced the money by his bank, which, in turn, accepted the stock as collateral for the loan. Credit was easy, and the Federal Reserve System did little to restrict the availability of money for stock investment.

But mindful of the run of the bull market and the practice of buying on margin, pessimists kept insisting

that all was not right with the speculative boom. Many newcomers to the market failed to realize that a stock certificate was only a piece of paper, and that its primary worth was essentially connected with the prosperity of the company that issued it. A strange and frightening fact was becoming apparent to some observers—the increase in the market value of most stocks often had little relationship to the profits or prospects of the issuing companies. The stock itself had taken on a life of its own, based on the circumstance that people were bidding for these equities (stocks) at ever-rising prices. Stock prices represented not corporate profit, but speculative buying of stock certificates.

In September 1929 confidence in the market’s ability to continue its upward spiral began to weaken. Stock prices turned lower. Apparently investors were turning from “bulls” to “bears” in increasing numbers and were selling short. As the market was crowded with inexperienced but feverishly eager investors who lacked capital reserves, the falling prices produced a shock effect. For the small investor who had all of his/her money tied up in stocks, it became imperative to sell fast before the prices dropped lower. Since many

Streetcars

people were in this situation, orders to sell flooded the market until the ticker tape could not keep pace with Exchange transactions. Chaos reigned as the figures listed on the “big board” became increasingly out of line with actual selling prices. Ignorance was an additional element in the panic.

To stem the crisis, a group of leading New York bankers decided to act. Meeting in the office of Thomas W. Lamont, a partner in J.P. Morgan and Company, the bankers pooled their resources and bought stock above the current market levels. Their purchases might be insignificant, but they reasoned that the well-known personalities involved might serve to restore the confidence of the small investor. Accordingly, on Thursday, October 24, 1929, Richard Whitney, vice-president of the New York Stock Exchange and broker for the House of Morgan, entered the market and attempted to stem the tide. Amazingly the tactic worked, but only temporarily—on the following Tuesday, October 29, 1929, the bottom fell out of the market. Within two weeks the value of stocks on the exchange had declined some 37.50 percent, and by early 1932, stocks were worth only 20 percent of their value at the 1929 peak.

As the debacle on Wall Street continued, the average New Yorker could still speak with scorn of the “numbers game.” After all, the economy of the United States was apparently still in good shape. The railroads, the steel mills, communications facilities, and large segments of the citizenry stood untouched by the panic. Professor Irving Fisher of Yale University reassured the nation about the general state of the economy. The average citizen had little awareness that the figures on the “big board” at the New York Stock Exchange were indicative of forces which would have an impact upon how the majority of Americans lived or acted. They were soon made painfully aware of the situation. The Stock Market Crash of 1929 developed into the long-lasting Great Depression (1929–1939) and affected every aspect of American life.

See also: Bear and Bull Markets, Great Depression, Great Depression (Causes of), Investment, New York Stock Exchange, Stock, Stock Market, Wall Street

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STREETCARS

Streetcars, also called trolleys, are power-driven vehicles that run on tracks through city streets. Prior to their invention, public or for-hire vehicles ran through urban areas: drawn by teams of horses or mules, the “horse railway” was of limited use, however, allowing only a few riders at a time. This method of transport was in use in eastern cities such as New York, Philadelphia, and Boston since the 1830s. It was substantially improved in 1852 when a grooved rail was developed, allowing the tracks to lay flush with the pavement. This improvement increased speed and capacity, and decreased interference with coach and wagon traffic. By the mid-1880s, more than four hundred horse-car companies operated in the United States, covering some six thousand miles of urban tracks and carrying close to 200 million passengers a year.

In 1871 American engineer and inventor Andrew Smith Hallidie (1836–1900) patented a street railway system, run by constantly moving underground cables or ropes, to which the cars were clamped. (The cables were powered by steam engines.) Hallidie’s cable car system was introduced in San Francisco in 1874: the cars, which ably managed the city’s hilly terrain, were a success. Soon other American cities, including Philadelphia, New York, and Chicago, installed cable cars. Chicago soon boasted the most extensive cable system in the world: By 1894, more than 1,500 cars operated on eighty-six miles of track. Cable car transportation peaked in the United States in 1890, when systems in twenty-three cities carried a total of 373 million passengers that year.

In the mid-1880s, the electric streetcar or trolley was invented in the United States by American engineer and inventor Frank Julian Sprague (1857–1934). An overhead electric wire provided the power and was capable of moving several cars at once. The cars

In 1893, just six years after the system's successful debut in Richmond, Virginia, there were more than 250 electric streetcar railways in the nation, operating on some 7,200 miles of track. By 1903 this number had climbed to more than 29,000 miles and represented 98 percent of the nation's urban rails.

resembled railroad cars and could travel as fast as twenty miles per hour. They ran along street tracks—just like the cable cars—but the trolleys were cleaner and cheaper to operate than either cable cars or horse drawn railcars. They reduced the average fare by as much as half (from ten cents to a nickel). The new technology was embraced at an impressive rate, making the electric streetcar one of the most widely accepted innovations in the history of technology (according to Kenneth T. Jackson, author of *Crabgrass Frontier: The Suburbanization of the United States*). In 1893, just six years after the system's successful debut in Richmond, Virginia, there were more than 250 electric streetcar railways in the nation, operating on some 7,200 miles of track. By 1903 this number had climbed to more than 29,000 miles and represented 98 percent of the nation's urban rails. Except for San Francisco, where the cable cars remained a nostalgic link to the city's past, cable cars had been replaced with the electric streetcar.

As city streets became congested, large urban centers undertook expensive public works projects to build elevated tracks to run "els" (elevated streetcars) or to dig tunnels to run subways. Boston opened the first American subway in 1897; New York's first subway line opened in 1904.

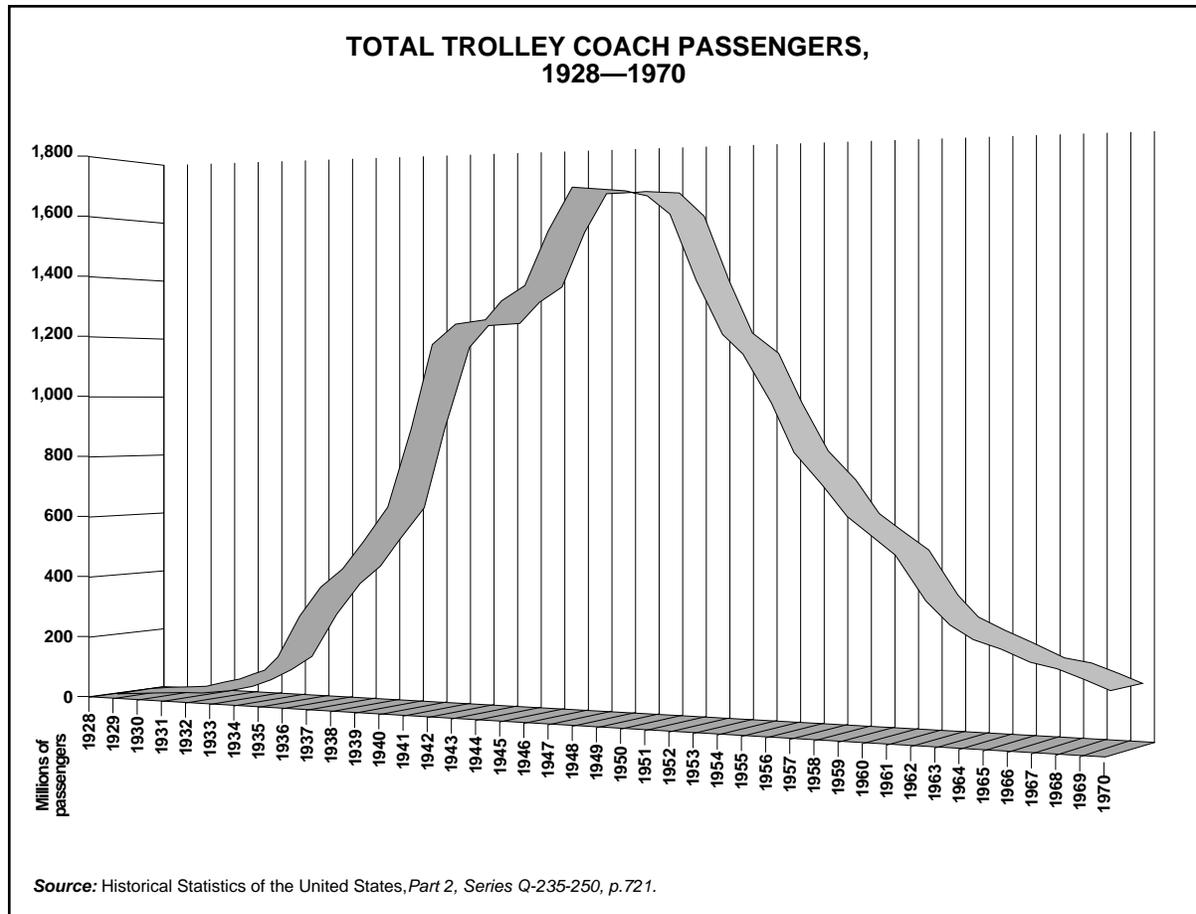
The advent of mass transit in the form of streetcars and subways had far-reaching effects: Cities were no longer defined by walking distances and began to expand outward. In many urban areas, including Chicago, streetcar lines were laid well beyond existing city boundaries. Outlying areas were quickly developed into residential neighborhoods. The country's burgeoning middle class, which could afford the typical streetcar or subway fare, was drawn to life in these quiet, tree-lined outskirts—far from the congestion of the inner city, which became increasingly devoted to business. Real estate development flourished, and a house in the suburbs became the goal for many working class families who remained, by necessity, in the

cities. The trolley system, els, and subways had given rise to a population of commuters and began a cycle of urban sprawl that continued throughout the twentieth century. By the middle of the century, however, the automobile had largely overtaken public transportation. Between 1945 and 1981, 75 percent of government transportation dollars were allocated to building the nation's highways and a mere 1 percent was dedicated to public systems such as buses, trolleys, and subways.

STRIKE

A strike is a concentrated effort by a group of workers, to withhold their labor from their employer, for the purpose of creating favorable changes in wages, benefits, or working condition, or for winning employer recognition of labor union representation. There are different forms of strikes. A primary strike is a work stoppage aimed at an employer, directly. A sympathy strike is one where employees refuse to work in sympathy with others who are directly involved in a dispute. A sit-down strike happens when workers stop work and refuse to leave the employer's premises in order to prevent the hiring of replacements. A wildcat strike is one that occurs spontaneously, without formal union authorization. A general strike is an effort to stimulate a general work stoppage and has political overtones. All of these strikes have been common in the United States, with the possible exception of the general strike; a technique most often practiced in Europe, and Third World countries.

Strikes began to occur with some regularity in the United States in the nineteenth century and were regarded as illegal because they restrained trade. Any kind of strike is a test of economic strength and will. A union tries to prevent business operations and cause a loss of profits to the employer, in order to force changes. The employer tries to maintain profitability and maintain operations hoping pressures from loss of pay rise enough to force workers to return to work. During a strike the striking employees, often represented by a union, will attempt to prevent the employer from operations by picketing the employer's facilities. Picketing is the walking back and forth outside of the employer's premises by union members on strike, carrying picket signs with short statements on them relating to the issues of the strike. Picketing becomes a



The rise and fall of passengers on trolley coaches is indicative of the effect of suburban growth upon mass transit systems.

public announcement of the existence of a labor dispute. It also serves the purpose of giving notice to other workers and the public, asking them in effect not to cross the picket line. While on strike workers generally receive “strike benefits” from their union, a small money stipend to help them with necessary expenses while remaining committed to continuing the strike until a settlement is reached. During the 1990s there were roughly 3000 to 5000 strikes per year, most of them a result of unsuccessful contract negotiations.

See also: Collective Bargaining, Labor Unionism, Sit-Down Strike

STRUCTURAL UNEMPLOYMENT

Structural unemployment is a type of unemployment that occurs to workers who are displaced by a change in marketplace needs. When the computer industry began its rapid rise, many workers were caught

at a disadvantage. They did not learn the skills or did not already have them coming into the job market, which now demanded computer know-how. Unless these individuals learned the necessary new skills, they faced the possibility of structural unemployment.

Another instance where structural unemployment occurs concerns geography. During the 1970s, the automobile industry, concentrated in the Midwest, experienced a downturn. As a result, many in the auto labor force became unemployed. At the same time, the oil industry in Texas was experiencing a boom. Many workers unemployed in the Midwest and who also possessed skills that would benefit them in Texas chose to move West to take advantage of the economic opportunities available there.

The disparity between skills and/or labor may also be called mismatch unemployment. Workers who are only familiar with word processing can not fill job vacancies for computer programmers. Technology and competition can also play a role in structural unemployment. The U.S. steel industry, which established

itself during the nineteenth century, is at a disadvantage competing with the steel manufacturers in less developed nations, who benefit from the more recent development of their industry through the use of the latest technology.

Time spent learning the new skills demanded by the current job market can be consuming and, in addition, not all individuals are willing to pursue a job search in a new location. Thus, structural unemployment can be enduring.

See also: Seasonal Unemployment, Unemployment

STUDEBAKER

The Studebaker Corporation traced its business origins earlier than any other U.S. automobile manufacturer. It started in 1852 as a family operated blacksmith shop in South Bend, Indiana, and began manufacturing wagons five years later. During the American Civil War (1861–65) government contracts for wagons brought the firm new prosperity. In March 1868 brothers John, Clement, and Peter Studebaker each invested \$25,000 and incorporated as the Studebaker Brothers Manufacturing Company.

In the highly competitive wagon industry, Studebaker became the world's largest manufacturer. With good management, technological innovation, and capital expansion, it pursued a strategy of large scale manufacturing of high quality products known for durability and beauty. Through a well-coordinated distribution system, its national marketing captured the dominant share of the large farm wagon market and a profitable share of the urban wagon and carriage markets. By 1870 it also became the government's largest supplier of wagons.

Studebaker became a modern corporation in 1893 through the efforts of John Studebaker's son-in-law, Frederick Fish, a Wall Street lawyer. The reorganization shifted power from the family to investors represented on a newly created board of directors. With additional capital and new leadership, the firm made a decisive change in its product line. Overcoming resistance from the surviving Studebaker brothers, Fish pushed the company into the new automobile industry. Studebaker started cautiously in 1897 by making bodies for the New York Electric Vehicle Company, and three years later it began manufacturing its own automobiles. Although Studebaker continued making carriages until 1910 and wagons until 1918, it was firmly

committed to the automotive industry when the corporation reorganized again in 1911.

Under the leadership of president Albert Russell Erskine from 1915 to 1933, Studebaker attempted to become one of the dominant automobile manufacturers. Concentrating on producing trucks and cars for the competitive medium-priced market, it enjoyed its golden years immediately after World War I (1914–18), and it stood behind only the Ford Motor Company and General Motors in total assets. In 1924, however, it failed to buy out the Maxwell Motor Corporation, losing to Walter P. Chrysler, who then succeeded in building his own big, multi-model firm. Thereafter Studebaker remained one of the so-called "Independents," relatively small automakers, in an industry dominated by the Big Three—General Motors, Ford Motor Company, and Chrysler Motors—all based in Detroit.

By March 1933 Studebaker was unable to pay its creditors because of president Erskine's high dividend policies despite an automobile market that was shrunk by the Great Depression (1929–39). Studebaker might have disappeared then, as many other Independents did during the Depression, however, it survived a court ordered bankruptcy and reorganized again in 1935 under the leadership of two former vice presidents. With president Paul G. Hoffman concentrating on sales and public relations and chairman Harold Vance concentrating on production, Studebaker recovered. From its headquarters still in South Bend, the firm produced cars (including the new low-priced Champion) with innovative engineering and design that distinguished them from Detroit products. By 1940 the firm was the largest of the Independents, with a market share of almost 2.5 percent. The national economy recovered from the Depression and the future looked bright.

World War II (1939–45) then significantly altered the automobile industry. When all civilian automobile production ceased by government order, automakers operated as defense contractors. Studebaker manufactured trucks and other products under government contracts that guaranteed profits without competitive pressures to control production costs.

After the war high consumer demand for new cars allowed all the Independent automakers to increase their market shares and total volume. Hoffman and Vance expressed optimism because Studebaker's distinctively designed cars attracted wide attention and increased sales. Studebaker reached its peak of prosperity in 1950, with record sales that brought it a four-percent market share. However in its rush to take



1947 Studebaker Champion Coupe.

advantage of the strong postwar market, the firm failed to modernize its plants, reduce high production costs, or correct worsening product quality. After the Korean War (1950–53) the loss of defense contracts and fierce competition between General Motors and Ford for industry leadership put all the Independent automakers at greater risk. Hoffman and Vance recognized that Studebaker was too small to survive alone and in 1954 they arranged a merger with the Packard Motor Company of Detroit.

Under the leadership of James J. Nance, formerly Packard's president, the new Studebaker Packard Corporation tried to imitate the Big Three. But Nance's efforts to cut production costs and improve quality led to labor strife in South Bend. Similarly, his efforts to imitate Detroit automakers' products failed to increase the company's declining sales. With losses mounting, Studebaker Packard survived only by merging in 1956 with Curtiss-Wright, the aeronautical firm. During the late 1950s it recovered somewhat by introducing a compact economy car, but the Big Three soon captured that market as well. In 1962 Studebaker made its last effort to find a niche in the automobile industry by launching the Avanti, a distinctive, streamlined sports type car with an all fiberglass body. However, small

volume production of that car could not sustain the automaker. In December 1963 the South Bend plant closed, although car production continued on a reduced scale in Hamilton, Ontario, Canada until the fall of 1967. Then, the combination of its small size, inability to keep pace with competition, and managerial errors over a long period finally ended Studebaker's role as an automaker.

Nevertheless, the close of its automotive history did not mean the end of Studebaker. As it scaled down its automobile production during the early 1960s, it pursued a survival strategy of diversification. In November 1967 it arranged a new merger that created the Studebaker-Worthington Corporation. Producing a wide variety of products, some for the automotive industry, it operated for twelve years until it was absorbed by McGraw-Edison.

See also: **Automobile Industry**

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SUBSIDIES

A subsidy is a government payment to individuals, businesses, other governments, and other domestic institutions and organizations. Unlike government purchases, for which the government receives goods or services, subsidies do not provide the government with any goods or services in return. The purpose of government subsidies is to ensure the availability of necessary goods and services.

A wide range of domestic businesses, individuals, and other organizations in the United States are eligible for government subsidies. A complete listing of all federal subsidies can be found in the government publication, *Catalog of Federal Domestic Assistance*. Among the areas receiving government subsidies are agriculture, maritime industries, and mass transportation.

SUBSISTENCE AGRICULTURE

Subsistence agriculture is a system of farming that provided the amount of crops the farmer needed to feed his family, with very little surplus to sell. During settlement of what became the United States, European immigrants were interested in securing land titles or renting lands so they could establish their families and begin to farm. Because shipment of produce was costly and time-consuming, only farmers near ports grew crops that would be sold for cash.

While southern plantations yielded bumper crops and grew richer on their exports, the typical settler of colonial times could afford neither vast land holdings nor slaves. The vast majority of farmers worked their own fields with the help of their families. They supplemented their harvest by raising a few heads of livestock and by hunting and fishing. In this way the early life of the settlers was not very much different from the

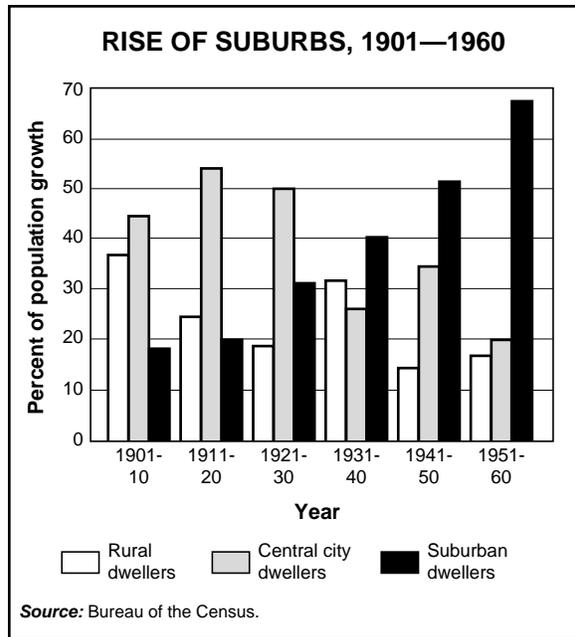
lifestyle of the American Indians who had settled the land before them.

SUBURBS, RISE OF

The growth of U.S. cities in the nineteenth century was integrally linked with expanding industrialization and economic development. This process of urbanization led to the formation of a “classic” pattern for U.S. cities by the 1930s. Commercial centers that included banking districts and retail establishments were located in downtown areas. Enclaves of working-class neighborhoods were often distinguished by a predominance of ethnic or minority populations circling the downtown. There were industrial and manufacturing pockets, and a growing white middle class concentrated in residential developments toward the ever-expanding city boundaries. Bus and trolley lines radiated outward from the city center to provide a transportation network. The city was a socioeconomic mosaic.

Immediately following World War II (1939–1945), urbanization quickly transitioned into suburbanization. Suburbs are largely independent communities located in close proximity to large central cities. Many suburbs have their own local governments with mayors or city managers and police departments; county governments govern others. Federal investment in economic development immediately following the war included low-cost mortgages for veterans and highway construction programs. Reorganization of American life resulted. The average white middle class family moved to newly created communities on less expensive land outside the city boundaries. Suburbs offered yards, lower density single-family housing, less noise and air pollution, and relief from declining city neighborhoods with their escalating social ills. Millions of farmland acres were converted into bedroom communities. The exodus left cities with declining property values, significant loss of tax revenue, and diminished political and social importance.

Just as urban areas were experiencing a new wave of Southern African Americans migrating to cities in search of employment, white taxpayers, jobs, and capital were migrating in mass to the suburbs, leaving the cramped ghettos and industrial areas behind. Suburbs replaced cities as the place of upward class mobility and economic prosperity. In contrast to urban social mosaics of the early twentieth century city, suburbanites most valued racial, religious, and social class homogeneity. The African American middle class and other minorities ran into social barriers in this resettlement movement, spawned by racism.



The shifting of the population from rural and city dwellers to the suburban areas began to shift in 1907, and by 1960 the majority of Americans were suburbanites.

By the late twentieth century the United States had fully transitioned from the urbanization of a century earlier to a suburbanized nation. By the 1960s urban factories, office complexes, and shopping centers had followed the population. Telecommunications developments in the 1980s further stimulated suburban growth. Businesses enjoyed more flexibility, locating in desirable settings as suburban business complexes increasingly linked to international economic markets. Suburbs developed their own economic bases independent of the earlier central-city business districts. Suburban “downtowns,” known as edge cities, developed on the fringes of metropolitan areas by the mid-1980s. New regional shopping malls replaced city center retail areas and neighborhood shopping centers. By the mid-1980s more Americans lived in suburbs than in central cities.

With the original inner cities in continuing socioeconomic crisis, efforts by cities to annex suburbs were normally resisted by suburban residents wishing to maintain their governmental independence. Planners also explored options of consolidating regional metropolitan tax bases and redistributing suburban revenues. Regional governments advocated “fair share” policies in proposing to locate industrial areas and low-income housing in suburban areas, rather than concentrating them in inner cities.

Suburban sprawl became a key issue with the proliferation and growth of suburbs. New suburbs

ringed earlier ones. The rise of suburbia led to the formation of metropolitan areas with the central city at their core. By the late 1980s about 75 percent of the U.S. population lived in metropolitan areas. Planners predicted the coming of the megalopolis representing the consolidation of multiple metropolitan areas spatially merging together.

As sprawl continued in the 1990s, the inner suburbs faced the same socioeconomic problems as the cities, including declining property values. In an endless cycle, lower values prompted higher property taxes, which forced more movement out to newer suburbs. With suburban residents frustrated over traffic congestion and sprawling commercial development, the growth of suburban populations began to slow in the 1980s. Rising gasoline prices and urban renewal attracted some back to the city. Urbanization of the suburbs was occurring, and urban renewal was becoming suburban renewal. Ever-expanding suburbs faced the same issues encountered earlier by cities. Revenue to provide water, sewer lines, fire protection, road maintenance, police, and new schools for the fast growing suburbs became issues as the cost of government services proved to be higher for low-density tract development.

Through the later decades of the twentieth century, areas of land development increased substantially faster than population growth. Regional governments in some areas adopted urban growth boundaries in an attempt to control the rapid loss of surrounding rural lands. Many attributed metropolitan air pollution problems to urban sprawl, low density housing patterns, and greater dependency on automobiles. The number of automobiles had grown several times faster during this time period than had the actual population. In total, the rise of suburbs in the late twentieth century was one of the more profound socioeconomic transformations in U.S. history.

See also: Industrialization, Urban Renewal, Urbanization

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SUGAR

Sugar is a crystallized material nutritionally important as a source of dietary carbohydrates and it can also be used as a sweetener and a preservative. It is predominately derived from sugarcane and sugar beets. Other sources are sorghum (a tropical grass), maple trees, and palms. Sugarcane was cultivated by South Pacific island natives as early as 6000 B.C. During ancient times it was also grown in India, where it was noticed around 325 B.C. by Greek soldiers under the command of Alexander the Great (356–323 B.C.). While cultivation and refinement of sugarcane spread from India, it did not reach Europe until A.D. 711, when Moors (North African Muslims) invaded the Iberian Peninsula (present-day Spain and Portugal). In the 1490s Portuguese explorers carried sugarcane with them into the New World and planted it in Brazil. The Spanish colonists planted sugarcane in the Canary Islands at about the same time. Spanish explorer Christopher Columbus (1451–1506) took sugarcane cuttings to the island of Santo Domingo (present-day Dominican Republic) in 1493. About twenty years later the first sugar mill in the Western Hemisphere was built there. The Dutch introduced sugarcane cultivation and refining to Barbados. The French introduced it to Martinique; the British introduced it to the West Indies.

The crop became important to colonial economies throughout the Caribbean, where the Europeans used slave labor from Africa to work the fields. Sugar was the principle export of the region during the 1600s, but by the end of the century the economies of many Caribbean islands collapsed. Slaves were sold to growers on the North American mainland, where they were engaged in the production of other crops (such as rice, indigo, and tobacco). The sugarcane plant did not reach the North American mainland until 1751, when Jesuit (Catholic) missionaries brought sugarcane to Louisiana. A sugar mill was built there forty years later.

The cultivation of sugar beets dates back to ancient Babylonia (present-day Iraq), Egypt, and Greece. However, only as late as 1744 it was discovered that sugar beets are a source of the same sugar found in sugarcane. It was fifty years more before a practical method for removing the sugar from the beets was developed. In the early 1800s sugar mills were built across Europe and Russia. Sugar from beets was not introduced in the United States until 1838.

See also: American Plants, Triangular Trade

SUGAR ACT (1764)

The Sugar Act of 1764 was passed by the Parliament of Great Britain, in part, to cut down on smuggling between the West Indies and the American colonies and also to tighten England's grip on its empire. But mostly the Act was approved to raise money to pay England's national debt caused by the French and Indian War (1754–1763). It was for that reason that the law was also known as the Revenue Act. The Act had three major parts. First, the measure created a complicated system of loading and unloading cargo for merchant ships in order to make smuggling more difficult. Second, the Act made certain foreign goods (including sugar, coffee, indigo dye, and wines) more expensive in the colonies because the tax would boost the retail price. Third, it cut the importation duties on molasses in half, in an attempt to make the tax easier to collect.

FOR IF OUR TRADE MAY BE TAXED, WHY NOT OUR LANDS? WHY NOT THE PRODUCE OF OUR LANDS AND, IN SHORT, EVERYTHING WE POSSESS OR MAKE USE OF?

Samuel Adams, Boston town meeting, May 24, 1764

Parliament's motivation in passing the Sugar Act was to correct an earlier, failing piece of legislation. The 1733 Molasses Act tried to discourage colonists from buying molasses from French and Dutch West Indian planters by placing a high duty of sixpence per gallon on it. New England merchants, traders, and their agents had developed a thriving trade in rum, a popular alcoholic drink, which they distilled from molasses. They shipped the rum to ports in West Africa, where they exchanged it for African slaves. The same traders then carried the slaves to plantations in the Caribbean, where they were exchanged for molasses—the so-called “Triangular Trade.” Because the New England rum distilleries were generating so much business, colonial traders were scouring the West Indies for molasses; they often found French or Dutch molasses cheaper than that from British plantations. Parliamentary representatives believed that the steep tax on foreign molasses would help British sugar producers. (However, it could instead have ruined the New England rum industry had it been collected as planned.) In most cases, customs officials preferred not to collect the tax and allowed the colonial traders to import molasses from whatever areas they chose.

George Grenville, the author of the Sugar Act, wanted to use the estimated £40,000 per year he expected the tax to generate to help pay the costs of

keeping 10,000 British soldiers on the American frontier. He did not anticipate the strong resistance he encountered from the colonists. They had never been expected to pay these kinds of taxes to this extent before, and they protested loudly. Bostonian Samuel Adams used the crisis to try to unite the merchants of the cities with the small farmers of the countryside. Lawyer James Otis Jr., in a pamphlet titled *Rights of the Colonies Asserted and Proved*, argued that Great Britain had no right to tax the colonists at all. Even solid Tories like Governor Francis Bernard protested the three pence tax, claiming that it would be difficult to collect and, if collected, would ruin colonial businesses. Similar protests were lodged in New York and Rhode Island. For the most part, however, complaints were limited to small special interest groups throughout the colonies. The Sugar Act was not the issue that would galvanize the colonists and turn them toward independence. It was an irritant in the relationship between the colonial officials of Great Britain and the colonists, but nowhere near as volatile an issue as the Stamp Act turned out to be a year later.

See also: French and Indian War, Triangular Trade

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SULLIVAN, LOUIS HENRY

Louis Henry Sullivan (1856–1924) inspired design and construction ideas for the most significant twentieth century American buildings, and for that he

was called the “Father of Modern Architecture.” He was the inventor, and often the builder, of the uniquely American “skyscraper,” the tall buildings that created the great skylines of U.S. cities like New York and Chicago. His philosophy of building was also his philosophy of art. Sullivan designed the model for workplaces used by many modern businesses. He created the tall, densely-built downtown areas of the twentieth century U.S. metropolis; he created the visual reality of a kind of architecture in which design form followed the demands of functionality.

Louis Sullivan was born in Boston, Massachusetts, in September 1856, the only child of Patrick and Adrienne Sullivan. His father prospered in Boston as the owner/teacher of a music and dance academy. One of Sullivan’s biographers suggested that at a young age Sullivan learned from his father the importance of gracefulness and symmetry, qualities that would later influence his thinking about architectural forms.

Sullivan attended public schools in Boston. In his autobiography, he praised a high school teacher, Moses Woolson, whom he greatly admired, saying that the instructor had instilled in him “good methods of thinking, studying, and good work habits.” Sullivan claimed to have relied upon such principles throughout his life.

At age 16 Sullivan passed the entrance examination at Massachusetts Institute of Technology (MIT) and entered the school in 1872. He studied architecture under the guidance of William Robert Ware. Sullivan was dissatisfied with MIT, however, and left after just one year. He cited his dislike of the school’s strict focus on classical and academic architecture.

After leaving school Sullivan traveled throughout the country, briefly joining his parents in Chicago, Illinois. In the aftermath of the Chicago Fire of 1873, Sullivan saw the possibility of rebuilding the city with a modern and uniquely American vision. To learn his craft he left for Paris, France, to study at one of the great schools of architecture, the Ecole des Beaux Arts.

Sullivan studied long and hard in Paris, but the 18-hour days he spent studying were mentally exhausting. While in Europe, Sullivan also spent time traveling, specifically in Italy, where he saw first-hand the best of European architecture.

Returning to Chicago after just a year in Europe, Sullivan worked in an architect’s office as a draftsman and soon developed a reputation for quick and skillful design. He rose in the ranks of Chicago’s architects and displayed his great enthusiasm for building new kinds of American-style buildings in Chicago.

Sullivan's true architectural career started in 1880, when he began designing his own buildings to help rebuild Chicago. He started by concentrating on modern engineering techniques and advancements. His buildings were elegant and simple looking, with a focus on great height and safety. He also sought to accommodate the needs of twentieth century businessmen by creating buildings with highly concentrated office space.

Sullivan was a pioneer in designing the steel-framed skyscraper, which allowed him to create tall, structurally stable buildings. Through such building projects, Sullivan was able to articulate his main architectural idea: "form follows function." He voiced this in his 1924 autobiographical vision of architecture, *The Autobiography of an Idea*.

Sullivan worked hard to eliminate all traces of Greek and Roman architectural patchwork previously attached to the design of most American buildings. He was perhaps the first architect in the United States to develop a unique American style of architecture.

As Sullivan's architecture grew legendary, his personal life began splintering, and he devolved into an emotionally disturbed person. His behavior became erratic, he sought isolation, and at age 45, ill health forced him to work on only a series of small buildings and banks. Yet he continued as an architect, sharing his trade with others in the field. Most of Sullivan's innovative ideas were carried forth by his student, and later friend, Frank Lloyd Wright (1869–1959), whose own brilliant work would add new dimensions to architecture.

Though Sullivan's work had thoroughly penetrated the currents of modern twentieth century architecture, he died destitute and nearly alone. Frank Lloyd Wright visited his friend Louis Sullivan just three days before Sullivan's death, at the age of 68, in 1924.

The development of large, busy, complex urban centers of the early twentieth century was made possible by Sullivan's unique engineering innovations. His structures—safe yet often hundreds of floors high—combined functionality with beauty. Sullivan's impact on several major U.S. cities influenced much of the architectural design in the decades that followed.

See also: Frank Lloyd Wright

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SUN BELT

The "Sun Belt" region of the United States comprises fifteen southern states, extending from Virginia to Florida in the Southeast, and westward through Nevada, including southern California. Because of the expansion of inexpensive residential retirement communities, the Sun Belt region has seen a 93 percent overall growth of population between 1970 and 1990, well above the national average. To many people in the United States, the Sun Belt offers inexpensive living, year-round recreational activities, mild climates, and an inexpensive non-union labor pool for the creation of new business enterprises. A large migration of people to the Sun Belt, as well as a high birth rate and a decline of migration from the region have all contributed to the rapid growth of the Sun Belt's population and manufacturing activities. Overall improvements in transportation, communications, living conditions, and services have all made the Sun Belt an attractive area for retirees, workers, and business.

SUPPLY AND DEMAND

"Supply and demand" refers to the idea that the price of a product is dependent on the amount of that product available to sell (the supply) and the desirability of the product to consumers (the demand). Sellers want high prices and buyers want low prices, and the strength of these conflicting desires will determine the price. In economic terms, supply refers to a schedule of quantities that people are willing to sell at different prices at a given time, and demand refers to a schedule of quantities people are willing to buy at different prices at a given time. The two terms in economics are

Supply-Side Economics

linked together, like the terms “buyer” and “seller.” The interaction between the supply of goods and services and the demand for them brings about a price, for each item and service, at which suppliers and demanders are willing and able to sell and buy the same quantity of goods. When the supply and demand are equal, the price of any product is said to be at an equilibrium price. The marketplace, the arena of business competition, is not only where the clash of interest between buyer and seller is worked out by the opposition of supply and demand, but it is also where buyers contend against buyers, and sellers against sellers. Supply and demand is always changing. Changes in willingness or ability to buy or sell are always occurring. The rise or fall of income alters the ability to buy. Fluctuations of desire or need alter the willingness to buy. On the seller’s side, when the price of labor, land, or capital change, then the seller may alter his ability or willingness to offer his products on the markets at reduced or increased prices. Supply and demand in the marketplace is never a static phenomenon. The marketplace is always dynamic and changing, as supply changes, as demand changes, and as quantities of supplies and demands change.

SUPPLY-SIDE ECONOMICS

Reawakened in the United States in the late 1970s and early 1980s, the theory of supply-side economics looked at economic behavior by analyzing the supply of consumer items instead of the demand for them. This view of economics specifically focuses on the disincentive effects of taxes on private sector productivity, investment, and growth. Supply-side economists argues that reducing the tax rates on the supply-side would lead to greater economic growth, greater employment, and larger bottom-line tax revenues later.

Supply-side economics is not new in economic thought; its roots can be traced to Jean Baptiste Say’s *Treatise on Political Economy and Taxation* (1817). The renewed interest in supply-side economics of the 1980s was stimulated by Dr. Arthur Laffer’s Laffer’s Curve and by the administration of President Ronald Reagan (1981–1989), which adopted this kind of economic thinking.

The Laffer Curve established to calculate the highest rates of tax the market would bear in various

areas of the economy, always emphasizing tax reduction as the solution to economic issues. The supply-side theory of economics calls for a reduced government, reduced government spending, and a de-emphasis on any fiscal targets. Instead, great emphasis is placed on the free market and the de-regulation of private industry by the government. By the end of the supply-side era of the 1980s, the U.S. national debt was higher than at any other period of its history. The tax cuts did stimulate business and bring in more revenue, but government spending continued to grow in spite of the rhetoric.

SURPLUS

A surplus is the amount of money considered to be a profit in any general accounting period, which is available for carrying forward into the next accounting period. An economic surplus is similar to a net profit; it is the surplus resource in any business, household, or government after all cost, expenses, interest charges, and dividend payments have been made in any accounting period. A surplus should not be used synonymously with net profits, but rather should designate undivided profits, profits that have not, or do not need to be distributed in dividend payments to any investors or stockholders. A surplus, as well, may be accumulated profits of past periods which are left invested, and which continue to earn investment rates. This kind of surplus is known as an earned surplus. The American Institute of Certified Public Accountants has recommended that the term “surplus” be discontinued in favor of more specific and descriptive terms. Though surpluses continue to exist, the use of the term now rarely appears in balance sheet accounting presentations. More precise language is used, instead, such as “contribution in excess of par or stated value,” or “additional paid-in capital.” A surplus may arise for reasons other than having profits after all costs have been covered. A surplus might arise from a donation, or an appreciation of the value of owned business property, as well as other reasons. In banking, surplus refers to a portion of stockholders equity, and in economics, surplus refers to a situation in which at a given price, quantity supplied is greater than quantity demanded, and to alleviate this surplus prices must be lowered.



TAFT, WILLIAM HOWARD

Despite his imposing stature (six foot tall, three hundred pounds), William Howard Taft (1857–1930) was a reluctant President of the United States (1909–1913). To be leader of the nation was not Taft’s first ambition, but his wife, brothers, and close-friend President Theodore Roosevelt (1901–1909) convinced Taft to run for the presidency in 1908. He won the election against Democratic candidate William Jennings Bryan. Taft’s tenure as the twenty-seventh President was undistinguished. He was a man with little taste for politics, and he made many blunders throughout his term in office. Although he was a poor president, he was a fine Chief Justice of the U.S. Supreme Court, a position to which he was appointed in 1921, eight years after he left the White House. This appointment fulfilled a life-long ambition, and he performed his job with passion, competence, and enthusiasm.

William Howard Taft was born in Cincinnati, Ohio, on September 15, 1857 to a family that lived in comfortable circumstances. They had migrated to Ohio from New England. Since Taft’s father and grandfather had both served as judges, he also aspired to a career on the bench. In preparation, he began his studies at Yale University, finishing second in his class, and he received a law degree from the Cincinnati Law School in 1880.

Determined to assist the citizens of his state, Taft held many public offices throughout his early career. In 1887 he served as an Ohio superior court judge. Three years later, Taft was named U.S. solicitor general by President Benjamin Harrison (1889–1893), a position he held successfully until 1892 when he returned to Ohio for a seat on the Circuit Court of Appeals.

Taft distinguished himself as a federal judge and developed an ambition to serve on the U.S. Supreme Court. That ambition would have to wait, however, as President William McKinley (1897–1901) requested



William Howard Taft.

in 1900 that Taft become president of the Philippine Commission. Working in the unstable and newly independent Philippine Islands, Taft established a civil government designed to serve the needs of its citizens, established an educational system, built roads and harbors, and pushed rapidly for limited self-government for the people whose islands were “possessed legally” by the United States during the Spanish-American War (1898).

Twice, in 1902 and in 1903, President Theodore Roosevelt offered Taft a seat on the U.S. Supreme Court. Taft regretfully turned it down to fulfill his commitment in the Philippines. A year later, however, Taft did accept Roosevelt’s offer to become Secretary of War. This position still allowed him to be involved

Taft-Hartley Act

with matters in the Philippines and gave him responsibility for the construction of the Panama Canal. In addition to struggling with the problems and expenses of building the canal, Taft supported missions to Japan, hoping to create alliances for the U.S. in the Far East.

As President Roosevelt's term came to an end, he encouraged Taft to seek the presidency. Roosevelt and Taft had become good friends over the course of their careers and Roosevelt was convinced Taft was the best candidate for the job. With apprehension, Taft agreed to be the Republican presidential nominee in 1908, and in the election he defeated the Democratic candidate William Jennings Bryan. Even in victory, the new president still had misgivings, and said that he felt, "just like a fish out of water."

Taft's timid, conservative style alienated many in Congress. His attempt to reduce tariffs met with strong opposition from Republicans, while supporters of the measure were angered by what they perceived as Taft's lack of forcefulness. It was an inauspicious beginning.

The disagreements over tariff reductions set the tone for Taft's administration. Taft was denounced by many in Congress for what appeared to be weakness towards powerful business interests. His administration also seemed to reverse the strong conservationist policies of his predecessor by opening up much valuable government land for lumber and mining interests. He fired the head of the national Forest Service, Gifford Pinchot (1865–1946), who refused to cover up a scandal in the Interior Department.

Working against him in a coalition, Republicans and Democrats in Congress drove through a half dozen reform measures, most of which Taft opposed. The measures included the creation of a graduated income tax, the direct election of senators by the voters, and an increase in the powers of the Interstate Commerce Commission to control business. Taft was also faced with the uncertainties of social reform. Working people faced an increasingly volatile and shifting marketplace, and Taft paid little attention to making the necessary changes that would help stabilize the workplace by regulating relations between newly industrialized workers and growing industrial businesses.

Despite his discomfort in office and his difficulties with the legislative branch, Taft's administration was not without accomplishment. He oversaw the creation of the Postal Savings plan, a program to protect citizens' savings, and the admission of Arizona and New Mexico as new U.S. states. In addition, although Taft's predecessor Theodore Roosevelt had the reputation of a "trust buster," Taft's four years of leadership saw

twice as many trust prosecutions as occurred throughout the eight years of Roosevelt's administration.

The tension between Taft and Congress eventually affected his friendship with Theodore Roosevelt. During the next presidential campaign in 1912, Taft and Roosevelt vied against each other for the Republican nomination. Taft was re-nominated, but in spite of that Roosevelt formed a new party, the Bull Moose Party. He ran against Taft in the election, and their competing campaigns split the Republican vote, giving the presidency to the Democratic candidate Woodrow Wilson (1913–1921).

Taft was relieved to leave White House. Over time, he and Roosevelt reconciled, and their friendship was restored. Taft taught law at Yale University until 1921, when President Warren Harding (1921–1923) named him Chief Justice of the Supreme Court. Taft's long-time ambition was fulfilled. He accepted the post. As Chief Justice, Taft was well respected and performed the functions of his position confidently and enthusiastically. He made no secret of his happiness to be out of the White House and back in the courthouse. Taft served eight years on the bench until his death in 1930, at age 78.

See also: Interstate Commerce Commission, Spanish-American War, Tobacco Trust, Trust-Busting

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TAFT-HARTLEY ACT

The Taft-Hartley Act became law despite President Harry Truman's (1945–1953) veto. Also known as the Labor-Management Relations Act, it passed

Congress in 1947 and established guidelines to correct unions' unfair labor practices.

Taft-Hartley did several things to regulate labor practices in the United States. It prohibited secondary boycotts (in which the workers of a company convince employees of another organization to cease certain dealings with the company in order to pressure the employer to meet their needs) and authorized the payment of damages to parties injured by the boycotts. It abolished closed shops, which required all workers to be a member of a labor union, and did allow for union shops under specified conditions.

In addition, the Taft-Hartley Act established regulations for workers and employers regarding representation and bargaining. Workers now had the option of choosing to organize and bargain collectively or not. Workers gained the power to revoke a union from acting as their bargaining agent. Employers, employees, and unions received new guarantees of free speech. Employers could no longer hire an employee due to union affiliation or lack thereof. The National Labor Relations Board was given the authority to decide settlements for certain jurisdictional disputes. And, collective bargaining agreements became enforceable in federal district court.

The Taft-Hartley Act created a more neutral government stance on labor and unionism. Prior to the act, labor was regulated under a more pro-union policy established in the Wagner Act of 1935. Taft-Hartley allowed for more unbiased regulation of labor and unions while still protecting the rights of employees to be free from employer coercion.

It did, however, place a controversial requirement on unions. All union leaders had to take an oath declaring they were not members of the Communist party. Any union leader who did not take this oath was refused protection under the law. This provision was an early indicator of the "Red Scare" that swept the nation during the 1950s, when the government actively sought and tried citizens for alleged Communist beliefs.

See also: Closed Shop, National Labor Relations Board

TALLMADGE AMENDMENT

The Tallmadge Amendment of 1818 was a failed piece of legislation proposed by New York Representative James Tallmadge Jr. (1778–1853) in an attempt to resolve the question of how the Missouri Territory should be admitted to the Union. When the

House of Representatives began deliberating the Missouri Territory's admission for statehood, the Union was comprised of equal numbers of free and slave states (eleven each). But Missouri threatened to throw off the balance: slavery was legal in the territory and ten thousand slaves lived there. The issue became a serious debate in the House, where the northern free states (due to their higher population of voters) held the majority. In his amendment to the bill granting Missouri statehood, Tallmadge proposed prohibiting the transport of any more slaves into the Missouri Territory. The measure would have let Missouri keep its slave status, but granted freedom to children born to slaves in the state after admission. By Tallmadge's proposal, Missouri's slave status would be temporary—lasting only until the slaves living there at the time of statehood died—because no slaves could be brought in and any offspring would be free. The measure passed in the House but was defeated in the Senate. The issue of Missouri's statehood remained unresolved at the end of the Congressional session. By the time Congress next convened, Maine had applied for statehood, giving lawmakers a neat, albeit temporary, way out of the dilemma of how to preserve balance between the free North and the slave South: By the Missouri Compromise of 1820, Missouri was admitted as a slave state, Maine as a free state.

See also: Missouri Compromise, Slavery

TARBELL, IDA MINERVA

Ida Tarbell (1857–1944) was a biographer and journalist who helped develop the form of journalism known as "muckraking." She exposed the corruption of big businesses, especially those that violated trust laws. She is most famous for contributing to the dissolution of the Standard Oil company, the biggest monopoly of her time.

Ida Tarbell was born on November 5, 1857 in Erie County, Pennsylvania. Her father was a farmer who switched careers with the discovery of oil in Erie County. He established a shop that made wooden oil tanks but was driven out of business by John D. Rockefeller's oil monopoly. Tarbell had a well-adjusted childhood despite this hardship; she was very well educated, graduating from Allegheny College in 1880 with a Bachelor of Arts degree in biology.

Tarbell never pursued a career in science instead she turned to writing. After teaching for two years at Poland Union Seminary in Ohio she became a staff member of *Chautauquan* magazine. The publication was dedicated to self-improvement through home study



Ida M. Tarbell.

and Tarbell eventually became the paper's managing editor. She left the job in 1891 to study in Paris where she pursued history at the Sorbonne and the University of Paris from 1891 to 1894. To support herself while she was abroad Tarbell wrote articles for magazines in the United States.

Tarbell's writing career took off when she met Samuel S. McClure (1857–1949), the creator of *McClure's*, a popular literary magazine. She began writing feature articles on important French figures, including Louis Pasteur (1822–95) and Napoleon Bonaparte (1769–1821). Her eight-part series on Napoleon was successful for both Tarbell and the magazine. The series was later published in 1895 as a book called *A Short Life of Napoleon Bonaparte*, and sold more than 100,000 copies.

Upon her return to the United States in 1894 Tarbell joined the staff of *McClure's* as a writer and associate editor. She wrote a series of articles on

Abraham Lincoln (1809–65), which later became a respected book called *The Life of Abraham Lincoln* in 1900. McClure then began to restructure the format of the magazine to include contemporary social issues. Tarbell and other writers at *McClure's* began to write critical articles about important issues of the day such as corporate trusts. The goal of these articles was to expose corruption and the abuses of public power; these articles served as fuel for Progressivism, a reform movement of that time. President Theodore Roosevelt (1858–1919) was critical of this type of journalism and labeled it "muckraking," a term which stayed with Tarbell for the rest of her career.

SHE LIVES SO WARMLY IN THE HEARTS OF HER FRIENDS THAT THEY TAKE NEW COURAGE IN A DISCORDANT UNIVERSE; ARE REESTABLISHED IN THEIR FAITH IN THE HUMAN RACE, LEARNING ANEW WHAT IT CAN BE, AT ITS BEST.

Ray Stannard Baker, personal diary, 1937

Tarbell's main contribution to this literary movement was her *History of the Standard Oil Company*, which originally appeared in *McClure's* in 19 installments in 1902 and was published as a book in 1904. Tarbell exposed the workings of John D. Rockefeller's oil monopoly. Her writings contributed to the company's prosecution under anti-trust laws and its eventual breakup in 1911. She claimed that she chose Standard Oil as the subject of her research because "it satisfies most nearly the trust ideal of the entire control of the commodity in which it deals" (*History of Standard Oil Company*, 1904). However it is no coincidence that Tarbell chose to write about the same monopoly that ran her father out of business. However, Tarbell's work was well researched and highly regarded despite this personal interest.

In 1906 Tarbell and some of her colleagues had a dispute with McClure and left the magazine to own and operate *American* magazine. Tarbell continued to expose corporate crimes and proclaim the need for honest government. As a result of her work, *The Tariff in Our Times* (1911), President Woodrow Wilson offered Tarbell a position on the Federal Tariff Commission in 1916. Tarbell refused but later participated in Wilson's Industrial Conference in 1919. She also participated in President Harding's Unemployment Conference in 1925. Another important series in *American* was on the history of the women's movement in the United States and her views on this subject were later published as *The Business of Being a Woman*.

American magazine was sold in 1915 and Tarbell spent the rest of her life as a lecturer and freelance writer. She continued writing books about business, but her later works were less critical than earlier ones. Tarbell toured a number of U.S. factories between 1912 and 1915 and was impressed by some of the latest business developments. She was particularly optimistic about the management techniques of Henry Ford. Tarbell also produced two friendly biographies of business leaders called *Life of Elbert H. Gary* (1923) and *Owen D. Young* (1932). She also published a history called *The Nationalizing of Business: 1878–98* (1936).

In 1939 Tarbell published her autobiography, *All in the Day's Work*. She then taught classes in biographical writing and worked as consulting editor of a Tucson magazine called *Letter* from 1943 to 1944. Tarbell died of pneumonia in 1944.

See also: Henry Ford, Monopolies, Muckrakers, Pennsylvania, John D. Rockefeller, Standard Oil, Ida Tarbell, Woodrow Wilson

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TARIFF OF ABOMINATIONS

By the late 1820s the southeastern region of the United States was economically depressed. While the industrial northeast flourished, the agrarian south languished. Many historians now recognize that the soil of the older southern states was worn out and depleted, especially compared to the richer soil of the new Gulf states; at the time, however, many southerners blamed their fiscal ailments on tariffs. Leadership in the fight against the tariff fell to South Carolina, where the

plantation aristocrats enjoyed political power and where the relative decline in prosperity was the greatest.

South Carolina's most eloquent spokesperson was John C. Calhoun (1782–1850), who by the late 1820s had completed his philosophical transformation from ardent nationalist to states' rights advocate. In fact, Calhoun then advocated the ultimate in states' rights thinking—a belief in, and support of, the doctrine of nullification, which Thomas Jefferson (1743–1826) and James Madison (1751–1836) first described in the Kentucky and Virginia Resolutions of 1798. In 1828, while running as a vice presidential candidate, Calhoun anonymously penned the "South Carolina Exposition and Protest," an essay objecting to the Tariff of 1828, known to southerners as the Tariff of Abominations because of its high protective duties. The tariff was intended to protect the burgeoning industries of New England, where numerous factories had opened during the first three decades of the nineteenth century, but encountered much opposition from the south. Calhoun's authorship of the "South Carolina Exposition and Protest" remained secret, and for four years South Carolina did not act upon it, hoping that President Andrew Jackson (1829–1837) would fight for a lower tariff. In "Exposition," and in a later paper called "A Disquisition on Government," Calhoun explained his doctrine of nullification.

Contrary to popular belief, Calhoun did not advocate the secession of the southern states, an event which occurred during the American Civil War (1861–1865). Rather, he believed that nullification would prevent the disruption of the Union, and he saw nullification as an antidote to secession. The basic tenets of his argument were as follows. Each state was sovereign, and the Union was a contract between the states. Each individual state entered into an agreement with the others, and the U.S. Constitution outlined the terms of that covenant. The Constitution provided for a separation of powers between the states and the federal government, but not for a division of sovereignty. For sovereignty was not the sum of a number of governmental powers, but rather the will of the political community, which could not be divided without being destroyed. Prior to the Constitution, the states had been sovereign under the Articles of Confederation, and they had not given up their supreme authority when they joined the new Union. Since the Union had been created by the states, and not vice versa, it logically followed that the creator was more powerful than the created. As the federal government was not supreme, it could exercise only those powers given it by the states as embodied in the Constitution. Should it exceed these powers, the measures enacted would be unconstitutional.

Tariffs

After simmering for four years, the issue of nullification erupted in 1832 over a new tariff. In December 1831, President Jackson recommended to Congress a downward revision of the tariff and the elimination of the worst features of the Tariff of Abominations. Such a bill was finally pushed through in July 1832, but the new tariff was not low enough for the southern planters. Although some of the “abominations” were removed, the general level of the duties was only slightly lower. The greatest reductions were made on noncompetitive manufactured items, and the protective makeup of the tariff was hardly changed.

By mid-1832 South Carolina extremists were ready to put the nullification theory into action. Many denounced the Tariff of 1832 as unconstitutional and oppressive to the southern people. In the subsequent state election that fall the States’ Rights and Unionist Parties made the tariff and nullification the chief issues, and when the States’ Rights Party elected more than two-thirds of the legislature, it promptly called for a state convention. The convention met in November 1832, and by a vote of 136 to 26 the state adopted an Ordinance of Nullification, which declared the Tariffs of 1828 and 1832 null and void. After February 1, 1833, the tariffs would not be collected, and should the federal government forcibly attempt to collect them, South Carolina would secede.

Jackson met this challenge in typical fashion. He boldly proclaimed that the Constitution formed a government, not a league, and that the power of a single state to annul a federal law was “incompatible with the existence of the Union, contradicted by the letter of the Constitution, unauthorized by its spirit, inconsistent with every principle on which it was founded, and destructive to the great object for which it was formed.” Nullification he called an “impractical absurdity,” and concluded that “disunion by armed force is treason.” This proclamation received the enthusiastic support of nationalists. On January 16, 1833, Jackson sent a message to Congress reviewing the circumstances in South Carolina and recommending measures that would enable him to cope successfully with the situation. Tension mounted in February when the Senate passed the Force Bill, which authorized Jackson to use the United States Army and Navy if necessary to enforce the federal laws.

While the Senate was still debating the Force Bill, Henry Clay (1771–1852) brought forward a new compromise tariff bill calling for the gradual reduction of tariff duties over the next 10 years. By 1842 the tariff was not to exceed 20 percent. South Carolinians waited anxiously to see what would happen, for it was already apparent that no southern states were coming to her aid,

and she would have to fight it out alone. Calhoun, who had resigned the vice presidency after the passage of the Tariff of 1832 and had been elected immediately to the Senate, objected to the Force Bill but feared that strong opposition might hurt the chances of reconciliation presented by Clay’s Compromise Tariff. He and Clay worked to push the new tariff bill through Congress, and on March 2, 1833, the same day that the Force Bill was signed into law, Jackson also signed the Compromise Tariff.

Once the Compromise Tariff was passed, South Carolina repealed its Ordinance of Nullification; however, in a last gesture of defiance the convention declared the Force Bill null and void. Jackson ignored this final face-saving move on the part of South Carolina, for the Force Bill was irrelevant if the tariff duties were being collected.

Both sides claimed victory. Nationalists declared that the president and Congress had upheld the power of the federal government, while South Carolina asserted that nullification had proved an effective method of sustaining states’ rights. However, the failure of any other southern state to rally to South Carolina’s defense showed that the doctrine of nullification was unpopular, and from that time forward militant southerners looked to the doctrine of secession as their best redress against economic and political grievances.

See also: Andrew Jackson, South Carolina, States’ Rights, Tariff

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TARIFFS

A tariff is a tax charged on imports either on the basis of quantity (for example, “per ton;” these are

called specific tariffs) or on the basis of their value (called *ad valorem* tariffs). Tariffs are the primary means by which governments protect their industries from foreign competition. Tariffs can be levied directly, as goods cross the border, or indirectly, by requiring that a license or permit be purchased before the goods can be shipped. Tariffs generally serve two purposes: to generate tax revenues and to protect a domestic industry from foreign competition. If a government wants to encourage the growth of a newly emerging industry it can also use tariffs to free these “infant” industries from having to compete with established foreign producers on the basis of price. Because tariffs raise barriers to the free flow of international trade, however, in the long run they tend to impede global economic growth. As a temporary way of raising revenues or protecting an industry they can be effective—at least until other countries retaliate by raising their own tariffs.

The first U.S. tariff, of about 8.5 percent, was levied in 1789 on imports like molasses, hemp, steel, and nails in order to raise revenues for the young U.S. government. By the War of 1812 (1812–1814) the average tariff had risen to 25 percent and continued to rise to as high as 33 percent on imported cotton and wool during the 1820s. Under the Tariff of 1828 tariffs were raised to their highest level prior to the American Civil War (1861–1865). Since the Whig and then the Republican Parties represented the industrial Northeast, they favored raising tariffs, while the Democrats, the party of the slaveholding South, opposed them. When the South seceded in 1860, the Republicans seized power and raised tariffs by 10 percent. In 1882 Congress established a permanent Tariff Commission to recommend changes in tariffs and in 1897 the Dingley Tariff imposed the steepest tariffs rates ever (57 percent) on foreign imports.

When the federal government began to collect income taxes in 1913, tariffs began to lose their importance as a source of government revenue and the last great tariff law was the Smoot-Hawley Act of 1930. In 1934 the Reciprocal Trade Act gave the President independent authority to negotiate tariff reductions with foreign countries. In 1947 the United States joined 22 other countries in signing the General Agreement on Tariffs and Trade (replaced in 1995 by the World Trade Organization), which over the years has successfully worked to lower tariff barriers around the world.

See also: Dingley Tariff, General Agreement on Tariffs and Trade, Smoot-Hawley Tariff

TAYLOR, FREDERICK WINSTON

Frederick Winston Taylor (1856–1915), known as the “Father of Scientific Management,” pioneered the occupation of time study in industrial management. His love for perfection and control, carried arguably to extremes in the industrial workplace, led to his invention of hundreds of ways to increase worker productivity. He believed his efforts would promote harmony between management and labor. As an industrial engineer he introduced efficiency techniques in factory operations which Henry Ford (1863–1947) made famous on his assembly line. Taylor’s ideas were welcomed by those seeking efficiency in production, but denounced by many, including unionists, who feared it would degenerate into a factory “speed up” system, where a worker’s humanity would be diminished and the employee would become merely another cog in the wheel of the factory machine.

Frederick Taylor was born in Germantown, Pennsylvania, on March 3, 1856, the second of three children born to Franklin and Emily Taylor. Taylor’s father was a lawyer and a poet who had inherited considerable wealth from the family’s ownership of farms and other properties in the Philadelphia area. His mother was a staunch abolitionist, working to end slavery in the United States. She was a strict disciplinarian, and she worked to create an orderly environment around her. The young Taylor adopted much of his mother’s thinking about order and control. An example of such desires to control his environment was demonstrated at age 12—he suffered from frequent nightmares, which he believed were caused by sleeping on his back. To prevent this he put together a harness device that would wake him up if he rolled onto his back.

Taylor attended the private Germantown Academy while living in Pennsylvania, and at age 13 he traveled with his parents to Europe. He spent three years there, studying under tutors in France and Germany. When Taylor returned to the United States in 1872, he was enrolled at the Phillips Exeter Academy, a private college-preparatory school in New Hampshire. He left the Academy in his senior year, claiming problems with his eyesight. He never went on to college but instead he began to work as a machinist; he embraced the work ethic vigorously and seemed to prefer working at a job rather than spending his time at college.

Taylor completed an apprenticeship as a machinist and began to work for Midvale Steel Co. in Philadelphia, Pennsylvania. While working at Midvale, he

Tecumseh, Death of

pursued a self-study program in mechanical engineering from the Stevens Institute and graduated with an engineering diploma in 1883 at age 27. He became the chief engineer at Midvale Steel and obtained a patent for his invention of the largest steam hammer ever built in the United States. Later, in 1898, while working at Bethlehem Steel Corp., Taylor and a colleague, J.M. White, invented the Taylor-White process—a method for the heat treatment of tool steel. This process yielded increased cutting and hardness capacities of 200 to 300 percent, and by the late 1990s was used in practically every machine shop in the world. Yet it was scientific industrial management that Taylor adopted as his primary occupation. In 1903 he started as a self-employed industrial consultant, specializing in managing businesses with the greatest time-cost efficiency.

Taylor promoted his ideas about efficiency engineering of both people and machine processes that would help speed up work. He likely did not realize his ideas would be used to claim management was making the employee into a kind of dehumanized robot. Such reforms in manufacturing as Taylor advocated became known as “Taylorism.” According to Taylorism, by scientific study (time-management study) of every step and operation in a manufacturing plant, data could be obtained as to the fair and reasonable production capacities of both man and machine. The application of that data in an effort to increase productivity would abolish the antagonism between employer and employee. For five years Taylor successfully applied his theory in a variety of establishments, administrative and sales departments, and shops.

Convinced of the correctness of his theory, Taylor devoted the remainder of his life to expounding those principles. He often gave his services free of cost, and wrote a book promoting his ideas on efficiency engineering titled *Principles of Scientific Management*. He also traveled extensively, lecturing about his theory.

Taylor’s legacy has been controversial. In the early twentieth century he personified the efficiency movement of modern management. In the 1930s and 1940s he was known as the creator of modern industrial work methods, and by mid-century he became targeted by social scientists that said his methods were dehumanizing. (The 1970s regarded his methods often as ways to exploit employees.) Overall, Taylor and his supporters are likely best recalled for their work in publicizing the possibilities of a careful, systematic approach to industrial time-and-motion study to enhance industrial efficiency.

Frederick Taylor died in 1915, at age 59. He left an estate of over \$1 million, all of which he earned in his lifetime.

See also: Productivity

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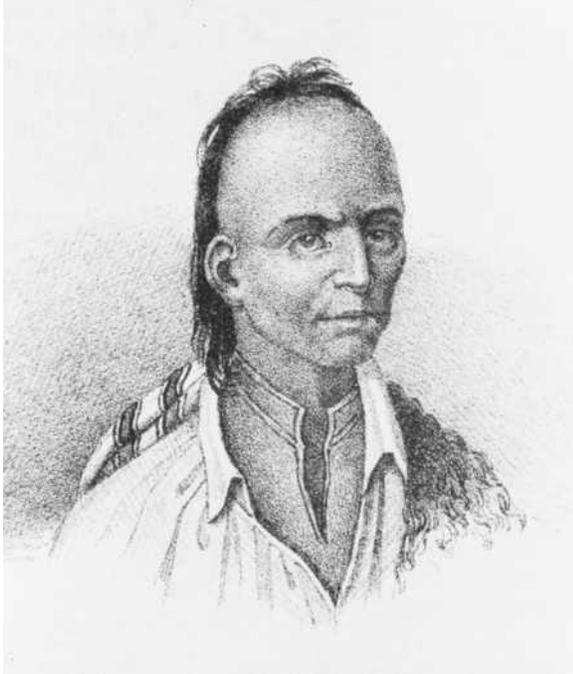
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TECUMSEH, DEATH OF

Tecumseh was born in a Shawnee village, Old Piqua, on the Mad River of Ohio, in 1768 near present-day Springfield, Ohio. He was the fifth of nine children; his father, a Shawnee warrior named Puckeshinewa, was killed in a 1774 battle, and his mother, Methoastake, moved west of the Mississippi River with Creek relatives five years later. Tecumseh remained in Ohio country with an older sister, Tecumapease, and raised her in the tradition of his culture.

By age 14 Tecumseh found himself fighting Americans alongside his older brother, Chiksika, leading the Native American resistance to the continued spread of white settlement in the Ohio River valley. As he matured, Tecumseh became an acknowledged and respected leader. He also gained recognition arguing for humane treatment of American captives. During a series of raids against frontier settlements in Kentucky and Tennessee in the late 1780s and early 1790s, Chiksika was killed. Outnumbered, Tecumseh and his followers suffered a series of defeats in Ohio, leading to the Treaty of Greenville in 1795. The treaty ceded most of modern-day Ohio, leaving Native American control over the remaining parts of the Old Northwest Territory. Tecumseh, however, refused to participate in or recognize the treaty, asserting that those who participated did not have authority to sign away the



Tecumseh, Chief of the Shawnee.

land. He carried this traditional concept of communal land ownership with him into later days.

Following defeat in Ohio and after several moves within Ohio and Indiana, in 1798 Tecumseh settled in a village on the White River of eastern Indiana, near the modern-day town of Anderson. There, one of Tecumseh's younger brothers, Tenskwatawa, experienced a series of visions in 1805. Tenskwatawa became a powerful religious leader, especially after successfully predicting an eclipse in 1806. They relocated to a village near present-day Greenville, Ohio, where Tenskwatawa preached a native revitalization, offering to rescue Native American people from impending doom. Known as the Prophet, Tecumseh's brother espoused alcohol abstinence and the pursuit of a traditional way of life, which included repudiation of Western society's goods and customs. Many were receptive to the message, given the ongoing demise of their traditional economies, and his following increased. With many Native Americans coming to Tecumseh's village to see his famous brother, Tecumseh's political activism grew. He transformed the revitalization concept into a political movement that embraced the idea of communal property regarding native lands. In 1808 Tecumseh and Tenskwatawa again relocated their village, this time to the confluence of the Tippecanoe and Wabash Rivers, which became known as Prophetstown.

Tecumseh clashed with Indiana Territorial Governor William Henry Harrison (1773–1841) over the

1809 Treaty of Fort Wayne, which ceded yet more traditional lands. Meanwhile, Tecumseh's prominence rose to new heights. Relentlessly, he journeyed throughout much of the United States encouraging tribal groups to form a political confederacy, a pan-Native American federation, to stop the further loss of lands. An outstanding orator, Tecumseh argued that Native American land could not be given away without common consent of all Native American peoples. He took his message to the South where, though the Cherokee and three other Five Civilized Tribes rejected his call, the Creeks were responsive. While Tecumseh met with the Creeks in November 1811, the U.S. Army led by Harrison moved against Prophetstown. The resulting Battle of Tippecanoe destroyed the village and its food supply and sent Tecumseh's brother in flight to Canada.

While Tecumseh recovered from his terrible loss, the War of 1812 (1812–1814) broke out between the United States and Great Britain. He and his followers joined British troops in Michigan, where together they successfully captured Fort Detroit. Further engagements with U.S. troops followed in southern Michigan and northern Ohio. Tecumseh joined forces with British commander Henry Proctor, laying siege to Harrison's Fort Meigs. The siege failing, Tecumseh reluctantly accompanied Proctor in a retreat to Canada, where Harrison pursued them. Tecumseh was shot and killed at the Battle of the Thames in present-day southern Ontario in October 1813.

The death of Tecumseh marked the end of Native American resistance in the Ohio River valley and efforts at pan-tribal unity, a political concept alien to traditional Native American lifestyles. U.S. victories throughout the following year under the leadership of Andrew Jackson (1767–1845) broke the Native American hold on lands east of the Mississippi River. The following decades saw implementation of Jackson's removal policy, a plan to forcibly relocate Native Americans west of the Mississippi. Yet, the widespread admiration of Tecumseh's skills as a leader and orator, plus his bravery and humanitarianism, have established him as an American folk hero.

See also: **Fallen Timbers (Battle of), Native American Policy**

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TELEGRAPH

The telegraph was the first communicational instrument that could send messages through wires via electricity. Though the invention was the result of several decades of research by many people, American inventor Samuel F.B. Morse (1791–1872) is credited with making the first practical telegraph in 1837. Morse was a portrait painter in New York City when he became interested in magnetic telegraphy in around 1832. With technical assistance from chemistry professor Leonard Gale (1800–1883) and the financial support of Alfred Vail (1807–1859), Morse conducted further experiments and finally developed a battery-powered instrument that provided the necessary steady source of electricity. He also developed Morse code, a system of variously arranged dots and dashes for transmitting messages. (For example, the most frequently used letter of the alphabet is *e*, which is rendered in Morse code by using one dot; the less frequently used *z* is rendered by two dashes followed by two dots.) By 1837 Morse had demonstrated the telegraph to the public in New York, Philadelphia, and Washington. He received a patent for his invention in the United States in 1840. In 1843 his telegraph was further promoted when the U.S. Congress approved construction of an experimental line between Washington, D.C., and Baltimore, Maryland. The following year, on May 24, 1844, Morse sent his first message across that line: “What hath God wrought!” Alfred Vail was on the receiving end of the wire.

By 1861 most major U.S. cities were linked by telegraph wires. The first successful trans-Atlantic cables were laid in 1866. Morse Code transmissions—called telegrams when transmitted via above-ground wires and cablegrams (or cables) when transmitted via underwater cables—were translated by operators or mechanical printers on both the sending and receiving ends of the message. The introduction of the telegraph marked the beginning of modern communications. When the first transcontinental telegraph line in the United States was completed on October 24, 1861, it

eliminated overnight the need for the Pony Express, which had briefly enjoyed the status of the fastest way to transmit a message—about eight days from St. Louis, Missouri, to Sacramento, California, a distance that could be bridged by telegraph lines within minutes. The telegraph became the chief means of long distance communication. The telephone (invented 1875), which allows voice transmission over electrical wires, gradually replaced the telegraph. But for many decades the two technologies were in use together.

See also: Samuel Finley Breese Morse, Pony Express, Transatlantic Cable

TEMPERANCE MOVEMENT

With milk and water susceptible to contamination and spoilage in colonial times, many settlers turned to alcoholic beverages. Beer and wine were common on ships carrying colonists from Europe. Consequently, most colonists drank alcohol regularly beginning in childhood, and alcohol was key to almost every social gathering. Even church leaders commonly sanctioned moderate alcohol use. Following the American Revolution (1775–1783), distilled spirits such as whiskey became important commercial goods. With Americans drinking large quantities of liquor, concern about alcohol consumption existed from the nation's birth.

Predominantly led by evangelical Protestants, isolated pockets of opposition to the sale and consumption of distilled beverages began to coalesce by the 1810s. By the end of the War of 1812 (1812–1814), a radical temperance movement developed consisting of many denominations; Presbyterians, Quakers, Western Methodists, and people of other faiths united in a concerted effort to transform traditional social patterns. One such group, the Connecticut Society for the Reformation of Morals, formed in 1813. An early focus of the evangelical leaders was individual self-reform through abstinence to save the conscience and family harmony. In contrast, elite urban residents of property in the Northeast, who formed such groups as the Massachusetts Society for the Suppression of Intemperance, took a more conservative approach. They focused more on suppressing consumption by the lower economic classes to maintain social order and reduce crime.

The temperance movement blossomed nationally over the next decade, with the creation of the American Temperance Society in 1826. Auxiliary groups were established in every state with thousands of local organizations. The economic transition from an agrarian to an industrialized society more demanding of efficiency and scheduling very likely contributed to

The standard view that abstinence was a response to industrialization and the growth of a market economy must be carefully qualified. Such developments undoubtedly contributed to the growing receptiveness of temperance in the 1820s, but they cannot account for the origins of the movement's ideology . . . In the future we must examine carefully the long-ignored moral societies that dotted the American landscape during the 1810s . . . and the hopes and fears of average evangelicals.

James R. Rohrer, "The Origins of the Temperance Movement: A Reinterpretation", *Journal of American Studies*, August 1990

popularization of the movement. Transitioning from temperance to prohibition, the Society crusaded for complete abstinence from strong spirits. Under "divine" guidance, the national movement produced volumes of literature, including a number of journals dedicated to temperance. Through the 1830s total alcohol consumption plummeted from more than seven gallons per capita annually to slightly more than three. Dissension grew, however, with many favoring temperance rather than complete abstinence from wine, beer, and stronger spirits. Though momentum flagged in the 1840s, it was regained in part through the efforts of the Washington Temperance Society and the emotional lectures of John B. Gough and others. Marking a peak in the nineteenth century temperance movement, 13 of the 40 existing states had passed prohibition laws by the inception of the American Civil War (1861–1865).

The temperance movement shifted into national politics with the formation of the National Prohibition Party in 1869; in 1874 the Woman's Christian Temperance Union (WCTU) was founded. The Prohibition Party saw modest success in state elections through the 1870s and peaked in national popular support in 1892 with a presidential candidate. Its primary success was the influence of public policy to support temperance movement issues.

Following an 1888 U.S. Supreme Court ruling that key provisions of state prohibition measures violated federal interstate commerce laws, however, alcohol consumption burgeoned. The Anti-Saloon League, later considered by many to be the most effective temperance organization, was founded in 1893 by representatives of various temperance organizations and the evangelical Protestant churches. A powerful political lobby, the League worked within the existing political

parties to support candidates sympathetic to governmental control of liquor.

The combined influence of the Anti-Saloon League, the WCTU, and the Prohibition Party in 1917 led to a wartime prohibition measure which quickly transformed into the Eighteenth Amendment of the Constitution. The amendment prohibited the manufacture, sale, transport, exporting, and importing of liquor in the United States. The states ratified the amendment by January 1919. Congress passed the Volstead Act, which provided for amendment enforcement, later in 1919 over the veto of President Woodrow Wilson (1913–1921). Prohibition went into effect January 1920, marking the twentieth century peak of the movement. For 13 years the nation was legally dry. Nevertheless, the demand for alcohol continued, giving rise to great disrespect for the law and extensive illegal activity, including smuggling, speakeasies, bootlegging, and a multibillion dollar criminal underworld. Widespread popular support did exist, however, and drinking habits altered substantially throughout the country, leading to a marked decline in alcohol-related accidents and deaths. Concerns grew through the 1920s about increasing police powers to enforce the amendment and intrusions into personal privacy.

In the end, legislators concluded that Prohibition was too oppressive and unenforceable. The Twenty-First Amendment, which repealed Prohibition and nullified the Eighteenth Amendment, quickly proceeded through ratification, becoming official in December 1933. The Volstead Act was rendered void, and individual states again became the arena for alcohol regulation. The renewed production and sale of alcohol served to bolster the depressed economy of the early 1930s by adding jobs and tax revenue.

Attitudes about alcohol consumption have fluctuated through time. Temperance again became an issue later in the twentieth century, as alcohol consumption peaked around 1980. New organizations, such as Mothers Against Drunk Driving, addressed alcohol-related topics such as traffic deaths, health problems, juvenile crime, and fetal alcohol syndrome.

See also: Eighteenth Amendment, Prohibition, Twenty-First Amendment

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TENANT FARMING

Tenant farming is a system of agriculture whereby farmers cultivate crops or raise livestock on rented lands. It was one of two agricultural systems that emerged in the South following the American Civil War (1861–1865); the other system was sharecropping. The South in economic ruin, former plantation owners were now without slave labor and lacked resources to hire wage laborers. They began dividing up their land and arranging the tracts to be farmed by one of these two methods. In 1860 there were just under 700,000 farms in the South; in 1910 the division of the former plantations resulted in more than three million farms.

A tenant farmer typically could buy or owned all that he needed to cultivate crops; he lacked the land to farm. The farmer rented the land, paying the landlord in cash or crops. Rent was usually determined on a per-acre basis, which typically ran at about one-third the value of the crop. At the end of the harvest the landowner would be paid one-third the value of the crops or would receive one-third the crops directly from the farmer. While this system was superior to that of sharecropping and many sharecroppers aspired to being tenant farmers, the method also had its downfalls. Tenant farmers frequently found themselves in debt to the landowner. At the beginning of a planting season, the farmer would secure store credit based on the crop's expected yield. If conditions were poor or market prices for the crop decreased, the farmer became indebted to the storeowner and to the landowner (which was often the same person). Another consequence of tenant farming was the deterioration of the land; since it did not belong to them, many farmers were not motivated to do ample upkeep or make

improvements, thus, farms tended to deteriorate. However some tenant farmers proved successful and ultimately moved off rented lands to purchase their own tracts. Generally, however, this was not the case and the system, along with sharecropping, proved to be a failure.

See also: Reconstruction, Sharecropping

TENEMENTS

Tenements (also called tenement houses) are urban dwellings occupied by impoverished families. They are apartment houses that barely meet or fail to meet the minimum standards of safety, sanitation, and comfort. Emerging in U.S. cities during the late 1800s, tenements took many shapes and forms: multistoried buildings, row houses, frame houses, and even converted slave quarters.

Between 1870 and into the early 1900s, U.S. population growth (buoyed by immigration in record numbers) outpaced construction. Housing was scarce, particularly for working-class families. In unprecedented numbers people crowded into the low-rent districts of cities, including New York, Baltimore, Philadelphia, Boston, Chicago, St. Louis, Charleston, and New Orleans.

Living conditions were deplorable: Built close together, tenements typically lacked adequate windows, rendering them poorly ventilated and dark, and they were frequently in disrepair. Vermin were a persistent problem as buildings lacked proper sanitation facilities.

The plight of tenement-dwellers became the object of reformers who waged campaigns with government to pass laws requiring landlords to meet certain standards of safety and sanitation. Legislation was passed (New York became the first state to adopt legislation in 1867, which was furthered in 1879 and 1901), but the laws did not require owners to retrofit existing buildings to comply with the new regulations.

Some improvements came as a result of scientific and technological advances, including water purification and sewage disposal systems; steel-frame construction, which made tall buildings (including skyscrapers) possible and allowed for a more efficient use of limited urban space; electric lighting; electric elevators; and steam heat. While the lives of many working class families improved with the expansion of the economy, many others remained in poverty. With their

attendant problems of crowding, disrepair, lack of sanitation, and crime, tenements have continued to exist.

See also: Slums, Urbanization

TENNESSEE

Admitted to the Union as the sixteenth state on June 1, 1796, Tennessee is located in the eastern south central United States. It shares borders with Arkansas and Missouri in the west, Kentucky and Virginia in the north, North Carolina in the east, and Mississippi, Alabama, and Georgia in the south. Geographically, Tennessee is the country's thirty-fourth largest state, spreading across 42,000 square miles. Its population of approximately 5 million people ranks seventeenth among the 50 states. Memphis is the state's most populous city, and Nashville is its capital.

The eastern and western valleys of the Tennessee River separate the state into three regions: east Tennessee, middle Tennessee, and west Tennessee. Forming just east of Knoxville, the river loops 350 miles south into Alabama, and then streams north to join the Ohio River at Paducah, Kentucky. The Appalachian Mountains and its Blue Ridge range dominate the landscape of east Tennessee. Middle Tennessee is a broad and fertile area that covers about half the state, rolling gradually toward the rich bottomlands and hardwood forest of west Tennessee.

The most industrialized part of the state is east Tennessee, where motor vehicles, boats, and aircraft parts are manufactured by businesses that derive power from hydroelectric dams created by the Tennessee Valley Authority (TVA). The federal government's atomic energy research and development center is also located in east Tennessee at Oak Ridge. Middle Tennessee largely consists of farmland for the harvesting of tobacco, corn, and hay; the raising of cattle; and the production of dairy goods. Mining is also a major source of income for residents of both east and middle Tennessee. West Tennessee is home to some of the biggest cotton farms in the South.

Tennessee's early history was intertwined with that of the Cherokee peoples. In fact, the name "Tennessee" derives from the word *Tanasi*, a name the Cherokee gave to a village on the Little Tennessee River. In the eighteenth century the Cherokee allied themselves with Great Britain, fighting alongside British forces against the 13 colonies during the American Revolution (1775–1783). When America won its independence, most Cherokee settled in the area of what

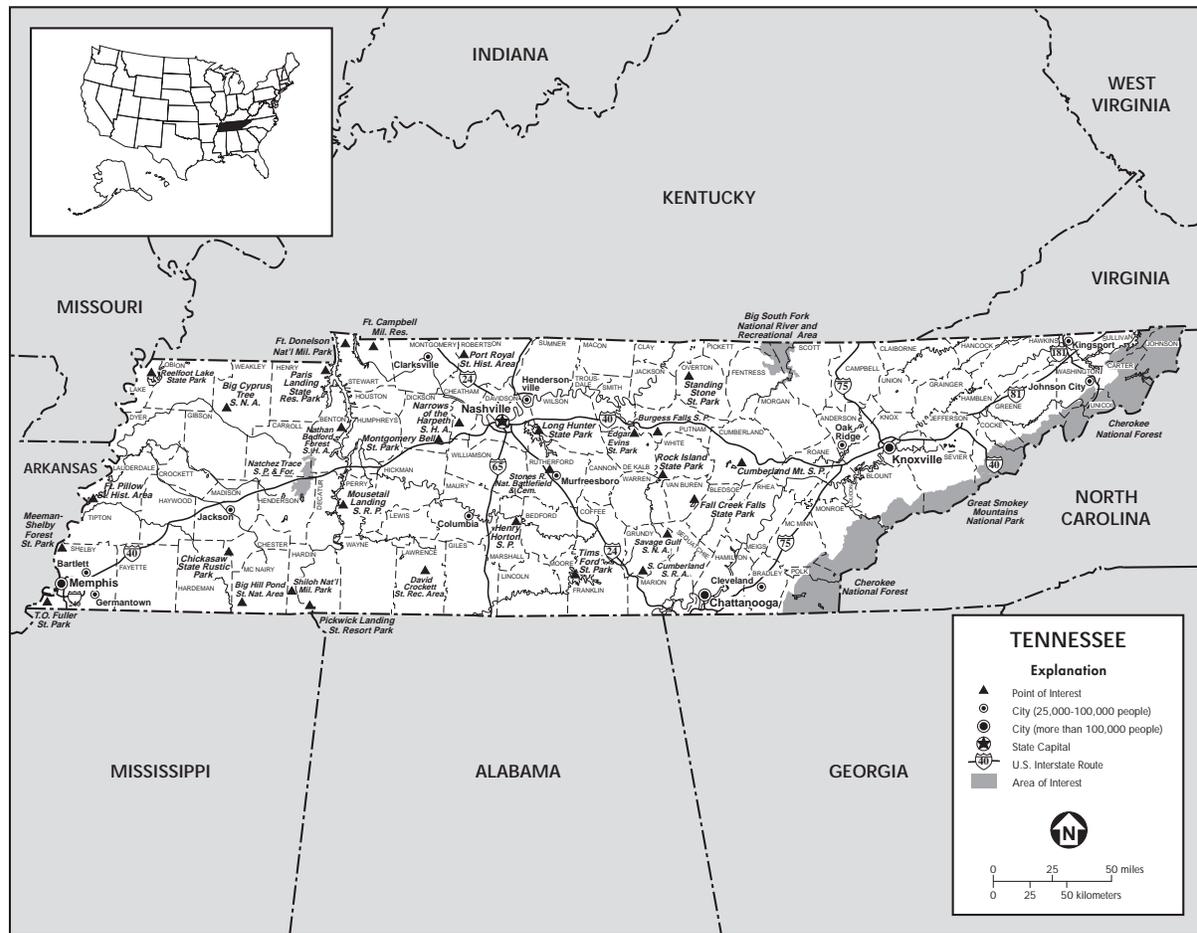
became modern-day Chattanooga. The Cherokee prospered in this area, owning plantations and developing an 85-character table of syllables that was used to print a weekly newspaper. But seven years after the 1828 gold rush in Tennessee, the Cherokee were coerced into signing a treaty under which they surrendered all legal claims to land in the region. In 1838 federal troops forcibly uprooted the Cherokee from their Tennessee homelands and drove them into the Arkansas Territory. Thousands of Cherokee were killed during the relocation, and thousands more suffered great hardship in what has been called the Trail of Tears.

The demise of the Cherokee in Tennessee coincided with the rise of Andrew Jackson (1829–1837) to the U.S. presidency. A former Democratic Congressman and Superior Court judge from Tennessee, Jackson served two full terms. In 1844 another former Democratic Congressman from Tennessee, James K. Polk (1845–1849), was elected president. Although Polk served only one term in office, his administration was responsible for increasing the amount of territory held by the United States by about 50 percent—acquiring the Oregon Territory from Britain and annexing Arizona, California, Nevada, New Mexico, Texas, Utah, and parts of Colorado, Kansas, Oklahoma, and Wyoming from Mexico.

A third former Tennessee Congressman, Andrew Johnson served as vice president in 1864. A year later he assumed the duties of chief executive following President Abraham Lincoln's (1861–1865) assassination. Johnson's first two years in office were consumed by the aftermath of the American Civil War (1861–1865). The war had left the South in ruins. Tennessee, which was the site of more Civil War battles than any other state except Virginia, was particularly devastated, and recovery was slow. Nonetheless, Tennessee was the first state to return to the Union when the war ended, and several northern investors fed capital into the state's industries and cities.

The Civil War ended slavery in the South, but it did not resolve race problems in Tennessee. Turmoil between African Americans and whites in the state continued well into the next century. In the 1860s six former Confederate Army officers from Pulaski, Tennessee, founded a terroristic white-supremacist organization called the Ku Klux Klan (KKK). In the 1870s the state adopted a constitutional provision requiring public schools to be segregated by race. Over the next 50 years the Tennessee legislature enacted a series of so-called Jim Crow laws that segregated the races in other sectors of society. Although the system of state-sponsored racial segregation would be dismantled by the U.S. Supreme Court's 1954 decision in *Brown v.*

Tennessee



State of Tennessee.

the Board of Education and in the federal Civil Rights Act of 1964, white vigilantes continued terrorizing blacks in the South. The Reverend Dr. Martin Luther King, Jr. (1929–1968) was slain by one such gunman on April 4, 1968, while doing civil rights work in Memphis.

Although much of the history of the state is tragic, Tennessee had become a popular tourist attraction by the late twentieth century. Forty million tourists spent approximately \$8 billion each year while visiting the state in the 1990s. Native American exhibits, Civil War battlefields, and a national civil rights museum are among the sites frequented by visitors to the state. Smokey Mountain National Park, the Graceland mansion of Elvis Presley, TVA recreational areas, and bluegrass music festivals are also popular. The Grand Ole Opry nationally broadcasts country-and-western music from Nashville.

Tennessee's unofficial nickname is the Volunteer State, which recognizes the many residents who have served in America's armed forces during times of war

and international conflict. Tennessee has also been called the Monkey State, a reference to a 1925 trial. A high school biology teacher from Dayton was convicted and fined \$100 for teaching Charles Darwin's theory of evolution in violation of a state law mandating that schools teach the *Bible's* story of creation. The case attracted nationwide attention, featuring three-time presidential candidate and fundamentalist preacher William Jennings Bryan (1860–1925) as prosecutor against celebrated defense attorney and avowed atheist Clarence Darrow (1857–1938). During the 1990s Tennessee became widely known as the home of Vice President Albert Gore (1993–), whose family owns a farm in Carthage.

See also: Appalachian Mountains, Tennessee Valley Authority, Trail of Tears

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TENNESSEE VALLEY AUTHORITY

The Tennessee River, the largest tributary to the Ohio River, drains approximately 41,000 square miles of the eastern United States. With its headwaters in southwestern Virginia, the river flows southwesterly through Knoxville, Tennessee, dipping into northeastern Alabama before turning westward across the full length of the state then northward through western Tennessee into western Kentucky where it meets the Ohio River. The watershed also includes parts of North Carolina, Georgia, and Mississippi.

At the beginning of the twentieth century, the Tennessee River area was one of the poorest in the nation. Floods regularly inundated much of the region in late winter and early spring, logging had stripped the hills of forests, and poor farming techniques led to exceptional topsoil erosion rates. Many rural settlements had no electricity. The population was steadily dwindling as people left seeking employment.

During World War I (1914–1918) the U.S. government built two nitrite plants and a hydroelectric dam on the Tennessee River at Muscle Shoals, Alabama for munitions production. Following the war, the project was largely neglected. Nebraska Senator George Norris lobbied extensively for government operation of the unused facilities for local benefit. Congress twice passed legislation, in 1928 and 1931, only to be vetoed by Presidents Calvin Coolidge (1923–1929) and Herbert Hoover (1929–1933).

With newly-elected President Franklin D. Roosevelt (1933–1945) and Congress tackling a dramatic round of New Deal reform legislation early in 1933, known as the Hundred Days, Norris reintroduced his legislation. Opportunities for large-scale government

The Tennessee Valley Authority is . . . the most ambitious regional development project ever undertaken by the United States government. . . . It encompassed dam construction, flood control, navigation, power generation and distribution, agricultural development, industrial development, resettlement, housing, community development, and indirectly, health and education. . . . Roosevelt regarded the TVA as the first step towards a system of national planning . . . Franklin Roosevelt had intended TVA to be the first of many regional authorities.

Higgins, Benjamin, "The American Frontier and the TVA," *Society*, March/April, 1995.

planning projects offering employment relief keenly interested Roosevelt. The President took Norris' bill and dramatically enlarged the scope of it. The resulting Tennessee Valley Authority Act of 1933 created an unprecedented strategy of regional government planning and development. A novel concept, the newly created Tennessee Valley Authority (TVA) was conceived as an independent corporate agency, a federally owned corporation combining the power of government with the flexibility of private business. The act created a three-member board, appointed by the President, to oversee the autonomous program.

The development of TVA was shaped to a substantial degree by its first administrative board. Arthur Morgan, Harcourt Morgan (no relation), and David Lilienthal argued about the focus and purpose of the agency while it faced court challenges from opponents. Arthur Morgan, the first chairman, wanted to emphasize planning and efforts to eliminate poverty and he wanted electric rates to be set at levels comparable to private industry. Lilienthal was a strong supporter of public ownership and he wanted the agency to compete aggressively with private power companies. Harcourt Morgan, who opposed government planning, allied with Lilienthal and thus TVA emphasized dams for flood control navigation and power generation. In 1936 the Supreme Court upheld the agency's authority to generate and sell electricity at Wilson Dam and in 1939 it held that the agency was constitutional. By then Roosevelt had dismissed Arthur Morgan as chair of the TVA board due to the feuding among the board members and he appointed Harcourt Morgan in his place. When Lilienthal became chairman in 1941, TVA was the leading producer of electricity in the entire nation; that position the agency has maintained.

Designed to be administered through integral regional management, the TVA began with the construction of multipurpose dams and reservoirs. Eventually, a system of forty-two dams affected the economies of seven states. With the increased demand for electrical power, the TVA began constructing steam-generating facilities in the 1940s. By the 1970s large steam plants, fed with coal from extensive strip mining operations, produced over 80 percent of TVA's power. In 1959 the TVA power program became self-financing, running at a profit in the 1960s as the nation's largest electricity producer. Since that time, the TVA paid dividends and repayments to the U.S. Treasury and made payments to states and counties in place of taxes.

During World War II (1939–1945) TVA completed additional dams to generate electricity for aluminum manufacture and the initially secret atomic facilities at Oak Ridge, Tennessee. In keeping with the agency's integral approach to problems, the completion of the dams also completed a 650 mile navigation channel that connected eastern Tennessee with the Ohio River and then down the Mississippi to the sea. The system today includes twenty-nine hydroelectric dams on the Tennessee River and its tributaries.

TVA's efforts led to electrification and a great deal of economic development of what had been a rural backward area during the 1930s and 1940s. By the 1950s demand for electricity in the region exceeded the capacity of the agency's hydroelectric dams. In 1959 Congress authorized TVA to issue bonds to fund the construction of coal-fired plants, using the extensive coal reserves of the region. In the late 1990s TVA operated eleven coal-fired power plants. TVA's power operations were also made self-supporting and federal funds were appropriated only for the non-power areas of the agency. The region continued to experience significant growth in industry and population.

The availability of abundant power at low rates attracted many businesses and industry to the region. To enhance commercial traffic and recreation, the TVA dredged the Tennessee River from its mouth upstream and created a navigation channel over 600 miles in length. The new system of inland waterways greatly facilitated the hauling of coal, construction materials, petroleum, forest products, and grain. By the 1960s per capita income had risen dramatically and population decline had ended due to hundreds of thousands of new jobs

Besides successfully bringing rural electrification and power for businesses to an area twice the size of the Tennessee Valley, other significant TVA programs included flood control, soil conservation, agriculture

education through demonstration farms, fertilizer research and production, and recreational developments including the 170,000 acre "Land Between the Lakes" recreational area.

Through its early years, the TVA maintained a respected image promoting a popular image of progress. The TVA became a model for other nations, particularly developing Third World nations. However, increasing attacks over environmental issues grew in the 1960s. But TVA ran into problems in two areas: For one thing, the rise of the environmentalist movement brought a consciousness of the cost to the natural surroundings of such a large and ambitious project. Many considered the TVA a symbol of heavy-handed human conquest over the environment including initial population displacements and removal of thousands of acres of rich bottomlands from potential agricultural production through reservoir flooding. The Tellico Dam construction led to a highly publicized confrontation over environmental issues. A major violator of the Clean Air Act, the TVA spent \$1 billion to remove sulfur dioxide emissions from its 12 coal-burning plants and for strip mine reclamation.

Another problem arose with the project to build nuclear facilities to produce electrical power. In the 1960s TVA began construction of several nuclear power plants to meet expected future growth in demand for power. These plants were plagued with problems and cost overruns, some due to the changes in the regulatory environment after the incident at Three Mile Island. Several of the plant projects were abandoned and not completed; three were completed and they remain in operation. The nuclear plants added significantly to TVA's debt and they also renewed opposition to the agency. Safety issues soon arose, triggering a Nuclear Regulatory Commission investigation in 1975. Back on track as a national pacesetter in nuclear plant construction, fourteen plants were under construction by the early 1980s at the cost of over \$1 billion annually. Few actually became operational and the TVA was left in debt for billions of dollars by the 1990s.

In spite of these problems, in many ways the TVA was remarkably successful in achieving its original objectives of economic development in a severely depressed region. The TVA's electricity production was also useful as a "yardstick" gauge of the reasonableness of rate-requests charged to consumers by other utilities across the nation. Some observers note that this was the aspect of the system that earned it the enmity of the public utilities. Private utility companies saw the TVA as a threat and unsuccessfully challenged its constitutionality before the Supreme Court.

Roosevelt had envisioned similar authorities in many other river basins. However, the political climate was never again conducive to such projects. Congress was unwilling to grant such autonomy to a federally funded organization. A living legacy of the New Deal, TVA remained the most ambitious development project ever undertaken by the federal government.

See also: New Deal

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TEXAS

Texas, or the Lone Star State, is known for the strength and character of its people, who have overcome various difficulties. As the economy has waxed and waned, Texans—very much dependent on ranching, farming, and oil production—have stood tall to overcome any adversity that has come their way.

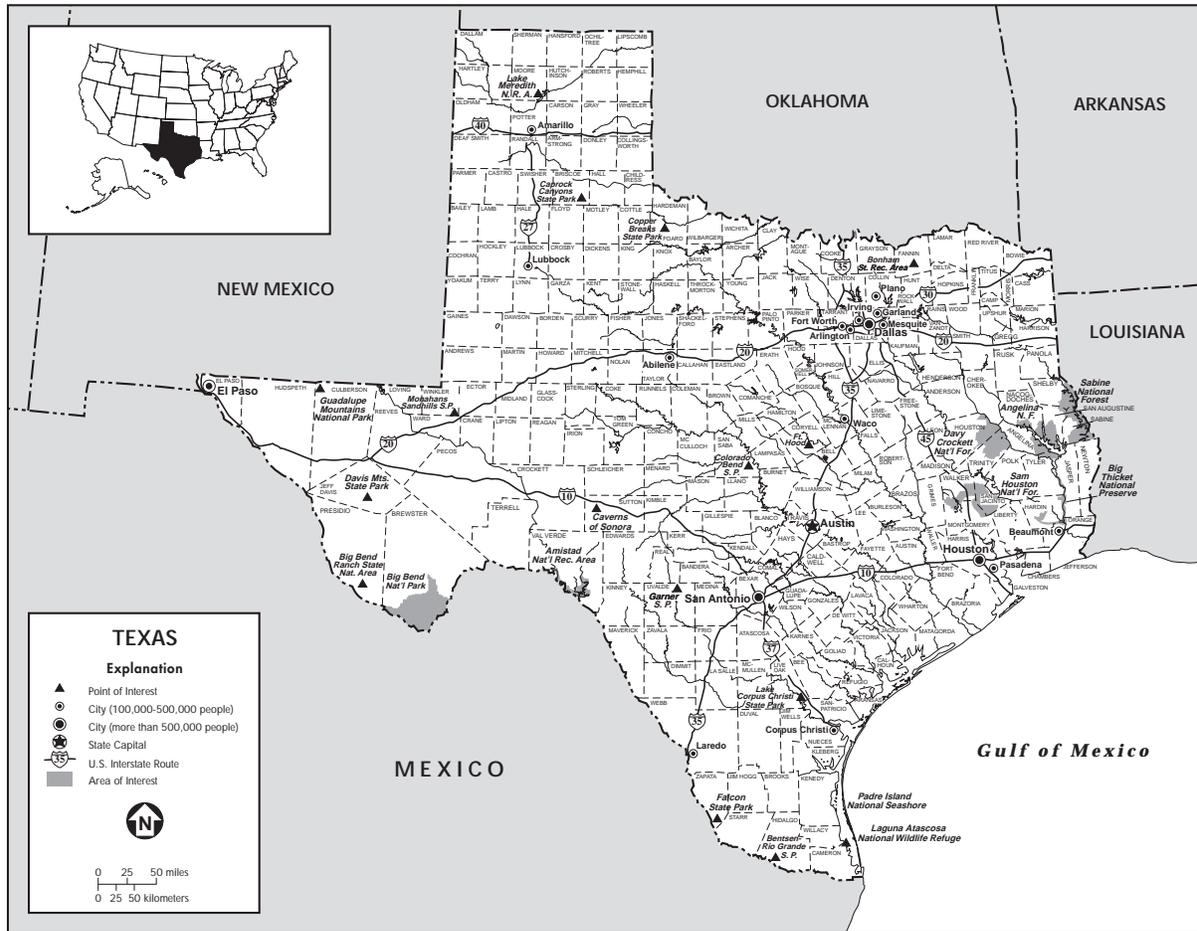
In the 1600s the Spanish were the first to settle in Texas along the San Antonio River, where they established forts and churches. The Spanish taught the Native Americans who lived in the area about Christianity, and the Native Americans taught the Spanish how to farm the land and grow crops.

In 1689 a Spanish explorer named Captain Alonso de Leon left behind a cow and a calf at each river he came across during his expeditions through central and eastern Texas. When the Spanish left some of their missions, they left the cows to roam free on the land. These herds of cattle thrived on the Texas grasslands. Throughout Texas, the Spanish established large cattle ranches, each owned by a *hacendado*, who lived a privileged life. The *vaquero*, or cowboy, worked hard on the ranch for meager meals and a place to sleep. The Spanish established sheep ranches in Texas as well, and these rural estates have also had an impact on the state's economy.

Before the Louisiana Purchase in 1803, the United States took no interest in Texas land. When the Louisiana Territory became part of the United States, however, Texas became a next-door neighbor. In 1820 Moses Austin, a Missouri businessman, convinced the Spanish government to allow him to establish a colony in Texas. Austin's plan was to farm the rich soil along the Brazos River near what is now known as Houston. Upon their arrival in Texas, the colonists learned that Spain had been overthrown and a new government of Mexico ruled Texas. Over the next few years pioneers from Tennessee and other southern states migrated to Texas. They worked hard and fared well. As the number of such colonists grew, they demanded to have a greater influence on the policies and laws set forth by the Mexican government.

In 1835 war broke out as Texas successfully fought for independence from Mexico. After the war, the colonists of the new Republic of Texas faced the challenges of rebuilding their land and businesses. Because roads were not adequate, it was difficult to ship goods in and out of Texas. What's more, the Republic's government had no money. In order to attract newcomers, the government gave away huge tracts of land to settlers. The government also established the homestead-exemption law, which stated that those who fell delinquent on debt payments could not lose their land.

Between 1836 and 1847 the population of Texas quadrupled, with most of the new settlers coming from the United States. Many other settlers came from Germany, Belgium, France, England, Ireland, and Sweden to work on cattle ranches and cotton plantations. In



State of Texas.

1836 a few cities emerged in eastern and central Texas. San Antonio grew to become the largest town in Texas, and Galveston, founded in 1836, became the main port for shipping cotton.

Mexico still considered Texas a colony and threatened to declare war on the United States if it moved to allow Texas to become a state. Mexico held true to its words when, in 1845, the United States approved the statehood of Texas. The two-year war between the United States and Mexico (the Mexican War, 1846–1848) resulted in a peace treaty that forced Mexico to give up all claims on the American Southwest, as well as California.

During the years following the American Civil War (1861–1865) the state government’s treasury was again depleted. The state’s economy before the war depended on the land—and on the slaves who worked on the land. After the war, land prices dropped and, since slaves were free, labor was scarce. Nonetheless, the 4 million longhorn cattle roaming the ranges of Texas provided another source of income for the ailing

economy. The cattle, a source of tallow, hide, and food, could be sold for \$40 a head in the north. In 1866 large-scale cattle drives began in Texas, as more than 250,000 cattle were driven northward to market. For three to six months cowboys pushed the cattle toward their destination: railroad depots in Kansas or Missouri. The cattle-drive period lasted about 20 years. By the 1880s expanded railroads helped to transport the cattle, and such drives were no longer necessary.

IN TEXAS, OIL IS THE TAIL THAT WAGS THE WHOLE ECONOMY.

Professor Bernard Weinstein, Southern Methodist University

After the Civil War the U.S. population began to push westward, forcing Native Americans to move to reservations in Oklahoma. Within 30 years the population of the Texas Great Plains grew to exceed 500,000. Though rainfall was scarce, there were great reserves of underground water in Texas and a constant breeze.

These conditions led to the use of windmills for power and water.

By 1890 railroads crisscrossed the state. Three major railroads connected western and eastern Texas, the surrounding states, and the country's East and West Coasts. While the railroads provided efficient transportation, the costs remained relatively high for the ranchers and farmers until the Texas Railroad Commission was established to regulate freight rates.

Texas's economic base changed forever in 1901, when an oil gusher was discovered in Spindletop Hill just south of Dallas. News of the well traveled fast, and an influx of oil workers and engineers tripled the population almost overnight. From Spindletop, oil businessmen spread out to other cities looking for more. By the end of the year the government had issued more than five hundred charters to oil companies. In 1930 drillers discovered the biggest crude oil pool in the country in Rush County near Kilgore. At this site C.M. Joiner, who was drilling an exploratory well, founded the East Texas Oil Fields, an underground lake of crude oil that measured 40 miles long and between three and 10 miles wide.

Naturally, oil had a major impact on the state's economy. Farmers who discovered oil on their property became rich. Some laborers invested their savings on prospective wells only to turn up sand. Spin-off businesses developed to provide drilling equipment, tank cars, and pipelines. The industries brought people from the farms to the cities, leading to a more than 20 percent increase in city dwellers between 1900 and 1930. Other industries also flourished. During the 1920s new irrigation methods and farming equipment opened areas of the state for cotton growing, and production exploded. Texas produced more than a million bales of cotton in 1926, compared to only 50,000 bales in 1918.

The Great Depression (1929–1939) struck the country in the late 1920s, however, putting more than 300,000 Texans out of work. Many farmers suffered from drastically reduced cotton prices, and a drought in the Texas Panhandle caused farmers and ranchers to leave their homes. Attempts to establish relief programs for the poor and conservation programs for farmlands added to the state's financial difficulties.

World War II (1939–1945) helped to turn around the state's economy. Oil wells provided more than half of the petroleum for the nation during the war, and manufacturing jobs tripled as factories built aircraft, ships, and other goods for the war effort. After the war more than 60 percent of Texas's population lived in urban areas, and Texas remained a major ship and

aircraft producer. These industries would remain important to the state's economy for years to come.

Another discovery made in Texas has led to the advancement of technology around the world. In 1958 Jack Kilby, an employee of Texas Instruments in Dallas, made a finding that led to the production of the silicon chip, enabling the development of handheld calculators, personal computers, and other miniaturized electronics.

Even though Texas's industry and agriculture were strong, the state's economy rose and fell according to the oil market during the 1970s and 1980s. When oil sold for more than \$30 per barrel in the 1970s and early 1980s, the economy in Texas boomed, growing more than 6 percent a year—more than twice the national average. The high oil prices led to easy cash flow: Investors built high-rises in Dallas and Houston, and credit was easily extended. But in the late 1980s oil prices crashed to less than \$14 per barrel due to overproduction. Construction stopped, several banks needed federal assistance to remain in business, and more than 20 percent of office space in Dallas and Houston stood vacant as thousands lost their jobs. As Professor Bernard Weinstein of Southern Methodist University stated, "[i]n Texas, oil is the tail that wags the whole economy."

In order to make up the \$100 million in revenues that the government estimated it had lost for every \$1 decline in the price of a barrel oil, the government raised fees on everything from vanity license plates to day-care centers. It also made efforts to attract new business to Texas, particularly high-tech companies. In 1986 oil prices again began to climb. The revived oil market, along with Texas's newly established high-tech businesses, helped to stabilize the state's economy by the 1990s.

From 1991 to 1996 total personal income grew in Texas by 20.2 percent, while the nation's growth was about 15 percent during the same period. In 1995 the median household income in Texas was \$32,039. That same year, however, 17.4 percent of Texans were living below the federal poverty level.

See also: Cattle Drives, Longhorn Cattle, Petroleum Industry, Westward Expansion

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TEXAS ANNEXATION

During the early colonization of North America by European countries, Spain claimed a vast area of the Southwest including present-day Texas, New Mexico, Arizona, and California. However, few Spaniards actually settled in these areas and by 1820 only 3,500 non-Indian people occupied the entire region. San Antonio de Bexar, the Spanish capital of Texas, itself had only 800 residents. With the U.S. acquisition of the Louisiana territories from France in 1803, U.S. presence along the Mississippi River corridor posed a threat to the nearby Spanish claims. In an effort to hold off further U.S. expansion, Spain used the land of Texas as a buffer. Local Spanish authorities recruited some 300 U.S. citizens to accept low-priced land in exchange for maintaining loyalty to Spain. After some initial problems, the new settlers finally arrived in 1822 only to find that Mexico had gained independence from Spain (in 1821). However, the original land-grant agreement for the U.S. citizens was accepted by the new Mexican government.

Through the next several years more U.S. settlers filed into Texas than Mexico had anticipated and the buffer region was becoming a threat itself. By 1830 Mexican settlers were far out-numbered with over 15,000 white settlers and 1,000 black slaves living in Texas. The later settlers were generally disrespectful of the relatively ineffective Mexican rule. In an effort to discourage further settlement, Mexico attempted to abolish slavery and to stop further immigration from the United States. Mexico also boosted its military presence which further spurred a clamor for Texas independence.

Finally, open rebellion by Texas settlers occurred in October of 1835, with events escalating quickly. A siege of Texas volunteers by Mexican troops in the early San Antonio Spanish mission of the Alamo began in December, resulting in a climatic Mexican victory in March of 1836. While the Alamo was under siege, a group of Texas delegates drafted a Texas constitution

The annexation of Texas is but another name for the perpetuity of slavery; and we who now enjoy the rights and hold the soil of the Union, must bid farewell forever to the hope of relieving ourselves from the danger, the odium, and the disgrace inseparable from this pernicious institution.

Theodore Sedgwick, an opponent of Texas annexation

patterned after the U.S. Constitution and proclaimed independence. Following other Mexican military victories in early 1836, the Texas volunteers struck back at San Jacinto in April, winning a stunning victory and capturing the Mexican head of state, General Antonio Lopez de Santa Anna. The Texans forced Santa Anna to grant independence, but the Mexican government later reneged, claiming that the act had been coerced. In addition, the United States was unwilling to annex Texas despite a referendum vote in 1836 among Texas settlers overwhelmingly favoring annexation. Consequently, for almost a decade Texas was an independent nation.

There were several reasons for the United States' unwillingness to accept Texas' request to be admitted to the Union. Most importantly, Texas was a slave state with its eastern portion heavily committed to cotton cultivation. Its annexation would upset the delicate balance of 13 slave states and 13 non-slave states currently making up the country. The United States, additionally, did not wish to further aggravate their political relationship with Mexico. Moreover, the common perception of U.S. citizens was that Texas' population largely consisted of undesirables. And again, in 1838 Congress defeated a bill to annex Texas.

As Texas was burdened by a huge debt following its independence and as it had no industry, Texas President Sam Houston implemented settlement policies encouraging immigration from the United States and Europe. Free land was offered, and consequently the immigrant population grew from 35,000 settlers in 1836 to 147,000 by 1846. An agrarian slave-based cotton economy flourished on the fertile soils along the rivers and it led to creation of a planter aristocracy concentrating economic wealth in the hands of a very small minority. Texas cotton attracted higher prices in Europe than Southern United States cotton. With the decline of slave-based agriculture in the U.S. border states such as Maryland and Kentucky, slavery-based

economies were moving southwestward toward the deep South and Texas.

However, certain other economic and political developments began to catch the attention of the United States. Texas had established diplomatic relations with several nations, including Britain and France. Those two nations saw an independent Texas as an inhibitor to U.S. expansion. Mexico, who had thoughts of retaking the largely defenseless new nation, became convinced that the continued existence of the Texas Republic might actually serve as a buffer against U.S. expansionism as originally sought. The United States saw Texas' growing ties to European countries as a significant threat to its future expansion. In addition, despite its financially troubled status, Texas began expressing its own expansionist desires. While Texas already included parts of present-day New Mexico, Colorado, and Arkansas, in 1842 the Texas congress voted to extend Texas' boundaries all the way west to the Pacific Ocean to what was later California and some parts of northern Mexico.

Finally, with rising U.S. concern over Texas' future, lame-duck President John Tyler (1841–1845) submitted a treaty of annexation to Congress. The proposal immediately became an 1844 presidential election issue. An ardent proponent of annexation, James K. Polk (1845–1849) won the election, but before he could be inaugurated, Congress voted for annexation in 1845. Texas officially became part of the United States on December 29, 1845. Terms of the annexation agreement were generous to the new state, with Texas retaining all of its public lands and the United States paying \$5 million to ease its debts.

Long term benefits to the United States for Texas annexation were significant. The annexation led quickly to war with Mexico in 1846. The victorious United States came away with control of the American Southwest and California through the Treaty of Guadalupe in 1848. The slave-based cotton production boomed as the number of slaves in Texas increased from 12,500 in 1840 to almost 170,000 in 1860. Besides the cotton trade, Texas became the king of the cattle industry in the nineteenth century and later a major oil producer. Texas annexation also rounded out the borders of a truly transcontinental United States.

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TEXAS COMPANY

The Texas Company was founded during the early boom years of the Texas oil industry. In 1901 a gusher at the Spindletop oil field sent hundreds of entrepreneurs into Beaumont, Texas. Pumping out as much as 100,000 barrels a day, the Spindletop wells led to the rapid establishment of over 200 oil companies. Among the entrepreneurs who came to Texas was Joseph S. “Buckskin Joe” Cullinan, an oilman who had begun his career working for Standard Oil Company in Pennsylvania. Cullinan saw an opportunity in purchasing the crude oil for resale to refineries. With the help of New York investment manager Arnold Schlaet, he formed the Texas Fuel Company with an initial stock of \$50,000. Cullinan and Schlaet began soliciting additional investors in New York and Chicago. After raising three million dollars, they reorganized their venture as the Texas Company.

Cullinan immediately began construction on a pipeline between Spindletop and the gulf coast of Texas. He built a refinery at the Texas coastal city of Port Arthur, and from there the company shipped its oil to Louisiana sugar planters, who used it to heat their boilers. In the fall of 1902 salt water leaked into the Spindletop wells, ruining many of the companies based there. The Texas Company survived with a timely discovery of oil at Sour Lake, 20 miles northwest of Spindletop. Other oil strikes soon followed in Oklahoma and Louisiana.

With Cullinan's oil expertise and the financing of his New York backers, the Texas Company soon became one of the nation's most prominent oil companies. Cullinan continued to drill wells in the southwest region, building more pipelines to connect them with Port Arthur. By 1908 the company was selling oil to all but five western states, and by 1913 its assets were worth \$60 million. The nickname “Texaco” came from the cable address of the company's New York offices. “Texaco” gained popularity as a product

Texas Company

name and in 1906 the company registered it as a trademark. The well-known logo first appeared in 1909 as a red star with a green “T” in the center.

At the time of the Texas Company’s founding, oil was used primarily for lighting and as fuel for factories and locomotives. The Texas Company met this demand with its first consumer product, Familylite Illuminating Oil, introduced in 1907. After 1910, however, the automobile revolutionized the oil industry. Demand for gasoline, formerly considered a waste byproduct of kerosene, expanded rapidly. The Texas Company followed this trend and by 1914 its gasoline production surpassed that of kerosene. The company went from distributing gasoline in barrels to underground tanks to curbside pumps, and in 1911 it opened its first filling station in Brooklyn, New York. By 1916 57 such stations were in operation across the country. Powered by the growth of the automobile industry and the high demand for petroleum created by World War I (1914–18), the Texas Company quadrupled its assets between 1914 and 1920.

After World War I the Texas Company continued to concentrate on its automotive gasoline and oil production by introducing new products and expanding its national sales network. In 1920 two researchers at the company’s Port Arthur refinery developed the oil industry’s first continuous thermal cracking process for making gasoline. Named after its founders, the Holmes-Manley process greatly increased the speed of the refining process as well as the amount of gasoline that could be refined from a barrel of crude. The Texas Company marketed this gasoline through its retail network, pushing into the Rocky Mountain region between 1920 and 1926 and into West Coast markets in 1928, with the acquisition of the California Petroleum Company.

Products introduced during the 1920s included the company’s first premium gasoline as well as Texaco Aviation Gasoline and automobile motor oils. To market the lighter oils it refined from Texas crude, the Texas Company launched its first nationwide advertising campaign. The slogan “Clean, Clear, Golden” appeared at the company’s filling stations, which displayed its motor oils in glass bottles. By 1928 the Texas Company owned or leased more than 4,000 stations in all 48 states.

The company’s growth was also reflected in its corporate structure. Finding Texas’s corporation laws too restrictive for doing business on such a large scale, the Texas Company decided to move its legal home. In

1926 it formed the Texas Corporation in Delaware, which then bought out the stock of the Texas Company and reorganized it as a subsidiary called the Texas Company of Delaware. The company also moved their headquarters from Houston to New York. The Texas Corporation acted as a holding company for the Texas Company of Delaware and the Texas Company of California—formerly the California Petroleum Company—until 1941, when it merged with both to form a single company known as the Texas Company.

The Texas Corporation’s earnings reached an all-time high in 1929, but they dropped precipitously after the stock market crash in October of that same year. Overproduction, economic recession, and low prices plagued the oil industry in the early 1930s. The company embarked on a strategy of introducing new products to stimulate demand. Texaco Fire Chief Gasoline was launched in 1932 and the company advertised it by sponsoring a nationwide Ed Wynn radio program. Havoline Wax Free Motor Oil, developed after the acquisition of the Indiana Refining Company in 1931, followed two years later and by 1934 it halted the Texas Corporation’s losses. In 1938 the Texas Corporation introduced Texaco Sky Chief premium gasoline and also began promoting its Registered Rest Rooms program, assuring motorists that their service stations were “Clean across the Country.”

The entry of the United States into World War II (1939–45) brought dramatic changes for the Texas Company. About 30 percent of its wartime production went to the war effort, primarily in the form of aviation fuels, gasoline, and petrochemicals. The company worked closely with Harold L. Ickes, federal petroleum administrator for the war effort, who organized the nation’s oil companies into several nonprofit operations. The Texas Pipe Line Company, a subsidiary, oversaw the completion of two federally sponsored pipelines from Texas to the East Coast. The Texas Company also joined War Emergency Tankers Inc., which operated a collective tanker fleet for the War Shipping Administration. Another such venture was the Neches Butane Products Company, which manufactured butadiene, an essential ingredient in synthetic rubber. This enterprise gave the Texas Company its start in the infant petrochemicals industry.

With the end of World War II the Texas Company faced renewed customer demand at home. In 1947 U.S. consumption of oil exceeded its production for the first time; the company reacted by tapping new foreign sources for its crude oil. The Texas Company formed the Trans-Arabian Pipe Line Company with three other

oil companies to build a pipeline connecting Saudi Arabia's oil fields with the eastern Mediterranean.

In 1959 the Texas Company changed its name to Texaco Inc., formally taking on its longtime nickname. By the end of the twentieth century Texaco was one of the world's largest oil companies, with exploratory, manufacturing, and marketing operations located around the globe.

See also: Exxon, Andrew Mellon, Petroleum Industry, Standard Oil

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TEXTILE INDUSTRY

Although comprised of highly skilled craftsmanship the textile industry was essentially a cottage industry until the Industrial Revolution. The American textile industry was a direct product of the British factory system when Samuel Slater introduced the first cotton-spinning mill in 1790 in Pawtucket, Rhode Island. This change marked the beginning of New England's transformation from an agricultural region to a manufacturing one producing the modern forms of ownership, management, and big business. The factory system's emphasis on the individual worker was a major shift in the early U.S. labor system and it came to characterize U.S. industrial and social development.

In the 1790s Samuel Slater and his partner Moses Brown founded the firm of Almy, Brown, and Slater. Slater constructed machines based on the Arkwright model, a water-powered mill invented in the 1700s by Richard Arkwright. The business flourished and additional mills were constructed in Massachusetts, Rhode Island, and Connecticut. Slater altered the British system so that his firm would function effectively within the social and moral structure of the time. He focused

on partnership and single proprietorship, on personal management, small-scale production, the use of water power, and the employment of family labor. From this system emerged a division of labor based on gender and age. Men were typically employed in supervisory capacities, as farm hands and laborers or as skilled artisans. Children and adolescents also worked in the mills while adult women remained at home. The children, often as young as seven or eight, would earn as little as 25 cents per week, and all wages would go directly to the head of the household. Hundreds of manufacturers throughout New England and the Mid-Atlantic states followed Slater's example and his mode of operation.

The Slater system was not the only factory form which developed during the early nineteenth century. In 1813 Francis Cabot Lowell introduced the use of power looms at his Boston Manufacturing Company in Waltham, Massachusetts. These operations combined the spinning of yarn and the weaving of cloth. Lowell employed women and girls who often lived in boarding houses built by the company. Historians have often labeled the Lowell style as the first form of big business in America. This was due to the large-scale, incorporated nature of these ventures, which were also characterized by professional management. The company operated from Waltham, Massachusetts, until 1823 when it relocated operations to Lowell, Massachusetts. The Lowell companies benefited from the tariff of 1816, which imposed a 25 percent tariff on imported cotton and woolen goods. This made them a financial success with profits reaching 20 to 24 percent annually.

A downturn occurred in the textile industry beginning in 1829 resulting in wage cuts. A labor strike ensued in 1834, which was one of the first forms of collective action taken by industrial workers. In response mill owners resorted to immigrant labor, hiring French, Canadian, Italian, and Irish workers to replace the native-born labor force. Strikes and riots in the 1840s reflected disputes between labor and management over the use of immigrant workers. Given these conditions in conjunction with the depression of 1836 through 1844, the textile industry struggled and labor won few victories during these years.

For much of the nineteenth century the Northeast remained the center of the textile production; cotton, woolen, linen, and thread output in this area was rising. In the 1880s, however, a major shift in location began to occur. Cotton mills became the symbol of the New South and mill towns sprang up in the Piedmont region from Virginia to Georgia and into Alabama. Small textile mills focused on small-scale production and

Textile Industry



The textile industry was essentially a cottage industry until the Industrial Revolution and huge mills took over the bulk of textile manufacturing.

paternalistic practices by the owners. Mill agents and superintendents controlled these southern mill towns, with the company providing jobs, houses, food, clothing, and goods. The work force was drawn from the countryside and conditions were harsh. Attempts were made in the 1880s and 1890s to organize southern mill workers, but strikes were ineffective due to the generally poor conditions of the national economy.

In the early twentieth century conditions in the textile industry continued to be precarious, particularly in the North. The Industrial Workers of the World organized major strikes in 1912 and 1913 in Patterson, New Jersey, and Lawrence, Massachusetts. However, labor remained unable to make a major impact on management's long range operations. If labor grew too powerful in one area the firms simply moved to another location where cheaper labor could be hired. The introduction of synthetic fibers such as nylon and rayon also affected the industry. This greatly impacted the design of fashions and ultimately subjected textile producers to the whims of fashion designers and consumers. In addition, there was increasing international competition to be acknowledged—particularly from Japan. This led to many manufacturers shutting down

production or moving south. By the 1920s New England textile towns had fallen into a depression.

While the textile industry struggled through this crisis the Great Depression (1929–39) effectively removed the industry from a central place in U.S. manufacturing. However, while many of the dominant textile companies of the early twentieth century went bankrupt, some thrived after World War I (1914–18). The most important of these, Burlington Mills, prospered remarkably during and after the Great Depression. Spencer Love founded the company in 1923 when it employed two hundred workers. In 1933 there were 6,900 employees and by 1962, at the time of Love's death, the company employed over sixty thousand people. These figures present a stark contrast to the fate of numerous other textile companies; the survival and growth of Burlington Mills can be attributed almost entirely to the management expertise of Spencer Love. The success of this company relied not only on the recurring theme of relocation of factories to areas of cheaper labor, but also on Love's understanding of the basic restructuring of the textile industry during his lifetime. When artificial and synthetic yarns started to displace the natural fibers of cotton, wool,

and silk, Love protected his company by extensive diversification and the creation of a multidivisional infrastructure that linked manufacturing with sales. He also promoted greater control over his goods by integrating external services into his company. The most significant factor affecting the success of Burlington Mills was Love's aggressive management style, which was not bound to any particular tradition or plan. He kept the company profitable by experimenting with new products, new machinery, and progressive marketing strategies.

While other sectors of the manufacturing environment such as the steel, chemical, and automotive industries experienced significant expansion, the textile industry did not. The "managerial revolution" that occurred within high throughput companies such as DuPont or General Motors simply never happened in the textile industry. Spencer Love was an anomaly, attempting to transform the traditional textile industry via integration, diversification, and multidivisional structure. Unfortunately, many of the difficulties that had plagued this industry since its beginning were still in evidence in the late 1990s.

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THIRTEENTH AMENDMENT

Proposed on January 31, 1865, and ratified on December 6, 1865, the Thirteenth Amendment abolished slavery throughout the United States. It stated that "neither slavery nor involuntary servitude, except as a punishment of crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction." On

January 1, 1863, in the middle of the American Civil War (1861–1865), President Abraham Lincoln (1861–1865) issued the Emancipation Proclamation. It was an authority based on congressional acts, and it gave the president authority to confiscate rebel property and forbid the military from returning slaves of rebels to their owners. It therefore addressed only the rebelling southern states and did not resolve the issue of slavery for the nation as a whole. The Thirteenth Amendment (the first of the three so-called "Civil War Amendments") prohibited slavery throughout the country. The Fourteenth and Fifteenth Amendments extended the rights of citizenship to all people regardless of race or color.

See also: Civil War (Economic Causes of), Civil War (Economic Impact of), Emancipation Proclamation, Slavery

THOMAS, NORMAN MATTOON

Norman Mattoon Thomas (1884–1968) was the leader of the Socialist movement in the United States for more than four decades. He ran unsuccessfully for U.S. President on the socialist ticket six times. He also wrote numerous books, articles, and pamphlets touting the benefits of socialism and criticizing American capitalist society.

Norman Thomas was born on November 20, 1884 in Marion, Ohio, the son of a Presbyterian minister. He studied political science at Princeton University and then studied for the ministry at Union Theological Seminary. It was there that Thomas was introduced to the reform-minded Social Gospel Theology of Walter Rauschenbusch and the teachings of Christian Socialism. Thomas was ordained a minister in 1911 and became pastor of the East Harlem Presbyterian Church in New York.

During World War I (1914–1918), Thomas joined the Fellowship of Reconciliation, an organization of reformist and pacifist clergyman. He established a magazine for the group called *World Tomorrow*. In 1917 Thomas joined Roger Baldwin in founding the Civil Liberties Bureau—which later became the American Civil Liberties Union (ACLU)—to protect conscientious objectors who were trying to avoid military service.

In 1918 Thomas resigned from the church and became actively involved in the Socialist party. He served as associate editor of *The Nation* and became co-director of the League for Industrial Democracy, the educational branch of the Socialist party. When the

Tidewater

head of the Socialist party, Eugene V. Debs (1855–1926), died in 1926, Thomas became his successor.

As leader of the Socialist party, Thomas spoke out in favor of public ownership and the democratic management of the country's industries, national resources, and transportation. He also supported a public employment system, unemployment insurance, a five-day workweek, and a minimum wage. Thomas ran for president on the socialist ticket six times between 1928 and 1948. His most successful campaign was in 1932, when he earned 884,781 votes.

Despite Thomas' enthusiasm and dedication, the Socialist party gradually lost supporters during his tenure. Many of the party's ideas had been incorporated into President Franklin D. Roosevelt's (1933–1945) New Deal, and there was mounting dissension within the Socialist Party over the proper role of the United States in foreign affairs. Thomas retired from politics in 1948, though he continued to publicly support causes such as world peace, nuclear disarmament, and crusade against poverty. Although many people did not agree with his views, Thomas was nonetheless a well-respected political figure until his death on December 19, 1968.

See also: Socialism

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TIDEWATER

Virginia's Tidewater is in the eastern part of the state and consists of the low-lying region along the Atlantic Ocean which surrounds Chesapeake Bay. The area is roughly 100 miles (160 kilometers) wide and is

crisscrossed by rivers and inlets which fill when the tide rises in the Atlantic. Salt marshes and swamps are also prevalent. The area includes the Eastern Shore, the peninsula that extends southward from Maryland and juts out between Chesapeake Bay (on the west) and the Atlantic (on the east). During colonial times an aristocratic culture emerged here that became highly influential in Virginia colonial politics between 1607 and 1710. The interests of the wealthy Eastern Shore families were often in direct opposition to those of the back country settlers. In 1676 these conflicting views resulted in Bacon's Rebellion, which pit frontiersmen headed by back country leader Nathaniel Bacon (1647–76) against the Virginia militia organized by English Colonial Governor William Berkeley (1606–77). The rebellion was put down after Bacon died of dysentery. Berkeley, who had always been favorable toward the Tidewater power-bloc, was recalled to England by the king for his action.

See also: Back Country, Virginia

TIMES MIRROR CO.

The Times Mirror Company was first incorporated in 1884 as the parent company of the *Los Angeles Times*; this collaboration was founded in 1881 by the *Los Angeles Daily Times* and its printer, the Mirror Printing and Binding House. The company was founded by Civil War veteran General Harrison Gray Otis—who had moved to California and made a fortune in real estate—and Colonel H. H. Boyce. Otis bought out Boyce two years later and then became the newspaper's president, general manager, and editor-in-chief.

Los Angeles was a small, sleepy town in the late nineteenth century, and the *Times's* circulation was less than 7,000 in 1890. In 1894 Henry Chandler became Otis's son-in-law. The two men would run the newspaper until Otis's death in 1917, whereupon Chandler would become president, general manager, and publisher of the *Times* for three decades. Descendants of Otis and Chandler would hold a controlling interest in the Times Mirror Company throughout the twentieth century.

At the beginning of the twentieth century the *Times* could boast it carried more advertising than any other newspaper in the world. By 1905 annual gross revenues topped \$1 million. Throughout the century the newspaper grew with the city it served, publishing its first article on movie making in 1909 and its first movie review in 1913. (From 1922 to 1927 it even owned and operated the first commercial radio station in Los Angeles County.) The newspaper was known

for its right wing, anti-union stance, and the company succeeded in keeping unions out of the *Times* in spite of a union-planted bomb that destroyed the *Times* building in 1910. The *Times* achieved notoriety in 1935, when it ran faked photos of pro-unionist author Upton Sinclair (1878–1968), who was running for governor of California.

Norman Chandler, Henry Chandler's son, became general manager in 1936, president and general manager in 1941, and assumed the title of publisher when his father died in 1944. That year the company also began publishing *The Mirror*, a tabloid-sized afternoon daily. In 1948 Times Mirror acquired its newsprint supplier, Publishers Paper Company, which was based in Lake Oswego, Oregon. Additionally, the newspaper company co-owned, along with CBS, television station KTTV. The station made its first telecast, the Rose Parade from Pasadena, California in 1949. The next year Times Mirror bought out CBS's interest in the station, and the *Times* began printing a daily television schedule.

At the end of the 1950s circulation of the *Times* stood at an average of 500,000 daily and 900,000 on Sundays. In addition to owning the *Times*, *The Mirror*, and KTTV, Times Mirror was active in paper manufacturing and commercial printing. As well, KTTV was renamed Times-Mirror Broadcasting Company once Times Mirror achieved full ownership in 1959.

In 1960 a period of acquisitions began for Times Mirror as Otis Chandler, grandson of Henry Chandler, succeeded Norman Chandler as the fourth publisher of the *Times*. The company ventured into book publishing when it acquired The New American Library in 1960. For the first time more than half of the company's net income came from non-newspaper sources. Annual revenues were more than \$112 million, up from over \$97 million the previous year.

Numerous acquisitions made in different areas of book and information publishing during the 1960s included Jeppensen and Co. (1961), a leading publisher of air navigation information (which became Jeppensen Sanderson in 1984); H. M. Goush Company (1961), a producer of travel maps; legal publisher, Matthew Bender and Co. (1963); The World Publishing Company (1963), publisher of *Webster's New World Dictionary*; The Sun Company (1964), publisher of the *San Bernardino Sun-Telegram*; Year Book Medical Publishers (1965); art book publisher Harry N. Abrams, Inc. (1966); and medical publisher The C. V. Mosby Company (1967). During the decade the company also purchased several lumber and pulp companies for its newsprint operations. In 1964 its stock

became publicly traded on the New York and Pacific Exchanges.

By 1966 the *Los Angeles Times* was the nation's largest standard-size metropolitan newspaper in weekday circulation. In 1967 Times Mirror branched out into magazine publishing with the acquisition of *Popular Science* and *Outdoor Life*, followed by *Golf* and *Ski* magazines in 1972, all of which led to the creation of Times Mirror Magazines. In 1969 the company entered cable television with the purchase of CoAxial Systems Engineering Company in Palos Verdes, California, with a base of 5,700 subscribers and seven cable franchises.

As the *Los Angeles Times* passed the one million mark in weekday circulation in 1970, its parent company continued to acquire newspapers, magazines, television stations, cable companies, printing companies, publishers, and other businesses throughout the decade. In 1972 the Times Mirror became the largest publicly held publishing company in the United States, based on revenues and net income. By 1977 operating revenues exceeded \$1 billion. Key acquisitions made during the 1970s included Long Island's suburban newspaper, *Newsday* (1970); the *Dallas Times Herald* (1970); Long Island Cablevision Corporation (1970); KDFW-TV in Dallas (1970); KTBC-TV in Austin, Texas (1973) (purchased from former First-Lady Lady Bird Johnson); The Sporting News Publishing Company (1977); *The (Stamford) Advocate* (1977); and, in 1979, the *Hartford Courant* (which was founded in 1764 and the nation's oldest continuously published newspaper).

Further acquisitions were made in the 1980s and included *The Denver Post* (1980); *The Morning Call* (1984), which served a nine-county region in eastern Pennsylvania and New Jersey; Xerox Learning Systems (1985); The A. S. Abell Co., publisher of *The Baltimore Sun*, for \$600 million (1986); scientific, technical, and medical journal publisher CRC Press, Inc. (1986); and *National Journal* (1986), which published for government officials and decision-makers. In 1987 the Times Mirror Co. acquired the magazines *Field and Stream*, *Home Mechanix*, *Skiing*, and *Yachting* from Diamandis Communications Inc. In 1988 college textbook publisher Richard D. Irwin was purchased from Dow Jones and Co. for \$135 million, and *Salt Water Sportsman* was added to the Times Mirror Magazine group.

Several properties were also sold during the 1980s, including the struggling *Dallas Times Herald* for \$110 million in 1986, and *The Denver Post* in 1987. Times

Tire and Rubber Industry

Mirror divested 80 percent of its ownership in Publishers Paper Co. in 1986 and sold its directory printing company Times Mirror Press to GTE Directories Corporation in 1988.

Revenues continued to grow during the 1980s. Times Mirror reported more than \$3 billion in revenues for the first time in 1987, while revenues for the *Los Angeles Times* exceeded \$1 billion for the first time in 1988. Between 1986 and 1989 Times Mirror sold off more than \$1 billion in assets and spent \$750 million on acquisitions to refocus on its core print and electronic media businesses. For the entire decade the company spent \$1.5 billion on acquisitions, and capital expenditures totaled \$2.5 billion.

Despite its revenue growth, acquisitions, and capital expenditures, the company began to struggle financially in the 1990s. The decade began with a nationwide advertising slump that adversely affected revenues in the company's newspaper and magazine operations. *New York Newsday*, which was launched in 1985 to serve the city's Brooklyn and Queens boroughs, continued to lose money. The company posted a net loss of \$66.6 million for 1992. After revenues fell to a five-year low of \$3.36 billion in 1994 and the company's earnings per share fell by more than 15 percent, Mark Willes was brought in as president and chief executive officer (CEO). On January 1, 1996, he would succeed Robert Erburu as chairman of the board. In 1997 Willes also became publisher of the *Los Angeles Times*, where he oversaw drastic cuts in personnel. (Willes had earned a reputation for ruthless cost-cutting as vice chairman of General Mills, Inc., where he was known as "The Cereal Killer.")

Meanwhile, Times Mirror had agreed in 1994 to merge its cable television operations with Cox Communications Inc. for \$2.3 billion, and that same year the company sold its four broadcast television stations. Within months of coming on board, Willes shut down the money-losing *New York Newsday* and the evening edition of *The Baltimore Sun*. One thousand jobs were cut, many of them at the *Los Angeles Times*, where certain sections of the newspaper were eliminated.

In 1996 Times Mirror exited the college textbook publishing business by exchanging Shepard's (a leading legal citation service), owned by McGraw-Hill Companies, for its Higher Education Group, which consisted of Richard D. Irwin, William C. Brown, Irwin Professional Publishing, Brown and Benchmark, and Mosby College. Shepard's then joined forces with medical and legal citation service Lexis-Nexis in a joint venture between Times Mirror and publisher Reed Elsevier. In 1998 Reed Elsevier would acquire

Matthew Bender and the Times Mirror's remaining interest in the joint venture for \$1.65 billion.

Other divestitures included selling Harry N. Abrams, Inc. and the *National Journal* in 1997 and Mosby Inc. in 1998. The sale of Mosby and Matthew Bender in 1998 occurred after Times Mirror attempted to merge the two companies, prompting several Mosby executives to resign. The sales were part of the company's strategy to exit professional book publishing. The sale of Mosby contributed to increases in earnings and revenues for 1998, with Times Mirror reporting a jump in net income to \$1.42 billion from \$250.3 million in 1997, while revenues rose from \$2.9 billion in 1997 to \$3 billion in 1998. Late in 1998 the company announced it would launch a new magazine, *Outdoor Explorer*, its first major publication launch since *New York Newsday* in 1986.

Since 1995 Times Mirror had executed a strategy of exiting non-core businesses, streamlining operations, and reinvigorating its existing businesses to achieve improved financial performance. That left the news and information company with three business segments: newspaper publishing, professional information and training, and magazine publishing.

See also: Publishing Industry

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TIRE AND RUBBER INDUSTRY

Rubber is an unsaturated organic compound made of carbon and hydrogen. Natural rubber is collected from wild plants or plants cultivated on plantations. It is made from a secretion of certain plants that is called latex. It is tough, can stretch, and is a poor conductor of electricity, making it useful for a wide array of products, the most noteworthy of which are tires.

Rubber may have been used by the Maya Indians of Central and South America as far back as the eleventh century. Christopher Columbus (1451–1506) saw Native Americans playing with balls of tree gum on his second voyage to the New World about 1493. During the early nineteenth century, attempts were made to use rubber to treat clothes and footwear to make them water-resistant. In 1820 Charles Macintosh, a chemist from Scotland, created a way to bond two pieces of fabric, which made a waterproof cloak known as a “mackintosh.” Thomas Hancock, an English inventor, developed a machine which took scraps of rubber and caused them to be reusable. An American inventor, Charles Goodyear (1800–1860), created the process of vulcanization in 1839, a method to cure rubber, which increased its durability. This process was still used in almost the same way in the late twentieth century. By the early nineteenth century, the rubber industry in Europe was well established. After the development of vulcanization, rubber products began to be in great demand. Pneumatic carriage tires were invented around 1845, and Englishman John Boyd Dunlop (1840–1921) was responsible for founding the modern tire industry when he developed and patented pneumatic bicycle tires in 1888. By 1890 Charles Kingston Welsh and William Erskine Bartlett had made improvements to pneumatic tire design.

The early twentieth century saw an increase in the demand for tire and rubber products as automobiles increased in popularity. Soon tractor tires were replaced with rubber. Until 1940 all tires were from natural rubber that came from Asia. When World War II (1939–1945) made that source no longer available, the United States quickly had to develop ways to produce synthetic rubber to meet wartime demands. After the war ended, natural rubber became available again, and synthetic rubber was not in demand again until the 1960s. Both types of rubber, natural and synthetic, were in use throughout the end of the twentieth century.

Radial tires, an improvement that gave greater stability, were first developed by the Michelin company of France in the 1930s. This company, founded by two brothers in 1863, began to sell radial tires in the United States in the 1960s. By 1980, the company had four plants in the United States, and by the late twentieth century had become one of the world’s biggest producers of automobile tires.

Bridgestone began as a company that sold clothes, but moved into rubber tire production in 1923. Bridgestone has operated plants in Singapore, Thailand, and Indonesia, and was for a time the leading supplier of tires to Japan. It purchased the Firestone

company in 1988, which was the third leading tire producer in the United States at that time. Firestone suffered a number of losses in the 1990s, which have caused losses for Bridgestone.

The most important U. S. tire company has been the Goodyear Tire & Rubber Company, which began in 1898 and was named after Charles Goodyear, who invented vulcanization. It had produced more tires than any other company worldwide, and by 1991 had 41 plants in the United States alone, 43 in other countries, and over two thousand retail stores. Other important companies were Uniroyal–Goodrich, bought by Michelin in 1989, and the Cooper Tire & Rubber Company. Most companies in the tire industry had become multinational by the last part of the 1980s.

While tire products remain the predominant product of the rubber industry, there are many other products that use natural or synthetic rubber. These products include inner tubes, hoses, belts, rainwear, shoes, boots, insulation against sound or vibration, carpet backing, gaskets, seals, cables, steering wheels, bowling balls, latex gloves, and many other common products. The need for these products and their contribution to the U. S. economy is expected to continue well into the twenty-first century.

See also: Rubbermaid, United States Rubber Company

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TOBACCO

Tobacco is an American plant, which is a member of the nightshade family. When Christopher Columbus



Tobacco plants are hung to dry after harvesting.

(1451–1506) arrived in the West Indies (islands in the Caribbean Ocean) in 1492, he found the native inhabitants smoking rolls of tobacco leaves, called *taino*. (The word tobacco is derived from the Spanish *tabaco*, which is probably from *taino*.) The practice of “drinking smoke” was observed to have a relaxing effect. Upon returning to Spain, Columbus took seeds of the plant with him. By 1531 tobacco was being cultivated on a commercial scale in the Spanish colonies of the West Indies. In 1565 English naval commander John Hawkins (1532–95) introduced tobacco to England, where smoking was ultimately condemned as a “vile and stinking custom” by King James I (1566–1625) decades later.

Tobacco was not commercially cultivated on the North American mainland until English colonist John Rolfe (1585–1622) carried seeds from the West Indies to Jamestown, Virginia, where he settled in 1610. By 1612 he had successfully cultivated tobacco and discovered a method of curing the plant, making it a viable

export item. Jamestown, Virginia, became a boomtown and England’s King James, who collected export duties, changed his mind about the habit of smoking. The coastal regions of Virginia, Maryland, and North Carolina were soon dominated by tobacco plantations, and the crop became the backbone of the economies in these colonies. Cultivation of tobacco did not require the same extent of land or slave labor as did other locally grown crops such as rice and indigo. But it depleted the nutrients of soil more rapidly, causing growers to expand their lands westward into the Piedmont region (the plain lying just east of the Blue Ridge and Appalachian mountains). In 1660 British Parliament passed the Second Navigation Act, declaring that tobacco and other articles from England’s American colonies could only be exported to the British Isles. Tobacco prices dropped in response to the legislation and the colonial economies were weakened, causing political discontent with the mother country. But, despite the Second Navigation Act, European demand was not diminished and the colonists soon resumed exports. By 1765 colonial exports of tobacco were nearly twice the value of exports of bread and flour. The crop helped define the plantation economy of the South, which prevailed until the outbreak of the American Civil War (1861–65). During the 1800s companies such as R. J. Reynolds Tobacco and American Tobacco were founded. Tobacco has remained an important crop in the American south and the manufacture of tobacco continued to be an important industry.

See also: American Plants, American Tobacco Company, Columbian Exchange, Navigation Acts, Tobacco Trust

TOBACCO INDUSTRY

The first permanent English settlement in the New World was a disaster for its early inhabitants. Times got so bad in the “starving time” of 1609–1610 that some of them resorted to cannibalism. Ten years later the Virginia colony exported 40,000 pounds of tobacco to England and the farmers were getting rich. The first successful commercial crop of tobacco was cultivated in Virginia in 1611 by Englishman John Rolfe and within seven years it had become the colony’s leading export. By the 1630s the annual crop was 1.5 million pounds. People were planting tobacco everywhere, even in the roads. In spite of the fact that tobacco exhausted the land, over the next two centuries it was an important cash crop, though increasingly dwarfed

during the nineteenth century by a much more important cash crop—cotton. After the Civil War and the abolition of slavery, most tobacco was grown by small, independent family-owned farms.

Initially tobacco was produced mainly for pipe smoking, chewing, and snuff. Cigars didn't become popular until the early 1800s. In 1847 the Phillip Morris Tobacco Company was established, which sold hand-rolled Turkish cigarettes. Two years later J.E. Liggett and Brother was formed in St. Louis. In the American West, chewing tobacco became so popular among cowboys and gold diggers that the R.J. Reynolds Tobacco Company built its operations around the product in 1875.

Cigarettes, which had been around in crude form since the early 1600s, didn't become widely popular in the United States until after the American Civil War (1861–1865). At that time, they were crudely made from scraps left over after the production of other tobacco products, primarily chewing tobacco. The invention of the first practical cigarette-making machine, sponsored by tobacco baron James Buchanan Duke (1856–1925) brought mechanically rolled cigarettes in the 1880s greatly increased the demand for cigarettes. One of the advertising ploys of the cigarette manufacturers was to point to the “sanitary” nature of mechanically rolled cigarettes. “No dirty immigrants hands” had rolled the cigarettes, in contrast to the cigar manufacturers in the immigrant ghettos of the north. Thus cigarettes became an expression of anti-immigrant sentiment as well as of the advent of science and modernity.

With the introduction of “Bright” tobacco, a uniquely cured yellow leaf grown in Virginia and North Carolina, cigarette sales steadily gained ground over other tobacco products. Cigarette sales surged again in the late 1880s with the introduction of the “White Burley” tobacco leaf. In 1901, six billion cigars were sold and only 3.6 billion cigarettes. With the emergence of the *Marlboro* brand, marketed from the newly established Philip Morris headquarters in New York, cigarettes soon became the major tobacco product. With the demand for cigarettes on the rise, R.J. Reynolds Company marketed a new cigarette brand called *Camel* in 1913.

By the early twentieth century, with the growth of cigarette sales and smoking, articles addressing the health effects of smoking began to appear in scientific and medical journals. In 1930, researchers in Cologne, Germany, made a statistical correlation between cancer and smoking. Eight years later, Dr. Raymond Pearl

of Johns Hopkins University, reported that smokers did not live as long as non-smokers. By 1944, although admitting that “no definite evidence exists” linking smoking and lung cancer, the American Cancer Society began to warn about the possible health risks associated with smoking.

Despite these warnings cigarette sales sharply increased. During World War I (1914–1918), armed forces took up the “soldier’s smoke.” During the 1920s, the tobacco market soared, particularly among women, as cigarettes attracted a growing number of “flappers.” The coincidence of the rise of cigarettes and the rise of feminism meant that the woman who smoked cigarettes, especially out of doors, was taking a stand in favor of women’s rights. During the 1920s, the tobacco market soared, particularly among women. Popular brands of cigarettes included “Chesterfield,” “Lucky Strike,” “Old Gold,” “Camel,” “Raleigh,” and “Marlboro.” The Phillip Morris tobacco company began marketing the Marlboro in 1924 as a woman’s cigarette that was as “Mild as May.” Smoking rates among female teenagers tripled between 1925 and 1935.

With the introduction of the *Pall Mall* brand in 1939, the American Tobacco Company became the largest tobacco company in the United States. During World War II (1939–1945) the sale of cigarettes was at an all-time high. Tobacco companies sent millions of cigarettes to soldiers for free. Cigarettes were also included in a soldier’s C-Rations. When the soldiers returned home from abroad, the tobacco industry had a steady stream of loyal customers. The cigarette culture was actively promoted. The main male movie stars of the age were smokers. Humphrey Bogart and John Wayne were smokers. (They also both developed lung cancer.) After World War II, the soldiers came home “hooked on cigarettes.” One popular country-and-western song from the 1940s was “Smoke, Smoke, Smoke that Cigarette. . . .”

By the 1970s the two most influential tobacco companies were Philip Morris and R.J. Reynolds, with the popularity of their respective “Marlboro” and “Winston” brands. Another trend in the 1980s was the consumer interest in discount cigarettes, partly in response to the substantial increases in cigarette taxes. The 1990s saw an increasing support by the government to make tobacco companies liable for damages caused by their products exemplified in a 1992 U.S. Supreme Court decision. There also continued to be significant tax increases on cigarettes in many states, such as the 75 cents a pack tax levied by the state of Michigan. In addition, during the 1990s many businesses began to restrict or eliminate smoking in public

places, in response to an Environmental Protection Agency (EPA) report in 1993 that categorized tobacco smoke as a class-A carcinogen. Increasing criticism of advertising strategies employed by tobacco companies also contributed to the decline in popularity of tobacco products.

The health risks associated with tobacco use resulted in a rise in lawsuits filed against tobacco companies in the late 1990s. Individuals sought compensation for poor health brought on by years of smoking and states asked for reimbursement on the large medical costs incurred by smoking-related illnesses. Both groups were successful and reforms were initiated. By the end of the twentieth century, the complexion of the tobacco industry in the United States was radically changed by shifting attitudes and regulations. Because of the unfavorable market conditions in the United States, companies sought to increase their sales in foreign markets, where attitudes about tobacco remained open and restrictions were more lenient.

Although tobacco had jump-started the American economy at a point when settlement was clearly costing more money than it was worth (except in the eyes of the religious dissidents of New England who merely wanted to be apart from England), and though it had helped to shape some of the fundamental characteristics of the emerging colonial American economy, the tobacco plant had also become a noxious but well entrenched part of the American culture.

See also: American Tobacco Company, Tobacco, Tobacco Trust

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TOBACCO TRUST

The American Tobacco Company was a huge holding company that monopolized the U.S. tobacco market between 1890 and 1910. Foundations for American Tobacco began in 1881 when James B. Duke (1856–1925) went into the cigarette business with his father, Washington Duke, founding W. Duke and Sons Company near Durham, North Carolina. The younger Duke led the company by aggressive, growth-oriented practices such as price-cutting (to undercut competitors) and spending up to 20 percent of sales on advertising and promotion. By the mid-1880s Duke expanded operations to take advantage of the cigarette markets in the North and West. Competition between his company and four other tobacco manufacturers intensified.

In 1889 New Jersey passed an incorporation law that allowed Duke to organize a merger with his competitors in 1890, thus founding the American Tobacco Company. Although it controlled almost 90 percent of the domestic cigarette market, American Tobacco continued to advertise extensively. Duke also increased profits by seeking an exclusive contract with a manufacturer of cigarette-machines. He integrated the company vertically (so that the company did everything from buying the tobacco leaves to selling finished tobacco products at its own retail chain, the United Cigar Store). Duke eliminated less profitable brands and also closed inefficient factories. The company employed non-union labor to keep costs low. As a result, American Tobacco could price competitively.

Duke continued his practice of buying competitors and by 1911 acquired 250 of them. By efficient management and strategic acquisitions American Tobacco was able to hold on to most of the tobacco market. In 1911 the company claimed 96 percent of domestic snuff sales, 85 percent of chewing tobacco and cigarette sales, and 75 percent of smoking tobacco.

On May 29, 1911, American Tobacco Company was dissolved in accordance with a ruling by the U.S. Supreme Court. The decision followed years of court challenges to Duke's monopoly that began in earnest in 1907; an American Tobacco subsidiary was indicted for price fixing (the practice of pricing below cost to eliminate a competitive product). This prompted the U.S. Justice Department to file a petition against the holding company. The Court charged American Tobacco Company with violating the Sherman Anti-Trust Act of 1890, which outlawed restraints on trade and attempts or conspiracy among competitors to monopolize a market. American Tobacco was condemned by the high court for its "unreasonable business practices." (The decision came just two weeks after a similar

case against John D. Rockefeller's Standard Oil Company, which set the precedent for the enforcement of anti-trust laws.) Two decades after the passage of the first national anti-trust legislation (the Sherman Act), the federal government had finally voiced its determination to keep the U.S. marketplace competitive.

See also: James Duke, Sherman Anti-Trust Act, Tobacco

TORDESILLAS, TREATY OF

After early New World colonization efforts by the Vikings around A.D. 1000 several centuries passed before European explorations of the area were renewed. By 1450 political, economic, and technological changes were taking place, which made distant exploration more feasible and desirable. The Renaissance spawned interest in scientific inquiry and human control over the natural environment. Political centralization transformed the Middle Ages' small-localized principalities, ruled by rival noble families, into nation-states. Rulers gained great power following the decline of the Catholic Church's influence. Monarchs with centralized political power accumulated funds to finance exploration. Earlier overland exploration, highlighted by Marco Polo's journey to Cathay in the late thirteenth century, had whetted Europe's appetite for trade with the Orient. Wealthy fifteenth century Europeans desired goods available in the East, including jewels, porcelain, and spices.

The established overland routes came under control of other groups along the way, including Turkish Muslims, who gained control of the main route in the 1450s. The newly created nations of Western Europe, including England, Portugal, Spain, and France, became interested in seeking alternative routes for conducting trade with the East. With technological advances in shipbuilding and navigation, Portugal began exploration of trade routes by sea, and in 1487 charted an ocean route around Africa to India. Jewels and spices began arriving in Portugal, making Lisbon the new trade center for Europe.

With interest in overseas exploration heightened, explorer Christopher Columbus (1451–1506) sought a sponsor so that he might pursue a theory that contact with the East could be established by sailing west across the Atlantic Ocean. After Portugal refused to finance him, Spain provided financial support and ships, and Columbus set sail in late 1492. After ten weeks of sailing Columbus came to an island he named San Salvador. Though actually landing in what is now

Money and credit arrangements underlay the great expansion of trade. . . Spaniards brought back gold, pearls, jewels, and - above all - silver from their American colonies. . . Altogether it has been estimated that between 1500 and 1650 some 181 tons of gold and 16,000 tons of silver arrived in Europe from the Spanish colonies. . . The scope and the scale of long-distance trade changed greatly. . . (as) lines of credit and exchange had to be lengthened to accommodate the greater distances and times involved. . . (T)he European economy was poised to take advantage of the expanded trade.

William Phillips and Carla R. Phillips, *The Worlds of Christopher Columbus*, 1992.

known as the Bahamas, Columbus proclaimed he had discovered the western route to the East. Excitedly, Spain claimed control over the discovery.

Portugal and Spain, the two leaders in fifteenth century exploration, had a short time earlier in 1479 and 1480 reached agreement that Spain would control the Atlantic region around the Canary Islands, and Portugal would hold rights to lands discovered south of the Canary Islands and west of Africa. In 1481 the Pope issued a charter called *Aeterni Regis* officially recognizing the agreement. Portugal, however, argued that the islands Columbus encountered were actually islands in the Atlantic Ocean previously claimed by their own explorers.

Because Spain and Portugal were the two primary Catholic powers, requests for resolution to the serious dispute went directly to Pope Alexander IV. The Pope issued a decree in May 1493, creating an imaginary north-south line separating the claims of Spain and Portugal. The line was drawn on maps 100 leagues west of the Cape Verde Islands, situated off the coast of Senegal on the West Coast of Africa. Spain was to assert exclusive control of lands west of the line, Portugal to the east. Excluded were lands already claimed by other European nations.

With further exploration, Portugal soon realized that Spain got the better of the deal and that the line's placement even threatened their exploration routes around Africa. Portugal returned to the Pope seeking a revision. In June 1494, Spanish and Portuguese ambassadors meeting at Tordesillas in northwestern Spain moved the line 270 leagues further west. The exact position of the line, however, was never very clear

Townsend Clubs

since the league unit of measure varied among countries at that time. Also, the Cape Verde Islands are 60 leagues wide, leaving doubt as to whether the distance to the line was to be measured from the east coast of the islands or the west. The Treaty of Tordesillas was later validated by Pope Julius II in 1506.

Columbus made three additional voyages between 1494 and 1502, exploring the Virgin Islands, Jamaica, Puerto Rico, and Trinidad. Not until later was it concluded that Columbus' findings were not in the East. Portugal maintained its interest in seeking a route around Africa, and navigator Vasco da Gama (1469–1525) reached India in 1498. Meanwhile, subsequent voyages by Portuguese explorer Pedro Alvares Cabral in 1500 east of the line established by the treaty led to the discovery of Brazil. Inland exploration westward from the Brazilian coast penetrated well beyond the line, but there was no opposition from Spain. As a result, Portugal established claim to a vast region of South America.

As the following century revealed, the Treaty of Tordesillas greatly favored Spain economically. West of the line Spain asserted claims over Mesoamerica, including the wealthy Aztec society, and Andean South America, containing the Inca. The Spanish colonies yielded incredible wealth with finds of silver and gold. Portuguese found very little such wealth. Other cultural implications of the division also extended far into the future with Latin America and the Caribbean being Spanish-speaking regions west of the line, and Brazil being the one nation with Portuguese as its official language. Treaty influences, however, were limited as other European countries never recognized the agreement and proceeded with their own explorations and claims of discovery in the western hemisphere.

See also: Aztec, Inca, Mesoamerica

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TOWNSEND CLUBS

Francis Everett Townsend (1867–1960) originated the “Townsend Plan” for old-age pensions in the United States during the Great Depression (1929–1939). Townsend became a doctor during the first decade of the twentieth century and practiced general medicine in a small community in South Dakota. His experience sensitized him to the problems of age and poverty. He eventually moved to California, and when he was 66, he lost his job as an assistant medical officer in Long Beach, California, in 1933. Townsend began to speak out actively about the hopeless conditions of the aged poor in the United States. He not only spoke about the problems of the aged poor, but he also proposed a partial solution in the *Long Beach Telegram* on September 20, 1933. He proposed that a pension of \$150 per month (later \$200) should be given to all U.S. citizens who retired at age 60 and who promised to spend the money within 30 days; he also proposed a national sales tax to finance the old age pension. This proposal was intended as a Depression recovery program as well as help for the elderly poor. The idea quickly became popular among older businessmen, professional people, and farmers. The “Townsend Movement,” as it was called, was organized in local clubs and it claimed five million members at its peak in the 1930s. However, the increasing effectiveness of federal social security programs and dissension among members of the Townsend Clubs about who to support in 1936 for president contributed to the decline of the movement.

TOWNSHEND ACTS

The Townshend Acts, or Townshend Duties, tried to establish the British Parliament's right to tax the American colonies. Earlier attempts to impose duties, such as the Sugar Act (1764) and the Stamp Act (1765) had resulted in violent protests. In an attempt to avoid these controversies Chancellor of the Exchequer “Champagne Charlie,” Charles Townshend, proposed a series of “indirect” taxes that would assert Parliament's right to tax the colonies. Townshend's duties made certain products that had to be imported from England, such as window glass, paper, lead, and artists' colors, more expensive for buyers. He also proposed a small

three-pence tax on tea. Parliament passed the Townshend Duties in June 1767.

Since these items were considered luxury goods, purchased only by a small number of wealthy colonists, Townshend expected few, if any, protests from Americans. In order to ensure that the taxes were collected and smugglers were punished, however, the Chancellor appointed five new customs officials and dispatched them to Boston. He also created new Courts of Admiralty in the colonies, which could try accused smugglers without a jury, and established a Customs Board that could issue writs of assistance giving customs officers broad powers to search and seize colonists' property.

In advocating these measures, Townshend was acting on the advice of colonial representatives like Benjamin Franklin (1706–1790). Franklin, who was no longer in touch with the mood in the colonies, believed that Americans objected only to direct taxes, such as the Stamp Act. He told Parliament that Americans would not object to duties that were imposed to regulate trade throughout the empire. Franklin was mistaken. His views were refuted by a fellow Pennsylvanian, landowner and lawyer John Dickinson in a pamphlet entitled *Letters from a Farmer in Pennsylvania*. Dickinson declared that Parliament's attempt to impose duties solely for the purpose of generating income was a direct threat to the well being of all Americans. He urged colonial assemblies to petition Parliament to repeal the Townshend Acts.

Serious trouble erupted in Boston, where the new Customs Board had their offices, in 1768. Samuel Adams convinced the General Court of Massachusetts, the colonists' primary representative body, to write a Circular Letter for distribution to the other colonial assemblies, urging the representatives to petition Parliament for repeal of the Acts. The Massachusetts letter provoked a response from the new Secretary for American Affairs Wills Hill, Lord Hillsborough, who demanded that Massachusetts Governor Francis Bernard either force the General Court to apologize or dissolve the assembly. Adams and the Court refused, and reported back to Governor Bernard that the refusal had passed overwhelmingly. Hillsborough was angered again when a Boston mob attacked the customs officers who had seized merchant John Hancock's ship *Liberty* on suspicion of smuggling. The Secretary ordered four British regiments to be stationed in Boston—a decision that led directly to the Boston Massacre of March 5, 1770.

Despite the forceful actions of the British government, colonial opposition to British taxation stiffened throughout 1768 and 1769. On August 1, 1768, Samuel

Adams convinced the General Court of Massachusetts to demand a boycott of British goods. Over the next year similar measures were adopted in New York, Pennsylvania, and South Carolina. The boycott put tremendous pressure on British manufacturers, who relied on the colonial markets to buy their goods. It also promoted, for the short term, some American industries, particularly the weaving of homespun cloth. On March 5, 1770 King George III's new Prime Minister, Lord Frederick North, asked Parliament to repeal most of the Townshend Acts, with the exception of the tax on tea. The issue of the tea tax would not be addressed until after the Boston Tea Party of 1773.

See also: Boston Tea Party, Intolerable Acts, Stamp Act, Sugar Act

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TRADE

Trade involves the exchange, purchase, or sale of goods and services. Whether international or domestic, trade makes possible the division and specialization of labor on which our productivity is based. If we could not exchange or trade the products of our specialized labor, each person would need to be entirely self-supporting. Trade is, in economic terms, a means of increasing productivity, as much as investment, or technological progress. Specialized production, followed by trade, makes it possible for everyone to have more commodities than they had before trading, even if some gain more by trading than others. Even though trading, including international trade, is an indirect means of enhancing all domestic productivity, there is frequently a bias of nationalism, which runs deep and

Trade Union

causes countries to be suspicious of one another. Countries often discourage international trade to protect domestic industries and the jobs of people who work in them. Nations will place taxes called tariffs on imported goods to make them more expensive and discourage people from buying them. Some degree of protectionism seems inescapable in a world of intensified production and competition, although there is a movement to create large international trading blocks to improve the standard of living of all the member nations.

See also: **Standard of Living, Tariffs**

TRADE UNION

The transformation of economic enterprise that began after the American Revolution (1775–1783) was the major cause for the development of U.S. labor's most significant institution: permanent trade unions. With the rise of U.S. industry came the rise of a management class seeking to pay lower wages. During the late 1700s working men with trades (carpenters, shoemakers, typesetters, cabinetmakers, machinists, masons, coopers, tailors) created organizations to conduct their struggles, known often as “associations” or “societies.” The membership of these early unions were confined to journeymen of a single craft, and they joined together not only to obtain better wages for themselves, but also to keep out of industry inferior untrained workmen known as “runaway apprentices” who worked for lower wages than the skilled tradesman or craftsman.

In 1886, a national organization, the American Federation of Labor (AFL) was created and rose to dominate the U.S. labor movement for the next 50 years. It was a federation of most of the early trade and craft unions scattered throughout the many states of the union, bringing together under the umbrella of the AFL most of the trade and craft unions. The AFL, a consolidation of separate trade unions, was first led by the father of the U.S. labor movement, Samuel Gompers (1850–1924). The focus of the AFL was largely aimed at short-term objectives, like higher pay and shorter hours of work. The AFL maintained that trade unions should restrict their membership to skilled and qualified craftsmen in specific trades, believing that a trade union composed of many different kinds of workers, including unskilled laborers, would lack the cohesiveness essential to hard-hitting business-like unionism. Trade unions ignored unskilled workers in the mass-production industries who eventually were unionized by the Congress of Industrial Organizations (CIO). In

the 1960s, the AFL and the CIO pursued a cautious merger, under the name AFL-CIO.

See also: **American Federation of Labor, Congress of Industrial Organizations, Samuel Gompers, Labor Unionism**

TRADEMARK

A trademark is any work, name, device, or symbol, or any combination of them adopted and used by a manufacturer or businessman to distinguish or identify his goods or services from those goods manufactured or sold by others. Though patents and copyrights are specifically provided for in the U.S. Constitution, under Article 1, Section 8, the law of trademarks is not provided for in the Constitution. Federal trademark registration is based on the Interstate Commerce Clause in Section 8 of the Constitution, meaning that trademarks must be registered both federally, and in separate states of the union.

Applying for a trademark for federal registration entails processing by the U.S. Patent Office, a division of the Department of Commerce. Each state maintains trademark registers. In the United States all trademark rights require actual usage, not simply intended use. Trademarks are divided into strong (technical) trademarks, like Kodak (a coined expression), and weak (descriptive) trademarks, like Jucy (a phonetic variety of “juicy”). Trademarks must be renewed every 20 years, including a sixth year affidavit of use registration. A trademark is not the same as a trade name. Coca-Cola is a trademark, and Coca-Cola Co. is the trade name of the manufacturer. Trademark systems are used worldwide, and a U.S. trademark owner seeking to protect the use of his trademark in foreign countries must register it on a country-by-country basis. A trademark is a precious commodity for any flourishing business, and the use of trademarks is carefully monitored by business.

See also: **Brand Names**

TRAIL OF TEARS

By the 1780s war, disease, and starvation had killed most American Indians living along the eastern seaboard of North America. As white settlers pressed further inland in the early 1800s, many of the indigenous groups resisted further encroachment. Some seized

on the opportunity to side with Britain in the American Revolutionary War (1775–1783) and again in the War of 1812 (1812–1814). But the Native Americans had picked the losing side, and after the latter war, General Andrew Jackson (1767–1845) devastated the settlements of the Creeks and other hostile Indian groups.

In contrast to the Creeks, the Cherokee had earlier accepted the U.S. presence as inevitable and adopted a peaceful policy of accommodation and coexistence. On the basis of a treaty signed with the United States in 1791, the Cherokee continued to live on their traditional lands in the hills of northwest Georgia and western North Carolina. During the early 1800s the Cherokee went through a remarkable period of cultural change. They adopted an agrarian economy in place of traditional hunting and gathering. Some Cherokee even became owners of plantations with slaves. Others became involved in commerce, managing stores, mills, and other businesses. Impressed with the benefits of reading and writing, a Cherokee silversmith, Sequoia, created a Cherokee alphabet that was quickly adopted. By the 1820s the Cherokee had established written laws and a constitution.

Between 1819 and 1829 the Cherokees developed an independent nation within U.S. boundaries. They adopted a constitution. As the Cherokees flourished, the white settlers grew resentful. The Georgia statehouse pressed the Cherokees to sell their land, which the Cherokee were reluctant to do. With the discovery of gold in Cherokee country in 1829 the State of Georgia increased the pressure on the Cherokee. President Andrew Jackson (1829–1837) signed the Indian Removal Act of 1830 that provided funds for removal of eastern Indians beyond the Mississippi River. The State of Georgia annulled the Cherokee constitution and ordered their lands seized.

DESPITE THE U.S. SUPREME COURT DECISION IN *CHEROKEE V. GEORGIA* (1831), ACKNOWLEDGING CHEROKEE'S RIGHT TO THEIR LANDS AND THEIR SOVEREIGNTY AS A NATION, JACKSON CONTINUED TO SUPPORT GEORGIA'S EFFORTS AT THEIR REMOVAL. AFTER MARSHALL'S RULING JACKSON REMARKED, "JOHN MARSHALL HAS MADE HIS DECISION; NOW LET HIM ENFORCE IT."

The Cherokee hired a lawyer who argued the case all the way to the Supreme Court. In his ruling, Chief Justice John Marshall agreed that the State of Georgia had no right to enter Cherokee lands and to displace the indigenous people. Despite the U.S. Supreme Court

decision in *Cherokee v. Georgia* (1831), acknowledging Cherokee's right to their lands and their sovereignty as a nation, Jackson continued to support Georgia's efforts at their removal. After Marshall's ruling Jackson remarked, "John Marshall has made his decision; now let him enforce it."

Jackson persuaded Congress to grant the funds for the relocation of the Cherokee. Finally in 1835, after years of harassment and antagonism, a small group of Cherokee ceded by treaty all lands occupied by the Cherokee east of the Mississippi. The Cherokee peoples were given two years to vacate the transferred lands and move to a special Indian territory created by Congress in 1834 in what latter became Oklahoma.

Many Cherokee resisted removal. As the deadline approached in 1837, President Martin Van Buren (1837–1841) ordered federal authorities to force the Cherokee from their homes and place them in temporary detention camps. The Cherokee remained in the camps through the typically hot sweltering southeast summer and diseases began to spread. Suffering from dysentery, measles, and whooping cough, some two thousand died. Finally that October over fifteen thousand men, women, and children began a six-month, thousand-mile journey to the very unfamiliar country of Oklahoma. Most went overland from northwest Georgia, across central Tennessee, western Kentucky, southern Illinois, southern Missouri, and northern Arkansas, to Ft. Gibson in eastern Oklahoma. A smaller number were taken by flatboat down the Tennessee River to the Mississippi River and then up the Arkansas River. While en route, lacking adequate food, shelter, and clothing, another two thousand died from exposure, disease, and exhaustion. The Cherokee buried their dead along the route that became known as the "Trail of Tears." The forced march became one of the most tragic and dishonorable chapters in U.S.-Indian relations.

The Cherokee reestablished their agrarian society in the hills of northeastern Oklahoma. They soon setup a new government and signed a constitution in 1839. Tahlequah, Oklahoma became the capital for the displaced population. During the 1837 roundup, rather than leave for Oklahoma, a thousand or more Cherokee had fled into remote areas of the East including the Great Smoky Mountains. They later received federal recognition, also, as the Cherokee of the North Carolina Qualla Reservation.

Departure of the Cherokee population left only scattered indigenous groups in the Southeast. By 1842 most of the Five Civilized Tribes—the Cherokee, Chickasaw, Choctaw, Creek, and Seminole—had been

Transatlantic Cable

removed from their prosperous farms and plantations and resettled on the southeast to government-assigned lands in Oklahoma. The last of the Seminoles of Florida were removed in 1858.

The Cherokee's forced removal dramatized the fate of indigenous populations in the face of U.S. agricultural expansion. The tide of U.S. expansion eventually overwhelmed even those tribes with peaceful policies and firmly established economies. The Trail of Tears was later designated a National Historic Trail by Congress.

See also: Georgia, Andrew Jackson, Oklahoma

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TRANSATLANTIC CABLE

In 1866 a transatlantic cable was laid along the ocean floor to carry telegraph messages from North America to Europe. But this success had been long-awaited: it followed four failed attempts to lay the wire. In 1854 American financier Cyrus W. Field (1819–1892) founded the New York, Newfoundland, and

London Telegraph Company (two years later renamed the Atlantic Telegraph Company). He became determined to connect America and Europe with a submarine telegraph cable, which would greatly improve communication. Cables laid in 1857 and 1858 broke. A third cable was put down later in 1858 and it successfully carried messages across the Atlantic for a period of four weeks before it broke. A fourth wire was put down between Newfoundland (Canada), and Ireland in 1865, but before the project was completed, it too broke. The following year, aided by a cable developed by British mathematician and physicist William Thomson (1824–1907), the project was finally a success. Thomson, who had been a chief consultant during the laying of the first cable in 1857–1858, developed a theory on the mechanics of submarine cables, and a cable following his specifications was successfully laid, from east to west, between Valentia, Ireland, and Heart's Content, Newfoundland. The crewmen who worked on that project were also able to repair the cable laid in 1865. By 1900 there were fifteen telegraph cables lying on the floor of the Atlantic Ocean, enabling telegrams (called "cables" when they were intercontinental) to be transmitted between the United States or Canada and Europe. The development was a tremendous boom to communication. Prior to the transatlantic telegraph cable (1866), the fastest way to send a message across the ocean was aboard a ship. The telephone (invented 1875), which allows voice transmission over electrical wires, gradually replaced the telegraph. But for many decades the two technologies were both in use.

See also: AT&T, Alexander Graham Bell, Telegraph

TRANSCONTINENTAL RAILROAD

On May 10, 1869, the last tracks of the United States' first cross-country railroad were laid, making North America the first continent to be spanned from coast to coast by a rail line. The event was the fulfillment of a great national dream to knit the vast country closer together. Short-run rail lines had been in use since the 1840s, but the nation lacked a quick and reliable method for transporting people, raw materials, and finished goods between distant regions.

In the early 1860s, the U.S. Congress decided in favor of extending the railroad across the country. The



On May 10, 1869 the last spike of the world's first transcontinental was driven in Promontory, Utah. The celebration began by two locomotives traveling from either end of the railroad to meet in the middle where the tracks were finally connected.

federal government granted land and extended millions of dollars in loans to two companies to complete the project. After a long debate that had become increasingly sectional, Congress determined the railroad should run roughly along the 42nd parallel—from Omaha, Nebraska, to Sacramento, California. This route was chosen for its physical properties: the topography of the landscape would best allow the ambitious project. The Union Pacific Railroad was to begin work in Omaha and lay tracks westward; the Central Pacific Railroad was to begin in Sacramento and lay tracks eastward, crossing the Sierra Nevada Mountains.

Work began in 1863, and six years later the two projects met at Promontory in north-central Utah, northwest of Ogden. By the end of the 1800s, fifteen rail lines crossed the nation.

See also: Oakes Ames, Oliver Ames, Central Pacific Railroad, Thomas Clark Durant, Robber Barons, Railroad Industry

TRANSPORTATION ACT

The authority of the Interstate Commerce Commission (ICC), established 1887 by act of Congress,

was later fortified by the Hepburn Act of 1906 and the Mann-Elkins Act of 1910. In 1920 Congress again increased the power of the regulatory agency by passing the Transportation Act. Among the provisions of the 1920 legislation was the rule, which allowed the ICC to establish rates at levels that were just high enough to yield a fair return on investment (ROI) for the railroad companies. Any returns to the railroads that were in excess of the established rate levels were to be “recaptured” by the government, placed in a fund, and from that fund, loans were to be made to struggling rail carriers. The act also empowered the ICC to override state regulatory statutes that fixed rate levels lower for intrastate carriers than they were for interstate carriers; Congress viewed such state regulations as discriminatory and, therefore, harmful to interstate commerce. Finally, the act loosened restrictions on railway pooling and railroad acquisitions, even directing the ICC to lead an initiative to consolidate the railroads into fewer, stronger systems.

After three decades of legislation, regulation, and antitrust litigation to curb the powerful railroads, the Transportation Act of 1920 was a double-edged sword: the recaptured earnings prevented any one railroad from becoming too big; but at the same time, the ICC was charged with overseeing the consolidation of the railroad industry. The stage was set for the decline of

Triangle Shirtwaist Fire

the nation's railroad systems: over the next two decades, competition for passenger and freight service was increased as automobiles, trucks, and airplanes proliferated. The railroads, limited by federal regulations, were unable to respond swiftly enough to remain competitive: rail companies could not adjust their rates or services without seeking state or federal approval first. Even those rail companies that remained solvent amidst the increased regulations had been weakened by the Transportation Act's policy of recaptured earnings, which prevented any accumulation of capital resources. Lack of reserves made it difficult for companies when the American transportation industry became more diverse and competitive. In the middle of the twentieth century, railroads foundered; many companies went into receivership pending their reorganization.

See also: Interstate Commerce Commission Act, Hepburn Act, Mann-Elkins Act

TRIANGLE SHIRTTWAIST FIRE

Into the early twentieth century businesses operated free of government regulation and with few industry standards. No building codes existed and regular machinery or fire inspections were not performed. "Sweatshops" were common, where people worked for very low wages in crowded, unsafe conditions with poor ventilation or inadequate heat. No limit existed for the number of hours a person could be required to work, and child labor laws were non-existent. Fresh to the United States, speaking little English, and desperately seeking employment, immigrants were especially vulnerable to sweatshop employment. While seeking a better life in the United States immigrants instead often found exploitation and impoverishment. Children could be found routinely working in mills and factories under dismal conditions. Often women and their children worked side by side for over 15 hours a day.

Such a factory sweatshop operated in New York City's Greenwich Village section in 1911. It produced women's clothing and employing primarily women. Over 500 garment workers performed low-paying piecework for the Triangle Shirtwaist Company in the top three stories of the Asch Building, a ten-story building near Washington Square in New York City. Many of the women were recent Italian and Russian Jewish immigrants, mostly between 16 and 23 years of age, with some girls even younger. The building's structure was considered fire proof, but the interior on the upper

Suddenly, a fire broke out near a corner of the eighth floor, spreading quickly to the two higher floors. With a door to the fire escape locked, workers anxiously waited at the windows for rescue. When fire crews arrived they discovered their fire ladders were several stories too short and water pressure was insufficient for water from the hoses to reach that height. Terrified, some workers clung to one another; many, to the horror of onlookers and rescue workers, began leaping to their deaths.

three floors was packed with flammable objects including clothing products hanging from lines above workers' heads, rows of tightly-spaced sewing machines, cutting tables bearing bolts of cloth, and linen and cotton cuttings littering the floors.

Few fire escapes were present, and company management had a policy of locking most exits, supposedly to guard against break-ins, but more accurately meant to contain the workers. The unlocked exits were only 20 inches wide, designed to restrict access by no more than one person at a time and to guard against employee theft. Though the company was a non-union shop, some of the workers had joined the International Ladies' Garment Workers' Union (ILGWU), formed in 1900. The building experienced several small fires, leading to complaints concerning insufficient exits from the building. In 1910 a general Cloakmakers' Strike to improve sanitation and safety conditions in New York City had been held. The strike led to the formation of the Joint Board of Sanitary Control to establish appropriate standards. Triangle's employees who had joined in the strike, however, had been replaced.

Late Saturday afternoon on March 25, 1911, at the conclusion of the six-day workweek, the Triangle Shirtwaist workers were shutting down operations for the night as quitting time was drawing close. Suddenly, a fire broke out near a corner of the eighth floor, spreading quickly to the two higher floors. With a door to the fire escape locked, workers anxiously waited at the windows for rescue. When fire crews arrived they discovered their fire ladders were several stories too short and water pressure was insufficient for water from the hoses to reach that height. Terrified, some workers clung to one another; many, to the horror of onlookers and rescue workers, began leaping to their

deaths. Workers on the tenth floor were able to get to the roof of the building and escaped over ladders placed by students across to a nearby New York University building. Almost 100 employees died inside the structure, while 47 jumped to their deaths from the eighth and ninth floors to escape the flames. In total 146 workers died and 70 were seriously injured.

The company owners were indicted on charges of criminal negligence, but were acquitted eight months later in a jury trial and assessed only a small fine. They later received \$65,000 in insurance payments for property damage. The fire, regarded as one of the worst industrial tragedies in U.S. history, aroused public anger over management and government indifference to worker safety. Women's unionization activity escalated as the ILGWU stepped up efforts to improve sweatshop conditions. Effects on local and national politics were profound, beginning a 20 year effort to introduce industry reforms.

One eyewitness to the catastrophe was Frances Perkins (1880–1965), at the time a lobbyist for the New York Consumers League. Perkins came away from the tragic scene with even more determination to help workers. The State of New York created a special commission with Perkins as its chief investigator to probe into factors surrounding the Triangle Shirtwaist fire and industrial working conditions in general throughout the state. Three years later, in 1914, the commission issued its report calling for widespread changes. One piece of legislation, passed over stiff opposition from business management in the state, limited the workweek for women and children to 54 hours. Perkins also served as executive secretary of New York City's Committee on Safety influencing the passage of more stringent city building codes and factory inspection requirements. Perkins ultimately became the first woman Presidential Cabinet member in the United States as the Secretary of Labor for President Franklin D. Roosevelt (1933–1945). The only Cabinet member to serve all four terms of Roosevelt's presidency, Perkins was a key person behind the New Deal's socio-economic reforms. The tragic event in New York had triggered more intensive efforts through protective legislation to gain the right of workers to safe working conditions.

See also: Industrial Revolution, Women in the Workplace, Working Conditions in Factories

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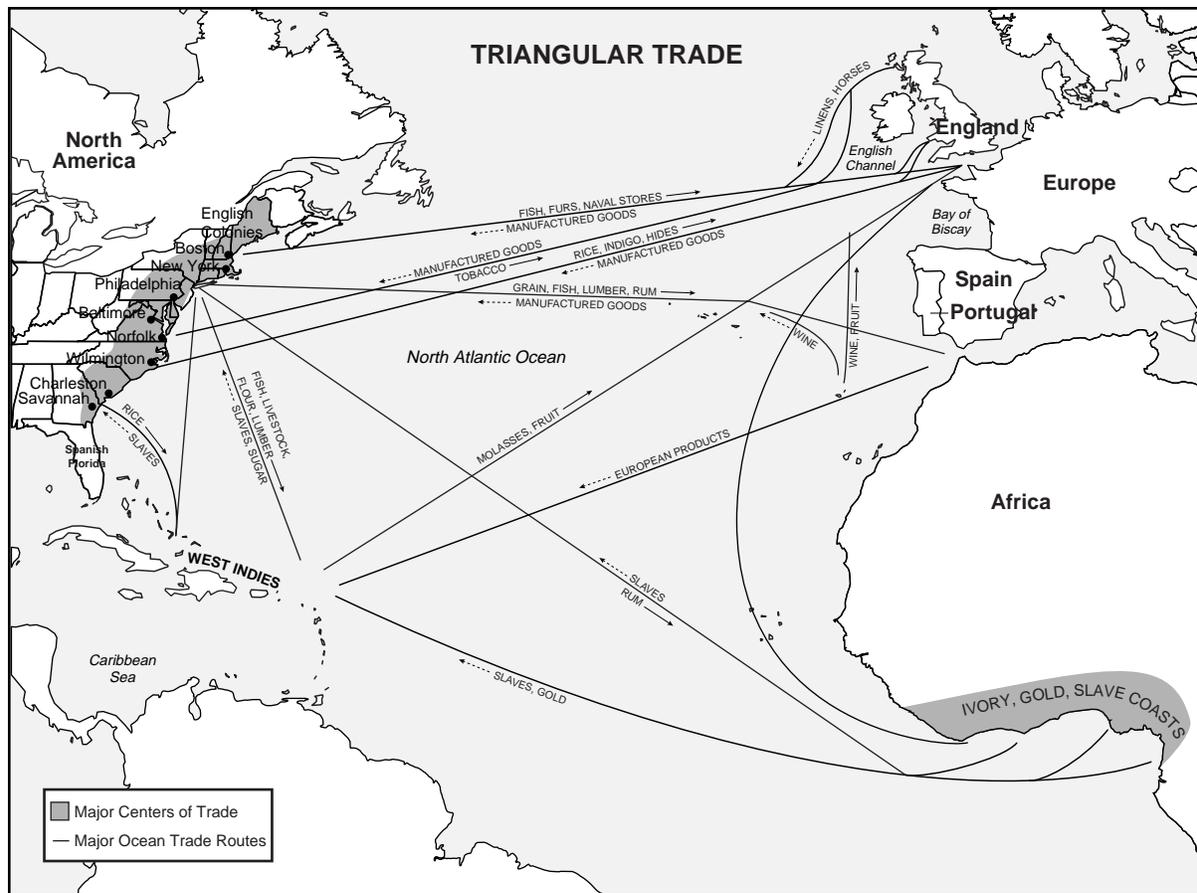
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TRIANGULAR TRADE

Triangular trade refers to the various navigation routes that emerged during the colonial period. There were numerous triangular paths that ships made to ferry people, goods (both raw and finished), and livestock. The most traveled triangular route began on Africa's west coast where ships picked up slaves. The second stop was the Caribbean islands—predominately the British and French West Indies—where slaves were sold to plantation owners; in turn, traders used the profits to purchase sugar, molasses, tobacco, and coffee. These raw materials were then transported north to the third stop, New England, where a rum industry was thriving. There ships were loaded with spirits. Traders made the last leg of their journey—back across the Atlantic to Africa's west coast, where the process began again.

On another route, manufactured goods were transported from Europe to the African coast, slaves were sent to the West Indies, and sugar, tobacco, and coffee were routed back to Europe, where the triangle began again. On yet another route, lumber, cotton, and meat were transported from the colonies to southern Europe, wine and fruits went to England and manufactured goods routed to the colonies, where the triangle began again. There were as many possible routes as there were ports and demands for goods.

The tragic result of the triangular trade was the transport of an estimated 10 million black Africans. Sold into slavery, these human beings were often chained below deck and allowed only brief, if any,



The various Atlantic Trade Routes of the 18th Century were triangular in design. Natural resources shipped from the colonies to England, manufactured goods from England shipped to the colonies and Africa, and slaves from Africa shipped back to the colonies.

periods of exercise during the Atlantic crossing (which came to be called the Middle Passage). Conditions for the slaves were brutal and improved only slightly when traders realized that if slaves perished during the long journey across the ocean, it would adversely affect their profits in the West Indies. After economies in the islands of the Caribbean crashed at the end of the 1600s, many slaves were sold to plantation owners on the North American mainland, thus initiating another tragic trade route. The slave trade was abolished during the 1800s, putting an end to the forced migration of Africans to the Western Hemisphere along these routes.

See also: Middle Passage, Molasses Act of 1733, Slavery, Sugar, Tobacco

TRIBUTE

Tribute is payment made to a ruling or conquering nation by subjugated people in acknowledgment of

submission or as a price for protection from other countries. Derived from the Latin word *tributum*, referring to property tax paid by Roman citizens, the term evolved to mean taxes levied on conquered peoples. Nations increased their wealth through these taxes.

After Cortez conquered the Aztec in 1521, the American Indians had to pay a special tax called a tribute to the Spaniards. Two slightly different perspectives on tribute existed in China for centuries. The Chinese used tribute to solidify political and trade ties with neighboring nations. China also received tribute from less powerful princes in Central and Southwest Asia and Korea, but returned to those countries gifts of equal value to the tribute.

In U.S. history, tribute is associated with U.S. shipping and the Barbary States of Northern Africa, including Morocco, Algiers, Tunis, and Tripoli. The Barbary States are part of modern-day Algeria, Libya, Morocco, and Tunisia. The Barbary Coast pirates had, since the 16th century, accepted payments or valuable presents in exchange for allowing merchant ships

passage through the Mediterranean Sea. American ships ventured into the Barbary waters in the late eighteenth century. Refusing to comply with these demands, many U.S. ships were captured and their sailors enslaved. The U.S. government was too poor to buy its citizens' freedom and too weak to prevent such hostilities. The United States negotiated treaties with Morocco, Tripoli, and Tunis, and by 1802 had paid over \$2 million in tributes. The piracy governments continued demanding higher tributes. Under President Thomas Jefferson (1801–1809) the United States fought against Tripoli in the Barbary Wars (1801–1805). In 1815 with warfare renewed against Algiers, a stronger United States demanded abandonment of all tribute claims. Although official payment of tribute ended in the mid-1810's, the United States occasionally paid tribute until the mid-nineteenth century.

See also: **Barbary States**

TRIPPE, JUAN TERRY

Juan Trippe (1899–1981), a pioneer of the jet age, made Pan American World Airways the world's largest airline in the mid-twentieth century. Trippe, who introduced commercial air service across the Atlantic and Pacific oceans in the 1930s, made Pan American Airways the first airline to offer affordable tourist class air travel. By the early 1960s Pan Am planes were flying into 86 countries on a route network covering some 80,000 miles.

The son of an investment banker, Trippe graduated from Yale University in 1921. He worked briefly as a bond salesman on Wall Street, intending to enter the family business, Trippe and Company. But his heart was set on planes and flying. Learning that some World War I (1914–1918) surplus single-engine pontoon Navy biplanes were available for sale, he used an inheritance and help from some wealthy Yale classmates to purchase seven of them. With his small fleet of planes he organized Long Island Airways, a sightseeing and charter service. In 1924 he put together Colonial Air Transport, which flew between Boston, Massachusetts, and New York City with the first U.S. air mail contract ever awarded.

When Trippe tried to expand the company's route beyond the Northeast to Florida and Havana, Cuba, Colonial's stockholders refused. He resigned from the company and, again with the financial help of friends, organized Pan American Airways, Inc. in 1927 from a merger of three rival flying services. He began airmail

service from Florida to Puerto Rico, Cuba, and Central America. By 1929 Pan Am had 11,000 miles of routes, and passenger flights had been introduced.

After Charles Lindbergh (1902–1974) became an international hero as a result of his solo flight across the Atlantic Ocean in 1927, Trippe hired him as a consultant to advise Pan Am on creating ocean-going routes. The two men often traveled together over the proposed routes, with Lindbergh as the pilot. Trippe's first great success was the "China Clipper" route to China, inaugurated in the early 1930s. Atlantic routes to Europe followed. During World War II (1939–1945), the company acted as a contract carrier for the U.S. government, ferrying U.S. troops all over the globe.

After World War II, Trippe lobbied Congress unsuccessfully to establish Pan Am as the United States' exclusive international carrier. At the same time, believing that the future of air travel lay with the ordinary tourist, he introduced "tourist class" travel from New York City to London, England. In a 1944 speech he said, "The average man's holiday has been the prisoner of two grim keepers, money and time," and he sought to change that equation. He cut the usual round-trip fare in half and promoted his air travel campaign in a widely discussed article, "Now You Can Take That Trip Abroad." At first the major international air carriers resisted the idea of two classes of air service (first and tourist), and Great Britain even closed its airports to Pan Am flights with tourist seats. But the concept of low-cost airfares proved to be extremely popular, and, by 1952, all major airlines had posted competitive rates.

Trippe had the vision to see that the next advance in airline travel would be with the big 707 Boeing and the Douglas DC-8 jets. In 1958 Pan Am launched its first 707 route to Paris, France. The big jets flew almost twice as fast as the propeller-driven planes they replaced and carried many more passengers. Trippe ordered as many jets as the airplane manufacturers could produce, and, by the early 1960s, his airline dominated U.S. international air travel. In 1968 Pan Am had assets of over \$1 billion.

Trippe, always the visionary, still wasn't satisfied. He became interested in development of the 747, the "jumbo jet" that would carry even more passengers than the 707. Pan Am ordered 25 of the huge planes, at a cost of \$450 million and inaugurated their use in the 1960s. Unfortunately, Trippe, this time, was ahead of the curve. A world oil crisis in the early 1970s was particularly hard on airlines, and Pan Am, which had not streamlined its operations to meet increased competition at home and abroad, was no exception. Juan

Trucking Industry (Commercial)

Trippe died in 1981, as his company was still struggling to recovery from the oil crisis. Pan Am continued operations for ten years after its founders death, until it was dissolved in 1991.

See also: **Airline Industry**

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TRUCKING INDUSTRY (COMMERCIAL)

Beginning in the early 1980s the trucking industry changed as deregulation and new technology brought new competitive pressures to the trucking industry. Information technologies and expanded services such as express delivery of light freight had become staples of the trade. Implementation of these new technologies and the promise of advantageous global trends insured the continued strength of an industry that experienced its worst years during the recession of the early 1980s.

Both state and federal governments had a tremendous impact on the revenues generated by the trucking industry. Although it experienced federal deregulation, the industry continued to deal with strict regulations in 28 states during the early 1990s. In an effort to make state regulations coincide with each other, Congress passed the Intermodal Surface Transportation Efficiency Act in 1991. The International Registration Plan would be passed in 1996 and the International Fuel Tax Agreement in 1998, legislating out repetitive registration requirements and fuel tax payments incurred by interstate truckers.

In addition to registration and tax costs, government programs such as the Motor Carrier Safety Assistance Program added an estimated \$6,000 to \$9,000 annually in maintenance work required to meet the standards of vehicle safety inspections that, like the International Registration Plan and Fuel Tax Agreement, were recognized by even the most strictly regulated states. The safety inspections, as well as a national Commercial Drivers License that may be obtained only after passing a competence exam, did lower insurance costs for the industry offsetting the initial expenses.

While Congress was legislating programs intended to make things less complicated for the trucking industry, the Environmental Protection Agency (EPA) mandated clean air laws making it necessary for trucking companies to find ways to utilize low sulfur fuels. Although the industry found it difficult to switch completely to the new fuels, advancements in exhaust purification and newly designed, highly efficient engines lowered emissions considerably.

Figures published during the early 1990s indicated that the trucking industry employed approximately eight million people, including part-time workers. The industry could be broken down into three main categories: those directly employed by trucking companies, those employed by employer groups, and those working for private carrier fleets. Although there was no real trucking union to speak of, a considerable number of truck drivers were members of the International Brotherhood of Teamsters (IBT). As was the case in most industries, union members tended to receive higher pay than non-union workers. Typically, large trucking companies that employed union workers put 60 to 65 percent of the company's profits aside for wages and benefits. Non-union drivers typically received 40 percent of the company's revenue in the form of wages and benefits. Annual salaries of long-distance drivers varied from \$20,000 to \$40,000 with a cap of approximately \$60,000 for experienced drivers.

Other impacts on the trucking industry included advancements in communications technologies. The proliferation of fax and electronic mail were estimated to have cut nearly \$75 million from the industry's annual profit margin. In order to compensate for the losses, the industry was able to carve out a new niche through the zero-inventory management policy used by many companies to reduce overhead costs during the early 1990s. A perfect fit for the trucking industry, this cost-saving policy called for same-day, warehouse-to-customer transportation of parts and manufacturing materials.

Because of competition from communications technologies, production efficiency technology became essential to the trucking industry's ability to compete. Computers mounted in truck dashboards and portable laptops became invaluable tools which freed truckers and company administrators from the tasks of monitoring fuel taxes and fuel management performance, engine performance, results and due dates for trailer inspections and so on. In addition to improvements in the efficiency of administrative duties, companies began utilizing safety applications including radar technology informing truckers when they followed behind another vehicle too closely, shipment planning software maximizing trailer time, and driver simulators.

Since the trucking industry relied on the health of the economy, it continued to be important for the trucking industry to expand into new, non-traditional markets and take advantage of progressing technologies. The trend toward a less restrictive international trade policy enhanced by the North American Free Trade Agreement (NAFTA) should ensure the industry's prosperity well into the next millennium.

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TRUMAN, HARRY S.

Like his most admired presidential hero, Woodrow Wilson (1913–1921), Harry Truman (1884–1972) spent two terms in the White House, and became far better known for his handling of war situations than for his progressive and protective post-war domestic policy



President Truman holds up a copy of the *Chicago Tribune*, published early election night with the headline "Dewey Defeats Truman."

efforts. Truman became the thirty-third president of the United States quite suddenly, on April 12, 1945, when President Franklin Roosevelt (1933–1945) died; Truman was thrust from vice president to president during the last days of World War II (1939–1945), at one of the most critical moments in U.S. history.

Born in 1884., Harry S. Truman (the "S" does not stand for any name) was six years old, the eldest of three children, born to John and Ellen Truman, when the entire family moved from the family farm to Independence, Missouri. Truman grew up in Independence, read books a great deal, and at age 18, joined the Baptist church. He worked at a variety of odd jobs until 1918. After that, he went into the Missouri National Guard, became a lieutenant, and eventually went to France to fight in World War I (1914–1918), rising to the rank of colonel. Before and after World War I, Truman had gained much experience as a small businessman; he worked hard and believed in U.S. capitalism, but lightning never struck. Frustrated by his failures in business, Truman decided to enter politics in an effort to reduce much of the business corruption he saw around him.

He joined the Democratic Party, was elected county judge in Missouri, and won a reputation for scrupulous honesty, and straightforward talk. In 1934 he was elected to the United States Senate, and immediately began working on issues for the public good and those involving business corruption. The enactment of the Transportation Act of 1940 was a Truman program that greatly regulated railroad financing thereby reducing corrupt business practices and saving U.S. tax dollars.

Continuing in the spirit of watching for corruption in business, Truman involved himself as a senator by creating The Truman Committee in 1940, to oversee waste and corruption in defense spending. Corrupt business practices had a foothold in war-production efforts during World War II (1939–1945); Truman's efforts at uncovering waste and illegal business led to savings of \$15 billion in tax dollars.

Truman's political career continued to rise, and he found himself serving as vice president under President Franklin Roosevelt. When Roosevelt died suddenly, Truman was thrust into the position of leader of the nation. World War II was ongoing, and there were many matters to challenge the new president (1945–1953). Thirteen days after Truman took office as president, the first United Nations conference met in San Francisco to plan for the post-war recovery. Days later, on May 7, 1945, Germany surrendered, and the war in Europe was over. The next day was Truman's sixty-first birthday. The United States was, however, still fighting a war with Japan, and preparing to deal with the communist Soviet Union and its dictator Joseph Stalin (1928–1953).

To end World War II completely, Truman made the profoundly controversial decision to drop two atomic bombs on Japan—one on Hiroshima, on August 6, 1945, and the next on the city of Nagasaki three days later. Japan surrendered on September 2, 1945. These events were stunning for the world, but more so for Truman, who had only learned of the atomic bomb's existence after becoming president months before. Truman's introduction into the U.S. presidency was likely the most dramatic and complex of any president.

Truman was a lifelong Democrat, and always a champion of Franklin Roosevelt's New Deal policies begun in the 1930s. As part of the post-war transition from a wartime economy to a peacetime economy, Truman sought to reconstruct the post-war United States in order to complete the New Deal. In September 1945, after barely five months as president, Truman requested that Congress create national health insurance for all U.S. citizens, and a permanent Federal Fair Employment Practices Commission (FEPC) to protect minority rights. Congress should also initiate an influx of money for scientific research and develop a large public power project on a variety of large U.S. rivers to provide clean and inexpensive electricity to U.S. residents with dam-generated power. The Republican Party, which controlled the Congress in 1946, blocked and stopped almost all of these measures. The Republicans believed that all of these plans would be bad for U.S. business and free enterprise.

Despite opposition from Republicans in Congress, Truman made consistent efforts to create a "Fair Deal" for the working post-World War II generation, and especially for veterans just back from the war. He fought to create civil rights legislation; repeal the Taft-Hartley Act which hindered union activities; create a new farm program stressing higher farmer incomes and lower consumer prices; provide federal aid to education; begin a federal housing program; and institute increases in the social security program. Conservative Democrats joined with Republicans to defeat most of Truman's domestic proposals.

Truman's legacy is largely that of a war president. He served the nation during World War II, the Korean War (1950–1953), and the Cold War with the Soviet Union. His progressive ideas of a "Fair Deal" were left for other generations of politicians to deal with.

Truman died of severe lung congestion on December 26, 1972, twenty years after leaving the White House.

See also: Korean War, Franklin Roosevelt, United Nations, World War II

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TRUMP, DONALD JOHN

Billionaire real estate developer Donald Trump (1946–) showed the world that millions could be made in developing expensive commercial and residential properties. His intuitive sense of business and sharp eye for spotting a deal made Trump one of the most respected—and most hated—businesspersons of the 1980s. Without question, Trump became one of the most famous poster boys of an era known for its big-time financial wheeling and dealing and consumption.

Born Donald John Trump in 1946, he was the fourth of Frederick C. and Mary MacLeod Trump's five children. Trump was raised in Queens, New York,

where his father was a builder and real estate developer who later specialized in constructing and operating middle-income apartments in Queens, Staten Island, and Brooklyn. Trump was a bright, energetic, and assertive child who grew up in a 23-room house with his siblings. By age 13 it was evident to his parents that he lacked discipline, so they sent him to the New York Military Academy. Trump did well there both socially and academically, and became a star athlete and student leader by the time he graduated in 1964.

While at the Academy Trump spent his spare time looking around at construction sites and renovating old houses. It seemed he would follow in his father's footsteps but on a much grander scale. He attended Fordham University, but later transferred to the University of Pennsylvania, where he obtained an undergraduate degree in finance from its Wharton School of Business in 1968. Following graduation he worked in his father's business, the Trump Organization. Soon Trump began putting his newly acquired business training to use; he was able to finance an expansion of the company's holdings by convincing his father to be more liberal in the use of loans based on the equity in the Trump apartment complexes. Eventually Trump bypassed his older brother and became president of his father's company, which concentrated on building houses and apartments. Though this was an important position it was not really fulfilling for Trump. He had bigger dreams of putting his signature on the Manhattan skyline.

Yearning for bigger, more profitable projects, Trump used \$200,000 to move his residence to a small studio apartment in Manhattan in 1971. There he was closer to the affluent and influential set whom he felt could make dreams come true. "If I ever wanted to be known as more than Fred Trump's son, I was eventually going to have to go out and make my own mark," Trump once said. In 1973, Trump persuaded his father to invest in the Manhattan real estate market. By then the company's worth had grown from \$40 million when Donald Trump had joined the firm to a whopping \$200 million.

Four years later Trump married New York fashion model Ivana Zelnickova Winklmayr, who had been an alternate on the 1968 Czech Ski Team. After their first child was born Trump named his wife vice president in charge of design for the Trump Organization. Ivana, an attractive and stylish woman, had a flair for design, and played a major role in supervising the renovation of the Commodore Hotel. She nicknamed her husband "The Donald," and added a touch of style that he appreciated and welcomed. But later, as Trump's empire began to crumble, so too did his marriage.

In the mid-1990s Trump and Ivana, who had three children, divorced, and Trump married his second wife, Marla Maples, in 1994. The media lavished attention on Trump's second wedding, but for all the pomp and circumstance, the marriage was brief and ended in divorce. Trump and his second wife had a daughter together before their marriage ended.

Despite turmoil in his personal life, Trump's business ventures continued to thrive. His strategy was to buy dilapidated properties when prices were cheap, fix them up, and then make a huge profit when the economy picked up. He would either sell the real estate for a higher price than he paid or, more often than not, lease out space at steep prices. He made his first major deal in 1975, when he acquired the bankrupt Penn Central Railroad's Commodore Hotel and rail yards near the Hudson River. Trump then sold the rail yards to the city for a hefty commission, and won an unprecedented \$120 million, 46-year tax abatement to tear down the Commodore and build the new Grand Hyatt Hotel in partnership with the Hyatt Corporation. To that amount he added \$70 million in loans to construct the hotel. The deal incensed a number of community and political people in New York, who claimed that he used political connections to broker a deal with the city. Urban analysts, however, credit Trump with helping to ignite a building renaissance in a deteriorating part of town.

Ignoring naysayers and supporters alike, Trump continued to negotiate complex deals that made him the best-known and most controversial developer in New York. Against the wishes of New York City, Trump was able to convince the courts that he was entitled to a large amount of tax abatements, which the city was forced to pay. Trump used the abatements to help finance his flagship building, the posh Trump Tower on Fifth Avenue at Fifty-sixth Street, completed in 1980. The 58-story building featured a six-story atrium lined with pink marble and included an 80-foot waterfall. The luxurious building attracted well-known retail stores and celebrity renters. Residential condominiums sold for a pricey \$10 million and higher. Of course all this overt show of opulence and wealth attracted national attention for Trump, and the Trump Tower became a major tourist attraction. As quoted in the *New York Times*, Trump dubbed the project "the finest apartments in the top building in the best location in the hottest city in the world."

Trump had a penchant for glitzy, controversial deals, and he maintained this interest throughout the 1970s and 1980s. In 1978 he bought the site of the Bonwit Teller department store and built a 68-story tower on Fifth Avenue, complete with a \$2 million

marble indoor waterfall. In the early 1980s he purchased a team in the upstart United States Football League, the New Jersey Generals, which sparked the league's antitrust lawsuit against the National Football League. Yet even Donald Trump could not make every deal golden. He once offered to construct a project, on the site that was later occupied by the Jacob Javits Convention Center, if New York City would name the building after Trump's father; the city declined. City officials also balked at Trump's plan to build a \$5 billion complex on a strip of land running along the Hudson River from Fifty-ninth to Seventy-second streets.

Trump continued moving from one deal to another. He opened casinos and entered other real estate ventures. At times he ventured beyond the real estate market in hopes of making a mark in the high-stakes game of corporate raiding.

Early in his career Trump earned significant notoriety for artificially driving up real estate prices, and he drew similar criticism as he sought to acquire companies that were not looking for suitors. Beginning in 1986 he engaged in stock market deals that made him look like a corporate raider. He bought large stakes in a series of publicly traded companies, including MCI and Pillsbury, fueling takeover speculation that raised stock prices and allowed him to sell at a handsome profit. Though many criticized Trump's deals he was playing the game much like other speculators did. Extravagant speculation was rampant at that time and created a high-stakes climate. The process was simple: he would identify a company whose stock was undervalued, buy enough shares to take a noticeable position in the company, and make overtures of buying it. This would immediately attract the attention of other stock traders and drive the stock price higher. Trump, of course, was never really interested in buying, nor was the company interested in selling; but his actions prompted a significant increase in the value of his shares and enabled him to sell at a huge profit.

Some acquisitions, however, really did occur. In 1989 Trump acquired Eastern Airlines' shuttle operation for \$365 million and renamed it the Trump Shuttle. In 1990 he was interested in acquiring American Airlines, bidding \$7.5 billion for it, but the parent company was not interested in selling. Nonetheless, it seemed Trump was on a roll that would never end.

A genius at self-promotion, Trump named several huge projects after himself—making his name a household word by the end of the 1980s. He built or bought a succession of hotels and apartment houses in Manhattan, including the Plaza Hotel, Trump Plaza, and Trump Parc. He also became a major hotel and casino operator

in Atlantic City, having astutely purchased property in the New Jersey seaside resort before the passage of a 1976 referendum legalizing gambling. This was where the Trump Princess Yacht was docked and where the Trump Shuttle airplane landed. Trump's Castle and the Trump Plaza and Taj Mahal casinos quickly became big moneymakers and helped raise Trump's profile nationally by sponsoring boxing championships. "The first time I did it, with Trump Tower, maybe it was ego," he once said. "But now it's economics. If somebody tells you you'll do a hundred million dollars more business if you call a building Trump Parc than if you call it Tower on the Park or some other name, you'd have to be some kind of masochist not to do it."

By 1990 many wondered how much Trump was really worth behind his complex financing schemes. His net worth had been estimated by some at as much as \$3 billion, which Trump never confirmed or denied. But *Forbes* magazine decided to take a closer look, concluding that his property was worth just under \$3.7 billion but his debts totaled \$3.2 billion, for a net worth of only \$1.5 billion. The magazine went on to predict that Trump could expect difficult times ahead.

This bleak prognosis proved accurate when the real estate market soured in 1990, and property values began to plummet. Trump's casinos suffered from over-saturation. Moreover, the credit market tightened, making it difficult for Trump to borrow additional money to cover his debts. Consequently, he missed \$73 million in payments that were due in June 1990, and was extended an emergency \$65 million loan, which the banks granted in order to save him from default and to protect their own investment. But that loan came at a hefty price: in return, Trump lost his freedom and was forced to relinquish much of his income and clear important business decisions with his creditors.

Trump was bitter about friends who turned on him during the bleak days. "I view these people as being born with garbage in their genes," he once said. But somehow Trump bounced back and was reported to be worth more than \$2 billion by 1997. He also found some Chinese investors to help him build huge housing projects on Manhattan's West Side rail yards, a site which he had been trying fruitlessly to develop for years.

Donald Trump was noted in the business world primarily for his impact on the real estate and casino industries, yet he was perhaps best known to the public as a wealthy and eccentric celebrity. His businesses were major developing of real estate during the 1980s and he contributed to the rapid growth (and later, decline) of the real estate market. More recently, he

focused on amassing a large entertainment and gambling concern that ranked as one of the largest in the United States in the late 1990s.

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TRUST-BUSTING

Prior to the birth of the United States, English common law provided few restrictions over business activities. By the mid-nineteenth century, U.S. courts had adopted a "rule of reason" in deciding cases involving accusations of restraint of competition. If the restraints applied broadly, they were often considered illegal. If more limited in time or geographic extent, restraints were allowed. Still, a laissez-faire approach to business persisted, meaning little governmental interference existed over business practices.

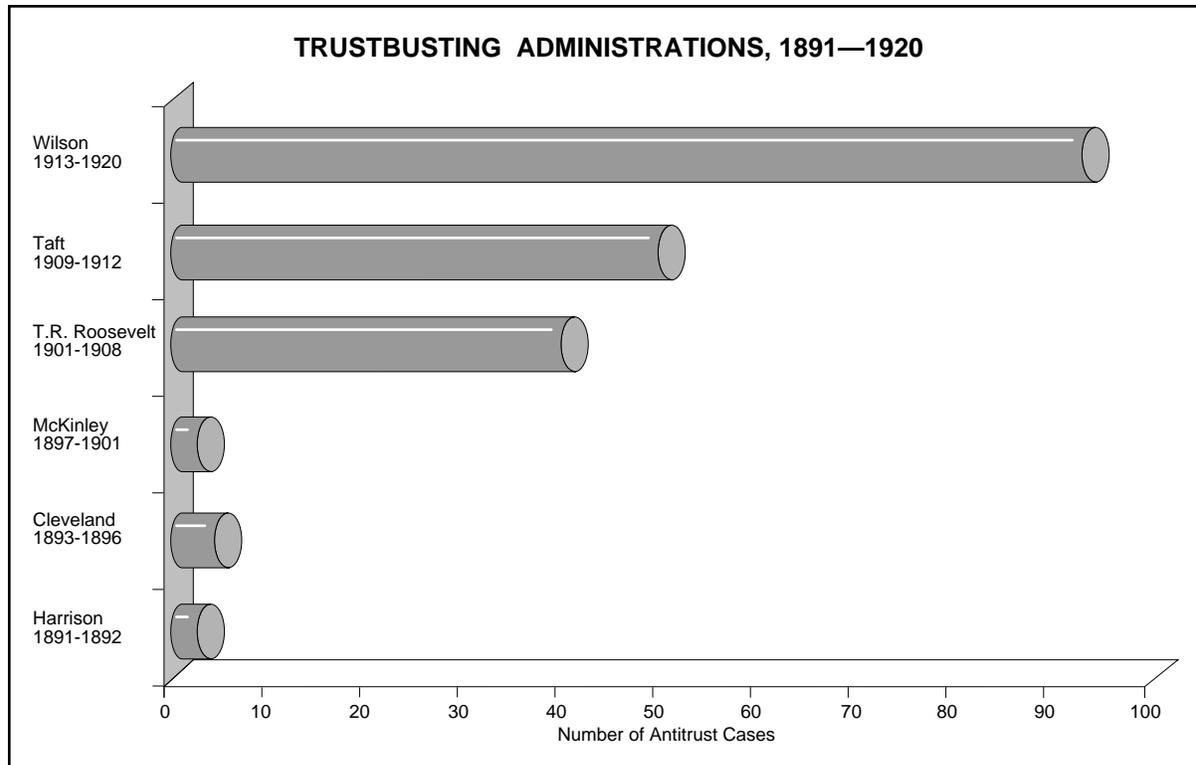
Following the American Civil War (1861–1865), industrialization grew at a brisk pace. With construction of a national railroad system, the cheaper transportation greatly expanded markets, and productivity grew. As competition heightened, the individually owned and managed companies sought means of protecting or expanding profits. State incorporation laws, however, strictly controlled mergers, forbidding companies to own stock in other companies. Therefore, one answer was to simply collaborate with competitors to set prices and control production. A form of such cooperation involved trusts in which one corporation would be created to oversee management of the stocks of cooperating corporations. Standard Oil became the first such trust in 1882. Trusts fixed prices and drove out new competition through price wars. Business consolidations in various industries, such as tobacco, beef,

whiskey, and sugar, led to concentrations of capital and control by only a few people. Consumer protection was not the objective of what legislative and judicial oversight existed. Rather, the focus was on protection of new businesses trying to enter markets. The freedom to contract dominated all legal considerations. Eventually, trust became a general term applied to national monopolies.

Public demand for government intervention into trusts also rose dramatically through the 1880s. In response states adopted various laws, but these proved inconsistent and not applicable to interstate commerce. Congress responded in 1890 with passage of the Sherman Anti-Trust Act, the first major national legislation addressing business practices. The act prohibited trusts and other forms of group action potentially restraining interstate or international trade. Though strongly worded by considering all restraint of trade through cooperation unacceptable, the act was vague, leaving enforcement to the courts and executive branch of government. For example, President Grover Cleveland (1893–1897) was not inclined to enforce the act, believing trusts were a natural result of technological advances and stabilized the nation's economy by eliminating waste. The Supreme Court even ruled in 1895 that manufacturing was not considered interstate commerce, thus leaving many key industries free to continue operating under trusts.

By the time of President Theodore Roosevelt's (1901–1909) first term of office, a few hundred large companies controlled almost half of U.S. manufacturing and greatly influenced almost all key industries. The trust-busting movement began in 1904 with the Supreme Court's decision in *Northern Securities Co. v. U.S.* to break up a railroad trust. Over 40 antitrust lawsuits were filed under Roosevelt. Roosevelt, though becoming known as a "trustbuster," actually sought to reach a middle ground in government oversight of corporate activities. He, as did his successor William Howard Taft (1909–1913), provided the political resolve to use the Sherman Act to provide greater social accountability of businesses. But Roosevelt did not intend to end all corporate mergers, only regulate those considered grossly unresponsive to consumer needs.

Major Supreme Court decisions in 1911 ordered the break-up of Standard Oil, a corporate giant controlling railroads, sugar, and oil, and the American Tobacco Company. The decisions sanctioned the federal government's role to oversee marketplace economics. The rulings, however, reaffirmed the Court's use of the "rule of reason" to determine when trusts are anti-competitive. Such subjectiveness and unpredictability for future rulings led to public pressure for more



The number of antitrust lawsuits increased following the passage of the Sherman Anti-trust Act in 1890. President Wilson was credited with being the most aggressive toward “trust-busting.”

effective trust-busting laws. Congress responded with the 1914 Clayton Anti-Trust Act prohibiting companies from charging different buyers different prices for the same products, contracts restricting business with competitors, mergers between competing companies, and companies buying stock in competing companies. These actions were to significantly lessen competition or lessen the creation of monopolies considered to be illegal. Importantly, the act exempted unions, by claiming human labor was not a commodity; certain farm organizations were also exempted. Associated with the Clayton Act was the 1914 Federal Trade Commission Act, creating the Federal Trade Commission (FTC) to tackle unfair business practices. Congress gave the FTC legal powers to issue cease-and-desist orders to combat unfair business activities.

With the economic boom years of World War I (1914–1918) and the 1920s, political interest in regulating business greatly diminished. The New Deal era of the early 1930s actually encouraged industrial collaboration to propel economic recovery from the Great Depression (1929–1939). Not until Congress passed the Robinson-Patman Act in 1936 and President Franklin D. Roosevelt’s (1933–1945) attack on monopolies in the late 1930s was trust-busting reintroduced. The act strengthened price discrimination prohibitions designed

to protect small businesses from larger competitors. Eighty trust suits were initiated in 1940. In 1950 Congress passed the last trust-busting law, called the Celler-Kefauver Antimerger Act, thereby closing some Clayton Act loopholes.

From the 1950s into the 1970s government aggressively pursued trust-busting. An example was the FTC’s successful loosening of the Xerox Company’s control of the photocopier industry. Trust-busting in the 1980s and 1990s, however, focused more on policing bad conduct rather than breaking up monopolies. Notable trust-busting included the break-up of American Telephone and Telegraph (AT&T). Accused of restricting competition in long-distance telephone service and telecommunications equipment, AT&T lost control over Western Electric, the manufacturing part of the company, and various regional operating telephone companies. President Ronald Reagan (1981–1989) reduced the FTC budget as a historic wave of corporate acquisitions occurred in the mid-1980s. By 1990 the states began to increasingly address illegal mergers, and soon federal interest grew again in examining competitive practices. President Bill Clinton (1993–) increased the budgets of the Justice Department’s Antitrust Division as 33 lawsuits were filed in 1994. The most important antitrust case of the 1990s

involved the Microsoft Corporation, accused of various monopolistic activities. As yet another wave of mergers swept the United States in the late 1990s, the age-old question persisted: does government have a legal right to limit commercial power? The U.S. public continued expressing largely conflicting attitudes over industrial combinations, as it had throughout much of history.

See also: American Tobacco Company, Clayton Anti-Trust Act, Monopolies, Monopoly, Northern Securities Case, Sherman Anti-Trust Act, Standard Oil Company, Tobacco Trust, Trusts (Business)

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TRUSTS

A trust is a tool that an individual or institution uses to transfer property to a beneficiary. The party that grants the property is called the trustor. The trustor, in turn, gives the property to the trustee, who is charged with the task of disbursing the property to the beneficiary according to the instructions of the trustor. In the early 1990s, more than \$1 trillion were held in U.S. trusts.

One important advantage that a trust has over a simple gift is that the trustor can exercise control over the disbursement of funds or property over time, even after his or her death (or dissolution, in the case of an institutional trustor). For example, a trustor may stipulate that funds periodically transferred to an all-male academy must be terminated if the school begins enrolling females. A second, and perhaps more important, advantage is that trusts can be used to minimize tax burdens incurred when wealth is transferred.

The two main categories of trusts are non-charitable and charitable, they are differentiated from one another primarily by tax status. Charitable trusts are organized for non-profit beneficiaries, such as educational, religious, and charitable organizations. Beneficiaries of noncharitable trusts typically include individuals or groups—particularly relatives or employees of the trustor—or profit seeking organizations.

Most trustees in the United States are banks' trust departments. However, other types of financial institutions act as trustees, and some companies specialize in trust management. Furthermore, a few trustees are separate entities that have been set up as foundations to manage large trust funds.

TRUSTS, BUSINESS

The word *trust* can be used to designate a group of companies that join together to control a domestic industry. The term was widely used in the late nineteenth century and early twentieth century. The American economy changed substantially following the American Civil War (1861–1865). Cottage industries, artisan production, and small-scale manufacturing declined, and a new, larger, factory-based manufacturing sector grew. Operating under relatively relaxed state business laws, financiers and manufacturing moguls became rich, often by suppressing the competition.

This led to a concentration of capital in just a few huge corporations, especially in transportation and heavy industry. The giant manufacturing and mining companies that survived the period of cutthroat competition soon folded into nationwide monopolies known as trusts. In a trust, the companies transferred their properties and stocks to a board of trustees who ran the companies in a way that avoided competition—for instance, by dividing the markets up to protect regional monopoly. Such business arrangements substantially restricted the opportunities for new competitors.

See also: Standard Oil, Tobacco Trust, Trust-Busting, William Howard Taft,

TUPPER, EARL SILAS

The story of Earl Tupper is one of American ingenuity, in which a young man with a basic high school education, an inventive genius, and a commercial eye was able to transform an ugly hunk of oil

refinery waste known as “slag” into a form of plastic that could be made cheaply into many useful things. Tupper’s new plastic and his methods of forming the plastic changed the shape and design of household objects, as well as commercial objects in the last half of the twentieth century. His marketing technique of hosting product demonstration parties in the home became extremely successful and has been imitated by other companies selling such items as underwear, home decorations, gardening supplies, and cooking utensils. Earl Tupper’s Tupperware is one of the most recognized household names in the world.

Earl Tupper was born on July 28 1907, in Berlin, New Hampshire, and was the only child of Ernest and Lulu Tupper. His father, Ernest Leslie Tupper, ran a family farm and greenhouse. His mother, Lulu Clark Tupper, took in laundry to wash for neighbors and ran a boarding home. Earl’s father was a person who loved to build and tinker, and he created several laborsaving gadgets. He was granted a patent for a device that facilitated the cleaning of chickens. Perhaps Earl Tupper developed his talent for inventions by watching his father.

Earl Tupper was energetic as a youngster, interested in business and in making money. He discovered he could sell a lot of the family’s farm produce if he went door-to-door rather than just selling it at the farmer’s market. By age 10, Earl learned that bringing the product to the customer was lucrative as well as enjoyable. He would reinvent this method years later in the form of the Tupperware party.

In 1925 Tupper graduated from high school in New Hampshire when he was 17 years old. After graduation he continued to work in the family businesses until he was nineteen. By then he had determined that somehow, as a businessman, he would make a million dollars by age 30. Tupper’s early employment also included working as a mail clerk and as part of a railroad labor crew. In his spare time he took a course to learn tree surgery so he could start his own business tending trees and landscaping. In 1931, at age 24, Earl married and he and his wife later had five children, one daughter and four sons.

Although he started his landscaping business during the Great Depression (1929–1939), it was a modestly successful venture. His Tupper Tree-Doctors Company stayed open for six years. During this time, Tupper also kept himself busy conducting various experiments and writing a series of scientific papers that described his vast interests and numerous ideas for inventions. However, at age 30 he was forced into bankruptcy instead of having made his first million.

In 1936, after his bankruptcy, Earl met Bernard Doyle, an inventor working at the plastics manufacturing division of the Du Pont Corporation in Leominster, Massachusetts. Earl became intrigued with the possibilities of plastic and went to work at the plastics plant where he later said, according to the records of the National Museum of American History, “It was at Du Pont that my education really began.” It was also where Tupper conducted his earliest experiments with plastics prior to World War II (1939–1945).

Earl Tupper worked for Du Pont for just one year and in 1938 he left the company to start the Earl S. Tupper Company, which advertised the design and engineering of industrial plastics. He wanted to experiment with plastic and asked Du Pont for some polyethylene slag, a waste product of the oil refining process. It was black, hard, putrid, and unworkable in that form. Tupper refined and cleaned the slag to produce a translucent, white, flexible, lightweight, odorless, and non-toxic plastic. This improved plastic, called Poly-T, became a revolutionary substance in the modern world. Tupper’s modern plastic was made to withstand almost anything with the exception of sharp knife-cuts and near-boiling water. Tupper also designed injection-molding machines to create shaped objects out of his new plastic, and subsequently developed his famous, patented air-tight lid.

Most of the work during his company’s first few years was performing subcontract work for Du Pont. The company made much of its money producing molded parts for gas masks and signal lamps for the U.S. Navy during World War II. After the war, along with hundreds of other manufacturers, Tupper turned his attention to the postwar consumer market. He made items such as plastic sandwich picks, unbreakable drinking tumblers, and plastic cigarette cases. These consumer products were often given away with other well-known products. The tumbler was offered with *Tek* toothbrushes and the cigarette cases were offered along with brand name cigarettes along with the cigarette company’s logo imprinted on the case. Tupper then focused on creating a line of plastic food storage containers that would hold foods “air tight” in the refrigerator, sealing them against other odors and keeping foods fresh longer. These containers were known as “Tupperware,” and were first distributed in department and hardware stores. Unfortunately, because of the bad reputation of other plastics, sales were dismal in stores. Consumers knew little of Tupper’s new type of plastic and the ingeniousness of Tupper’s air-tight seal needed to be demonstrated to customers.

Tupperware was also distributed through private household product companies, such as Stanley Home

Products. Some home product salespeople were selling fairly large quantities of Tupperware products, to the point where Tupper took notice, contacted them, and met with them to discuss possible new ways to market and distribute Tupperware. A Stanley Home Products saleswoman, Brownie Wise, suggested that Tupper develop a marketing strategy modeled after the Stanley Home Product Company's in-home selling parties. Thomas Damigella and several other Tupperware distributors also strongly urged Earl Tupper to pull his products out of department stores and to pursue direct marketing to the buyer using the "home party." The idea was to demonstrate the products in the home of a person who sponsored a "Tupperware party," where all questions could be answered in a social atmosphere. At one point small Tupperware products were given away to those who attended the parties. Brownie Wise was a very innovative, ambitious, and smart saleswoman and she went on to become vice president of the company Tupperware Home Parties in 1951 where she remained until 1958. Home demonstration parties have remained the primary outlet for Tupperware and have become an institution. By 1951, Tupper set up the Tupperware world headquarters in Orlando, Florida, on an 1,100-acre site chosen by Brownie Wise.

By the time he decided to retire, at age 51, Earl Tupper had created an enormously successful worldwide organization involved in the manufacture and direct sales of plastic containers—containers that were beautiful enough to be collected regularly by the Museum of Modern Art, in New York City, and displayed there, as early as 1947. Tupperware has also earned a place in the Musée des Arts Décoratifs in Montreal, the Philadelphia Museum of Art, and the Victoria and Albert Museum in London. The beauty and functionality of these products, and the direct face-to-face sales, became an unbeatable combination.

By the late 1940s Earl Tupper brought a clean, durable and attractive plastic into the world of commerce. Developing a high-quality plastic along with an ingenious method of production served as a catalyst for numerous plastic products that have since flooded the marketplace. The direct face-to-face selling technique of the company became extremely popular and the home party idea has continually evolved. Tupperware created literally millions of jobs for a sales force that has been mostly women. When Tupperware started to become popular household items the work force in the United States was going through major changes. During World War II, while so many of the country's men were in the armed forces, many women had entered the male-dominated job market, such as in factories. Women also worked at jobs created for the war effort and when

the war ended so did the jobs. Upon the servicemen's return, women were pushed out of the job market. Also after World War II many children were born—the baby boom—and at that time many women who had children did not work outside the home. Selling Tupperware provided convenient part-time or full-time employment for many of these women who sought a career outside the home.

Tupper sold Tupperware to Rexall Corporation in 1958 for \$16 million. In 1973 Earl Tupper retired and moved to Costa Rica where he eventually became a citizen. At the age of 76, Tupper died of a heart attack in his adopted homeland on October 3, 1983, and was survived by a sister, five children, and 14 grandchildren. Although Tupper built an enormously successful company making numerous plastic products he never liked the term "plastic." He used to insist on calling what he made "Poly-T" because "a lot of plastic that is made is junk."

Earl Tupper is remembered for more than quality children's toys, lettuce corers, orange peelers, tea strainers, gardening tools, and cake keepers, and other products he helped produce. The Earl S. Tupper Research and Conference Center is located at the Smithsonian Tropical Research Institute. The facility includes the Earl S. Tupper Tropical Sciences Library, laboratories for chemistry, plant physiology, histology, acoustic communication, entomology, and a scanning electron microscope.

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TURNPIKES

Turnpikes are toll roads: the user pays a fee to travel the road. Only after the user paid the toll would the gatekeeper turn the "pike" or gate to allow the wagon or carriage on to the road. This practice, which was established in England in the 1700s, arrived in the

Twenty-first Amendment

United States in the late 1700s when turnpike companies began surfacing roads and building bridges for a profit. The first American turnpike was built in 1785 in Virginia. The first major U.S. turnpike that was publicly financed was Pennsylvania's Lancaster Road: some 5,000 investors subscribed 30 dollars each to buy shares in the turnpike that was made of stone and gravel and connected Philadelphia to Lancaster. It opened in 1794 after two years of construction. The project inspired similar projects and around the turn of the century hundreds of turnpike companies emerged. They improved existing routes and established new ones; stagecoach travel increased as a result. As a transportation improvement, the toll roads were a big success for the developing nation. As a private business endeavor, however, toll roads proved a failure. Traveler's fees usually covered only maintenance. By 1825 turnpike companies' stocks had become worthless and most companies folded. Thereafter the government began operating toll roads as a way to finance pike projects: those who would use them had to pay fees. In this way, the taxpayer's burden was reduced.

See also: National Road, Wilderness Road

TWENTY-FIRST AMENDMENT

The year 1933 marked a benchmark in U.S. constitutional history. The Twenty-first Amendment was enacted. It is the only constitutional amendment to repeal another amendment. With its ratification, the Eighteenth Amendment's mandate to eliminate liquor consumption in the United States was repealed.

Fourteen years after it began, Prohibition ended. Although the Eighteenth Amendment did succeed in reducing the amount of alcohol consumed, it failed in its goal of eliminating the consumption of intoxicating liquors in the United States. Many people continued to imbibe. Taking advantage of the legal ban on alcohol, organized crime helped develop a black market in "bootleg" alcohol to meet continuing public demand. Criminals like Chicago gangster Al Capone (1899-1947) became multimillionaires. In the early 1930s, production and sales of "bootleg" liquor continued to rise and the Great Depression began. Prohibition was difficult to enforce in urban areas, and critics argued the increase in crime resulting from the ban offset reductions in consumption. In addition, millions of citizens were out of work and legalizing the liquor industry would create more jobs. Calls for the repeal of the Eighteenth Amendment were gaining ground.

During the 1932 Democratic national convention, the party platform included a call for the repeal of the



Due to public protest and increased crime, the Twenty-first Amendment repealed the Eighteenth Amendment, which was to prohibit the sale of intoxicating liquors.

Eighteenth Amendment. In the presidential election of that year, the Democrats won a landslide victory. In February 1933, the Twenty-first Amendment was proposed in Congress. It specified the amendment must be ratified by state conventions rather than state legislatures so that legislators (who were predominantly from rural areas that supported Prohibition) could not vote against ratification.

Before 1933 was over, the Twenty-first Amendment had passed. Prohibition was officially over. The amendment did give states the right to prohibit the importation or transportation of intoxicating liquors, and many states did enact their own prohibition laws in the 1930s. By 1966, however, all state prohibition laws were repealed.

See also: Black Market, Eighteenth Amendment, Prohibition

TYLER PREEMPTION ACT OF 1841

The Preemption Act, passed in 1841 during the administration of tenth president of the United States John Tyler (1790-1862), was a response to the widespread practice of squatting—illegally settling lands

that had not been surveyed and were not yet for sale. During the first three decades of the 1800s the American West received an influx of settlers. The government's system of surveying lands before putting them on the market could not keep up with the demand for property. New arrivals on the frontier simply settled public lands, often building on them and working the land. The Preemption Act exonerated these trespassers by allowing any citizen or any immigrant who intended to become a citizen to purchase 160 acres (64.7 hectares) of public land at the minimum price as long as he had occupied and cultivated the land, and had built a cabin or other dwelling on the tract. This act, combined with Congressional legislation that offered less desirable surveyed tracts at gradually reduced rates, contributed to the settlement of the West and the Old Northwest (the present-day states of Ohio, Michigan, Indiana, Illinois, Wisconsin, and part of Minnesota).

See also: Northwest Ordinance, Old Northwest

TYSON FOODS

Tyson Foods, Inc. of Arkansas made news in the mid-1990s, not for its position as the largest poultry producer in the nation, but for its alleged political connections to the Clinton administration. As governor of Arkansas, Bill Clinton showed favoritism toward Tyson with tax breaks and personal services. In return Clinton accepted considerable presidential campaign funds from the company. Mike Espy, former secretary of agriculture during the first part of the Clinton administration, was accused, and later cleared, of accepting inappropriate gifts from Tyson. In 1998 Tyson accepted a settlement from the Office of Independent Counsel, agreeing to pay \$6 million in penalties and costs for its alleged influence-buying. The unfavorable publicity, however, has not discouraged millions of consumers from buying Tyson products.

The history of Tyson Foods started with an Arkansas farmer, John Tyson, who hauled about 50 chickens to sell in Chicago during 1935. He named his business Tyson Feed & Hatchery and began making a profit buying and selling chickens prior to World War II (1939–45). Tyson eventually started raising chickens as well, and the company, incorporated in 1947, expanded significantly after the war.

Don Tyson joined his father in the business in 1952, and the company began to expand its production facilities. A large processing plant was built at the site of the company headquarters in Springdale, Arkansas. Tyson introduced an ice-pack processing line, which

helped it to be more competitive. In an era when people were eating more and more chicken Tyson was in a good position to fulfill consumers' needs. In 1963 the company went public and changed its name to Tyson's Foods, Inc. Three years later Don Tyson took over as president following the accidental death of his father.

Improved methods for producing larger numbers of broiler chickens drove the prices of chicken down in the late 1960s. When Tyson lost more than a dollar per share in earnings in 1967 the firm began the process of acquiring smaller companies to increase its share of the market. In 1969 it purchased Prospect Farms, Inc., which became a precooked chicken division. In the same year Tyson successfully fended off a lawsuit from Arkansas chicken farmers who felt that the company had discriminated against them as suppliers.

In 1971, after a period of growth and diversification, the company's name was changed to Tyson Foods. The company acquired Ocoma Foods, Krispy Kitchens, and the poultry division of Wilson Foods. It also began to market the first breaded chicken breast patty and bought a hog operation in North Carolina. In the early 1970s, as Americans increasingly favored chicken over beef and pork, Tyson became a leader in introducing new chicken products. In addition to the chicken patty it sold chicken hot dogs and bologna, just a few of the 24 specialty products it had developed by 1979. A new chill process was used to produce fresh chickens and prolong shelf life.

Tyson bought the rest of Wilson Foods in 1978. In 1980 Tyson introduced a Chick 'n Quick line, which offered easy-to-prepare chicken portions. The company was also the largest producer of rock Cornish game hens and the biggest producer of hogs. Precooked chicken patties for restaurants also became big sellers during this period.

By the early 1980s the consumption of chicken had increased 30 percent since 1970. Tyson's ability to mass-produce chickens rapidly, as well as its introduction of prepared chicken products, had helped it to expand in this market. It continued to acquire other companies and by 1984 had expanded its operations into five other states besides Arkansas. Don Tyson won the gold award from the *Wall Street Transcript* in 1986 for his business successes.

A major coup for Tyson in 1988 was the takeover of Holly Farms Corporation, the national brand-name leader in chicken sales. Tyson battled for six months with the Nebraska firm ConAgra for control of Holly Farms and in 1989 Don Tyson finally agreed to pay \$1.29 billion for Holly Farms. In 1990 Tyson's sales increased 50.7 percent as a result of the Holly Farms

Tyson Foods

acquisition. Tyson's beef and pork operations also increased substantially after the merger.

Tyson next got into the seafood market in the early 1990s by acquiring Arctic Alaska Fisheries Corporation and Louis Kemp Seafood Company. Although the seafood market operations were not profitable at first, market activity was bolstered by the acquisition of the seafood division of International Multifoods Corporation.

Tyson continued to expand and to buy up competitors and suppliers. In 1994 the company decided to build four new poultry plants at a cost of \$400 million and also bought a controlling interest in a Mexican chicken-processing company. In the same year it bought Culinary Foods, Inc., which manufactured specialty frozen foods, and Gorges Foodservice, Inc., a processor of beef for the food services industry. Tyson tried unsuccessfully to purchase WLR Foods Inc., a Virginia producer of turkey and chicken products. In 1995 Tyson purchased the chicken plants owned by Cargill, adding an additional output capacity of 2.5 million chickens per week. An equal increase in capacity was brought about with the acquisition of McCarty Farms Inc. of Mississippi. In 1997 Tyson took the very significant step of purchasing Hudson Foods, Inc., the fifth-largest producer of chickens in the U.S.

Don Tyson retired as chairman in 1995 and turned over control of operations to Leland E. Tollett. By the mid-1990s Tyson had reached the top position in

chicken sales in the nation; by 1998 its sales had increased from \$2.54 billion in 1989 to \$6.4 billion. In the mid-1990s Tyson entered into a joint venture with the People's Republic of China, opened an office in Mexico, and established a resource office to help the company market goods on the international market. In 1998 the company exported its products to 43 countries.

Tyson Foods, in the words of its company philosophy, successfully sought to "segment, concentrate, and dominate." Tyson achieved all three goals through its many acquisitions; in the late 1990s Tyson also capitalized on the public's increasing desire for easily prepared chicken products.

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UNDERGROUND RAILROAD

For the first few decades of the new nation, state after state in the North passed emancipation laws freeing slaves or future children of slaves. By the early 1800s the North had essentially abolished slavery. In the South, however, where slavery was much more crucial to the economy, emancipation was making little to no progress. By the 1830s Northern abolitionists, impatient with the very slow progress, adopted more radical tactics to end slavery. Evangelical Christian groups took the lead in demanding immediate emancipation of slaves without compensation to the slave owners. A newly formed American Anti-Slavery Society grew quickly to approximately 150,000 members by 1840. Abolitionism, however, remained largely unsupported by most Northern politicians. For instance, a major campaign to distribute anti-slavery literature in the South in the 1830s was stopped by pro-slavery interests with the help of President Andrew Jackson (1829–1837).

Meanwhile, slaves increasingly sought freedom by escaping to the North, often with assistance from Northern sympathizers. In a move that many saw as governmental sanction of slavery, Congress passed the Fugitive Slave Act in 1850. The act required Northern states to return runaway slaves and established harsh penalties for individuals assisting runaways.

In reaction, abolitionists fashioned the Underground Railroad. Neither a railroad nor underground, it was a hidden network composed primarily of people and places extending in all directions to help runaway slaves. Operating largely in darkness and disguise, free blacks with assistance from sympathetic Northerners provided direction, food, and shelter for those seeking freedom in the North or in Canada. The system, coded in railroad terminology for secrecy, consisted of various routes (lines), hiding places (stations), and assistants (conductors) who helped to transport escapees along the way. The escaped slaves were called packages or freight. The journey often required money for

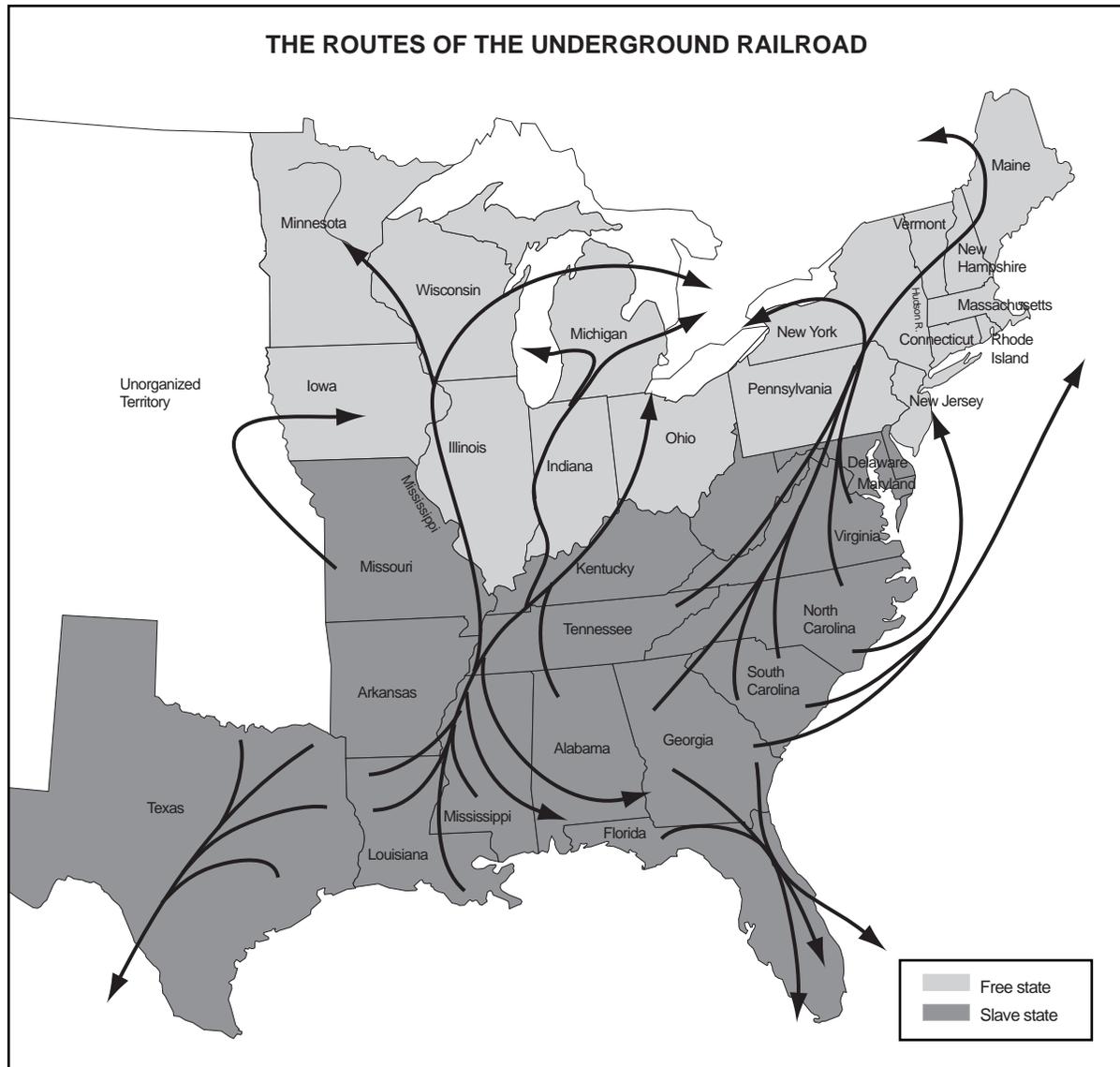
transportation, food, and bribes. The escapees used most anything for transportation, including travel by foot, small boat, covered wagon, and even in boxes shipped by rail or sea. Stations consisted of barns, cellars, attics, and secret rooms. The most heavily used routes were through Indiana, Ohio, and western Pennsylvania.

Due to the passage of the 1850 act, the desired destination for many runaway slaves became Canada, where they would be safe from U.S. lawmen and fugitive-slave hunters who could not cross the international border. A particularly common destination for many was Southern Ontario, with the Suspension Bridge at Niagara Falls serving as one well-used border crossing.

Through the Underground Railroad's years of operation until the conclusion of the American Civil War (1861–1865), an estimated 50,000 to 100,000 slaves sought freedom; because of the dire need for secrecy no records were kept. Because of the great danger in assisting slaves, no more than 3,000 people actually assisted, but the knowledge of the Underground Railroad's existence served to stir Northern sympathy toward the plight of the slaves. Some Northerners supported the effort for economic reasons as well. The industrial North was becoming increasingly agitated at the South's economy, which was based on unpaid slave labor, and the Railroad offered one means of undercutting the South's economy.

Many people associated with the Underground Railroad became well known, most notably Harriet Tubman (c1820–1913). A former slave herself who escaped through the system, Tubman traveled to the South on 19 occasions in the 1850s, recruiting those willing to take the chance of freedom. She reportedly helped 300 slaves directly through her own action. Harriet Beecher Stowe (1811–1896), who authored *Uncle Tom's Cabin* during this time, assisted fugitive slaves in Cincinnati, Ohio. Levi Coffin, a Quaker in Indiana, assisted more than 3,000 slaves from his

Underground Railroad



The Underground Railroad was used during the 1850s and 1860s to free 50,000–100,000 slaves with the help of 3000 individuals, over many routes, most ending in Canada.

home. Frederick Douglass (c1817–1895) was a fugitive slave who rose to prominence as an eloquent statesman for the abolitionists.

The Underground Railroad, impressive for its success, longevity, and complexity, was yet one more factor aggravating hostilities between the North and South. The Railroad has been noted as one of the more significant humanitarian efforts in U.S. history.

See also: Fugitive Slave Act, Slavery

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UNDERWOOD TARIFF ACT

Congress passed The Underwood Tariff Act in 1913. Its purpose was to reduce levies on manufactured and semi-manufactured goods and to eliminate duties on most raw materials. To compensate for the loss of revenue, the act also levied a graduated income tax (made legal by ratification of the Sixteenth Amendment earlier that year) on U.S. residents.

Protective tariffs had been the subject of political debate since they were first passed in 1828. After the American Civil War (1861–1865) the controversy over duties had become partisan, with Republicans, for the most part, favoring them, maintained duties were favorable to U.S. industry, and Democrats believed to the contrary. Republican administrations during the 1890s raised tariffs to unprecedented levels: The McKinley Tariff Act of 1890 was followed by the Dingley Tariff Act, which raised duties to as much as 57 percent and caused the cost of living to increase. Around the turn of the century, however, Republicans began to support opposition to high tariffs as well. As a result rates were reduced somewhat by the Payne-Aldrich Tariff Act of 1909, but prices remained artificially high and Democrats continued to press for a reduction in duties.

The election of 1912 proved a turning point for the Democrats: Woodrow Wilson (1856–1924) was voted into office and the party won control of Congress. In 1913 Wilson supported the Underwood Tariff Act, cutting or eliminating tariff rates. The legislation, sponsored by Representative Oscar Underwood (1862–1929), passed both houses of Congress. The reduced tariffs encouraged the import of foreign materials and manufactured goods, and prices of goods came down. The federal government now collecting less revenue in duties on foreign goods.

To offset the effect of less revenue from tariffs, the government levied an income tax for the first time. Incomes less than \$4000 per year were exempt by the Underwood act, thus, nearly all factory workers and farmers were not required to pay the taxes. Those earning more than \$4000 but less than \$20,000 paid a mere one percent tax. Rates rose from there, but the highest tax was still just a scant six percent—on earnings exceeding \$500,000.

The effect of the Underwood Tariff on foreign trade and on prices was limited: World War I (1914–1918) began the following year, curtailing imports. Protective tariffs became an issue again in the early 1920s, with the Emergency Tariff Act (1921) and the Fordney-McCumber Tariff Act (1922), which raised duties once again and gave the president authority to increase and decrease customs duties.

See also: Dingley Tariff, Fordney-McCumber Tariff, Sixteenth Amendment, Tariff, Tariff of Abominations

UNEMPLOYMENT

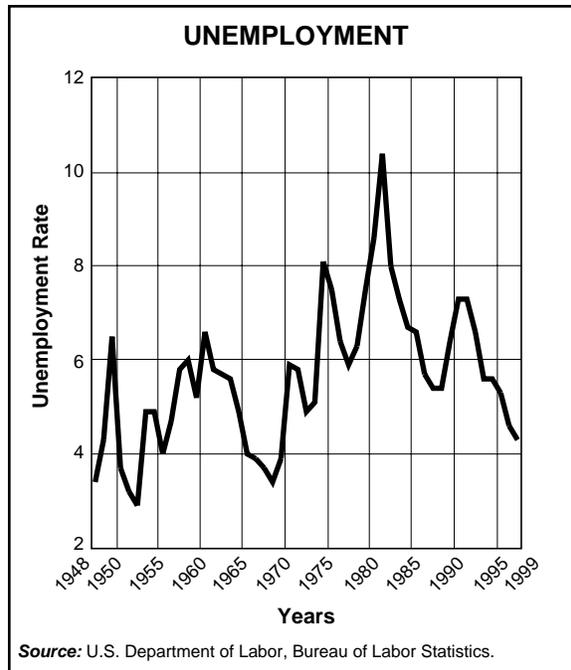
Reports on the economy often include information on unemployment to illustrate whether or not a nation's economy is doing well. Who is considered unemployed and what does the unemployment rate really represent?

The unemployed are individuals who do not currently have a job but are actively searching for one. These individuals, combined with those who are currently employed, make up the nation's labor force. A person who is not working and is not looking for a job is not considered unemployed.

The unemployment rate is usually described as a percentage. It is the percentage difference between the number of individuals in the labor force who are employed and those who are actively seeking work. In 1993 there were 129.5 million people in the U.S. labor force. Of that number, 8.7 million were unemployed, creating an unemployment rate of 6.7 percent for all workers.

There are two possible percentages for unemployment, the rate for all workers and the rate for civilian workers. All workers in the labor force include civilian workers and those in the U.S. armed forces. The civilian rate is considered to provide the clearest picture of the economy's strength because civilian workers are employed according to market forces. This is also the rate most often used by the media and in economic reports. The U.S. unemployment rate for civilian workers during 1993 was 6.8 percent.

Can a nation achieve full employment? Actually, a 6 percent unemployment rate is currently considered to be full employment. How can this be? The constant flux of the labor force, whether from seasonal variations or from a natural fluctuation of workers leaving one job and searching for another (for career advancement, skill demands, or some other motivation), makes it unrealistic to expect an unemployment rate of zero



The Unemployment Rate represents the percentage of people who are able to work, but are currently seeking employment, as depicted in this graph for the last half of the 20th century.

will ever be achieved. The full employment rate has risen steadily over the years. From 1952 to 1958, full employment was considered to be a rate of 4 percent unemployment. The rate rose to 4.5 percent in 1970, increased to 4.9 percent in 1977, and held at 6 percent through 1998.

If the full employment rate is 6 percent unemployment and the 1993 unemployment rate for civilian workers was 6.8 percent, then the economy for that year was providing the jobs to meet the needs of employment seekers.

See also: Seasonal Unemployment, Structural Unemployment

UNION PACIFIC RAILROAD COMPANY

The Union Pacific Railroad Company (UP) came into existence in response to the widely held belief, fully formed by the 1850s, that the United States needed a rail link between its older, eastern states and the distant but rapidly growing states of the far west. Various proposals were made for northern, southern, and central routes but Congress could not agree on a plan. Following the southern states' secession from the

United States in 1861, the remaining congressmen from the North quickly agreed on a route, and U.S. President Abraham Lincoln (1861–1865), urged on by military considerations as much as by those of economics, signed the Pacific Railroad Act of 1862.

The act called for the creation of a public corporation, called the Union Pacific Railroad Company, to build a railroad from Nebraska to the California-Nevada border and there to meet the Central Pacific rail line, building east from Sacramento, California, and later linked with San Francisco. The meeting place of the two railroads was eventually set at Promontory Summit, Utah Territory. As amended by a second piece of legislation, the act specified that the company would be supported by a loan of U.S. bonds from the federal government, to be paid back in 30 years, and by the issuance of its own bonds and capital stock. Further, the company would receive land grants in the amount of 6400 acres on alternating sides of every mile of track laid, a checkerboard swath of land across the middle of the country that would eventually total around 12 million acres of valuable minerals, grazing land, and metropolitan real estate.

While the logic and value of a railroad across the western United States seemed obvious in the late twentieth century, it was much less so in 1864. The men who became involved in the leadership of the UP—chiefly Thomas C. Durant (1820–1885) and brothers Oliver Ames (1807–1877) and Oakes Ames (1804–1873)—did so largely in order to make handsome profits off the railroad's hurried construction. Durant was the vice president and dominant figure in the company's early years; it was he and a handful of others who formed a construction company called *Crédit Mobilier of America* (CMA) to receive contracts from UP for the building of its vast railroad. Estimates vary as to precisely how inflated these contracts were, but later congressional investigations left no doubt that the backers of CMA intentionally siphoned off far more of the UP's capital than was fair to its investors or good for its future financial health. The investigations of the early 1870s also revealed that the CMA principals bribed members of Congress with company stock. The railroad that was built was a splendid success, and so vast a project might never have been undertaken without the promise of equally vast profits to be made.

In five years the UP crews laid more than 1000 miles of rail between Omaha, Nebraska, and Promontory Summit, Utah Territory, where on May 10, 1869, a golden spike completed the first transcontinental rail line. The railroad's completion supplied a critical impetus to the development of the western United States,

which to that time had been settled only on the Pacific Coast and in areas of unusual mineral wealth, such as Colorado. With the arrival of the railroad, farmers, ranchers, and manufacturers were able to transport their goods to the great eastern metropolitan markets cheaply and quickly, and the West began to fill with pioneers. As the area's most significant railroad for almost 15 years, UP enjoyed rapid growth and excellent earnings for its scandal-ridden promoters, who were dominated from 1873 to the mid-1880s by financier Jay Gould (1836–1892).

Under Gould's direction UP expanded considerably during the 1870s, with its main route from Omaha, Nebraska to Ogden, Utah, joined by a host of feeder lines extending into neighboring territory. The most significant of these was a line running to the Pacific Ocean through Idaho and Oregon and a branch that progressed in the general direction of Los Angeles, California, which it reached in 1901. Unfortunately, Gould's tenure was also marked by mismanagement and an increasingly burdensome debt. After the financial panic of 1893 strained the U.S. economy to the utmost, UP was forced into bankruptcy.

Union Pacific was reorganized in 1895, with Edward H. Harriman acting as chairman. Under Harriman's leadership, UP became one of the best run, as well as one of the largest, U.S. railroads. Harriman first set about retrieving the various pieces of UP lost during bankruptcy and soon reassembled the company's three basic networks: those running between Omaha and Ogden, Ogden and the Pacific Northwest, and Ogden and Los Angeles. Seeking control of the Central Pacific run between Ogden and the San Francisco bay area, he gained control of Central's owner, Southern Pacific (SP) in 1901. Between 1898 and Harriman's death in 1909, the UP increased its track miles from 2000 to 6000.

An anti-trust case brought against UP resulted in a 1913 U.S. Supreme Court decision that the company was inhibiting competition and must divest itself of its SP holdings. Union Pacific was thus once again reduced to its three main routes—Omaha to Ogden, Ogden to Portland, and Ogden to Los Angeles—although new lines between Portland and Seattle were soon added.

In the 1930s an increasing portion of earnings were generated by UP's oil and gas holdings and industrial real estate, businesses that were an outgrowth of the generous land grants the railroad had received upon its formation. With the outbreak of World War II (1939–1945) Union Pacific had little to worry about in the financial realm. The need to shuttle huge amounts of personnel and heavy equipment around

the United States gave UP all the business it could handle; company employment nearly doubling to 60,000 and revenue pushing to more than \$500 million by war's end.

During the postwar period, UP restructured its holdings into three divisions: transportation, land development, and natural resources. In the mid-1960s the company began a concentrated program of mineral, oil, and gas exploration. To reflect its diversified nature, the company changed its name to Union Pacific Corporation (UP) in 1969. By the 1970s UP had moved into refining, thus completing the formation of a fully integrated oil and gas business. Eventually known as Union Pacific Resources Company, this subsidiary was spun off into a separate entity in 1995, enabling UP to once again concentrate on its core railroad business.

Beginning as far back as the 1930s and continuing through the end of the twentieth century, truck and automobile traffic eroded the railroad's share of both freight and passenger miles. This long-term trend, coupled with U.S. President Ronald Reagan's (1981–1989) deregulation of the railroad industry, led to a new era of railroad consolidation in the 1980s and 1990s. In 1982 Union Pacific acquired the Missouri Pacific and Western Pacific railroads, gaining a Chicago to Omaha line, three gateways to Mexico, and a route between Ogden and San Francisco. The original transcontinental railroad was again back under complete UP control. An even larger acquisition came in 1996, when Union Pacific paid \$4 billion to once again join forces with Southern Pacific. The UP-SP marriage created the largest railroad in the United States, with 36,000 miles of track in 23 states, Canada, and Mexico.

See also: Oakes Ames, Oliver Ames, Thomas Durant, Jay Gould, Railroad Industry, Railroads (Federal Land Grants to), Robber Barons, Transcontinental Railroad

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UNITED AUTO WORKERS

The United Auto Workers (UAW) was created in 1936 to protect the rights of workers in America's largest industry, automobile manufacturing. Unionizing auto workers was a formidable task. Management was staunchly anti-union, harassing workers suspected of union activity and even employing spies to report on employee activities. Workers were subjected to capricious firings and bullying from foremen, and could not appeal management decisions. Because the American Federation of Labor (AFL) was not concerned with the needs of unskilled workers, a group of radical labor leaders emerged to advocate for their rights. John L. Lewis (1880–1969) of the United Mine Workers, David Dubinsky (1892–1982) of the International Ladies' Garment Workers, and Sidney Hillman (1887–1946) of the Amalgamated Clothing Workers formed the Committee of Industrial Organization (CIO), a committee within the AFL. The CIO worked on organizing unskilled labor into huge industry-wide unions. The UAW, with Homer Martin as its first president, became the auto workers' union.

Workers, intimidated by management's hostility, were reluctant at first to join the UAW. They needed proof that the union could succeed against the biggest and most powerful industry in the country. To confront these industry giants, organizers adopted a new tactic. They staged sit-down strikes at several plants, forcing companies to stop production. This strategy was so damaging to business that the auto companies were finally forced to accept the union as labor's legitimate bargaining agent.

The recognition of the UAW was a landmark in the struggle for labor rights. It signaled the emergence of a new generation of labor leaders who were ready to push hard for the rights of unskilled labor. And workers responded enthusiastically. UAW membership rose from 98,000 in early 1937 to 400,000 by mid-year. During the 1930s and 1940s, the UAW fought for and obtained significant improvements for its members, especially under the leadership of Walter Reuther (1907–1970), who served as UAW president from 1946 to 1970. The union successfully bargained for such measures as cost-of-living adjustments, wage increases, and pensions. In 1955, auto workers won a guaranteed annual wage. At the same time, however,

the UAW grew increasingly bureaucratized in the years after World War II (1939–1945). Abandoning its more democratic roots, the UAW became a fiercely authoritarian and anti-Communist organization. Power was concentrated within the central administration, the autonomy of local chapters destroyed, and accusations or patronage abounded. Though the UAW continued to win concrete labor benefits, it imposed contracts on membership without their input and stifled internal debate. By the 1960s, workers grew increasingly alienated from the union, which had not brought a national strike against General Motors since 1945–1946. When disgruntled workers finally staged wildcat strikes in 1970, UAW officials broke up picket lines to force strikers back to work.

By the 1990s the UAW had modified many of its positions. Though power was still centrally concentrated, the UAW at the end of the twentieth century was one of the most democratic unions in the United States. Unlike many unions, such as the Teamsters, the UAW has been relatively free of corruption charges and maintains a good reputation for its efforts.

See also: **Automobile Industry, Labor Movement, Labor Unionism, Sit-Down Strikes**

UNITED FARM WORKERS

During the 1960s, the Civil Rights Movement prompted increasing political awareness and activity among several minority groups. Among these were the migrant farm workers, most of them Mexican, who traveled throughout California and the western states to take seasonal jobs in fields and orchards. Agricultural workers had never been covered by the National Labor Relations Board. They endured harsh conditions for meager pay, and had no job security or benefits. Often, families moved so frequently that their children were unable to attend school regularly. A transient lifestyle, lack of education, and language barriers created conditions that made it especially difficult for migrant workers to bargain effectively with agricultural businesses.

Cesar Chavez (1927–1993), a migrant worker from Yuma, Arizona, began organizing migrant workers in the 1950s. Chavez, who attended 36 elementary schools during his childhood and never finished high school, knew firsthand about the workers' needs. He could speak their language and relate to them as an insider. In 1962, Chavez formed the National Farm Workers Association to represent migrant Chicano and Filipino farmworkers. By 1965, his organization had 1,700 members and in 1966 it was chartered by the

American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) as the United Farm Workers of America (UFW). Chavez was president of the UFW from its formation until his death in 1993. The UFW's first significant strike occurred in 1965, when the union called for a national boycott of California grapes after growers refused to grant workers' demands for better pay and working conditions. In 1966, the DiGiorgio Corporation agreed to allow a union vote, but an investigation launched by California governor Edmund G. Brown, Sr., the first major politician to support the UFW, showed that the results had been rigged. Another election was held, which the UFW won. The grape boycott lasted five years, during which Chavez went on a hunger strike to publicize the exploitation of migrant workers. The grape boycott resulted in the first major victory for migrant workers in the United States. Later boycotts of lettuce and other produce met with similar success. In 1975, California passed legislation that required growers to bargain collectively with representatives elected by the workers, establishing the legal right of farm workers to unionize. Yet much work remained. In the 1970s, the UFW had to fight to maintain its autonomy against the Teamsters Union, which tried to take it over, while continuing its struggle for fair wages and safer conditions. Chavez went on two more hunger strikes, for 24 days in 1972 and for 36 days in 1988, to focus attention on the harmful effects of pesticides to which agricultural workers were routinely exposed. At the time of his death in 1993, he was leading another national boycott of grapes to protest pesticide use.

See also: Cesar Chavez, Migrant Workers, Labor Movement, Labor Unionism

UNITED MINE WORKERS (UMW)

Organized in 1890, the United Mine Workers (UMW) is a labor union founded as an affiliate of the American Federation of Labor (AFL). By the late 1880s, Midwestern mine owners were grossly exploiting workers, including numerous immigrants: conditions in the mines ranged from deplorable to dangerous, wages had dropped by as much as 20 percent, and mining families lived in squalor. During its first decade, the UMW came under the leadership of Illinois native John Mitchell (1870–1919). (Mitchell had begun working in coal mines at age twelve and was a member of the Knights of Labor (1885–1890), before joining the UMW and quickly ascending its ranks.) As

president of the union after 1898, Mitchell undertook a massive organization drive, espousing the gospel of unionism and the dignity of man. Through Mitchell's efforts, diverse workers became the unified front of the UMW and a force to be reckoned with. In the early 1900s the UMW staged a series of successful strikes, calling attention to unfair labor practices and resulting in increased wages, reduced hours, and improved conditions. Mitchell became a national hero. He suffered health problems and was replaced as leader of the UMW in 1906.

For the next two decades, the coal industry was marked by increased competition; the UMW's tactics became radical. During the 1910s, a series of coal strikes were marked by violence, ending in the deaths of workers as well as government officials. In 1922 U.S. coal miners staged a six-month long strike to protest wage cuts. The massive demonstration paralyzed American industry and began a period of chronic depression in the coal mining industry. What resulted was cutthroat competition, which further hurt the cause of the workers.

The Great Depression (1929–1939), the severe economic downturn of the 1930s, saw the country's laborers joining unions in great numbers, particularly boosting the memberships of industrial (versus craft) unions such as the UMW. In 1935 dynamic UMW leader John Llewellyn Lewis (1880–1969) worked with other industrial unions to form an alliance, the Committee for Industrial Organization (CIO). The UMW's parent organization, the AFL, which was founded on the principles of craft unions, expelled the UMW and other CIO activists, who reorganized as the Congress of Industrial Organizations (CIO). In the 1940s the unions again became controversial: A UMW strike in 1946 stopped soft coal production, then the nation's primary source of energy. The strike severely impacted the steel and automotive industries, the rail service, and the average American, as people in twenty-two states were required to observe "dim-outs" to conserve coal. Consumers faulted the unions for shortages of consumer goods, suspension of services, and inflated prices.

Passage of the Taft-Hartley Act (1947) limited the impact of unions. The UMW has remained active on the national labor scene since its founding, though it struggled through controversy again in the 1970s when its leadership was found to be corrupt.

See also: American Federation of Labor, Congress of Industrial Organizations, Labor Movement, Labor Unionism, John Llewellyn Lewis, John Mitchell

UNITED NATIONS

At the end of World War I (1914–1918), President Woodrow Wilson (1913–1921) advocated the League of Nations to the American public. An international organization devised to foster international cooperation and the peaceful resolution of conflict, the League of Nations was a centrally weak but well-meaning organization. Its successor, the United Nations (UN), is substantially stronger. Created in 1945 after World War II (1939–1945), the UN began with 50 members. Among them were the United States, the Soviet Union, Great Britain, France, and China.

With a purpose to promote international harmony, peace, and cooperation between the world's nations, the United Nations is involved in many issues, including economic, social, cultural, health, and human rights matters. Its actions are divided between six main bodies: the General Assembly, a deliberative group to which all UN members belong; the Security Council, which attempts to maintain peace through economic sanctions or military action; the International Court of Justice, established to issue advice and settle disputes within its jurisdiction; the Economic and Social Council, to advise on economic and social issues; the Trusteeship Council, which administers non-self-governing territories; and the Secretariat.

The Secretariat is the UN's main administrative body and is headed by a secretary-general. It settles disputes, carries out peace-keeping activities, gathers information regarding political and economic trends, and oversees the activities of the organization's specialized agencies. The Secretariat is in charge of directing all bodies of the UN in fulfilling its goals.

There are many agencies within the organization that carry out specific tasks. The International Monetary Fund (IMF) is among them. It stabilizes the exchange rates between countries and may also play a role in lending money to nations. The World Bank lends funds for infrastructure projects. To deal with health problems on both an international and a local scale, the UN operates the World Health Organization. To specifically administer to the health and welfare of children worldwide, the UN directs projects through the United Nations' Children's Fund (UNICEF), one of its most well-known agencies.

While UNICEF may be the organization's most popular agency, the Security Council is one of the UN's most controversial. Through the Security Council, the UN deploys peacekeeping forces and administers economic sanctions. Since it was created in 1945, the UN has sent peacekeeping forces to India and

Pakistan (1948, 1965), Korea (1950), Cyprus (1964), Israel and Syria (1974), Lebanon (1978), Angola (1988), Iraq and Kuwait (1991), Western Sahara (1991), and the former Yugoslavia (1993). Not all of these ventures were successful in keeping the peace. Support for actions like these is not always unanimous within the organization.

The United Nations is funded by member fees, which are based on per capita income, national income, and ability to meet obligations. Fifty years after its founding in 1945, the United Nations has grown to be a larger organization (184 members as of 1994), stronger than its predecessor, the League of Nations, and a prominent participant in world affairs.

UNITED PARCEL SERVICE OF AMERICA

Headquartered in Atlanta, Georgia, the United Parcel Service of America, Inc. (UPS) is the world's largest package delivery service. It serves over 200 countries and delivers to any address in the continental United States. The company had humble beginnings. In 1907, six years before the U.S. Postal Service began its parcel post system, teenagers Jim Casey and Claude Ryan of Seattle, Washington, borrowed money to expand their bicycle-delivery and messenger service. With the loan they established the American Messenger Company, the precursor to UPS. By 1913 their fleet, renamed Merchants Parcel Delivery, consisted of seven motorcycles. In 1918 the workers joined the International Brotherhood of Teamsters. When the company converted to truck delivery another partner, Charlie Soderstrom, elected to paint the trucks brown, a tradition still carried out by UPS. The company, whose name was changed to the United Parcel Service in the 1930s, pioneered the system of consolidated delivery whereby packages destined for one neighborhood would be delivered by one vehicle. UPS experimented with air service during the Great Depression (1929–1939). Until the late 1940s most of UPS's business was in department store deliveries.

UPS experienced a period of decline following World War II (1939–1945) because the increase in privately owned automobiles allowed people to carry their own packages. Due to the decline of contract service to retail stores, the company began to expand common-carrier parcel service. UPS began offering to pick up parcels (limited in weight and size) from any location and deliver them within a 150-mile radius. This initiative put UPS into direct competition with the U.S. Postal Service.

In the 1950s the need for fast and convenient package delivery in the United States and around the globe was growing. UPS spent several years fighting for federal authority to operate in all of the 48 contiguous states. In 1953 the company resumed air service, which it called Blue Label Air. Between 1964 and 1969 UPS doubled its sales and had expanded into the majority of the U.S. states, making it appear as if UPS would become the only parcel shipping company in the country. Its management team was tightly controlled, and stock was held by its own employees.

SERVICE IS ALL WE HAVE TO OFFER.

Charles Soderstrom, UPS executive, c1930

In 1976 unrest occurred among UPS package processing employees. The company announced plans to replace them eventually with part-time workers, which prompted a number of local Teamsters unions to go on strike. East coast businesses were disturbed by this, particularly as it came during their Christmas rush. Although the strikes were settled, relations between labor and management at UPS remained strained.

UPS continued to expand during this period, establishing a service in Germany in 1976. In 1980 UPS profits were \$189 million out of revenues of \$4 billion. Competition was fierce by this time, particularly with the emergence of the Federal Express Corporation (Fed Ex), which offered one-day express delivery. UPS countered with Blue Label Air, promising two-day delivery at a lower cost. UPS also dropped its traditionally conservative promotional policies and ran television advertisements for the first time.

While other businesses suffered from the recession of the early 1980s, UPS actually saw an increase in business volume as companies began to ship smaller lots in order to save money. Relations with the Teamsters union suffered when the union discovered that UPS's net income rose 74 percent in 1981, at a time when union wage increases had been capped. UPS employees continued to be dissatisfied, as reports of increasing profits to the company surfaced over the next two years. In 1984 secret negotiations resulted in a three-year agreement which satisfied the union's demands for better wages and benefits, and a major strike was averted. In 1985 UPS was able to offer next-day air service in 48 contiguous states, as well as international air package and document service.

From 1984 to 1991 UPS was the most profitable U.S. product transportation company. UPS now offered both one-day and two-day service, and had increased its earnings to over \$700 million in 1987.

Though it lagged behind Federal Express in the overnight package delivery business it was working to improve its computer technology to keep up with the competition. By 1988 UPS had established its own airline (UPS Airline), was delivering almost one billion more packages than the U.S. Postal service, and had begun expanding its European operations.

Kent C. Nelson became chairman and chief executive officer of UPS in 1989, initiating a major transformation of the company. New services such as less expensive two-day and three-day deliveries, inventory management, and warehousing were offered to clients. Technical innovations also increased efficiency, and more money was spent on advertising. UPS increased its global recognition by its sponsorship of the 1996 Olympics in Atlanta, and began to step up the profitability of its European and Asian operations, winning over considerable market share from Federal Express. Though profit margins decreased significantly during this time of expansion, the first six years of Nelson's leadership at UPS resulted in a 69 percent increase in sales. UPS was not as profitable abroad as in the United States, but it continued to develop overseas services. In the late 1990s it beat out Federal Express for a major air hub in Taiwan, and it also planned to expand its services to Latin America.

In 1998 UPS was capable of reaching over four billion people worldwide. Its high-technology data communications network tracked over 820,000 packages daily. UPS supplemented the efficiency and reliability of its operations with customer service improvements such as implementing instant tracking systems, order processing, and inventory control. The company operated on a hub system in which packages from a particular region were processed at a central location prior to shipping, which was located in Louisville, Kentucky. UPS in the late 1990s was still privately owned, its stock exclusively held by its managers, employees, retirees, and their families.

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United States Rubber Company

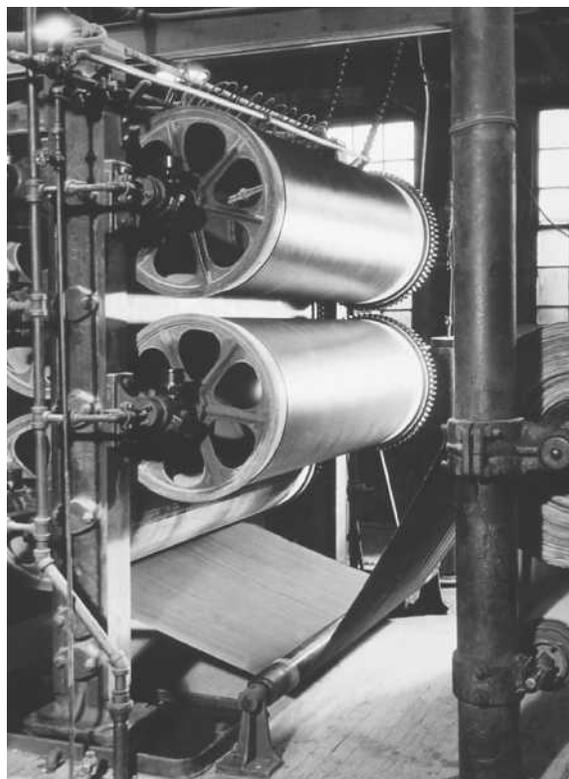
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UNITED STATES RUBBER COMPANY

In the years leading up to the formation of the United States Rubber Company, the rubber industry was marked by intense competition. Rubber footwear firms, then the industry’s largest and most profitable operations, were competing through price wars. Rubber footwear turned an easy profit, and many new companies developed. The increasing number of companies influencing prices caused them to fluctuate dramatically. At the same time, a business financier named Charles Ranlett Flint (1850–1934) was involving himself in the rubber trade between Brazil and the United States. Flint was also involved in a wide range of industries, and he was famous for consolidating numerous firms into single, large industrial units. Numerous footwear firm owners thought that a major consolidation of companies, orchestrated by Flint, would stabilize the industry. In 1892 Flint joined 11 firms and created the United States Rubber Company. The new company immediately controlled half of the nation’s footwear sales.

The United States Rubber Company’s member firms made shoes that were commissioned by a central sales unit. A board of directors supervised the central selling organization, and the manufacturers operated with virtual autonomy. The new company shifted its assets early on, closing two small factories and acquiring two of its biggest rivals. By 1898 the United States Rubber Company increased its market share from 50 to 75 percent. The company, however, was turning only modest profits, due primarily to the financial strain of absorbing its competitors. As the 1800s ended the rubber industry was rapidly shifting its focus to tire manufacturing for the automobile industry. But U.S. Rubber ignored the industry changes and chose to remain solely a footwear company.

The new tire market turned high profits and companies competed heavily for top market shares. One of the industry’s leading firms, Rubber Goods Manufacturing (RGM), saw its position in the industry gradually decline. In 1905 U.S. Rubber bought RGM as a means of entering the tire market. Immediately, the former footwear company was the top tire producer. As treasurer of U.S. Rubber, Charles Flint went to Brussels, Belgium, in 1906 to secure the entire rubber output of the Belgian Congo from King Leopold. U.S.



Rubber pressing machine.

Rubber was seen as one of the tire industry’s most significant newcomers.

The Du Pont family took control of U.S. Rubber in 1927. That same year, Du Pont and other elite industrialists wanted to consolidate U.S. Rubber, Goodyear, and Seiberling companies in order to establish a powerful industry leader. The idea failed to win support from financial institutions and shareholders that were unsatisfied with the industry’s performance during the 1920s. With the onset of the Great Depression (1929–1939) in 1929, tire sales dropped by two-thirds and suppliers lowered prices for car manufacturers in order to maximize sales. In spite of these industry setbacks, U.S. Rubber thrived. It increased its market share from 6.9 percent in 1929 to 30 percent in 1931. The company’s success was linked to Du Pont’s interest in both U.S. Rubber and General Motors Corporation. U.S. Rubber’s manufacturing base was in Detroit, Michigan, and General Motors’ nearby location gave U.S. Rubber half of the carmaker’s business in 1931. U.S. Rubber was simultaneously boosting its sales to Ford Motor Company.

The company held a key position in the tire and rubber industry for four decades. In 1966 U.S. Rubber changed its name to Uniroyal. In the 1970s, due to the recession and to the development of radial tires which

required totally new production equipment and processes, the industry began to shift. Uniroyal was among the companies hardest hit. Though it was ensured a good market share with its General Motors contracts, the overall depression of the car industry and the expensive switch to radials overwhelmed the company finances. Adding to that, Uniroyal's sales on replacement tires were low. The company's losses in 1979 were heavy enough to lead to drastic cuts in capacity in 1980. In the mid-1980s Uniroyal sold many of its divisions and organized a buy-out by Clayton and Dubilier. In 1986 Uniroyal and Goodrich merged their tire operations to form a jointly owned Uniroyal Goodrich Tire Company (UGTC). The new company would combine Uniroyal's strong supplier business with Goodrich's large replacement business. But the venture wasn't successful. Debts, losses, and conflicting management styles brought the company down. In 1987 Dubilier and Clayton bought out Goodrich's holdings in the venture.

As the decade ended, more U.S. tire companies were taken over by foreign firms. The French company Michelin purchased UGTC in 1990. The Uniroyal brand, however, continued. In the late 1990s the Tiger Paw NailGard tire was issued, boasting the capacity to seal 90 percent of tread punctures up to diameters of three-sixteenths of an inch.

The competition that gave rise to the formation of the footwear trust, which came to be known as the United States Rubber Company, followed the rubber industry throughout the twentieth century. As the century ended, the competition that had marked the industry's history shifted to a global scale. Even U.S. Rubber—or Uniroyal—the longtime industry leader, had trouble staying afloat in the face of foreign competition.

See also: Charles Ranlett Flint, Tire and Rubber Industry

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UNITED STATES STEEL

An important transaction occurred in New Jersey on February 25, 1901. Carnegie Steel—first owned by Andrew Carnegie (1835–1919)—was purchased by J. Pierpont Morgan (1837–1913), for \$480 million. That day became stamped in history as the U.S. Steel Company was born.

Before the creation of U.S. Steel, Carnegie Steel had already been very successful. Carnegie's first exposure to steel came when he landed a job as a secretary and telegrapher for Tom Scott, a powerful overlord for the Pennsylvania Railroad (known familiarly as Pennsy's). By the age of 23, Carnegie was head of Pennsy's Railroad division and was making large sums of money with outside investments in oil, iron bridges, and other commodities. By the time he was 33, Carnegie's drive for success had become more innovative and efficient. He began modernizing older steel plants, then brought in a technology called Bessemer processing. This method reduced the cost of production in the steel industry from \$160 per ton in 1875 to only \$17 per ton in 1900. However by 1901 Carnegie decided to sell his business to Morgan and pursue a life devoted to philanthropic deeds such as making contributions to large corporate foundations and opening over 2,800 free libraries worldwide. At the time of his death, Carnegie had given away nearly all of his \$350 million dollar empire.

The powerful U.S. Steel was not just one company. It was formed from a merger of 10 other companies: American Bridge Company; American Sheet Steel Company; American Steel Hoop Company; American Steel and Wire; American Tin Plate Company; Carnegie Steel Company; Federal Steel Company; Lake Superior Consolidated Iron Mines; National Steel Company; and the National Tube Company. U.S. Steel became the first billion-dollar company in the world, producing 67 percent of country's steel. By April 11, 1901, companies such as the Shelby Steel Tube Company and Bessemer Steamship Company were added to this industrial giant. U.S. Steel controlled massive iron deposits on the Mesabi Range in Minnesota and the coal reserves in western Pennsylvania. The company also controlled the largest shipping line on the Great Lakes, 80 blast furnaces, and 149 steel plants and mills. At the time, U.S. Steel's market share of finished steel products stood slightly over 50 percent. The mills of

U.S. Steel had the capacity to produce 60 percent of the nation's Bessemer steel, 75 percent of the pipe, 70 percent of the sheet metal, 68 percent of the nails, and 77 percent of the wire rod.

With such a massive company in operation, an important decision had yet to be addressed: Who was to run U.S. Steel? There were three main candidates for the job. Charles M. Schwab was a very bright veteran of the steel industry. He had worked his way through the Carnegie organization to become president of Carnegie Steel. Then there was Elbert Henry Gary, who was a lawyer and former judge, and the director of the Illinois Steel Company that had co-opted into Federal Steel, of which he had been president. Finally, there was J. P. Morgan, who had arranged the financing for the purchase. Morgan urged Schwab to become president of U.S. Steel and wanted Gary as chairman.

Schwab and Gary could not easily share the control of the company. In 1903 Schwab resigned and soon gained control over Bethlehem Steel Corporation, which he eventually made into the second largest steel producer in the country. Gary stayed as chief executive officer and led the U.S. Steel Company until he died in August, 1927. Before his death, Gary's goal for U.S. Steel was to avoid its becoming a monopoly. Gary was firm in attempting to uphold trade and encourage competition by using the basis of efficiency and price.

Following Elbert Gary's death, J. P. Morgan Jr., took over the position of chairman of the board of directors from 1927 to 1932. Essentially the leadership of the company came from Myron C. Taylor, chairman of the finance committee from 1927 to 1934, and chairman of the board from 1932 until his resignation in 1938.

The market shares for U.S. Steel dropped significantly in the following years due to competition, falling from 66 percent in 1901, to about 33 percent from the 1930s to the 1950s. One of the most noticeable growth spurts for U.S. Steel occurred during World War I (1914–1918) when sales doubled to \$2 billion between the years 1915 and 1918. Sales remained at \$2 billion annually through the 1920s. Significant drops in sales occurred in 1933 and 1934 during the Great Depression (1929–1939). Sales then climbed to \$1 billion in 1940, and \$3 billion in 1950. Wall Street's confidence in U.S. Steel had disappeared prior to the depression. Although product shares suffered the least, light rolled sheet fell dramatically because of hesitation to take on hot-strip mills.

Myron Taylor continued his efforts toward keeping U.S. Steel alive. One significant breakthrough

came with the hiring of an engineering consulting firm of Ford, Davis, and Bacon in 1935. A complete study of the corporation produced more than 200 reports. The consultants criticized the lack of a rational management structure, and excessiveness due to two separate raw-steel operations—Carnegie Steel and Illinois Steel. Based on the consultants' suggestions, Taylor created Carnegie-Illinois Steel. In 1936 American Sheet and Tin Plate joined Carnegie-Illinois Steel, making it the largest steel company in the world.

Taylor then restructured the corporation's management as well, making Benjamin Fairless, from Republic Steel, the new president of Carnegie-Illinois Steel. Another management company was also created to stand between the holding corporation and the operating subsidiaries. The United States Steel Corporation of Delaware formed in 1938. This ended the firm control of the finance committee and gave operating officials freedom while coordinating their efforts. A final suggestion from consultants was to expand the development of more hot-strip mills. Therefore, in 1935, two more modern plants were constructed.

During the 1950s emphasis was placed on expansion. More hot-strip mills, pipe mills, and open hearths were built. In the 1960s there were inadequate profits, which forced restructuring. By 1969 U.S. Steel had borrowed \$1.4 billion to finance expansion. During the 1970s, long-term growth in steel became hopeless in light of rising costs, foreign competition, and competitive pricing. The late 1970s saw the shutdown of 13 plants at a loss of \$809 million. In 1982 U.S. Steel acquired Marathon Oil Company—a company holding reserves in oil and gas with revenue essentially equal to U.S. Steel's. Texas Oil and Gas Corporation, was also acquired by U.S. Steel in February 1986, for \$3.6 billion.

In July 1986 United States Steel Corporation changed its name to USX Corporation. Then, in 1991, the company split into two separate entities: U.S. Steel and Marathon. The creation of a third group, the USX-Delhi Group, came about in 1992. During the early 1990s, USX-U.S. Steel was able to reduce fixed costs and increase productivity by cutting its raw steel capacity in half. USX closed four of its seven plants and reduced employees by 56 percent. This heralded a change in direction for the company. During 1992 USX-U.S. Steel diversified into the world of power technology. In the late 1990s, USX operated as two separate entities. The Marathon Oil Group specialized in natural gas exploration, research, domestic refining, marketing, and transportation of crude oil. The U.S. Steel Group remained a leading manufacturer of steel products.

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UNITED STATES V. E.C. KNIGHT COMPANY

In 1895 the Supreme Court decision in the case of *United States v. E.C. Knight Company* severely undermined the Sherman Anti-Trust Act of 1890. In an eight-to-one ruling, the high court determined that, although a monopoly in manufacturing, the American Sugar Company and its subsidiary, the E.C. Knight Company, had not monopolized trade. The government had prosecuted the sugar company for owning 98 percent of the nation's sugar-refining capacity, seeing this as a clear violation of the Sherman Anti-Trust Act's pronouncement that "every contract, combination in the form of trust or otherwise, or conspiracy in the restraint of trade" is illegal. But according to the Supreme Court justices, the Sherman act had given Congress the right to regulate interstate commerce only; since the Knight Company's manufacturing operations were all located within Pennsylvania, the federal government had no jurisdiction.

The court's narrow interpretation of the Sherman Anti-Trust Act delivered a painful blow to those who wanted government to break up or at least limit the powerful monopolies. Though the Sherman legislation provided the basis for trust-busting, its might would not be used until the first decade of the 1900s, when, after a change in political climate, Standard Oil Company and American Tobacco Company would be charged with, and (in 1911) found guilty of violating the Sherman Act. In 1913, antitrust cases were also brought against the Union and Southern Pacific Railroad merger, International Harvester Corporation, American Telephone and Telegraph (AT&T), and the New York, New Haven, and Hartford Railroad.

In 1914, national anti-trust legislation was strengthened by the passage of the Clayton Anti-Trust Act, which outlawed price fixing (the practice of pricing below cost to eliminate a competitive product). The Clayton Act also made it illegal for the same executives to manage two or more competing companies (a practice called interlocking directorates), and prohibited any corporation from owning stock in a competing corporation.

See also: American Tobacco Company, Clayton Anti-Trust Act, Sherman Anti-Trust Act, Tobacco Trust

UPJOHN COMPANY

In the Victorian era promoting and marketing early pharmaceutical products required talent, skill, and ingenuity. From the very beginning research and development played a major role in the development of modern pharmaceutical production. William Erastus Upjohn (commonly referred to as W.E.) was raised with his twelve brothers and sisters in an environment of medicine and pharmacia. His father and two uncles, all of whom were medical practitioners, nurtured this environment. W.E. Upjohn became a physician in 1875. While practicing medicine in Hastings, Michigan, he set up his own pharmaceutical laboratory. He began to experiment with formulas to develop a pill that would dissolve easily in the stomach. Upjohn revolutionized the drug industry in 1885, when he worked out problems and crushed a pill under his thumb to symbolize the achievement. This image became the trademark for the founding of the Upjohn Pill and Granule Company in 1886. The name was shortened to the Upjohn Company in 1903.

Dr. W.E. Upjohn's concern with the working conditions of his employees was evident, as he implemented a soup lunch program in 1911 and a group life insurance and benefit program in 1915. Having had a passion for horticulture, Upjohn donated a 17-acre park to the city of Kalamazoo, Michigan, and reduced the workday to seven hours in the summer so employees would have time to water their own lawns. Upjohn was a member of the commission that established the charter for the city of Kalamazoo in 1914, and served as the first mayor to administer the plan. Upon his death in 1932, W.E. Upjohn was in the process of trying to develop a form of employment insurance for the people of Kalamazoo. The Upjohn Company had over 1000 employees and net sales of \$8.5 million.

Through the turn of the century souvenirs promoting Upjohn products were available at the Chicago's World Fair; the exhibit itself was an enormous bottle filled with colored pills. The Upjohn principle that medicine should have a pleasant taste was exemplified in flavored laxative wafers, alkalizers, and cherry-flavored cough syrup. Marketing through physicians became a method of promoting Upjohn products such as Kaopectate, an antidiarrheal. Eventually Upjohn became a leader in the development of medicines for treating the central nervous system, heart conditions, arthritis and cancer.

In 1913 Upjohn continued its emphasis on research and development by hiring its first research scientist, Dr. Frederick W. Heyl. Heyl developed an effervescent antacid in 1926 and patented a tablet named Digitora (developed from digitalis) for the treatment of heart disease. By 1940 the company had expanded and added twelve more research scientists. Upjohn was selected by the armed forces to process human serum albumin and penicillin. Upjohn became a major manufacturer of antibiotics, and by 1958 antibiotic sales had reached \$22.6 million. International expansion during the 1950s enabled Upjohn to compete in foreign markets and advance their research. In 1985 thirty percent of their total sales were from the foreign market share which increased to 33 percent by the 1990s.

A swarm of publicity surrounded Upjohn in the late 1980s when the company applied for a new drug application for male baldness known as Rogaine. After three years of disappointing sales Upjohn changed marketing strategies by taking the product directly to the consumer. Investing \$50 million to promote Rogaine the company become one of the world's top three advertisers. In the early 1990s Upjohn was quickly trying to develop a treatment for Acquired Immune Deficiency Syndrome (AIDS) as well as a group of steroids designed to treat spinal and head injuries, which would replace some products being lost to the generic market.

In the face of the changing global market Upjohn sought to consolidate its position in the ethical pharmaceutical industry. There was speculation that Upjohn was too small to compete with its larger rivals. In response to the challenge Upjohn reorganized and merged with Pharmacia AB of Stockholm, Sweden. Pharmacia & Upjohn became one of the world's largest pharmaceutical firms, with annual sales of \$7 billion, a research budget of \$1 billion, and over 30,000 employees.

See also: Pharmaceutical Industry

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URBAN RENEWAL

Urbanization of a society occurs when city population growth rates exceed that of rural areas. Urbanization was a hallmark of U.S. economic development throughout the nineteenth century and the first half of the twentieth century. Increasing industrialization lured multiple waves of immigrants into primarily Northern urban settings seeking employment. Initially, rural peoples arrived from farms at the beginning of the nineteenth century. Foreign immigrants followed from northern and western Europe in the mid-1800s and eastern and southern Europe in the 1890s through the early part of the twentieth century. Finally, African Americans came from the American South in two major migration waves during the first half of the twentieth century. Ethnic and racial enclaves and neighborhoods came to comprise the socioeconomic mosaics of cities.

Sanitation, poverty, and overcrowding were persistent urban problems from the beginning, and became a national problem toward the end of the nineteenth century. Enhancement of urban life was a key element of the 1930s New Deal programs. Congress created the U.S. Housing Authority in 1937 to clear slums and provide public housing for low-income residents. Employment programs funded the construction of public buildings such as schools, hospitals, and urban parks.

Economic prosperity characterized the United States after World War II (1939–1945). Transportation advances including urban freeway systems and low-cost government mortgages for war veterans fueled the

great movement of white middle class city dwellers to the suburbs. With the exodus from cities taking away tax revenue and jobs, American cities began a steep downward spiral in quality of life and socioeconomic stability. Poverty, dilapidated housing, and high crime rates characterized inner city neighborhoods, largely populated by minorities. The urban black ghetto riots of the 1960s led to greater white migration to the suburbs, which became known as the “white flight.” A pattern of urban de-industrialization followed, with manufacturing businesses moving out of inner city areas creating edge cities in the suburbs. Americans’ attitudes toward the cities radically declined and racism became an urban problem rather than a Southern problem.

To counter these growing trends of declining inner cities, the first broad program of urban renewal was initiated in the 1950s. Congress funneled substantial amounts of federal financial aid to cities aimed at eliminating slums and ghettos and replacing them with improved housing and industrial and commercial areas. The Housing Act of 1954 provided “categorical” grants to restore older housing, directing public funds to specifically proposed actions. However, new high-rise housing projects of the 1950s and early 1960s soon represented the worst of black ghetto life.

The lack of success of categorical grants led to the Community Development Act of 1974. The act introduced block grants giving cities greater flexibility to address their specific needs through locally developed renewal plans. City plans required approval from the Department of Housing and Urban Development before qualifying for funding. Using block grants, cities would purchase slum areas, sometimes exercising eminent domain, to force the sale of private property to the government. The city would then demolish the buildings, clear the lots, and sell the land to private developers, or put it to public use. Highly toxic remains of abandoned industry often littered these inner city areas leading to costly environmental clean-up efforts. Prices for the cleared land were frequently set low and sometimes supplemented with tax breaks to attract private developers. Thus, the program operated at marked deficits for both city and federal governments. Housing developments, shopping centers, and office complexes were built in the newly cleared areas.

Although federal law required cities to assist displaced residents and businesses in finding new affordable locations, the dislocations often resulted in economic hardships. Urban renewal essentially became black removal. Cities typically built new public housing away from the renewal areas and traditional work sources while reserving renewal areas for the middle

and upper income residents to stimulate economic growth.

The 1970s also saw other urban renewal programs including urban homesteading. Old abandoned houses that had fallen into city ownership were sold at low cost to individuals interested in restoring and living in them. The 1980s saw several states implement urban enterprise zones, attempting to attract new businesses to inner city areas. The zones provided tax cuts and relief from regulations including zoning laws and rent controls. These programs were largely ineffective, however, given the extent of city problems.

The results of federally funded urban renewal programs were mixed. A number of declining downtown areas were economically revitalized by introducing new industrial and commercial developments. Thousands of families found improved urban housing and new schools, parks, hospitals, museums, and libraries were erected in cleared slum areas. In some cases neighborhoods became integrated as a result. Many areas cleared under the federal programs, however, remained vacant. The high-rise low income public housing projects attracted poverty, crime, and disease. Consequently, many housing projects experienced high vacancy rates. Critics of urban renewal policies claimed cities’ efforts to attract new business and higher-income residents caused cities that were already established to deteriorate.

The height of concerted urban renewal efforts at a national level ended after the 1970s. Under President Ronald Reagan (1981–1989), the U.S. government substantially reduced financial aid for urban development and housing. Through the remainder of the twentieth century, urban renewal became more the responsibility of city and state governments and renewal activity declined significantly. The 1990s brought concepts of empowerment zones, in which distressed urban areas received tax breaks, federal investment for creating new businesses, and job retraining programs. Other urban renewal concepts involved home ownership zones for affordable housing, and education opportunity zones to assist the most needy schools.

See also: De-Industrialization, Ghetto, Industrialization, Slums, Suburbs (Rise of), Tenements, Urbanization

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Another measure of the contrasts appearing in the nation's cities at the end of the nineteenth century was the differentiation of urban space. Since the 1850s lower Manhattan had been the province of commercial buildings, warehouses and tenements. However, by the 1880s the island had fragmented into a series of discrete neighborhoods increasingly divided by economic use, race, class, and ethnic origin. Wealthy and white-collar workers followed streetcar lines or elevated railroads uptown or to the urban periphery.

David Schuyler, *The New Urban Landscape: The Redefinition of City Form in Nineteenth-Century America*, 1986

URBANIZATION

At the time of the American Revolution (1775–1783), communities within the capitals of the thirteen colonies were very small. Ninety-five percent of the country's population lived rurally, participating in the predominant agrarian economy. The nation's first census in 1790 found only five cities with more than 10,000 people and no city as large as 50,000. The process of urbanization soon took hold, however, and city populations grew rapidly. The close tie between economic development and urbanization became a hallmark of U.S. economic history. Where some nations evolved with a singular large urban center, the form of urbanization in the United States was far more regional. Urban networks grew with large cities supporting a network of smaller cities and the smaller cities supporting surrounding agricultural areas. Racing to develop transportation networks such as railroads and canals, competitive regions made investments into urban infrastructures, including cultural institutions such as museums, opera houses, parks, colleges, and theaters.

The nation's first cities were seaports such as Boston, New York, and Philadelphia. Harbor areas formed the hub of economic activity. Through the early nineteenth century, modes of transportation evolved slowly; a person's needs could be met within a comfortable framework of one or two miles. A diverse mixture of economic activities and social classes including warehouses, artisan shops, and homes of the wealthy merchants could be found around the harbor area. Residential and business districts were intertwined. Little differentiation between social classes and ethnicities was common.

By the mid-nineteenth century a transportation and communication revolution emerged. Railway growth and the introduction of the steam engine dramatically influenced urbanization. Commercial centers transformed into industrial cities. Factory production expanded, bringing greater numbers of people to the cities with foreign immigration serving to satisfy escalating demands for workers. Cities, however, had difficulty accommodating the increased numbers of people. Considerable crowding occurred because buildings could not extend above five stories due to insufficient elevator technologies and the inability to supply water above that height.

By 1870 almost 170 cities had populations over 10,000 and 15 cities had more than 100,000 people. Transportation by horse-drawn street railcars allowed greater mobility. Cities became less centered around their harbor areas. New commercial districts grew somewhat distant from the ports containing key financial institutions, retail shops, and entertainment facilities. The traditional apprenticeship system gave way to a wage-earning working class that sought inexpensive housing. Residential areas became more detached from businesses and fast-growing industrial areas. The continued industrial growth also led to unprecedented crowding of laborers in congested industrial areas. The wealthy class began creating their own, more lavish residential areas.

Westward extension of the railroads spurred migration. Commercial agricultural production and trade grew away from the coastal cities. Urbanization moved westward as well. Urban markets served agricultural economies as transportation hubs and banking centers facilitated a cohesive, regional economic system.

Major technological advances spurred increased urbanization in the 1870s. Elevators significantly altered urban area economics. The rental value of upper-story office building floors became relatively equal to street level floors, greatly raising city center land values. After 1870 central business districts with clusters of tall buildings began to surface. The buildings contained offices, department stores, entertainment establishments, and government agencies. Administrative and financial centers evolved, anchoring corporate activities that were distributed among outlying smaller cities. By the late 1880s electric streetcars were introduced which greatly enhanced transportation. A classic American urban pattern appeared in cities of over 100,000 residents. The pattern included a central business district, immediately surrounded by slums and working class residential areas, with more prosperous suburbs further outward. By 1918 most Americans lived in urban settings, and the classic downtown era persisted through World War II (1939–1945).

In the 1890s immigration from eastern and southern Europe grew dramatically. These groups were more socially distinct than earlier immigrants from northern and western Europe. During the two world wars of the twentieth century, African American migration from the American South escalated in the cities. The various ethnic groups established distinct neighborhoods with their own commercial activities.

Urbanization led to complex socioeconomic problems following World War II. The emergence of suburbs detracted from the quality of life in city centers by relocating many jobs and desperately needed tax revenue. The population of some cities declined. The process of urbanization had largely run its course. Cities of the late twentieth century presented contrasts between complexes of office towers, convention centers, and lavish hotels, surrounded by pockets of homeless people, poorly supported schools, low income housing, and crime. A new immigration wave entered the cities, primarily from Asia, Latin America, Africa, and the Caribbean, establishing new middle class non-white neighborhoods. The combination of international corporate office buildings and multi-ethnic neighborhoods introduced a new era of American urban centers.

See also: Industrial Revolution, Industrialization, Slums, Suburbs (Rise of), Tenements, Urban Renewal

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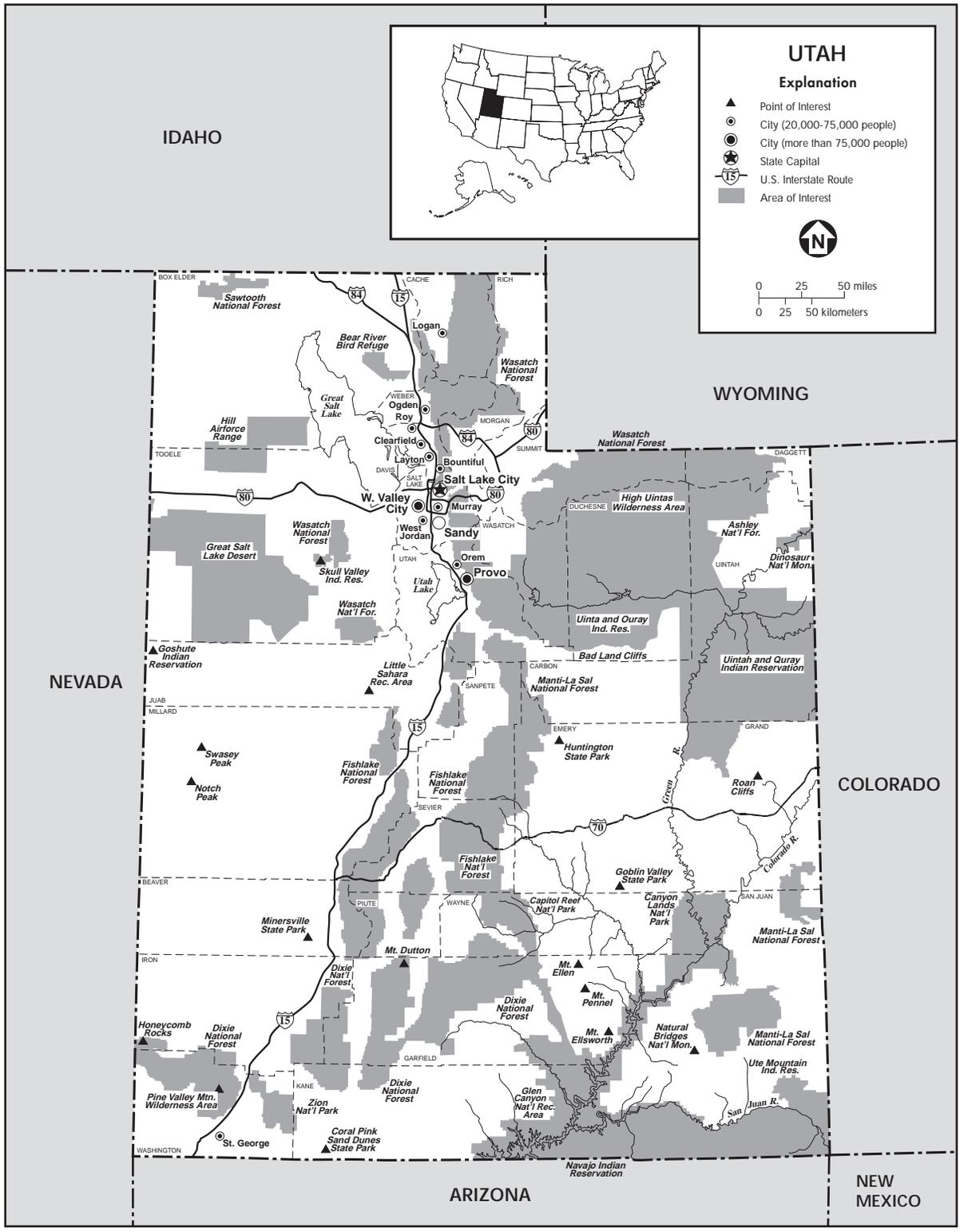
UTAH

Utah, like the early Massachusetts colonies, developed as a theocracy, in which church leaders controlled both spiritual and secular life. The Church of Latter-day Saints has dominated Utah's social, political, and economic life since the first Mormon pioneers traversed the desert to set up their earthly paradise in Salt Lake City. According to Utah historian Charles S. Peterson, "To the spiritual goals of salvation and world reform they added the temporal objectives of growth and survival." After much wrangling with the federal government, both the territory and (later) the state of Utah reluctantly decided to cooperate with the rest of the nation and managed to become economically successful in the social context of the United States.

Spanish and Mexican explorers were the first non-Indians to explore Utah. By the early 1800s, trade was common between the Indians of Utah and the Spanish provincial capital of Santa Fe. The main route through the old Southwest, the Spanish Trail, traversed Utah, at first bringing fur traders and later settlers bound for California. In 1847, following the death of the Church of Latter-day Saints (Mormon) leader Joseph Smith by lynching in Illinois, Brigham Young and a band of Mormon pioneers set out for Utah's Great Basin, seeking refuge from persecution in the East. Upon arrival, they established Salt Lake City and set about cultivating the arid environment by planting crops and establishing irrigation systems.

During four decades of the colonization of Utah, 450 towns and hamlets were set up, all located near a source of water, a precious commodity in the arid territory. From the beginning, the church was involved in all aspects of the settlers' lives, and all natural resources were considered communal. In the Great

Utah



State of Utah.

Basin, the church leaders undertook to create a self-sufficient economy, planning and organizing various enterprises and using an “in kind,” or barter, system to exchange goods and services. After the initial migration of U.S. Mormons, around 90,000 foreign converts arrived between 1850 and 1905.

The Treaty of Guadalupe-Hidalgo in 1848 gave the United States title to much of the land in the Southwest, and the Mormons set up a provisional state they called Deseret. Congress called it the Utah Territory; the area at that time encompassed most of Nevada and parts of Wyoming and Colorado, as well as the present state of Utah. The 46 years of territorial status were marked by a number of conflicts between Mormons and the federal government. Albert Cummings replaced Brigham Young as territorial governor in 1858, marking the beginning of a prolonged period of hostility against federal authorities.

Mormon traditions dominated the territory, since 70 percent of the population was of the Mormon faith, until 1870. Despite their desire to be self-sufficient, Mormons began to embrace economic opportunities as they presented themselves from outside the community. As president of the Church, Brigham Young had great economic as well as ecclesiastical and civic authority. He contracted with the Union Pacific Railroad in 1868 to lay part of the track in Utah. An historic day for Utah was the completion of the first transcontinental railroad, when the Central Pacific joined with the Union Pacific at Promontory Point, Utah, on May 10, 1869. New rail lines sprang up during the 1870s, making immigration to the state easier and creating a significant population growth in Salt Lake City. Agriculture dominated the economy until 1863, when silver was discovered in Bingham Canyon.

With mining of precious metals came the first influx of entrepreneurs. At first Mormons opposed mining but eventually came to see it as a natural way of developing the territory. Outside businessmen were suspicious of the Church’s pervasive influence over all aspects of Utah’s life, including the Mormons’ practice of communitarian economics. The most hostility to Mormonism, however, was over the issue of polygamy, sanctioned by the Church until 1890. Many arrests were made by federal authorities among polygamous families.

Utah became a state in 1896. Mineral production increased in the new century. The mine owned by Utah Copper at Bingham was a prime example of the potential of mineral wealth in the state. Exploiting an entire mountain of copper, the company built mills, its own

railroad, and a steam-generating plant. The considerable output of the mine, along with its gigantic open pit, was heralded as a wonder of modern industrialism. By 1930 Utah Copper was responsible for 50 percent of Salt Lake City’s assessed valuation and 13 percent of the value of the whole state. With burgeoning mineral mining also came increased union activity. After an explosion that killed 200 miners at Scofield in 1900, radical union activity became commonplace. Joe Hill, a member of the Industrial Workers of the World (nicknamed the Wobblies), was executed in 1915 for the murder of two Salt Lake City citizens.

Modern cities began to grow in the new state, along with highways, power plants, and interurban railroads. In 1920 one-half of the population lived along the Wasatch Front. Although a number of ethnic groups were coming into the state and changing its demography, the Mormon population was still at 68 percent in 1920.

Prosperity marked the business sector of Utah in the 1920s, but agriculture and mining were depressed. In the 1930s union activity increased, mostly in the coal and copper industries. The Great Depression (1929–1939) was especially hard on Utah after severe droughts in both 1931 and 1934. High freight rates also hindered manufacturing. During World War II (1939–1945), however, wartime demands for food helped Utah’s agricultural production; military installations and war-related industries brought about economic recovery.

Because of the high birthrate in Utah, the state’s population more than doubled in the time since the war, while the per capita income decreased compared to the national average. In 1995 it was just over \$18,000, ranking the state only forty-sixth in the nation. To ensure an adequate water supply for the future, in 1967 the state began work on the Central Utah Project, a dam and irrigation program which continued into the 1990s. Throughout the 1990s Utah’s economy was one of the fastest growing in the nation, and the state boasted a low unemployment rate. The state had a budget surplus in 1994 and its population grew by 16.1 percent between 1990 and 1996.

Utah’s leading industry is transport equipment manufacture, including aircraft parts and parts for missiles and rockets. A continuing source of controversy in the state is how to balance growth against the protection of the state’s beautiful natural areas. On the Wasatch Front, air pollution is a problem, and the Division of Environmental Health is particularly concerned with the dumping of dangerous materials.

Trade has replaced the government as the largest employer in Utah. The federal government is still a

Utilities Industry

major player in the state's economy, however, with around 14 percent of personal income derived from government sources. Since the government owns around 70 percent of all the land in the state and provides many jobs in the defense industry or the military, the federal presence is a rather controversial issue in the state today. Significant declines in military spending in the late 1980s and the 1990s have hurt Utah's economy. Though agriculture has declined in recent years, it is still a significant sector of the economy, with livestock and livestock products responsible for three-fourths of the agricultural income. Utah's mines are mostly noted for metal and coal extraction. In 1995 the state was the only producer of beryllium. Tourism is also a growing industry, focused on Utah's large number of national and state parks, as well as skiing, hunting, fishing, and other recreational activities. Economic development policy in the state is conservative, supporting business activities and opposing expansion of government social programs.

See also: **Santa Fe**

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UTILITIES INDUSTRY

Public and private utilities provide services such as electricity, gas, telephone, water, and sewerage treatment. Most of the utilities in the United States are privately owned, but are regulated by state and federal governments because of their monopolistic nature. In recent times, however, the government oversight that was demanded by the reformers of the Progressive period in American history (1900–1920) has been undermined by the proponents of deregulation.

Perhaps the most important utility in the United States during the late twentieth century was the electric utilities industry. Electricity could be generated in power plants using fuels such as coal, fuel oil, nuclear

energy, and natural gas. The uses of electricity are seemingly endless and originate with the period of the great inventors of the nineteenth century. The electric light bulb was invented by Thomas Edison (1847–1931) in 1879, and the following year, he founded an electric power generating plant. Soon his company was challenged by George Westinghouse (1846–1914) and his United States Electric Light Company. Growth in the industry continued steadily through World War II (1939–1945). By 1951 nuclear energy was used to produce electricity, and the 1960s saw an increase in the use of nuclear reactors. These advances, however, were accompanied by occasional mishaps. A serious accident in 1979 at the Three Mile Island nuclear power plant in Pennsylvania created a credibility problem for the nuclear power industry, and new federal regulations in the 1970s focused on conservation. In the wake of escalating gasoline prices resulting from the OPEC oil embargo, alternative power sources such as water, wind, and solar energy were widely encouraged to produce electricity. Analysts predicted high output for the electric utilities in the twenty-first century, as the U.S. government was expected to continue deregulating the industry to stimulate competition and lower prices.

Coal gas (gas made from coal) was a popular source of energy until the mid-twentieth century. It is made by converting coal into combustible gases that can then be used as a fuel or as a component of chemicals and fertilizer. Coal provided the most common fuel gas for residential and commercial use for most of the nineteenth century through the 1940s, when consumers turned to cheaper natural gas.

Natural gas is primarily comprised of methane and used as fuel for homes and businesses. It was adopted as a cheap and clean fuel source. In the late nineteenth century natural gas was used for city streetlights and for cooking. In the period between World War II (1939–1945) and the 1960s, utility companies laid large grids of natural gas pipelines. The use of natural gas continued to grow during the late twentieth century, in part due to the deregulation of the industry which thereby resulted in lower prices.

Water systems are yet another important utility. Clean and healthy drinking water is among one of the most important elements in human society. Business and industry use large amounts of water to fight fires and irrigate crops. In the late twentieth century most water utilities were publicly owned. The beginnings of the modern water system in the United States date back to the late nineteenth century. As was the case with other utilities, population growth after World War II brought about an increased demand for water. Several

federal regulations during the twentieth century, such as the Safe Drinking Water Act of 1974 (amended in 1996), helped set higher standards for the water supply. Two of the most notable water utilities in the United States during the late 1990s were the American Water Works—the largest water utility owned by investors—and the Metropolitan Water District of Southern California, which provided more drinking water than any other company in the United States at that time.

Wastewater and sewer systems are yet another component of public utilities. Wastewater treatment systems are primarily public, non-profit facilities that serve a local or regional area and may handle both residential and industrial wastes. Industrial wastewater is often treated at the point where it is generated and subsequently released into natural water systems or into the nearest public facility. Many homes in the United States still use small separate facilities such as septic tanks.

Sewer systems in the United States date back to the mid-nineteenth century. The importance of sanitary treatment and disposal of sewage was underscored by the deadly cholera epidemics that periodically plagued the country from 1832 through the 1850s. By the 1870s extensive construction of sewerage treatment plants was under way. The federal government imposed regulations on this industry from the mid to late twentieth century. There was renewed interest, as well, in the privatization of this industry, with some projections indicating that there may be one private company for each public facility by the year 2020.

Another utility was born with Claude Chappe's invention of the semaphore telegraph in 1792, which paved the way for the telecommunications industry. Telexes and telegrams were used to transmit messages in only one day. They remained popular until the 1970s, when they began to be replaced by facsimile machines and, in the 1990s, by electronic mail through the Internet. By 1994 only two telegraph carriers were still in operation. Telegraph industry leader Western Union Corporation began to add more modern methods of communications to its operations in an effort to remain competitive at the end of the twentieth century.

One of the most common aspects of the industry is the telephone. This 1870s invention by Alexander Graham Bell (1847–1922) profoundly changed the cultural and material complexion of the world. Based, in part, on technology spin-offs from the defense industry, the telephone eventually freed itself of telephone wires and evolved into the two-way radiotelephone. This category eventually included cellular phones, pagers, satellite and microwave facilities, and

fiber optic lines. In the late 1990s the telecommunications industry was revolutionized by deregulation with the Telecommunications Act of 1996. While deregulation was designed to stimulate more competition, critics claimed that rather than improve service or drop rates the industry was moving in the direction of powerful monopolies.

The continued presence in some form of most of the components of the public utilities seems assured. Americans in the twenty-first century will undoubtedly continue to want all of the comforts and convenience that utilities provide. Deregulation of public utilities continued throughout the 1990s. It is, however, unclear whether this strategy will result in the positive outcomes of greater competition, cheaper prices, and environmentally safe management of our natural resources.

See also: Alexander Graham Bell, Coal Industry, Thomas Edison, Nuclear Energy, Telegraph, George Westinghouse

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UTOPIA

In the Greek language, “utopia” means: “no place,” suggesting that utopia is never to be found on earth; that it is instead an eternally-empty ideal, or dream. In 1516, the famous English philosopher, Sir Thomas More, wrote extensively about utopia, where he depicted an ‘ideal state’ that has since given its name (Utopia) to all such later romantic visions of an ideal country, or a “heaven on earth” society. Typically, people who are known as Utopian writers criticize the present conditions of the world and outline vast revolutionary schemes without describing the concrete, specific steps necessary to achieve them. Some famous philosophers who were regarded as Utopian include Plato, who constructed an ideal society in his *Republic*, as well as Campanella, Bacon, and Rousseau. During the nineteenth century, Utopian thinking began to be taken more seriously, as technological advances associated with industrialization caused many people to believe that a Utopian world could be achieved with the help of technology and with a scientific system of economics. In particular, Engels, Saint-Simon, Fourier, Proudhon, and other nineteenth-century socialist philosophers began to write extensively about creating Utopian socialist communities. Utopian experiments were actually tried, both in the United States and in Europe, but they were all short-lived, and all failed. In the twentieth century, most people became more cynical about the prospects for Utopian societies, and at least two major satiric anti-Utopian books were written: Aldous Huxley’s *Brave New World*, and George Orwell’s *1984*.

See also: Brook Farm

UTOPIAN COMMUNITIES, COMMUNES (ISSUE)

During the seventeenth, eighteenth, and nineteenth centuries numerous European and American idealists sought to create examples of the perfect society in which everyone would benefit and there would be no conflict. Most of these experiments were set up in America where it was believed they would be relatively free from interference or persecution. That hope sometimes proved to be unfounded, but nevertheless many such communities did indeed experience a remarkable level of success and survived for many years.

There were two types of communitarian societies: sectarian and secular. The former were based upon a philosophy that was essentially religious, and the latter were not. Aside from religion, however, the two types



This couple chose to “drop out” of society and seek Utopia in commune life. Although often associated with the 1960s, the search for Utopia, via the commune system began in the United States as early as 1663.

shared many characteristics. They were usually small with seldom more than a few hundred people in a community. They all had charismatic leaders who were often very able, they all had developed some method of acquiring and maintaining land, they all developed some means of governing gender relations—ranging from celibacy to “communal marriage”—and they all developed a workable means of making a living for their members.

The history of communitarian societies in America began in 1663 with the arrival of a group of Dutch Mennonites in Delaware. This settlement was destroyed when the British conquered New Netherlands in 1664. There was no similar attempt for several years until 1683 when settlers came to Maryland who were followers of Jean de Labadie, a German perfectionist thinker. Their community lasted for about twenty years before internal dissension caused it to split up and decline.

The first communal experiment to survive for a considerable period of time was founded by Johann Conrad Beissel, a German who had migrated to America in 1720. In 1732 Beissel founded a settlement in Pennsylvania which he called Ephrata. This community prospered until Beissel’s death in 1768. After that it

went into a period of decline until 1814 when the few remaining residents incorporated as the Seventh Day German Baptist Church which survived until 1934.

It was not until 1774 that an English-speaking group arrived who would exert significant influence on American society at large. These were the followers of “Mother” Ann Lee, who were commonly known as “The Shakers.” This designation was assigned to them because of their habit of dancing during their religious services. “Mother” Ann and her people came from Manchester, England, and settled in upstate New York. Although “Mother” Ann died in 1784, the community survived under the able leadership of her American successors. They established their first fully communal town in Columbia County, New York, in 1787. From there they went on to establish twenty-two villages in seven states, continuing to expand until 1836. They were very good at attracting converts and, in fact, relied upon these skills for their survival because one tenet of their philosophy was strict adherence to celibacy. Their villages usually had an economy based on agriculture.

There was a surge in the appearance of communal societies in the early nineteenth century. By that time American nationalism had begun to develop; along with it came a growing interest in social reform. There was a widespread belief between 1820 and 1850 that American society could be improved or perfected in many ways. Thus the idea of perfectionist communities fit in very well with currently prevailing attitudes.

One of the first societies to develop in this era was headed by “Father” George Rapp who founded a community near Pittsburgh in 1804. He preached that the Second Coming of Christ was near and attracted many followers who believed that life in his community would prepare them for the millennial event. In 1814, the “Rappites” moved to Indiana where they remained for ten years. Then they returned to Pennsylvania and established a village (named Economy) near the site of their original community. They built woolen and cotton mills and a sawmill; they grew fruit, made wine, and produced silk. They were very successful and their community continued to operate at Economy until well into the 20th century.

Another perfectionist leader of this period was Robert Owen. Owen was a self-made businessman and for twenty-five years (1800–1825) was manager of New Lanark Mills, one of Scotland’s largest cotton-spinning mills. During his career Owen became convinced that reforms in the factory system that would improve the standard of living of the workers were vital. He came to believe that improvements in human

living conditions would lead to improved results in business. Eventually, he rejected the free enterprise philosophy entirely and adopted a pre-Marxian form of socialism. He called his idea the “New Moral World.” In it everything would be accomplished by means of cooperation rather than competition. By 1824, he had decided to transform his dream into reality in America.

Owen purchased the Rappite property in Indiana for \$150,000, renamed it New Harmony, and began his experiment in 1825. He did not have to start from scratch because the Rappites left him a ready-made community complete with houses, mills, shops, churches, factories, vineyards, and orchards.

Owen’s idea was that New Harmony would be a fully communal society. There would be no private property, everyone would receive “credit” for their production, and all necessities would be supplied by the communal store. Unfortunately, the experiment did not work. The system was not well organized or managed, production lagged, there was no unity, morale collapsed, and by 1827, the experiment was over. Owen abandoned New Harmony and returned to England. It would be more than ten years before another experiment of this type was attempted.

Beginning in the 1840s new communal experiments began in America. These were based on the ideas of the French Socialist Charles Fourier as translated into English by his disciple Albert Brisbane. Many of Fourier’s ideas were similar to those of Robert Owen. He declared that concern and cooperation were the secrets of social success. He argued that a cooperative society would lead to an immense increase in production. The fruits of all labor would be divided among all workers according to the contribution of each worker. Like Owen, Fourier believed that communities should be small and well-planned in all aspects. He called his ideal community a “phalanx.”

Beginning in 1841, through 1848, there were 28 Fourierite phalanxes attempted in America. The first and most famous was Brook Farm in Suffolk County, Massachusetts. A number of famous Americans, including the author, Nathaniel Hawthorne, participated in this experiment which lasted until 1847. Other Fourier phalanxes were formed in New York, Pennsylvania, New Jersey, Indiana, Ohio, Michigan, Wisconsin, Illinois, and Texas. All but three were founded between 1841 and 1847, the period during which Brook Farm operated; most of them (thirteen) originated in 1844.

One of the most interesting and successful of the communitarian experiments in America was John Humphrey Noyes’ Oneida Community. In 1834 Noyes

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announced that he had attained a state of perfection and was incapable of sin. He then formed the Perfectionist Church in Putney, Vermont, where he and his followers held all things, including marriage partners, in common. Such radical ideas caused the local authorities to charge Noyes with adultery whereupon he and his congregation fled to New York.

Noyes purchased forty acres of land near the town of Oneida in upstate New York where he began to build a Perfectionist Society. Not only were all things held in common, including marriage partners, but the group practiced “scientific reproduction,” which Noyes called “stripiculture.” This meant that partners who were “morally perfect” were selected to produce children who would inherit their parents’ moral characteristics. The community would then educate the children and this process would eventually lead to the emergence of a superior class of people.

For several years the community made a successful living growing fruit, but later they added business and manufacturing to their activities and eventually began to concentrate on silverware. The community was well-planned, well-organized, and well-administered, and it prospered. People in surrounding communities, however, did not approve of the Oneida lifestyle. Threatened with legal action in 1879, for immorality, Noyes fled to Canada, and the colony soon broke up. It was converted to a joint stock company in 1881, and continued the successful manufacturing of silverware.

In the late nineteenth century the idea of perfecting society through the operation of small, socialized communities gave way to the idea of individual growth and development within a democratic system. Hence interest in communitarianism declined, but that society is capable of improvement was an idea that never died.

See also: Utopia

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VANDERBILT, CORNELIUS

Cornelius “Commodore” Vanderbilt (1794–1877) was a shrewd businessman in the transportation industry. He built his fortune through freight and passenger boating lines, and later expanded to railroads. He was such a fierce and successful businessman that his competitors often paid him to vacate their markets. Vanderbilt left an estate of almost \$100 million and founded Vanderbilt University.

Cornelius Vanderbilt was born on May 27, 1794, on Staten Island, New York. His father worked in boating, and Vanderbilt quit school at age 11 to join his father, working odd jobs on the waterfront. By the age of 16 young Vanderbilt was determined to become his own boatman. His choice of careers earned him the nickname “Commodore.” To finance his new career, Vanderbilt struck a deal with his mother. If he would plow and sow an uncultivated eight-acre field, his mother would loan him \$100 to buy a boat. Vanderbilt earned the money and began a transport and freight service between New York City and Staten Island. Charging 18 cents a trip, Vanderbilt was able to repay the \$100 loan in a year and earned an additional \$1000 in profits.

Vanderbilt quickly developed a reputation for being capable, reliable, and honest. He charged reasonable prices and worked tirelessly. With the War of 1812 (1812–1814) he was given a chance to expand his enterprise. When the British threatened to invade New York, Vanderbilt arranged a three-month government contract to supply the island forts around New York. This profitable venture gave him enough money to buy a schooner that traveled over Long Island Sound and two more boats to engage in coastal trade. By the age of 24 Vanderbilt had saved \$9000 and owned interests in several periaugers (a small two-masted, flat-bottomed vessel) and coasting schooners.

Vanderbilt was wise enough to recognize that steam was revolutionizing water transportation. The successes of steamboat inventors Robert Fulton and



Cornelius Vanderbilt.

Robert R. Livingston persuaded Vanderbilt to sell all of his boating interests in 1818 and turn his attention to steamboats. Vanderbilt went to work for Thomas Gibbons, who owned one steamboat and operated a ferry between New Brunswick, New Jersey, and New York City. Vanderbilt started off working for \$60 a month. In the 11 years that Vanderbilt worked for Gibbons, the line grew from one 25-ton steamboat to seven 200-ton boats. By 1828 Vanderbilt had saved more than \$30,000.

A year later Vanderbilt moved his family to Manhattan, New York, and went into business for himself. He bought one of Gibbons’ older steamboats and opened his own line running from New York to Philadelphia, Pennsylvania. He quickly slashed rates and

Vaudeville

sent his competitors into a panic. They responded by paying Vanderbilt generously not to run a line on their route. Vanderbilt then opened a line from New York to Peekskill, New York, and ran into competition from businessman Daniel Drew (1797–1879). Vanderbilt once again cut his rates immediately to increase business. When Drew followed suit, Vanderbilt purchased Drew's boat to eliminate the competition.

Vanderbilt's next venture was the New York-Albany route that brought him in direct competition with the powerful Hudson River Steamboat Association. Vanderbilt's line was so successful that once again he was paid off handsomely to not operate on that route. Vanderbilt quickly developed a successful business strategy: cut rates, drive away the competition or sell out, and then raise rates again. This approach was so successful that by the time he was 40, Vanderbilt was worth over \$500,000 and operated over 1000 steamboats.

The Gold Rush of 1849 in California opened up new business possibilities for Vanderbilt. Most adventurers were traveling to California through Panama, but Vanderbilt opened a quicker and cheaper route through Nicaragua. The venture was a success and Vanderbilt's line carried 2000 passengers per month for nine years and made over \$1 million in profits each year.

I HAVE BEEN INSANE ON THE SUBJECT OF MONEYMAKING ALL MY LIFE.

Cornelius Vanderbilt

In 1853 Vanderbilt took a small break from business. He commissioned a 270-foot steam yacht, the *North Star*, and set off for Europe with his family. He sold his controlling interest in the Nicaraguan line to his partners, Charles Morgan and Cornelius K. Garrison, who were supposed to pay Vanderbilt 20 percent of the gross receipts while he was away. The partners, however, refused to pay him. Rather than take them to court, Vanderbilt determined to ruin them financially. When he returned from his trip, he organized a new line to California via Panama and slashed his prices to only \$35. He had driven Morgan and Garrison out of business by 1857. Vanderbilt then terminated the service when two Panamanian steamship lines agreed to pay him not to run that route.

Despite his successes in shipping, Vanderbilt was always looking for new business opportunities. At the age of 70 he became interested in the railroads. In 1857 Vanderbilt purchased a controlling interest in the Harlem Railroad, followed by the Hudson River Railroad in

1865, and New York Central in 1867. He then consolidated his holdings into one system that extended from New York City to Buffalo, New York. Vanderbilt tried to acquire the Erie Railroad from his old steamboat adversary, Daniel Drew, but failed. He did purchase several other lines and extended his service to Chicago, Illinois. By 1877 the New York Central Railroad System covered more than 4,500 miles.

Through his various business ventures Vanderbilt accumulated over \$100 million. He was not known for philanthropy until his final years, when he donated \$50,000 to the Church of the Strangers and \$1 million to Central University, which then became Vanderbilt University. "The Commodore" died on January 4, 1877.

See also: Daniel Drew, New York Central Railroad, Steamboat, War of 1812

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VAUDEVILLE

Vaudeville, a light, comical theatrical entertainment, flourished at the end of the nineteenth century and beginning of the twentieth century. Its success, like that of organized baseball, was caused by the greater amounts of leisure time and money that industrialization afforded people. The word vaudeville is derived from an old French term for a satirical song, *vaudevire*, which is a reference to the Vire valley of France, where the songs originated. In the United States vaudeville acts performed variety shows, using music, comedy, dance, acrobatics, magic, puppets, and even trained animals. This form of stage entertainment was based on popular acts that could be seen in British music halls and bar rooms during the nineteenth century.

Vaudeville had made its way to the United States in the 1870s, when acts were performed in theaters in New York, Chicago, and other cities. Two early entrepreneurs in the entertainment form were American theater managers Benjamin Keith (1846–1914) and Edward Albee (1857–1930), who opened the Bijou Theatre in Boston in 1885. Eventually they operated almost four hundred theaters, including New York City's Palace Theater, the gem in the Keith-Albee crown. Troupes traveled the circuit of nearly one thousand theaters around the country. As many as two million U.S. citizens a day flocked to the shows to see headliners such as comedians Eddie Cantor (1892–1964) and W.C. Fields (1880–1946), singer Eva Tanguay (1878–1947), and French actress Sarah Bernhardt (1844–1923). Programs combined a variety of music, theater, and comedy to appeal to a wide audience. Scriptwriters attracted immigrant audiences by using ethnic humor, exaggerating dialects, and joking about the difficulties of daily immigrant life in the United States.

DURING THE FIRST TWO DECADES OF THE TWENTIETH CENTURY, VAUDEVILLE WAS THE MOST POPULAR FORM OF ENTERTAINMENT IN THE COUNTRY.

During the first two decades of the twentieth century, vaudeville was the most popular form of entertainment in the country. In the 1930s, just as New York opened the doors of its famous Radio City Music Hall, which was intended to be a theater for vaudeville, the entertainment form began a quick decline. Motion pictures, radio, and, later, television took its place; numerous vaudeville performers parlayed their success into these new media. Among those entertainers who had their origins in vaudeville acts were Rudolph Valentino, Cary Grant, Mae West, Jack Benny, George Burns, Gracie Allen, Ginger Rogers, Fred Astaire, Will Rogers, and Al Jolsen.

See also: Amusement Parks, Baseball

VEBLLEN, THORSTEIN BONDE

Thorstein Veblen (1857–1929) had become widely known in the United States as the author of a book, *The Theory of the Leisure Class*, published in 1899. The book was an unexpected sensation. It remains as one of the most pungently written analyses of modern economics; it may be read as a satire on the ways of the aristocratic class, the follies and foibles of the robber barons and the rich. Veblen's analysis of modern

commerce and economics did not include the traditional interplay of rationally calculated "self-interest." Instead Veblen wrote of U.S. economic life as would an anthropologist. He regarded most economic activity, and specifically the accumulation of money, as a lavish modern-day counterpart of scalps hanging on a tribal tree. Veblen believed that the accumulation of wealth, well beyond the point of rational wants and needs, was evidence of deep-buried irrationalities. Veblen's second book, *The Theory of Business Enterprise*, published in 1904, was even more devastating than the first one, declaring that businessmen were needless saboteurs of any reasonable modern economic system. He made a credible case for the abolition of most businesses and of most government bureaucrats. He also made the first serious examination of the possibilities of using technology on all levels to establish within an economic system the conditions of freedom, security, and dignity for society as a whole.

Thorstein Bunde Veblen was born on July 30, 1857 in Manitowoc, Wisconsin. He was the sixth of 12 children born to Thomas and Kari Veblen, Norwegian immigrants who had settled in Minnesota, purchased a farm, and developed the farm with minimal contact with the outside community. Veblen's talent was already apparent in his early age, and his behavior was rather eccentric. His father enrolled him at a local college, Carleton College, hoping he might become a minister. Veblen graduated from Carleton in 1880 and went east to Yale University, where he studied philosophy. In three years he had his doctorate in philosophy, but his reputation as an eccentric inhibited his employment opportunities at universities where he applied for work. He ended up back at his parent's residence in Minnesota, where he eventually married. Veblen left Minnesota to live with his wealthy wife in Iowa for a time; he did little but reading until deciding to study economics at Cornell University in 1891.

A year after his study at Cornell, he was hired on to the staff at the University of Chicago. Veblen was a tutor and instructor at Chicago from 1892 to 1906. It was during this time that he published his books, *The Theory of the Leisure Class* and *The Theory of Business Enterprise*, which brought him much personal fame as an economic analyst. In his writing, Veblen put his finger on a central process of change that had been strangely overlooked by the investigations of other economists. The process was the emergence of technology and science as the major force of historic change. Veblen saw clearly, and uniquely, that the machine was the primary fact of economic life in the twentieth century.

Vermont

Two major elements emerged out of Veblen's analysis and criticism: First, the importance of technology as the backbone of all commerce in the twentieth century. Second, that "economic man" can best be understood not by so-called economic laws but by looking at the irrational, untutored, and ritualistic behaviors of human beings while engaged in economic activity.

Veblen's view of businessmen in the twentieth century was like no other economist's. He saw the typical businessman as a predator draped in weird luxuries. Veblen introduced his famous phrase, "conspicuous consumption," to argue that the rich were not happy being rich and comfortable, but rather felt the urge to spend their lives buying wildly expensive and (frequently) bizarre things in order to indirectly brag to others about how wealthy they were. Their "consumption," Veblen contended, was irrationally raised to the level of being "conspicuous" to others: the purchase of 50 automobiles, for instance, or ten homes, and the conspicuous wearing of large items of gold and diamond jewelry.

Veblen was neither a socialist nor a capitalist; he seemed without economic ideology. He instead saw most economic behavior as psychological, often psychopathological. He concluded that businessmen were parasites and therefore unnecessary in a technological world which was capable of making consumer goods. He concluded that a class of engineers could take over the chaos of the business system and distribute to society the wealth created by machines and technology. It was an astonishing world-view for the first decade of the twentieth century, and his thinking along these lines has continued to resonate in economic thought.

Veblen lived to the age of 73. He died in 1929, just before the Great Depression (1929–1939) began. Veblen had a quiet, alienated, and profound vision for economists. He raised crucial questions related to the behavior of the economic man. In running down the robber barons of his era, as well as other businessmen, and in seeing the impact of technology as the major source of economic change in the modern era, Veblen arguably presented to his peers and to the public some of the most revolutionary modern thinking on the subject of business and commerce activities. Though his work was often idolized, his personal life was a lonely one. He lived his last years in an isolated cabin in California.

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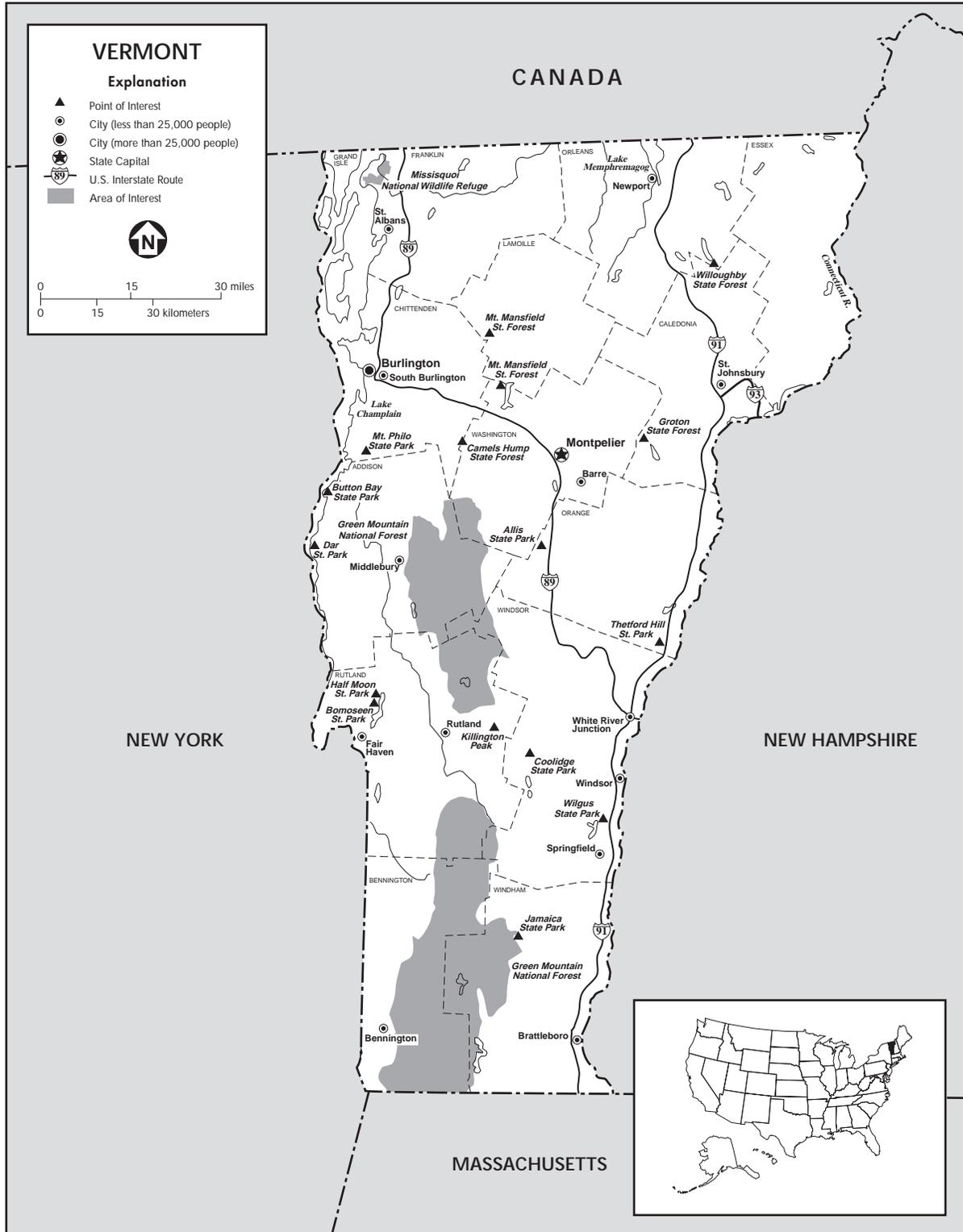
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VERMONT

The state of Vermont has retained its rural character throughout the history of a nation that has become increasingly urbanized and industrialized. Its quaint, natural beauty continues to attract thousands of tourists and summer residents who add greatly to the state's economy. Yet its manufacturing enterprises that make up over 50 percent of the state's revenues. Vermont has maintained its ties to the past, but has kept pace with the present.

The first European explorer of Vermont was Samuel de Champlain (1567–1635), who, in 1609, crossed the lake that now bears his name. From around 1650 through the 1760s, French, Dutch, English, and Iroquois Indians crossed Vermont, using trails between Montreal, Massachusetts, and New York. The first permanent settlement in the region was not established until 1724. For several decades both New York and New Hampshire claimed Vermont. Ethan Allen, a hero in the American Revolution (1775–1783), led a group that protested New York's claims. During the Revolution, Vermont adopted its own constitution and formed an independent republic; it was admitted to the Union in 1791.

Just before the War of 1812 (1812–1814) Vermonters engaged in smuggling to avoid the Embargo of 1808. The state continued trading with Canada during the war despite prohibitions on trade with Great Britain. By 1810 Vermont's population had reached 220,000, with most of the new settlers engaged in self-sufficient farming. After 1820, however, many began moving to the virgin lands of western New York, the Ohio Valley, and the trans-Mississippi region, which depleted Vermont's population. Despite an economic boost from newly built railroads, Vermont had simply run out of arable land and had overworked the available land. Vermont also had an insufficient number of manufacturing jobs, partly because the British had



State of Vermont.

Vermont

flooded the markets with cheaply produced cloth after the War of 1812.

VERMONT IS PART OF THE MODERN WORLD DESPITE ITS RURAL LANDSCAPE AND THE CURRIER AND IVES IMAGERY PROJECTED FROM THE GARISH SIDES OF MAPLE SYRUP TINS.

Charles D. Morrissey, *Vermont: A Bicentennial History*, 1981

The construction of the Champlain-Hudson Canal in 1823 and the railroads that were built in Vermont during the 1840s and 1850s did little to improve the state's economy, making it more vulnerable to competition from western territories. As emigration increased, however, those farmers remaining in the state were able to increase their prices for wool, butter, cheese, and milk. Irish and French-Canadian immigrants added to the population, and some light industry helped the economy to grow. By the late nineteenth century the well-known Vermont marble and granite quarries were being constructed, and the tourist industry began its steady rise into the twentieth century.

Vermonters seemed largely distant from many of the political and economic trends that gripped the nation after the American Civil War (1861–1865). They did not respond to the “free silver” message of presidential candidate William Jennings Bryan (1860–1925), nor to the Progressivism of the 1920s. The only U.S. President from Vermont, Calvin Coolidge (1923–1929), espoused rural conservatism. Though industrial growth occurred in towns such as Springfield, which manufactured the rifles named after the town; St. Johnsbury, where the famous St. Johnsbury scales were produced; Burlington, which boasted a number of textile mills; and quarry towns like Barre, Vermont remained primarily rural in character. In the early 1920s Vermont had the dubious honor of having more cows than people (a ratio which persisted until 1963).

The state was more forward-looking, however, in its approach to what would become a thriving tourist industry. Vermont established the first state publicity service in the nation. By 1911 it had produced its first publication, *Vermont, Designed by the Creator for the Playground of the Continent*. The state had recognized that its natural beauty was attracting many vacationers to its lakes, mountains, and, by the 1930s and 1940s, its ski resorts.

After World War II (1939–1945) both vacationers and second-home buyers flocked to Vermont over

improved highways. A more suburban outlook began to pervade the state as professional people from New York and Massachusetts settled in the state. Native Vermonters wrestled with how to hold onto their rural heritage and, at the same time, embrace the economic benefits brought by the newcomers. A number of soil and water conservation measures were enacted by the state legislature, along with anti-litter and anti-billboard regulations.

Although manufacturing is the economic lifeblood of the state, Vermont remains the nation's most rural state, with two-thirds of its population living in towns of 2,500 or fewer. In the words of historian Charles T. Morrissey, “Vermont is not where Chicago or Pittsburgh or Detroit or other large cities grew. It is not where stockyards and slaughterhouses spread along the railroad tracks, or steel mills darkened the skies with smoke. . . . Vermont has been apart from the American mainstream.” Modern Vermont's primary agricultural products are livestock and dairy products, followed by corn, hay, and apples. The state is also the nation's leading producer of maple syrup.

Mining is another profitable sector of Vermont's economy. It quarries granite and slate, is home to the world's largest marble reserve, and produces crushed stone, construction sand, and gravel. Dimension stone is the state's leading mineral commodity, making up slightly less than 50 percent of the state's total mineral production value. While these rural enterprises are important to the state, employment in recent decades has increased the most in manufacturing including such products as: electronics and machine parts. However, construction, wholesale and retail trade, and other service industries have also thrived. The state's per capita income in the mid-1990s was just over \$22,000, which ranked thirtieth in the nation.

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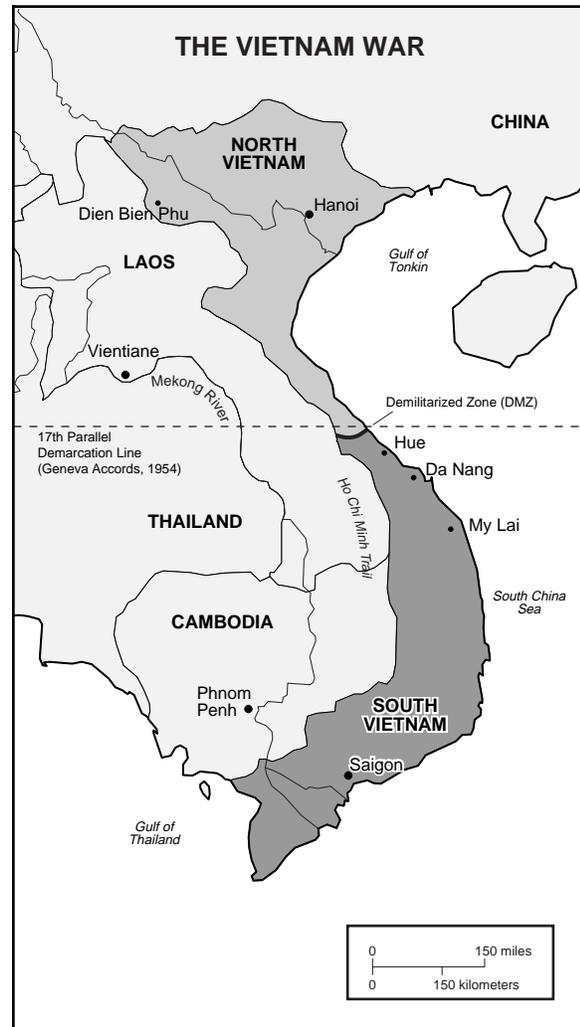
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VIETNAM WAR

The Vietnam War (1964–1975) was an eleven-year conflict in Southeast Asia between the American-backed government of South Vietnam and the Communist government of North Vietnam. The North Vietnamese sought to reunify the country following its partition in 1954, while the United States sought to contain Communist expansion by providing South Vietnam with economic and military aid. U.S. involvement reached its peak in 1968–1969, when over five hundred thousand U.S. troops were on the ground. The Pentagon spent \$77.8 billion to finance the war. Approximately 58,000 U.S. citizens and over three million Vietnamese were killed during the conflict. Two years after the United States withdrew in 1973, North Vietnamese forces defeated the South Vietnamese and reunified the country.

Vietnam entered the twentieth century as a French colony. During World War II (1939–1945) the French evacuated the colony and the Japanese occupied it. An indigenous nationalist resistance movement to the Japanese invaders sprang up under the leadership of Ho Chi Minh (1892–1969). Ho Chi Minh was a member of both the Vietnamese and the French Communist Parties and the preeminent leader of national self-determination in Vietnam. When the Japanese were defeated in 1945 the French returned to Vietnam and tried to reestablish their colonial authority. For 56 days, the nationalist Vietnamese military force (called the *Viet Minh*, besieged the French fort at Dien Bien Phu where several thousand French troops were trapped. The French surrender led to peace talks in Geneva, Switzerland in 1954. The treaty required withdrawal of all French troops from Vietnam and a temporary partition of the country at the 17th parallel, with Communists retreating to the north and non-Communists moving to the south. National elections to unify Vietnam were scheduled for 1956.

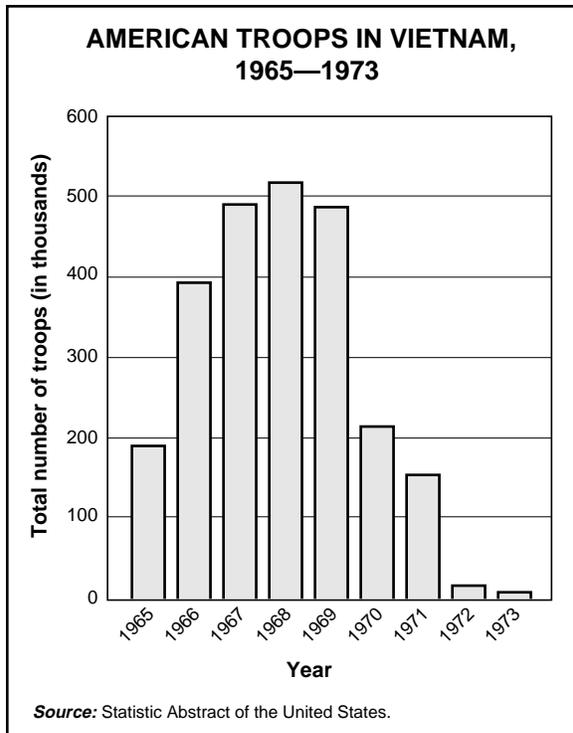
U.S. President Dwight D. Eisenhower (1953–1961) feared that in a national election Ho Chi Minh would defeat the American-supported president of South Vietnam, Ngo Dinh Diem (1955–1963). As a result, elections were held only in South Vietnam. But the elections were rigged and Diem won an overwhelming majority of the vote, declared his country's independence from North Vietnam, and named Saigon as its capital. The decision whether to support Diem was a difficult one for U.S. policymakers. On one hand the United States was concerned that without U.S. support, the South Vietnam government would collapse and fall to the Communists. On the other hand



The 1954 treaty that ended French colonial control divided the country of Vietnam at the 17th parallel. The Communist government of North Vietnam waged war with the Southern, non-Communist government in order to unite the country. U.S. involvement came in an attempt to contain this Communist expansion.

President Eisenhower harbored reservations about getting U.S. troops mired in another Asian conflict so soon after the Korean War (1950–1953).

Diem's actions in office raised further concerns. His anti-Communist sympathies manifested themselves in harsh policies that alienated peasants and villagers. Diem, a Catholic, discriminated against Buddhists even though the Catholics made up only a small minority of the population that had played subordinate roles during the period of French colonialism. Opposition to Diem became widespread and in 1963 he was assassinated by elements in the Army. Diem's death was followed by ten successive South Vietnamese governments in 18 months.



The total number of U.S. combat troops in Vietnam steadily increased until 1968, there was a significant withdrawal beginning in 1970 until 1973.

Taking advantage of this upheaval, the nationalist guerilla forces in South Vietnam (called the People's Liberation Armed Forces (PLAF) or, colloquially, the "Viet Cong") emerged under the political leadership of the National Liberation Front. The NLF was an organization of broad nationalist forces, led by the Communist Party of Vietnam. Their goal was the reunification of North and South Vietnam.

The United States responded to these developments by increasing the number of U.S. military, economic, and political advisers in Vietnam from 800 in 1961, when President John F. Kennedy took office, to 16,700 in 1963. During the 1964 presidential race Republican candidate Barry Goldwater charged President Lyndon B. Johnson (1963–1969), who took office following Kennedy's assassination, with not doing enough to win the war. Goldwater stated that Johnson would be responsible if Vietnam and its neighboring countries toppled like dominoes into the lap of the Communists.

Despite Goldwater's defeat, President Johnson was determined to not allow the so-called "domino theory" to become a reality. In August, 1964, U.S. ships off the coast of North Vietnam, in the Gulf of Tonkin, reported sonar indications of a torpedo attack.

In response, Johnson ordered an air attack on North-Vietnamese ship bases and oil facilities. The next day the Senate granted the president's request for broad powers over the Southeast Asian conflict by passing the Gulf of Tonkin Resolution. The resolution gave the president authority to take all measures necessary to repel any further armed aggression against U.S. forces in the area.

Johnson relied on this "blank check" to commit the first U.S. combat troops to Vietnam on March 8, 1965. By the end of the year the initial commitment of 3,500 troops had increased to 80,000. These combat troops fought alongside the South Vietnamese armed forces, known as the Army of the Republic of Vietnam (ARVN). The ARVN was a poorly led group that lacked cohesion and motivation. In 1965 alone 113,000 ARVN troops were lost to desertion. Many U.S. soldiers disliked and mistrusted the ARVN and accused them of cowardice.

As the war dragged on in Vietnam, the anti-war movement picked up at home. Promises of victory by politicians and military commanders wore thin on an U.S. public confronted nightly by television images of bloody battles that accompanied mounting casualties. The credibility of U.S. government reports predicting imminent U.S. victory was further eroded by the 1968 Tet Offensive, an all-out assault on every major city in South Vietnam. The NLF forces suffered staggering losses during their offensive and made few strategic gains. The Viet Cong were virtually wiped out. But, though Tet was a military catastrophe for the NLF, it was a political victory. It took both U.S. and ARVN forces by surprise and had a resounding effect on the U.S. public.

The war had reached a stalemate and the Tet Offensive forced U.S. citizens to confront how deeply Communist resistance was entrenched throughout Vietnam. In 1969 opinion polls showed that for the first time in the war, a majority of respondents were opposed to the war. But, even though the war was becoming unpopular, most people were reluctant to pull out of Vietnam immediately. For a time, the American people were still willing to stand by the President in the struggle against Communism. Only between 20 and 40 percent of U.S. citizens polled in 1969 favored immediate withdrawal. But the protests were becoming larger and more frequent. And one-by-one, mainstream organizations and politicians began demanding peace in Vietnam. Inflation and higher taxes resulting from the war soured still other segments of society. It was no surprise that upon taking the oath of office in January, 1969, President Richard Nixon (1969–1974) promised to end the war with honor. But

before he ended the war, President Nixon and his Secretary of State, Henry Kissinger, widened it.

In March of 1969 President Nixon ordered the secret bombing of Cambodia. His goal was to wipe out North Vietnamese and NLF bases along the South Vietnam border. The “Ho Chi Minh trail” went through this area, carrying provisions and troop convoys of the North Vietnamese Army (NVA). When U.S. troops invaded Cambodia the following year, college campuses erupted in protest. Four students at Kent State University in Ohio were killed by national guardsmen who had been called in to prevent rioting. Student protests were staged again in 1971 when the United States provided air support for an ARVN invasion of Laos and in 1972 when the United States began mining the Haiphong harbor. Nixon contended that these operations strengthened his hand at the bargaining table. He pointed to his program of “Vietnamizing” the war, which had reduced the number of U.S. troops in Southeast Asia to under 100,000 by 1972 and gave the South Vietnamese greater control of day-to-day tactical operations. In any event, during Christmas of 1972 the president ordered the final and most intense bombing of the war over Hanoi, the capital of North Vietnam.

On January 27, 1973, U.S. participation in the Vietnam War officially ended when the Treaty of Paris was signed by each of the parties to the conflict. The United States agreed to withdraw all of its forces from Vietnam and stop military operations in Laos and Cambodia. North and South Vietnam agreed to a cease-fire and all prisoners of war were to be released. U.S. military and economic aid to South Vietnam could continue.

Following the collapse of the South Vietnamese regime in 1975, the unified country of Vietnam collectivized the colonial rubber plantations, and some businesses were nationalized. Within ten years, however, elements of capitalism had crept into Vietnamese society. By the 1990s the Vietnam government began instituting policies to bring about a mixed economy involving state, collective, and private ownership. The opening of Vietnamese society improved relations with the United States, which ended a 20-year trade embargo against Vietnam in 1994. Full diplomatic relations between the two countries were established the next year.

See also: Cold War, Richard Nixon

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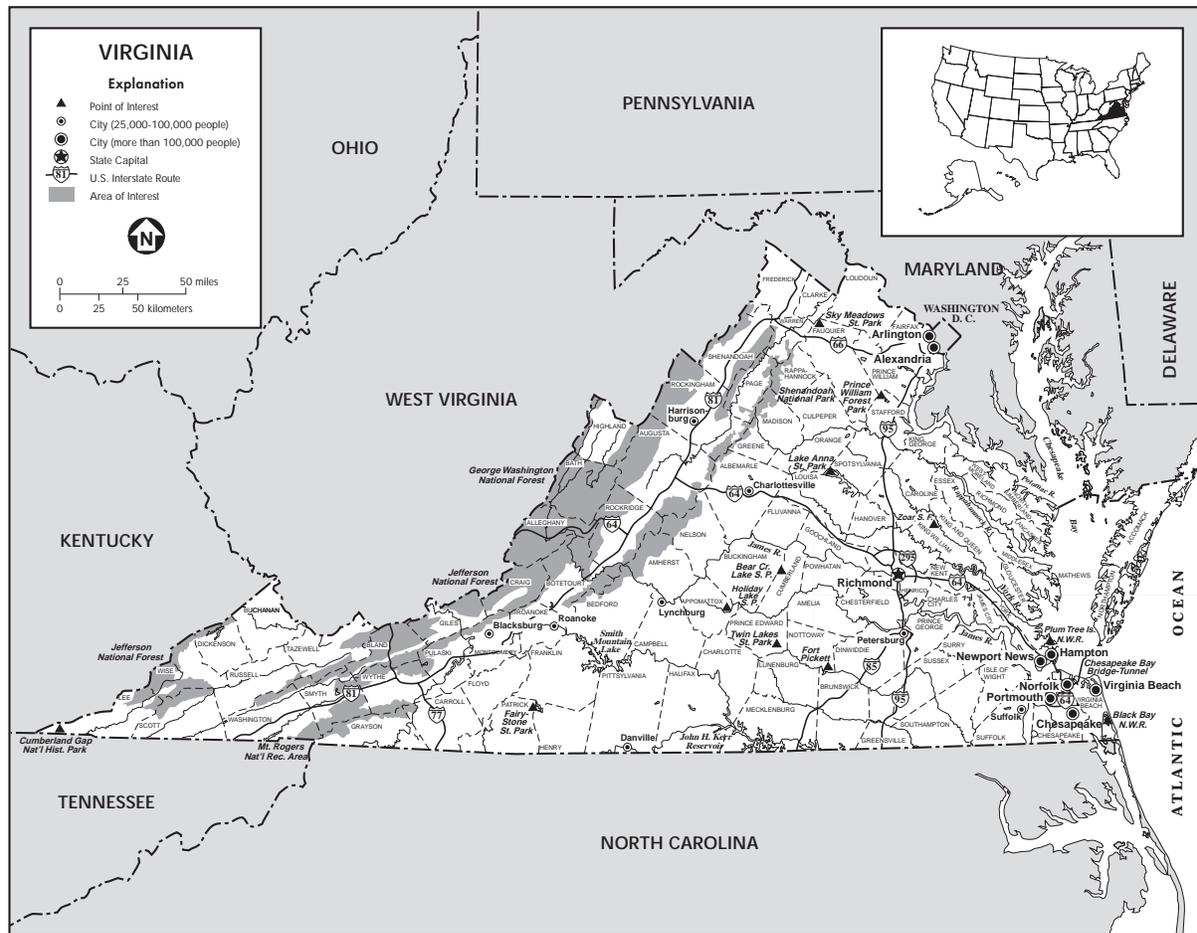
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VIRGINIA

Virginia, home of presidents and cradle of American tradition, has a special place in the consciousness of the nation. Its economic history is perhaps less well-known than its political history. Supported, at first, by slave-owning plantations, the state depended for many years on tobacco and cotton crops. After the devastation brought about by the American Civil War (1861–1865), Virginia rebuilt its economy, adding industry to its agricultural base. Modern Virginia contains a healthy mix of farming, industrial, and service employment.

Virginia has claim to being the first permanent English settlement in America. The colonists who established Jamestown in 1607 named their colony Virginia in honor of the “Virgin Queen,” Elizabeth I. The London Company, a joint-stock venture sponsored by King James I, claimed nearly all of the eastern coast of America, a great deal more land than now encompasses Virginia. Many in this expedition were gentlemen who had no clear idea of how to survive in the wilderness. Captain John Smith finally took matters into his own hands, declaring, “He that will not work neither shall he eat.” As journalist Alistair Cooke wrote in his book, *Alistair Cooke's America*, this statement was “rooted . . . early and deep in the American consciousness.” The colony weathered times of starvation, attacks by Indians, and the deaths of many people, but it somehow survived and even established its own form of representative government. After James I revoked the London Company's charter in 1624, Virginia became a royal colony.

The colony continued to grow along the James, York, Rappahannock, and Potomac rivers. It depended largely on the growing of tobacco (and later of cotton) with the help of indentured servants, both white and



State of Virginia.

black. It is thought that the institution of slavery developed from the first black servants sent to Virginia. As eastern Virginians moved into the western part of the country, they began to lose much of their loyalty toward England, especially during the French and Indian War. The Virginia House of Burgesses engaged in repeated protests against British policy, which culminated in a boycott of British goods in response to the Townshend Acts. Virginia was the first colony to begin the move for independence from England in 1776 and it was a major player in the American Revolution (1775–1783). Virginia was so influential in this period that Virginians occupied the U.S. presidency for all but four of the nation’s first 28 years.

In the early nineteenth century Virginia’s influence began to decline. The eastern half of the state disputed constantly with the western half (later, the state of West Virginia), as eastern aristocrats held most of the political and economic power. Life all over the state remained largely rural and self-sufficient while roads were poor and mail delivery slow. Cities which

did grow in the state, like Richmond and Norfolk, grew less rapidly than cities in other parts of the country.

By the mid-nineteenth century Virginia was entering another period of prosperity. The Valley Turnpike, completed in 1840, made transportation through the Shenandoah Valley easier. Agricultural experimentalists like Edmund Ruffin used new scientific methods to revitalize agricultural land worn out by years of tobacco farming. Land values rose with crop diversification, livestock production, and the use of new machinery. Industrial development was beginning too, as railroads began to form in a network across the state.

HE THAT WILL NOT WORK NEITHER SHALL HE EAT.

Captain John Smith, Jamestown Settlement

Closely tied to the economy of Virginia, especially on the eastern plantations, was the issue of slavery. In the 1830s the state was a major purveyor of the slave trade. Thus the growing antislavery movements of the

1850s were quite threatening to many Virginians. John Brown's raid on Harper's Ferry (then in Virginia) was a wake-up call to the state, which in the end reluctantly seceded from the Union in 1861.

As the main battlefield during the American Civil War (1861–1865), much of Virginia's countryside, as well as the city of Richmond, was left in ruins when the hostilities ended. The state also lost about half its territory when West Virginia seceded in 1863 to side with the North. A postwar debt of more than \$45 million and corrupt Reconstruction leadership left Virginia in turmoil. After Reconstruction wealthy planters lost some of their political power. According to Louis D. Rubin, Jr., "Landed wealth, which had previously constituted a sufficient economic foundation for most Virginians, no longer sufficed." New leaders were rather "men who saw opportunity for themselves and their community in business, industrial development, railroading, [and] finance. . . ." This period was marked by significant expansion of railroads in the state, the most powerful being the Pennsylvania Central.

The state expanded greatly during this time, as suburbs of cities like Norfolk and Richmond developed and other towns like Hampton Roads and Roanoke grew rapidly due to their access to coal routes. Real estate boomed and manufacturing and mining companies sprang up. In 1893, however, a nationwide financial panic gripped the state. Small farmers in particular were devastated, with cash and credit in short supply. Blacks in the state were even worse off, lacking education and living with the legacy of slavery. In 1901 a state constitutional convention moved to eliminate black voting privileges, which had been in force since Reconstruction, thus reinforcing the continued segregation of society.

Conservative Democrats seemed destined to control the state after the turn of the century. In 1925, however, Harry Byrd, a liberal Democrat, won the governorship and embarked on an era of reform. During his tenure the state tax system was revised, along with a number of social reforms, and measures were taken to attract industry to the state.

After the Great Depression (1929–1939), Virginia entered a new era of prosperity, benefiting from defense contracts, manufacturing, and a growing tourist industry. Notable among the state's tourist attractions were the newly restored colonial capital city of Williamsburg and historic sites such as Jamestown, Monticello, and Civil War battlefields. Franklin D. Roosevelt's (1933–1945) New Deal, supported by Harry Byrd, was also responsible for the creation of Blue Ridge Parkway, part of the Shenandoah National Forest.

In the 1960s Virginia began to put its financial affairs in better order by enacting a sales tax and a multi-million-dollar bond issue which benefited the public school system. In the early 1980s the Virginia Beach/Norfolk area grew rapidly, largely as a result of federal jobs and new military spending. Between 1980 and 1990 the population of Virginia Beach grew by 50 percent. As non-agricultural employment increased, however, the economy of rural areas did not improve.

Virginia's economy experienced a recession in the late 1980s. Democratic governor Douglas Wilder responded by cutting state services and reducing budgets, thus creating significant hardships for education and less affluent counties. By the mid-1990s, however, Virginia's economy had rebounded, largely because of its diversified economy that included agriculture, manufacturing, as well as service industries—the latter mostly in federal government employment. In the late 1990s the port of Hampton Roads was one of the busiest in the country, with the largest amount of tonnage on the East Coast. In 1996 Virginia ranked fourteenth among the states in per capita income, at just under \$25,000, and its unemployment rate in 1997 was just 4.5 percent, below the national average. The percentage of labor union membership in the state was only 6.8 percent of all workers. The state maintained a pro-business climate, which was aided by the state's conservative history, low wages, low tax rates, and weak labor movement. The Virginia Economic Development Corporation gave low-interest loans and other incentives to businesses, as did the Virginia Small Business Financing Authority.

See also: *Africans Arrive in Virginia, Civil War (Economic Impact of)*

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WABASH, ST. LOUIS AND PACIFIC RAILWAY COMPANY VS. ILLINOIS (1886)

In 1886 the U.S. Supreme Court decision in the case of *Wabash, St. Louis and Pacific Railway Company v. Illinois* declared that states could not regulate commerce that went beyond their boundaries. Instead, regulation had to come from the federal government. The decision provided the basis for the formation of the Interstate Commerce Commission in 1887.

With rail lines crisscrossing the nation, the question of who would control rail rates and monitor the practices of the railroads had become an increasingly difficult one to answer. Many states establish their own regulatory boards, but since the rail companies operated between states, enforcing state laws on them proved cumbersome and impractical. Meanwhile the railroads, operating without the oversight of any effective regulatory body, set their own standards and practices, which resulted in many abuses. When the Wabash, St. Louis and Pacific Railway Company challenged the intervention of the state of Illinois in its business, the case eventually went to the Supreme Court.

After the high court's ruling (1886), the federal government acted quickly to establish an independent U.S. government agency the following year, the Interstate Commerce Commission (ICC). The ICC was the first regulatory commission in the country. Originally charged with supervising the country's interstate rail operations, its authority was eventually expanded to include all forms of interstate commerce, including trucking, shipping, and even oil pipelines. In addition to controlling rates, the agency also enforced laws against discrimination.

See also: Interstate Commerce Act, Interstate Commerce: Regulation and Deregulation, Munn vs. Illinois

WAGE-PRICE CONTROLS

Wage and price controls were initiated by the U.S. government in 1942, in order to help win World War II (1939–1945), and maintain the general quality of life on the home front. In 1941 the Office of Price Administration (OPA) began a stormy career as an inflation fighter and food rationer. The mission of the OPA was to prevent profiteering and inflation as durable goods became scarcer in the United States because of the war. The Emergency Price Control Act of 1942 gave the OPA the ability to regulate prices in the marketplace, and brought 60 percent of all civilian food items under a form of control which froze prices at their store-by-store March 1942 levels. In a short time, 90 percent of the goods sold in more than 600 thousand retail stores in the United States were being price controlled and rationed by the federal government.

Wage-price controls disappeared with the end of World War II, as the domestic economy grew. Yet, it was only a few years later, after the outbreak of the Korean War in 1950, when President Harry Truman (1945–1953) obtained from Congress the authority to impose wage and price controls once again to deal with the inflationary domestic economy. Automobile prices were frozen, as were wages in the auto industry (until March 1951). Easy credit for new homes was restricted. The end of the Korean War ended wage-price controls, but did not end the government power to intervene during economic crises involving high inflation and scarcity of commodities. In 1962, a voluntary system of wage and price controls was adopted in order to avoid inflation. Known as “Wage and Price Guidelines,” as recommended by the Council of Economic Advisers to President John F. Kennedy (1961–1963), the price-wage controls would apply throughout the business sector and not aimed at single industries. The general guide for non-inflationary wage behavior was that the rate of increase in wages in each industry be equal to the trend rate of overall productivity increase. By contrast to the mandatory controls of World War II

Wages

and Korea, this plan emphasized the voluntary compliance of business with the federal “guideposts.”

The most extraordinary example of wage and price controls, the first attempted under peacetime conditions, was imposed by the Richard Nixon administration (1969–1974), beginning with the wage and price freeze of 1971, in an effort to deal with peacetime inflation. President Nixon designated his wage-price freeze policy as the Economic Stabilization Program of 1971–1974. The Council of Economic Advisers reviewed this policy and its usefulness after 1974, and concluded that the price and wage controls imposed by President Nixon in a peacetime economy “will be long debated and may never be resolved.” During periods of high inflation in the U.S. economy, it is likely that the debate will re-emerge regarding the need for a period of wage-price controls.

See also: Richard Nixon, Office of Price Administration, Harry S. Truman

WAGES

The income given in exchange to those who supply their labor to any business is called “wages,” and includes salaries, and various wage and salary supplements, such as bonuses, commissions, royalties, social insurance, pensions, and health plan benefits. About 75 per cent of all business costs are wages. At this level, wages have a very significant impact on all per unit production costs of any business. Wages differ widely among nations, regions, occupations, and individuals. Wage rates also differ by gender and race. Statistical data indicates that the general level of wages in the United States is among the highest in the world, with the explanation being that the United States demand for labor is great in relation to supply. Economists have also indicated that the labor demand is strong because the U.S. worker is highly productive, working in a country with an abundance of capital equipment, natural resources, advanced technology, better health and educational services, and the business and political support of a production oriented economy.

Evidence also suggests to economists that unionized labor is successful in raising the wages of its members. Union members typically receive a 10 to 15 percent wage advantage over non-union workers, without creating business obstructions. Why one person earns a high wage and another a lower wage is a matter of supply and demand. Even doing the same job, some workers bring superior abilities, skills, and commitment to the job, and frequently, such workers are rewarded with increased wages and job advancements.

Geographic locations, market imperfections, and the differential in the work required can account for other differences in wages with similar groups of people in the workforce.

See also: Labor Unionism, Trade Unions

WAL-MART STORES

Wal-Mart Stores, Inc. was founded by Samuel Walton who graduated from the University of Missouri in 1940 with a degree in economics and went on to become a management trainee for J. C. Penney Company. After two years he went into the army, and upon his return three years later, he used his savings and a loan to open a Ben Franklin variety store in Newport, Arkansas. In 1950 he lost his lease, moved to Bentonville, Arkansas, and opened another store. By the late 1950s Sam and his brother J. L. (Bud) Walton owned nine Ben Franklin franchises.

In the early 1960s Sam Walton took what he had learned from studying mass merchandising techniques around the country and began to make his mark in the retail market. He decided that small-town populations would welcome, and make profitable, large discount shopping stores. He approached the Ben Franklin franchise owners with his proposal to slash prices significantly and operate at a high volume, but they were not willing to let him reduce merchandise as low as he insisted it had to go. The Walton brothers decided to go into that market themselves and opened their first Wal-Mart Discount City in Rogers, Arkansas, in 1962. The brothers typically opened their department-sized stores in towns with populations of 5,000 to 25,000, and the stores tended to draw from a large radius. “We discovered people would drive to a good concept,” Walton said in *Financial World* on April 4, 1989.

Wal-Mart’s “good concept” involved huge stores offering customers a wide variety of name-brand goods at deep discounts that were part of an everyday-low-prices strategy. Walton was able to keep prices low and still turn a profit through sales volume and an uncommon marketing strategy. Wal-Mart’s advertising costs generally amounted to one-third that of other discount chains. Most competitors were putting on sales and running from 50 to one hundred advertising circulars per year, but Wal-Mart kept its prices low and only ran 12 promotions a year. By the end of the 1960s the brothers had opened 18 Wal-Mart stores and owned 15 Ben Franklin franchises throughout Arkansas, Missouri, Kansas, and Oklahoma. These ventures became incorporated as Wal-Mart Stores, Inc. in October 1969.

The 1970s held many milestones for the company. Early in the decade, Walton implemented his warehouse distribution strategy: the company built its own warehouses so it could buy in volume and store the merchandise, then proceeded to build stores throughout two hundred square mile areas around the distribution points. This cut Wal-Mart's costs and gave it more control over operations. It also meant that merchandise could be restocked as quickly as it was sold, and that advertising was specific to smaller regions and cost less to distribute.

Wal-Mart went public in 1970 to be listed on the New York Stock Exchange two years later. By 1976 the Waltons phased out their Ben Franklin stores so the company could put all of its expansion efforts into the Wal-Mart stores. By 1979 there were 276 Wal-Mart stores in 11 states. Sales had gone from \$44 million in 1970 to \$1.25 billion in 1979.

Sam's Clubs—100,000-square-foot, cash-and-carry discount membership warehouses—made their first appearance in 1983, proving so popular in the bigger markets that there were 148 of them by 1991. Overall the company had 1,500 stores in 29 states by 1990 with net sales of nearly \$26 billion. Wal-Mart surpassed Sears as the number one retailer in the United States in 1991.

Wal-Mart came under much scrutiny for its impact on small towns—specifically, small retail businesses in those towns. Independent store owners often went out of business when Wal-Mart came to town, unable to compete with the superstore's economies of scale. In fact Iowa State University economist Kenneth Stone conducted a study on this phenomenon and told the *New York Times Magazine*, "If you go into towns in Illinois where Wal-Mart has been for eight or 10 years, the downtowns are just ghost towns." He found that the businesses suffering most were drug, hardware, five-and-dime, sporting goods, clothing, and fabric stores, while major appliance and furniture businesses picked up, as did restaurants and gasoline stations, because of increased traffic. Wal-Mart did, however, develop a record of community service by awarding a \$1,000 scholarship to a high school student in each community Wal-Mart operated in.

Wal-Mart continued to expand throughout the 1990s both in the United States and abroad. The U.S. growth was notable for the emergence of the new Wal-Mart Supercenter format, which was a Wal-Mart discount store with an integrated grocery store. The success of the Supercenters catapulted Wal-Mart into the top five U.S. food retailers. By the late 1990s Wal-Mart's domestic operations included more than 1,900

Wal-Mart discount stores (located in all 50 states), about 440 Wal-Mart Supercenters, and about 440 Sam's Clubs. Wal-Mart, whose revenue stood at \$137.63 billion, had also become the largest retailer in the world, the fourth-largest company overall in the United States, and the nation's largest non-governmental employer with 825,000 employees.

See also: Chain Stores

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WALKER, FRANCIS AMASA

Amasa Walker (1799–1875) grew to prominence as a financial expert and economist in the United States after warning a group of distinguished New England businessmen during a financial recession in 1857 that the state-chartered banks of their region should suspend all cash (specie) payments in order to save the merchants from total ruin. Weeks later, many Boston banks stopped their specie payments, saving many businesses, and Walker's credentials as an expert were established. With the publication of his book, *The Science of Wealth*, in 1866, Walker's reputation grew as a U.S. economist working to free economic study from its reputation in that period as a mere extension of moral and theological philosophy. Walker was among the first economists to confront theory with statistical evidence. He pioneered in economics what is known as "time series analysis," where economic variables were taken at different points in time and the results plotted on a graph so that economic changes could be visually assessed and compared to other changes in the society over a period of time.

Walker, Francis Amasa

Amasa Walker was born in May 1799, in Woodstock, Connecticut. He was the son of Walter Walker, a blacksmith, and Priscilla. Walker's poor health as an adolescent prevented him from going to college. In 1820, at age 21, he formed a business partnership in Brookfield, Massachusetts, to make shoes. After three years he left the shoe business and joined Methuen Manufacturing Co. as its agent. At age 26 he moved to Boston, where he pursued a variety of retail business ventures.

Walker's election to the Democratic National Convention in 1836 marked his entrance into public life. By 1839 he served as a director of the Franklin Bank in Boston and also as president of the Boston Temperance Society, and in 1848 he agitated for the abolition of U.S. slavery as a member of the Free Soil Party. In 1849 Walker was elected to the Massachusetts House of Representatives and a year later to the state Senate. He is remembered in his position as a congressman for his efforts to put copies of *Webster's Dictionary* in the public schools.

It was during the financial panic of 1857, however, that Walker emerged as an expert on finance, banking, and currency. He had published a series of articles for *Hunt's Merchant Magazine* that explained the nature of financial panics, especially those severe enough to call for the banks to suspend all specie payments. His advice to a group of New England merchants calling for a "suspension of specie payments" by the state-chartered banks to save the best merchants from financial ruin proved prophetic when the Boston banks stopped specie payments and saved many businesses.

Walker's fame as a financial expert helped his career as a college lecturer in political economy. He left his mark on Washington, D.C., by serving out a term as a Republican congressman between 1862 and 1863. Walker, as an economist and a congressman, advocated the elimination of the rights of state-chartered banks to create credit money. He argued that the practice was "prejudicial to the industrial and commercial interests of the nation," because of the unreliable fluctuations it caused in the economy. He held that the government should manage the nation's credit currency for the best interests of the population. Walker was against any bank-credit expansion. He believed it was unconstitutional and that bank-credit money destabilized the larger economy and helped cause what are now called "business cycles," periods of boom and bust.

In his effort to make his theories in economic thinking more credible, Walker pulled away from

economics as a philosophy and insisted on using economics in a more scientific manner. He created his own scientific method of studying economics, which he discussed in his book *The Science of Wealth* in 1866. In his book Walker pioneered "time series analysis," where he measured specific economic variables at different points in time and plotted them on graphs so that the data could be compared and visually examined for information about the economy.

Walker argued against what he called "financial novelty" and he was a strong specie advocate, focusing on metallic money and remaining deeply suspicious of artificial credit creation. In his book Walker also described his opposition to legislation that fixed hours of work. He identified market forces bringing women's wages into equality with men's, and he advocated open immigration laws. He also emphasized the importance of labor unions as a necessary force to offset the advantages enjoyed by the owners of factories. As an economic thinker, Walker was less concerned with the production of physical objects than with the production and exchange of material that is useful and has exchange value.

Amasa Walker died in 1875, having pioneered a new era in economics ruled by science rather than philosophy. By using graphs and analysis in his economic proposals, Walker was arguably one of the first economists to be able to scientifically assess the subjective nature of market values and to statistically follow economic forces. His work was immensely popular, and it did much to develop an appreciation of economic questions among the general public.

See also: Financial Panic, Specie

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WALKER, SARAH BREEDLOVE

Sarah Breedlove Walker (1867–1919) was one of the first American women to become a millionaire, and she ran the largest business owned by an African American at the time. She made a prosperous business out of selling her self-made hair care products for African American women.

Walker was born December 23, 1867. Her father was a poor sharecropper, and former slave, in Delta, Louisiana. She was orphaned at the age of six and was thereafter raised by an older sister. She received very little formal education and at the age of 10 she began supporting herself. At 14 she married Moses McWilliams and in 1885 they had a daughter. Two years later her husband died and Walker was left a widow with a young child to support. She moved her family to St. Louis, Missouri, where she had relatives. There she worked as a hotel washerwoman for 18 years.

I GOT MY START BY GIVING MYSELF A START.

Sarah Breedlove Walker

Around 1904 Walker began to suffer from a scalp ailment called alopecia, which causes hair loss. At first she tried existing hair products to relieve her problem, before beginning to develop her own remedies. She started creating scalp treatments, then developed hair straighteners; next she began modifying existing hair techniques and tools until she developed the “Walker Method” of hair care. In 1906 Walker moved to Denver, Colorado, and married newspaperman Charles Joseph Walker. It was there that she founded the Madame C.J. Walker Manufacturing Company. She expanded her line of products to include hair growing tonic, strengtheners, toiletries, fragrances, and facial treatments.

In addition to expanding her product line, Walker developed new marketing techniques. At first she sold her products door to door by herself. Later she hired and trained other women to be “Walker Agents” and eventually she added a huge mail order department to her business. She also opened a beauty school that taught the Walker Method of hair straightening and hair growing. The business grew rapidly and in 1908 she opened a second office in Pittsburgh, Pennsylvania. Then in 1910 she opened her first factory in Indianapolis, Indiana.

Sarah Walker was also a social leader among the African American middle class. She was known as a

good employer who sponsored philanthropic and educational projects initiated by her employees. She founded Lelia College, a hair care laboratory, and a chain of beauty salons in Harlem. She contributed generously to the National Association for the Advancement of Colored People (NAACP) and aided several local charities. She established scholarships for women at the Tuskegee Institute, Bethune-Cookman College, and Palmer Memorial Institute. In addition she supported black chapters of the Young Womens Christian Association (YWCA) and orphanages.

By 1917 the Madame C.J. Walker Manufacturing Company was the largest African American-owned business in the United States employing about 3,000 workers. Sarah Walker was one of the first American women to become an independent millionaire. She died in New York City on May 25, 1919.

See also: *Mary McLeod Bethune*, *Barbara Proctor*

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WALL STREET

Wall Street, in the broadest sense, refers to the financial epicenter of all business and banking in the United States. Not only is Wall Street synonymous with U.S. financial interests, but also is an international symbol of financial power. Wall Street is an umbrella term encompassing the New York Stock Exchange (NYSE), the American Stock Exchange (Amex), the



The New York Stock Exchange, on Wall Street in New York City, in December, 1997. Despite the continuous changes in the market, the U.S. stock market, remains an international pulse of the world's economic status.

over-the-counter market called the National Association of Securities Dealers (NASD) and its automated quotation system (NASDAQ). It also includes bond markets, commodity futures markets, and various markets throughout the United States such as those in Chicago, Philadelphia, and Kansas City. In its physical sense, Wall Street, a street on the south tip of Manhattan Island in New York City, forms a triangular block with Broad and New streets, location of the nation's exchanges plus many commercial banks and business offices.

The name Wall Street derived from an early road located alongside a wall or stockade built across lower Manhattan in 1653 to protect a small Dutch colony. Local merchants and traders gathered on street corners and coffeehouses around Wall Street to buy and sell shares and loans (bonds), collectively known as securities. Although crude, this early trading set precedents which underlie American market practice for the next two hundred years.

In 1792, meeting under the famous buttonwood tree at 68 Wall Street, traders agreed to a formal organization or exchange for buying and selling shares and loans. In 1817 many of the same dealers agreed to

organize into the New York Stock and Exchange Board. Early securities listed on the Exchange were U.S. government bonds and a few stocks of banks and insurance companies. Stocks and bonds not traded on the new Exchange were traded by curbstone brokers congregated outside the Exchange. These curbstone brokers were the predecessors of the American Stock Exchange and over-the-counter market. Industrial issues and railroad stocks and bonds appeared on the Exchange in the 1830s and 1840s. By the 1840s foreign capital became a major factor influencing American business expansion. Foreign bankers maintained offices on Wall Street as did domestic commercial banks, business corporations, insurance companies, and commodity exchanges for coffee, agricultural products, and metals.

Wall Street traders operated entirely free of regulation leading to unscrupulous practices by robber barons such as Jay Gould, Cornelius "Commodore" Vanderbilt, Andrew Carnegie, John D. Rockefeller, and J.P. Morgan. Consolidation of U.S. industry into immense trusts between 1880 and 1910 provided Wall Street's largest listed firms. Following the stock market crash of 1929, the Securities Exchange Act of 1934 established the Securities and Exchange Commission to protect people investing money in securities and to enforce federal laws governing trading practices. The modern era of Wall Street finance began in the 1950's. Individual investors began entering the market and all purpose securities firms serving all types of clients changed the face of Wall Street.

See also: Investment, New York Stock Exchange, Securities and Exchange Commission

WALL STREET JOURNAL

The *Wall Street Journal*, published coast to coast, is the authoritative source for tracking business, financial, and economic news in the United States. With the largest daily circulation of any newspaper in the United States, the *Journal* is the nation's most influential newspaper. Dow Jones & Company owns and publishes the *Journal*.

The *Journal*, published daily on weekdays except holidays, is organized into three sections: Page One, Marketplace, and Money & Investing. On Friday a fourth section, Weekend Journal, is added. The *Journal's* unique presentation is a six column style with no big headlines. Page One includes the legendary, "What's News," in columns two and three. Under the subheadings of "Business and Finance" and "World Wide" are brief summaries of major economic news items and

summaries of national and worldwide events. More in-depth coverage is found inside the section. Page One presents all the news in a tight, quick-read format with the same types of information found consistently in the same places. Section two, Marketplace, focuses on the impact of business on readers' careers and families, and keeps readers abreast of new product development. Section three, Money & Investing, contains all the economic statistical data and also provides columns offering explanations, insight, and perspective on the markets. The Weekend Journal, introduced in 1998, is devoted to leisure, art, and entertainment.

In 1882 Charles Dow (1851–1902) and Edward Jones (1856–1920) founded Dow, Jones & Company on the premise that business news could be reported in a lively but level-headed, unslanted style. Dow, Jones operations depended entirely on reporters daily touring brokerage houses, banks, and offices, listening and taking notes. On July 8, 1889 the *Wall Street Journal* was born. As the U.S. economy grew, the *Journal* provided stable commentary reporting market developments, general financial movement, and business interests. Clarence W. Barron purchased Dow Jones in 1902 and for twenty-six years was its dynamic force. "Casey" Hogate, entrusted with its management in 1933, began "What's News." Refuting the idea the *Journal* must reach only a specific regional constituency, Hogate, perceiving all businessmen throughout the United States as a single community, provided a single reliable source of competent and comprehensive information to them. Barney Kilgore, president of Dow, Jones & Company beginning in 1945, creatively fashioned not only a thorough newspaper but added conciseness and even humor to business, Washington, and world wide news. By the 1970s the *Journal* was the United States' most trusted newspaper. In 1980 it overtook the *New York Daily News* to become number one in circulation.

See also: Charles Dow

WALLACE, HENRY

Henry Wallace (1836–1916) was a pastor, farmer, agricultural publicist and editor who acted as a leading spokesperson for Midwestern farmers. He sought to educate farmers in applied science in order to prepare them for the technological advancements of the nineteenth and twentieth centuries. This dramatically changed agricultural production in the United States, and Wallace's influence spread to the level of the federal government. He served on several commissions for President Theodore Roosevelt (1858–1919)

and also impressed his views about agricultural development upon his family; his son and grandson continued his work in shaping U.S. agricultural policies.

According to biographer Richard S. Kirkendall, Henry Wallace "was the first in an American line of Henry Wallaces who rose to prominence in Iowa and the United States" (*Uncle Henry: A Documentary Profile of the First Henry Wallace*, 1993). Wallace was born on March 19, 1836, on a farm outside West Newton, Pennsylvania. His family was a hardworking, religious Scotch-Irish family of farmers. Wallace graduated from Jefferson College, Pennsylvania, in 1859. Although his roots were in agriculture Wallace chose to continue his education in theology at Allegheny Seminary in Pennsylvania, and Monmouth College in Illinois. He was ordained as a Presbyterian minister and served as a Union chaplain during the American Civil War (1861–1865). He then worked as a pastor for various churches in Illinois and Iowa until he retired from the ministry in 1877 due to health reasons.

In 1877 Wallace moved to Winterset, Iowa, and returned to the family farming business. He combined the skills he had learned as a preacher with his farming background and soon became the local spokesperson for farming issues. Though Wallace gave up the pulpit he found other ways to preach, namely through the press. He became involved in editorial work for local farm papers and eventually took partial ownership in the *Iowa Homestead*. In 1895 Wallace and his two sons established a family paper called *Wallaces' Farmer*. The paper became Wallace's forum to promote agricultural interests.

[T]HE VERY PERMANENCE OF OUR REPUBLIC WILL DEPEND ON THE DEVELOPMENT OF THE MANHOOD OF THE FARM.

Henry Wallace, presidential address to the National Conservation Congress, September 25, 1911

Henry Wallace was a man who respected traditions, especially religious and agrarian traditions. He also held a deep appreciation for modernization, above all in the form of applied science. Wallace saw agrarianism and scientific agriculture as complementary rather than contradictory. Other intellectuals of his time saw technology as a threat that would replace humans with machines. Wallace saw it as a means to improve the agrarian way of life; science would improve the quality of farming production rather than replace farmers. This would make farming a more rewarding and prestigious occupation. It would encourage farmers to remain on the land instead of fleeing to the cities. Wallace spent nearly four decades

of his life attempting to persuade farmers to change their ways of thinking because he wanted them to see the advantages technology had to offer farming.

Wallace also believed that industrialization was a positive movement for farmers, but he argued that farmers would have to keep up with scientific advancements in order to survive in an industrial world. They had to learn how to work like business people. They also had to organize in order to protect their interests, just as the urban workers were organizing labor unions in the cities. To this end Wallace participated in agricultural organizations such as the Farmers' Protective Association, the Iowa State Improved Stock-Breeders' Association, and the Farmers' Alliance.

Wallace used his news writing and other publications to promote his ideas and to educate farmers. He wrote technical works about farming, such as *Clover Culture* (1892), *Clover Farming* (1898), and *The Skim Milk Calf* (1900). He also wrote two volumes on popular education, *Uncle Henry's Letters to the Farm Boy* (1897) and *Letters to the Farm Folks* (1915). He also wrote a memoir called *Uncle Henry's Own Story of His Life: Personal Reminiscences*, which was published after his death.

Wallace's views on U.S. agriculture reached the ears of politicians at the federal level. Wallace became a leader in the agricultural world. He represented the interests of the United States government on several occasions. In 1891 Wallace was asked to travel to Europe to investigate flax growing for the United States Department of Agriculture. In 1908 President Theodore Roosevelt appointed Wallace a member of the Country Life Commission, and two years later he became president of the National Conservation Commission. In 1913 Wallace returned to Europe on behalf of the government to study farm conditions in Britain. This was his final trip before his death in 1916.

Wallace's legacy in U.S. agricultural development continued for two generations after his death. His oldest son, Henry Cantwell Wallace, became President Warren Harding's (1921–1923) Secretary of Agriculture, and his oldest grandson, Henry Agard Wallace, became President Franklin D. Roosevelt's (1933–1945) first Secretary of Agriculture and second vice president. Both men were strongly influenced by the ideas of the first Henry Wallace, especially with respect to the importance of agricultural science in American farm life.

See also: Agricultural Equipment Industry, Agriculture Industry, Farmers' Alliance, Government Farm Policy

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WALTON, SAM MOORE

Sam Walton (1918–1992) redefined the shopping experience for residents living in rural areas throughout the United States by opening a chain of Wal-Mart discount stores in towns previously served only by hardware and five-and-dime stores. His strategy of monopolizing the discount shopping market in rural areas made his stores the largest retail chain in the United States.

Sam Moore Walton was born to Thomas and Nancy Walton in Kingfisher, Oklahoma, on March 29, 1918, the eldest of two boys. His father, a farm-mortgage banker, moved his family to Missouri, where they lived in a succession of rural communities before settling in the medium-sized university town of Columbia. His father believed in saving money, so when the bottom fell out of the economy his family suffered less during the Great Depression (1929–1939) than did many of their neighbors.

Walton financed his education at the University of Missouri with money earned from a newspaper route. He graduated with a degree in economics in 1940. He took his first retailing job at a J.C. Penney store in Des Moines, Iowa, where he was a sales trainee. That job, however, was short-lived, as Walton was drafted in early 1942 as a communications officer in the Army Intelligence Corps, an assignment that enabled him to remain stateside for the duration of World War II (1939–1945). While in the service, he married Helen Robson on February 14, 1943. The couple had four children.

The retail industry seemed a natural place for Walton to make his mark, but he had no interest in being in someone's employ. In 1945, with a borrowed \$25,000, he and his brother James opened a five-and-dime store called Ben Franklin in Newport, Arkansas. Walton was forced to move five years later when his landlord refused to renew the store's lease. He traveled across the state to Bentonville, which became headquarters to the Wal-Mart empire.

Walton started having doubts about the future of dime stores and, in the 1950s, started paying close attention to larger chains like K Mart and Zayre. These retailing giants avoided rural areas, preferring to place their stores in suburban or urban locations. In 1962 Walton and his brother opened the first Wal-Mart outlet in Rogers, Arkansas, about five miles from Bentonville. The two brothers thought large stores could be successful in small towns.

From the beginning the Wal-Mart concept was to join a friendly, general-store atmosphere with high-quality name brand merchandise at low prices. The idea slowly caught on. The stores were simple and basic, and many resembled barns, with merchandise overflowing from plastic bins or metal racks. Along with a top management team, Walton visited a half-dozen to a dozen Wal-Mart stores every week. At one store he might solicit suggestions on how yard goods could sell faster flat-folded than on bolts, or he might give advice on increasing deliveries of automotive supplies. At all of his stores he gave reassuring speeches that kept employees striving for improvement and higher sales.

By 1970, the year Walton took the company public, there were about 25 Wal-Mart stores. By 1972 the chain had more than doubled to 64 stores with sales of \$125 million. The rate of growth was phenomenal and continued to improve under Walton's leadership. In 1983 *Forbes* magazine estimated Walton's net worth to be \$2.1 billion, making him the second richest person in the United States behind oil magnate Gordon P. Getty. At that time Walton decided to explore another path, and he opened stores in medium-sized cities such as Little Rock, Arkansas; Springfield, Missouri; and Shreveport, Louisiana. He also opened stores in the suburbs of several large cities including Kansas City, Missouri, and Dallas, Texas. The strategy seemed to work, and by 1987 Wal-Mart had 1,108 stores located from Colorado to Virginia, with sales of over \$20 billion. By 1989 there were 1,326 stores with sales of almost \$26 billion.

Walton continued to try innovative ways to attract new customers. In April 1983 he launched the first

Sam's Wholesale Club, which was aimed at small-business owners and others who wanted to buy bulk merchandise. The warehouses employed only a few laborers, and the goods were priced just eight to ten percent over cost. By 1991 there were over 200 Sam's Clubs in the United States. In December 1987 he introduced another new retailing concept with the opening of the first Hypermart USA store in Garland, Texas. Encompassing some 220,000 square feet of retail space, about four times the size of the standard Wal-Mart store, these "malls without walls" devote an almost equal amount of space to both food and non-food products. Wal-Mart Supercenters, another Walton innovation, have both a supermarket and a regular Wal-Mart under the same roof.

Wal-Mart is a success story that redefined the way retailers viewed growth markets. Walton showed the world that consumers, no matter where they lived, preferred the variety and discount pricing that his chain offered. Walton was constantly searching for ways to better serve his customers. He was always walking around competitor's stores to educate himself. He was not above getting down on his hands and knees to look under display cabinets. "Anyone willing to work hard, study the business, and apply the best principles can do well," Walton said in the *New York Times*.

Walton's business success has impacted Bentonville, Arkansas, home to the Wal-Mart Corporation. Walton and his wife have built tennis courts, a recreation hall for senior citizens, a day care center, a library, an athletic center, and a health club in Bentonville. Walton, or "Mr. Sam," as some called him, was unpretentious, and he did not believe in company perks like limousines.

Despite all of the success, Walton and his chain of discount stores were not without their detractors. Chief among them were the small town merchants who were ultimately driven out of business by the Wal-Mart stores. They knew they could not compete with the low prices and extensive variety of merchandise.

Regardless, Walton revolutionized the concept of discount stores in the United States and reshaped consumer shopping patterns. Without a doubt Walton was the epitome of modern retailing, adapting to contemporary demographic trends. He built his empire not in the large urban areas of the North, East, and West—the politically and economically dominant regions of the first two-thirds of the twentieth century—but in the South and Midwest and the former depressed and neglected regions of the nation. He pioneered retailing where others did not want to go, and because of his

Wampum

willingness to go to uncharted areas he reaped astounding financial benefits which propelled him to one of the world's richest and most respected businessmen of his time. Sam Walton's legacy continues. Five years after his death, Wal-Mart had grown to over 2,300 stores with annual revenues of \$104.8 billion.

Among the honors Walton received in his lifetime were the Gold Winner in *Financial World's* CEO rating, 1986; National Retail Merchants Association's gold medal for the most distinguished retailing performance of the year, 1988; *Financial World's* CEO of the Decade, 1989; *U.S. News and World Report's* Excellence Award in Business, 1990; and *Advertising Age's* Adman of the Year Award, 1991. The Presidential Medal of Freedom from President George Bush (1989–1993) in 1992 was the award that Walton deemed “the highlight of my entire career.” Even though he was in a wheelchair Walton led his sales associates in a rousing Wal-Mart cheer. He died on March 29, 1992, of bone cancer at age 74, three weeks after receiving the medal from Bush.

See also: Chain Store, Retail Industry, Wal-Mart

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WAMPUM

Wampum were beads or disks of polished mollusk shells that were used as money by the Native Americans. The word is a shortened form of *wampumpeag*, an Algonquin word meaning “white string of beads.” Wampum was used primarily by the Eastern Woodlands Indians, who came into contact with the European settlers during the early 1600s. The colonists adopted wampum as money, and helped broaden its circulation. English fur traders, for example, sold their wares to coastal Indians in exchange for wampum; as the fur

traders moved inland, they used wampum as exchange with other tribes, such as those of the Great Plains. Like gold or silver today, wampum was valued not only as a form of money but also as decoration. The white or purple shell beads were made into necklaces, woven into belts, and sewn to clothing. After treaties were signed, wampum belts were sometimes exchanged as a gesture of goodwill and continued peace. As foreign coinage and colonial coinage came into circulation, the use of wampum as money declined during the mid- to late-1600s.

See also: New Netherlands, Pieces of Eight

WAR AND COMMERCIAL INDEPENDENCE, 1790-1815 (OVERVIEW)

Between 1790 and 1815 the United States struggled to be taken seriously as an international political and economic power, even as rapid internal growth began to change the character of the nation. When George Washington (1789–1797) was inaugurated as the first U.S. president in 1789, the United States was still dealing with the tremendous economic problems left by the American Revolution (1775–1783). U.S. citizens were still trying to define what kind of nation theirs would be. Over the next 25 years economic changes enriched U.S. society, influenced domestic politics, and eventually led the country back into war with Great Britain.

In 1790 the United States was overwhelmingly a farming society. Small, independent family farms dominated New England and the Mid-Atlantic states, while cities like New York and Philadelphia were growing into large, important trade centers. Compared to the North an even greater proportion of the southern population lived on farms. One important difference between the North and South was that southern agriculture was marked by the institution of slavery, which was on its way to being outlawed in the northern states. Although the Constitution stipulated that the slave trade would come to an end in 1808, as that date came and went African slaves were becoming seemingly indispensable, especially for the cultivation of tobacco, rice, and cotton. Southern plantation owners used slavery to produce these staple commodities that sold at home and abroad for large profits. A majority of southern whites owned no slaves, but the entire southern economy and society were influenced by the institution of slavery.

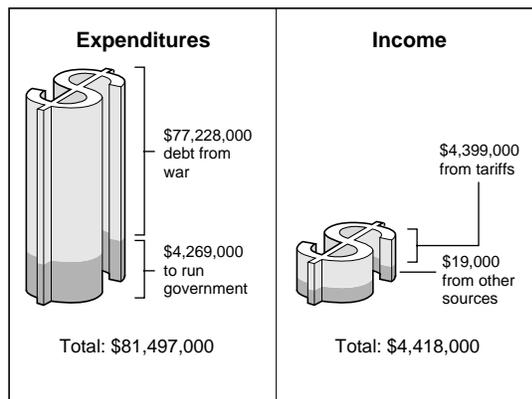
By the end of the War of 1812 . . . Though the vast majority of U.S. citizens still lived on farms, they probably thought more about the economic world beyond their homes than their parents had. The people in the United States had witnessed the growth of a market economy over the previous 25 years. Although there were some ominous signs like increasing exploitation of slavery and the intractability of urban poverty, the country was poised to become a real economic and industrial power in the nineteenth century.

When George Washington took office, one of his first tasks was to deal with economic problems that had plagued the country throughout the 1780s. The leading figure in the reconstruction of the national economy was Secretary of the Treasury Alexander Hamilton (1789–1795), who was a prominent New York lawyer and a brilliant adviser to Washington. Hamilton was an exponent of turning the agrarian U.S. into a modern commercial state. After Congress put the country on firmer financial footing in 1789 by passing a series of import taxes that would provide a steady stream of revenue and protect U.S.-made goods from foreign competition, Hamilton proposed a comprehensive package of financial measures to further develop the national economy.

In January 1790 Hamilton issued a “Report on Public Credit,” in which he proposed that the federal government assume the state debts left over from the Revolution and pay off all foreign and domestic national debts at face value. Congress agreed to pay \$11 million in foreign debts and to repay all wartime investment certificates in full, despite the fact that many original investors had sold their certificates to financial speculators since the war. Following six months of debate in which the southern states had agreed to the deal even though they had already gone further towards paying off their debts, Congress approved the proposal to assume state debts.

In his Second Report on Public Credit, (December 1790) Hamilton also proposed the creation of the Bank of the United States. This proposal proved to be even more controversial than his First Report on Public Credit. The bank, which was to be backed by both public and private stockholders, faced opposition from Secretary of State Thomas Jefferson (1743–1826) and James Madison (1751–1836). The critics argued on the floor of Congress that the bank was an institution more

FINANCING A NEW NATION, 1789—1791



Source: Historical Statistics of the United States.

Upon becoming a new nation, the U.S. faced a serious financial crisis, the nation's expenditures far exceeding revenues.

in keeping with monarchy than U.S. democracy. Opponents of the bank claimed it would be an unconstitutional abuse of central government power and that the Constitution did not specifically give the federal government the power to create such an institution. Congress reluctantly passed authorization anyway, and the bank opened in 1791.

Hamilton's proposals exposed fundamental differences in how U.S. politicians perceived the national economy. Alexander Hamilton wanted to use federal government power to expand the economy. His “Report on Manufactures,” (December 1791) recommended that the economy be increasingly based on trade and manufacturing, and protected by high tariffs. Jefferson, Madison, and their supporters thought that a manufacturing economy was bound to expose U.S. society to moral and political decay and corruption—significant concerns for the new nation. Jefferson believed that farmers were “the chosen people of God” and that decentralized agriculture would provide the most “virtuous” basis for U.S. government. Jefferson envisioned a society led by independent land-owning farmers, and Hamilton placed his hopes in trade and finance. Though Congress accepted many of Hamilton's economic proposals in 1792, and though his programs restored the country to remarkable financial health, debate surrounding the role of central government, power, and the economy in the United States would continue for decades.

Beyond the political debates, the economic life of average U.S. citizens began to change during the 1790s. Pioneers were pushing westward and looking

for new land, and by 1800 500,000 settlers were living west of the Appalachian Mountains. Congress supported integrating western lands into the United States—the Northwest Ordinance (re-authorized in 1789) outlined the process for the Northwest Territory to be broken down into states. In addition southern territories joined the Union: Kentucky and Tennessee became states in 1792 and 1796, respectively.

Since many westerners were looking for land and economic opportunity, their presence often brought them into hostile contact with Indian nations determined to resist the United States' westward encroachment. Though the Northwest Ordinance specified that Indian land treaties had to be respected, many U.S. migrants ignored this provision and violence was often the result. In the early 1790s Congress deployed the first "peacetime" U.S. army to battle against an Indian confederacy led by Miami chief Little Turtle, who fought to maintain native land rights. Little Turtle's forces were defeated in 1794 after several years of successful resistance. The pattern of conflict over land and natural resources was established.

Many of the U.S. citizens who moved to the west in the 1790s were becoming involved in the money economy. Rather than growing, trapping, shooting or fishing for food and other necessities, the sale of labor or goods gradually changed from within the previous frontier subsistence and barter economy. Instead of merely producing enough product to live on or to trade with neighboring farmers, U.S. farmers slowly began to produce surplus goods to sell for cash. The growing availability of paper money combined with a greater demand for "store-bought" goods. As the market opened up more cash and products were available. Homesteaders used surplus profits from their farming to buy non-essentials. Westerners raised extra livestock and produced whiskey that they hoped to trade back east. Mid-Atlantic farm women produced surplus butter and hen eggs that they sold to neighbors or at produce markets in Philadelphia, New York, or at country cross-roads for cash. Domestic trade was on the rise everywhere.

The increased commercial activity put pressure on the federal government to enforce tax laws and support trade. In 1794 the government cracked down on western Pennsylvanians who violently resisted paying taxes on whiskey (which they sometimes used as a form of currency, since distilled alcohol was more convenient and portable than the bushels of corn from which it was derived). The "Whiskey Rebellion" that ensued was repressed without loss of life by Washington, Hamilton, and 12,000 militia.

Western farmers caught up in the "market revolution" wanted to use the Mississippi River (which was then controlled by Spain) to establish water-trade routes to New Orleans—and, thence, to the world market. U.S. envoy Thomas Pinckney negotiated a treaty with Spain in 1795 that allowed U.S. citizens free access to the Mississippi River. Only about 20 percent of U.S. citizens were engaged in commercial farming by 1820, but their influence exceeded their numbers.

In addition to commercial farming, manufacturing was also on the rise during the 1790s. Urban artisans produced manufactured goods, like shoes, that appealed to farmers in the interior. Merchants who financed and organized this form of "putting out" production managed to increase their profits, even before mechanization took over. Artisan families in Lynn, Massachusetts, for example, produced 400,000 pairs of hand-sewn shoes in 1800. Though most manufacturing was still manual, waterpower fueled the beginnings of mechanization that would push industry forward in the nineteenth century. In 1790 Samuel Slater, Moses Brown, and William Almy harnessed the power of the Blackstone River and used stolen British industrial plans to open the first mechanized textile mill in the United States in Pawtucket, Rhode Island.

Increased agricultural production, manufacturing, and domestic trade characterized the Atlantic economies in the 1790s, not just the U.S. Foreign trade rose dramatically. In 1794, over the objections of Thomas Jefferson and his supporters (who were pro-French), George Washington declared the U.S. neutral in the French wars with the European monarchies. U.S. merchants could trade simultaneously with the French and British. U.S. neutrality during the French Revolution and the Napoleonic Wars initially boosted the shipping and export businesses. At first the U.S. merchant fleet could sail through French and British waters without coming under attack.

Political leaders in the U.S. were divided over whether the United States should remain neutral in the wars. Washington's successor, John Adams, threatened to engage the country in an undeclared war with France in 1798 but trade continued. As ship-building improved, merchants along the eastern seaboard ranged farther and even began to trade in China and North Africa. U.S. exports included both manufactured and agricultural goods, and cotton and cloth exports escalated after the invention of the cotton gin in 1793. Total U.S. export revenue rose from \$33 million in 1794 to \$94 million in 1801 and taxed imports increased even more sharply over the same period.

In 1800 Thomas Jefferson (1801–1809), then head of the Democratic Republican Party, was elected President. Though the campaign had been bitter, this peaceful transfer of power supposedly signaled an end to Hamilton's "federalist" brand of centralized government and financial power. The agrarian Jefferson was less eager than Hamilton to encourage banking and manufacturing and more interested in paying off the national debt. However Jefferson did seem to put aside his scorn for government programs in 1803 when he negotiated the purchase of the Louisiana Territory from France for \$15 million. In accomplishing this momentous act (which doubled the size of the U.S.), Jefferson did what he accused Hamilton of doing: he gave the central government powers (in this case the power to annex additional land) that were not mentioned in the Constitution.

And even Jefferson could not ignore the fact that increased foreign trade required military protection. The North African Barbary States were in the habit of preying upon foreign shipping. They would stop and board ships, demand tribute, and take sailors hostage for ransom. Although the Constitution specifically gave the power to make war to the Congress, Jefferson sent the American Navy to attack Tripoli and other North African states. Although it turned out to be a drawn-out affair, the United States triumphed in a series of naval engagements off the coast of Tripoli between 1801 and 1805 and kept the lines of trade open. The fact that he had to stretch the Constitution to do that does not make him a traitor to his earlier states' rights politics. It just means that Hamilton's vision of a powerful central government pursuing programs that enhanced the economic health of the country would prove to have an important place in the future of the nation.

Far more difficult to solve were the problems caused by the Napoleonic wars. In 1803 the wars between France and England resumed with a vengeance, and U.S. citizens were increasingly pulled into the hostilities as they tried to trade with both sides and to profit from the re-export trade. The French and British imposed naval blockades on one another, meaning that they would try to block all goods from entering each other's countries by sea. U.S. shippers who ignored the blockades faced capture (especially in the West Indies). Since being a sailor in the British Navy was possibly the worst job that a free man could have in the nineteenth century, many seamen deserted the British Navy. When the British came upon a U.S. merchant vessel they frequently boarded the ship and "impressed" a portion of its crew into service. In the

process, an estimated 6,000 sailors with U.S. citizenship were impressed (kidnapped) into the British Navy between 1803 and 1812.

The question facing the U.S. government was how to respond to the French and British aggression. Congress passed a Non-Importation Act in 1806 that imposed a boycott on British imports, a strategy of political resistance that had been tried before the American Revolution. That same year, Jefferson's ministers negotiated the Monroe-Pinckney Treaty with Great Britain that was supposed to solve trade problems and the impressment of U.S. sailors. However Jefferson refused to submit the treaty to Congress for ratification because he felt the final terms favored the British too much. The British raised the stakes in June, 1807, when the *H.M.S. Leopard* fired on the U.S. ship *Chesapeake* after the British unsuccessfully tried to impress some of the *Chesapeake's* U.S. sailors. The British did not back down from its policy of impressment, and they imposed even harsher trade restrictions on U.S. ships.

Despite the British hostility, Jefferson remained committed to solving the problems through commercial measures rather than military action. In 1807 he urged Congress to pass an embargo that would totally ban all French and British exports and imports. Congress repealed the Embargo in 1809, but followed it with other sanctions—the Non-Intercourse Act (1809) and Macon's Bill, Number Two (1810). James Madison (1809–1817), elected President in 1808, tried to stay true to Jefferson's vision of economic resistance, but these measures did nothing more than ruin the U.S. economy, especially in the Northeast which depended more on trade and shipbuilding. The French and British paid little attention to the embargoes and sanctions, and the huge drop in U.S. exports and imports sent the United States into an economic depression.

Finally in 1812 a group of western and southern Democratic Republicans in Congress convinced their colleagues that economic sanctions were not working, and the United States declared war on Great Britain. The War of 1812 (1812–1814) established that the United States would not allow trade interference, but its economic effects were mixed. The war raged for three years with few U.S. military successes, and Congress was hesitant to raise taxes to pay for militia, army, and navy forces. The British burned the capital at Washington DC in 1814. In the midst of the war with Great Britain, U.S. forces defeated the Creek Indians and killed Tecumseh, an Indian leader who had united many tribes in resistance to U.S. expansion. Both the defeat of the Creek and the death of Tecumseh signaled the likelihood that westward expansion would continue after the war.

The war also encouraged the growth of domestic manufacturing—new, larger textile mills and factories sprang up all over the Northeast to replace unavailable foreign goods. By the end of the War of 1812 the United States had proven that it was able to defend itself, even though it had few militarily memorable moments in the war. Though the vast majority of U.S. citizens still lived on farms, they probably thought more about the economic world beyond their homes than their parents had. The people in the United States had witnessed the growth of a market economy over the previous 25 years. Although there were some ominous signs like increasing exploitation of slavery and the intractability of urban poverty, the country was poised to become a real economic and industrial power in the nineteenth century. A U.S. economy, based both on farming and commerce, had been firmly established.

See also: Embargo, Alexander Hamilton, Thomas Jefferson, Louisiana Purchase, War of 1812

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WAR AND THE ECONOMY (ISSUE)

Perhaps no other single activity has had a greater impact on the economy of the United States than war. But how war affected the economy of the nation changed drastically between the nineteenth and twentieth centuries. During the late eighteenth and nineteenth century, war sometimes obstructed and other times invigorated the national economy. But in the twentieth century war provided a consistent impetus for prosperity, at the same time that it tied the U.S. economy closer and more intricately to a global market, a world alliance, and a defense industry.

For many U.S. citizens independence from Britain didn't provide all the solutions it appeared to have promised. For some it only made things worse. The British Navigation Acts, although no longer restricting trade outside the Empire, were now applied against U.S. merchants who wished to trade inside the Empire. Moreover the mercantilist regulations of other European countries were often more stringent than the British laws had been. When the war ended the English proceeded to "dump" low-priced goods on the still infant American industries which had begun to establish themselves during the years when the British Navy blockaded American ports. War-born industries found it impossible to compete against England's more mature industrial efficiency and economies of scale. Cheap British manufactured goods began reappearing on the U.S. market and the protection that U.S. industries had enjoyed due to trade disruptions during the war disappeared. Trade came to a standstill, domestic prices fell; farm produce also sold at the lower prices; consequently, unemployment rose sharply among urban and rural laborers.

In 1790 Secretary of the Treasury, Alexander Hamilton (1789–1795), convinced Congress to assume the debts incurred by the individual states during and after the American Revolution (1775–1783). According to Hamilton, this plan would bind wealthy citizens to the new federal government, establish it as a good credit risk internationally, and provide a compelling rationale for an immediate and effective federal tax system. The funding and assumption of this enormous debt would serve several purposes. If the debt were gathered together as the sole responsibility of the federal government, the credit of the nation would be restored at home and abroad. As capital came out of hiding, interest rates would be lowered. With lower interest rates investments in land, commerce, and industry would increase, and capital would multiply along with wages and jobs. All that would then be required was a national bank to provide internal control of finances and national programs to stimulate commerce and industry within the nation.

The outcome of the American Civil War (1861–1865) was determined in large part by the economic disparity between the two regions in their manpower and their industrial resources. In 1860 the North had a population of about 19.5 million to the South's 11 million, about four million of which were slaves. Estimates placed the size of the northern armies at about 1.5 million to the Confederacy's nine hundred thousand. But the system of volunteers, even with the offer of bounties, proved to be unreliable to furnish the

War	Estimated total war costs	Original war costs	Total costs to 1970 of veterans' benefits	Total estimated interest payments on war loans
Vietnam Conflict	352,000	110,000	2,461	22,000
Korean Conflict	164,000	54,000	15,016	11,000
World War II	664,000	288,000	87,445	86,000
World War I	112,000	26,000	45,585	11,000
Spanish-American War	6,460	400	5,436	60
Civil War (Union only)	12,952	3,200	8,570	1,172
Mexican War	147	73	64	10
War of 1812	158	93	49	16
American Revolution	190	100	70	20

Source: Historical Statistics, pt. 2, series y849-903, p. 1140.

This table shows the cost of war to the U.S. Included are the benefits to veterans and interest payments. No other government act has had greater impact on the U.S. economy.

numbers needed to keep the armies up to strength and both the North and South were forced to use conscription.

An essential part of the war involved transportation of men and material. In 1859 the North had about 21,900 miles of railroads to the South's 6,600. In the North railroads connected the agricultural and manufacturing centers, but in the South railroads were inadequate in quality and lacked direct connections between major cities, thus there were problems getting supplies to where they were needed. The federal government also controlled the Navy and most of the merchant marine, which placed the South at a disadvantage in purchasing needed goods abroad and selling surplus agricultural products in foreign markets. While the North had 90 percent of the nation's industrial capacity, the South's lack of a developed industrial base created serious problems in acquiring sufficient supplies of arms and ammunition. Food supplies for the army were an even greater problem than equipment. The South's poor transportation system failed to get needed food to the armies in the field.

Perhaps one of the most telling reasons for the South's inability to win its independence was its inadequate financial system. There were no significant financial institutions in the Confederacy. At the close of the war the South would still depend upon banks in the North and in England for loans to rebuild the southern economy. The predominantly agricultural economy made it difficult to raise taxes or large sums of money. The devastation of a four-year war fought mainly in the

South made this even harder. The provisional government finally resorted to printing paper money, but the currency came to have so little value that people eventually turned to barter. Ultimately the South was unable to raise the capital it needed to support the war effort. And its inability to amass capital continued well after the war was over. Some observers likened the post-Civil War South to a colony of the North: low-wage labor was there in abundance, but capital was lacking. Some historians note the attempt of the South to build a "New South" with developing industry over the next thirty years. But for much of the South the Civil War probably set things back a generation.

Statistics also tell the story of the effect of the Civil War on the economies of the South and of the North. From the South, 258,000 men died in the war. The North lost more—362,000. Those that survived were frequently maimed for life and rendered incapable of supporting themselves. In several southern states, the busiest manufacturing industries for several years after the war were producing prosthetic devices, such as wooden legs, for the wounded. The South also lost much of its livestock as well as its farm implements. Most significantly, the South lost its slave labor force, variously estimated at around 4 billion dollars (more expensive than all the land in the South).

Whereas the Southern economy had suffered a major set-back as a result of the war, the North had continued to advance. One important feature of this advance in the North was that, when the South seceded, the Northern Republicans, now in control of the 37th

Congress, in 1862 proceeded to pass the elements of the Republican program that the southern Democrats in Congress had been impeding. The Homestead Act of 1862 provided free government land to farm families in the north and west. The Morrill Land Grant Act of 1862 set aside new money to build colleges for agriculture and industrial sciences. Subsidies for the transcontinental rail lines were also voted in, as was a National Banking Act to standardize the national currency. All of these measures pointed in the direction of a post-war program for farming, industrial expansion, and wage labor (as opposed to slavery). It was only through the Civil War that these advances were possible.

In the case of both the Spanish-American War (1898) and World War I (1914–1918) war now became a stimulus to economic development. World War I initially cost the United States government about \$33 billion plus interest. But rather than hurting the domestic economy, the war effort strengthened and improved the United State's competitive position in the world. Farmers enjoyed boom years as agricultural prices rose and the international market for their products expanded. Real wages for blue-collar workers increased modestly and all sectors profited from the war. Wartime demands for industrial products raised profits for many companies. The DuPont Company's stock multiplied by 1600 percent between 1914 and 1918 and DuPont grew from a debtor company to one with a surplus of \$68 million at the end of the war. Steel production reached twice its prewar level by 1917. The standardization effort during the war led to greater postwar industrial efficiency and production.

President Woodrow Wilson (1913–1921) did much to encourage the United State's changing role in the world economy. In Wilson's view free trade promoted both universal prosperity and universal peace and democracy. International commerce led to a strong domestic economy and exports were essential for continued U.S. economic growth. Wilson felt that restrictions on trade, such as tariffs and trade agreements, hindered efficiency and denied the natural cycle of the international economy. Wilson firmly believed that goodwill flowed along with goods and that commercial contacts were effective guarantors of peaceful relations among states.

The war almost instantly reversed the credit standing of the United States. The nation, by the war's end, held billions of dollars in European debt obligations and was the globe's greatest creditor as well as its greatest economic power. By forcing the Europeans to accept goods instead of loans, the Wilson administration guaranteed that the country would be banker, arsenal, and breadbasket to the Allies. World War I set

the foundation for the prosperity of the twenties and some economists argue, the background for the Great Depression (1929–1939) as well.

The outbreak of World War II (1939–1945) began the United State's climb out of the depths of the Depression. U.S. businesses profited from increased orders for military and non-military goods by European nations engaged in the conflict. Industries such as steel sold war goods to all parties and reaped a handsome profit. Later as the Europeans ran short of cash, President Franklin D. Roosevelt (1933–1945) developed a policy of U.S. funding for allied purchases. The policy was announced as a means whereby the United States would become the "arsenal of democracy," and was designed to advance U.S. political and economic interests without involving the nation in war. But even policy supporters within the Roosevelt administration doubted that the United States could stay out of the conflict and they began preparing the United States for war. The government increased its purchases of military goods from private industry, spurring production and creating jobs.

Despite the Roosevelt administration's friendly attitude toward big business, an unregulated marketplace approach to the war economy was impossible. Shortages and allocations of vital raw materials required economic oversight and coordination. By executive order Roosevelt created a variety of new agencies to oversee mobilization. Among these agencies were the War Production Board (WPB), which coordinated war-related industries, and the Office of Price Administration (OPA), which set prices on thousands of items to control inflation. There was also the National War Labor Board (NWLB), which set wages, monitored working conditions, and, if necessary, seized industrial plants in the event of labor strife. Roosevelt also converted older New Deal agencies into wartime organizations. The Reconstruction Finance Corporation (RFC) made loans to small businesses and homeowners during the Depression. During World War II the RFC loaned money at excellent terms to industries expanding to meet wartime demand.

The administration's combination of private capitalism and public stimulus accomplished exactly what the government intended: it made the United States the largest arms manufacturer in world history. U.S. labor built nearly 300,000 airplanes, nearly 400,000 pieces of artillery, 47 million tons of artillery ammunition, 44 billion rounds of small arms ammo, 86,000 tanks, and 6,500 ships. Many of these planes, tanks, and ships were used in the European and Pacific theaters of war, often with Russian, British, or other Allied soldiers

using them. Frequently the infusion of U.S.-made material proved decisive in battle.

At the end of the war U.S. business and the economy were radically different than they were before Pearl Harbor. U.S. citizens enjoyed unprecedented prosperity. Corporate profits had skyrocketed. In 1943 alone earnings jumped \$2.1 million over the prewar level. Workers' wages on average doubled; they increased from almost \$25 a week to \$50 a week and many people earned hefty overtime bonuses. Even farm income increased an incredible 250 percent, despite the loss of nearly 800,000 agricultural workers during the war.

The character of the economy also changed due to war. Despite administration attempts to distribute the benefits of government contracts broadly, 71 percent of all contracts went to the 100 largest U.S. corporations. By the end of 1942 there were 300,000 fewer small companies than there had been before the war, and fewer small farms. Labor also got bigger. The total labor force increased by 22 percent during the war, which along with the draft eliminated unemployment. Labor unions grew from 10.5 million members in 1939 to 14.75 million members in 1945 and they intended to make up for wages lost due to the "wage freeze" of the war years. As in the case of the post-World War I strike wave in 1919, there was a tremendous strike upheaval in 1945 and 1946.

An acknowledged power in the U.S. marketplace, big labor insured that many of the wage and benefit gains of the war years would continue into the next decades. Moreover because of wartime labor shortages the workforce was more diverse than before. Almost 60 percent of women in the United States were employed during the war. Industry, which for so long had closed its doors to African Americans, during the war employed 1.2 million. Sixty thousand African Americans migrated to Detroit alone during the war. The one problem with all this prosperity was that it was purchased with government deficits justified by the pressure of war.

The new administration under President Harry S. Truman (1945–1953) was faced with a significant economic problem: how to maintain wartime prosperity without a war. But the potential military confrontation with the Soviet Union not only cemented U.S. economic ties with Western Europe and increased U.S. trade, it also provided Truman with the perfect solution—a viable rationale for increased military expenditures. By the end of the 1940s, prosperity was insured by the twin forces of expansive U.S. trade and the growth of what President Dwight D. Eisenhower

(1953–1961) would later term "the military industrial complex."

See also: *Civil War, (Economic Causes of), Civil War (Economic Impact of), Economic Development (Federal Involvement in), Military-Industrial Complex*

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WAR INDUSTRIES BOARD (WIB)

Participation in World War I (1914–1918) required not only the mobilization of people, but of materials in the United States. The country entered the conflict on April 6, 1917, when Congress declared war on Germany, and the United States joined the Allied nations (France, Great Britain, Russia, Serbia, and twenty other nations, including Japan) to fight the Central Powers (Austria-Hungary, Germany, the Ottoman Empire, and Bulgaria). The U.S. war effort demanded that industry join with the federal government to ensure an adequate flow of supplies to the front and to keep things moving smoothly on the home front. President Woodrow Wilson (1913–1921) declared that "it is not an army that we must shape and train for war, it is a nation." Of all the committees and agencies that were established to advise and oversee the production and movement of materials, raw and finished, the most important was the War Industries Board (WIB), which, for the duration of the war, ran the nation's economy.

Formed in July 1917, the WIB was originally led by F.A. Scott (1873–1949); he resigned under the enormous pressure of the job. Succeeded by Daniel Willard (1861–1942), he too resigned, complaining of

War Labor Board

the War Industries Board's lack of power. In 1918 Wilson secured broader authority for the board when Congress passed the Overman Act. The president tapped American businessman Bernard Baruch (1870–1965), who was then serving on the Allied Purchasing Commission, to head the WIB.

IT IS NOT AN ARMY THAT WE MUST SHAPE AND TRAIN FOR WAR, IT IS A NATION.

President Woodrow Wilson, on U.S. mobilization for World War I

Under Baruch's leadership the WIB faced with the challenge of converting the nation's industry to wartime production. The wartime agency allocated supplies (war-related items received first priority on production lines), fixed prices (to ensure that manufacturers had a means to pay wages high enough that workers would not strike), ordered the standardization of goods (so resources would not be wasted), and made purchases, sending enough goods—about one quarter of all American production—to the European front. While the Selective Service Act (1917) and local draft boards had successfully mobilized the troops, the WIB mobilized the economy, ensuring the Allied nations' defeat of the Central Powers in November 1918. On December 31, President Wilson directed that the board be dissolved. It was officially disbanded in mid-1919. The war effort was a catalyst for U.S. economic growth: By the end of the decade, the gross national product (GNP) was 237 percent higher than it was in 1914, when fighting first broke out.

See also: Bernard Baruch, Overman Act, Selective Service

WAR LABOR BOARD

The War Labor Board (WLB) was a federal executive branch office that had authority to settle all labor disputes that could interfere with domestic industrial production during World War II (1939–1945). Established within the Office of Executive Management on January 12, 1942, WLB was a tripartite body consisting of twelve commissioners appointed by the president, with four commissioners representing management, four commissioners representing labor, and four commissioners representing the public. The chairman and vice-chairman were selected from the public's representatives. Labor and management representatives agreed there would be no strikes or lockouts for the duration of the war.

To resolve more quickly any disputes that might arise, WLB created ten regional offices, each with twelve commissioners who were vested with nearly the same powers as the national commissioners. Labor disputes were escalated according to a defined procedure. The parties were first required to negotiate pursuant to the provisions of the applicable collective bargaining agreement. If the dispute could not be settled in this manner, the Commissioners of conciliation at the Department of Labor would intervene. If their intervention failed to produce a satisfactory result, the Secretary of Labor was required to certify the matter to WLB, which would make a final determination via mediation, arbitration, or some other mutually acceptable process.

WLB was established in part to replace the Defense Mediation Board, which had been largely ineffective since its creation in 1941. On December 31, 1945, WLB itself was terminated and replaced by the National Wage Stabilization Board in the Labor Department.

See also: War Labor Disputes Act, World War II

WAR LABOR DISPUTES ACT

The Smith-Connally Anti-Strike Act of 1943, known more commonly as the War Labor Disputes Act (WLDA), was a measure enacted by the U.S. Congress, despite President Franklin D. Roosevelt's (1933–1945) veto. It gave the president the power to seize and operate privately owned industrial war plants, during World War II (1939–1945), when and if an actual or threatened strike interfered with war production efforts. Any strikes by unions or by employees in any of the designated war plants were prohibited. Any war-industry unions failing to give 30 days notice of intent to strike were held financially liable for all damages. This was one of the many efforts Congress initiated to bring order out of the chaos generated as U.S. industries converted to full-time war production. The general success of the WLDA, as well as other government-initiated controls of industry and production, enabled U.S. industry to produce twice as much as all enemy countries combined by 1944. The WLDA of 1943 expired after the end of World War II, and previous labor-dispute techniques used by American organized labor were gradually resumed.

See also: Military-Industrial Complex, Strike, World War II

WAR OF 1812

The War of 1812 (1812–1814) remains one of the least known of American wars. Some historians regard it as a minor sidelight to the Napoleonic Wars (1800–1814) in Europe. Others see it as a continuation of the struggle that began with the American Revolution (1775–1783). Most agree, however, that the war had its origins in the economic problems facing the young republic in the early nineteenth century. The war's end resolved some of these problems. But other problems raised by the war continued to plague the United States through the first half of the nineteenth century.

Contemporary sources suggest that the United States entered the War of 1812 partly to end British impressment (a kind of forced draft) of American sailors. This was undoubtedly the case. But the complete cause of the war was much more complex. The War of 1812 had just as much to do with American trading interests as it did with foreign powers respecting the rights of American citizens. Some of the war's fronts were opened to seize Canadian lands and to end British influence over Native Americans in the Great Lakes area. Historians have also suggested that the war was fought to enhance the prestige of the Republican (Anti-Federalist) Party, and to enhance the prestige of the United States. The end of the war is equally confusing. Although the United States has won most of its wars, the War of 1812 was a major exception. The Treaty of Ghent (1814) that ended the conflict simply restored the state of affairs that had existed before the war began.

The problem of European powers interfering with American trade was an old one, stretching back decades into the years following the American Revolution. They were rooted in the French Revolution (1789–1795) and the Napoleonic period (1799–1815). At the time, the British were trying to choke off foreign trade with France, while the French were denying the British access to Continental ports. The Orders in Council established Great Britain's intention to seize goods carried in neutral ships that were intended for French ports, while Napoleon's Berlin Decrees performed a similar service for ports in other mainland European nations. When the British warship HMS *Leopard* boarded the USS *Chesapeake* in 1807 and removed four sailors who had allegedly deserted from the British navy, the Americans responded with outrage. Following the example set by the thirteen American colonies in the 1760s, President Thomas Jefferson (1801–1809) guided an Embargo Act (1807) that ended almost all American foreign trade. However, the Embargo Act hurt the United States far more than it did the nation's

trading partners. In 1809 Congress reopened trade with foreign nations (except for Britain and France) in the Non-Intercourse Act. This act also stated that trade with Britain and France would be resumed if the two countries agreed to respect U.S. shipping. Even this step did not help the faltering U.S. economy, and in 1810 Macon's Bill No. 2 opened trade with both countries with the stipulation that trade with either country would be cut off if the other agreed to drop its restrictions on U.S. trade. Napoleon quickly took advantage of the opportunity to hurt the British, and in 1811 President James Madison (1809–1817) cut off trade with England. In June of 1812 the British government finally repealed the Orders in Council. But by that time Madison had already asked Congress for a declaration of war.

The other major source of conflict between the British and the Americans was on the Great Lakes frontier. Since the conflict known as the Little Turtle's War (1791–1794), the territory known as the Old Northwest had been a place of constant conflict between Native Americans and U.S. settlers. After the Treaty of Greenville (1795) awarded most of what is now Ohio to the U.S. government, most Indians left the area. Among them were the Shawnee leader Tecumseh and his younger brother Tenkwatawa, sometimes known as the Shawnee Prophet. Tecumseh was determined to put together an inter-tribal confederacy to resist further American incursions into Indian lands. His dream was smashed at the battle of Tippecanoe (1811), when General William Henry Harrison confronted the Shawnee Prophet at Prophetstown and scattered Tecumseh's Native American confederation. Tecumseh promptly joined the British forces in Canada as a commander of auxiliaries. He helped seize Detroit from American general William Hull in 1812 before being killed at the Battle of the Thames (1813). Tecumseh's death marked the effective end of Indian resistance to white settlement in the Old Northwest.

The problem of how to pay for the war was also one that occupied the government of the young republic. One of the reasons that the United States lost most of its battles in the first year of the war was that Congress had made a declaration of war, increased pay for its soldiers and raised money to encourage enlistments, but it had also adjourned before voting taxes or appropriating funds. In March of 1813, Secretary of the Treasury Albert Gallatin was reduced to begging for money through subscribed loans. Gallatin had to call on financial lion Stephen Girard, who had made his money through a shipping business centered in Philadelphia, for help. Girard was probably the richest man in the United States at the time. The same Congress that

War Production Board

had authorized war with Great Britain had also refused to renew the charter of the Bank of the United States—effectively killing off the government’s primary financial institution. Girard himself, along with fur trader John Jacob Astor and a syndicate of wealthy businessmen, underwrote most of the needed loans. In less than two weeks he had sold \$4,672,800 worth of loan subscriptions to the American public, and purchased a further \$2,383,00 himself. Girard’s efforts helped bring about U.S. victories in 1813, and contributed to Great Britain’s willingness to negotiate an end to the war.

The War of 1812 came to an end when British and American negotiators signed the Treaty of Ghent on December 24, 1814. At the time the treaty was signed, events were going on at opposite ends of the country that dramatically affected the future of the United States. New Englanders had long objected to the restrictions placed on trade by Congress as war measures. From December 1814 to January 1815, the Hartford Convention met in Connecticut and published a list of New England grievances. These ranged from undue influence of southerners in Congress to a series of constitutional amendments designed to protect New England from the damaging effects of national actions. The Hartford Convention also established the principle of nullification—the right of a state to overturn a federal law in order to protect the interests of its citizens—a principle that would later be taken up by southern states. At the same time, on January 8, 1815, in Louisiana, General Andrew Jackson was beating the British army at the Battle of New Orleans. Jackson’s victory, along with the news of the peace treaty, virtually destroyed the Federalist Party in the United States. Despite the fact that none of Madison’s war aims had been achieved, many citizens regarded the War of 1812—and the “Era of Good Feelings” that followed it—as an unqualified success.

See also: Embargo Act, Andrew Jackson, Tecumseh (Death of)

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WAR PRODUCTION BOARD

Federal War Production Board (WPB) was an executive branch office in charge of mobilizing the U.S. economy for World War II (1939–1945). Established within the Office of Emergency Management on January 16, 1942, WPB had authority to obtain financing, enter contracts for procurement of industrial materials, and issue directives to private enterprises. With this authority WPB allocated resources between the military and civilian production sectors. Civilian production that was wasteful or unnecessary was stopped, while scarce or valuable goods were rationed. Quotas on consumer purchases were created for a host of commodities. Commercial automobile manufacturing plants were expanded under the WPB’s direction, and then converted for the production of armored vehicles, jeeps, and bombers. Although WPB was effective at first, its authority eventually became diluted by other agencies with overlapping power, including the Office of War Mobilization. WPB was officially replaced by the Civilian Production Administration on October 4, 1945.

See also: Office of Emergency Management, Rationing

WARNER, JACK LEONARD

Pioneering motion picture executive and producer, Jack L. Warner (1892–1978), along with his three brothers, created Warner Brothers Pictures and turned it into one of the largest film studios in the United States. When Warner Brothers released *The Jazz Singer* in 1927, as the first “talking picture,” it revolutionized the entertainment industry and initiated the movie’s modern era. Aggressive, and at times crude and difficult, Warner epitomized the classic movie mogul during Hollywood’s studio era.

Jack L. Warner was born in London, Ontario, on August 2, 1892, the ninth and youngest boy of the 12 Warner children. His Polish parents, Benjamin and Pearl Eichelbaum, emigrated from Poland in 1890 to live in Canada for a time before moving in 1894 to Youngstown, Ohio. Jack, whose original surname was Jacob, and his three brothers, Harry, Albert, and Sam, were expected to help at an early age with the family’s finances. Harry worked as a cobbler’s apprentice, then

as a meat packer. Albert and Sam held a succession of odd jobs before they began exhibiting movies after they obtained a projector by pawning Sam's prized birthday gift from his father, a gold watch and chain.

A poor student, Jack Warner longed to be a stage performer. He took his middle name, Leonard, from a minstrel performer he admired. Warner's love of the limelight would continue throughout his career. At age 12 he had earned money as a singer in minstrel shows and operettas. In their fledgling movie business, Sam handled the projector, Harry and Albert supervised the advertising and tickets, and Jack Warner sang and danced before and after the picture.

From their humble start the Warner brothers would steadily mount their assault on the young motion picture business, incorporating their holdings as Warner Brothers Pictures, Inc. in 1923. During World War II (1939–1945) Jack Warner served as a lieutenant colonel in the Army Air Force where he organized the first motion picture unit.

The Warner brothers' family movie business started in Youngstown, Ohio, but it was moved to Newcastle, Pennsylvania, where the brothers opened their first theater. In 1903 they converted an empty store with a seating capacity of 99, one seat short of 100 to prevent the theater from being subject to local and state fire regulations. Distribution of films was a problem during these early years of the movie business, and theater owners could not depend on deliveries. To remedy this situation Harry Warner decided to form collaboration with exhibitors and theater owners to exchange films. This eventually became the Duquesne Amusement Supply Company, the first such organization in the country. It was short lived since film producers did everything possible to discourage the arrangement as a threat to their profits. The Warners finally sold the film supply company in 1912. The experience convinced the brothers that if they were to be sure of having movies to show they must make them themselves. They began to make what the trade called "Warner Features" at the old Vitagraph Studios in New York.

Their first blockbuster occurred when they bought the rights to the 1917 book by Ambassador James W. Gerard, *My Four Years in Germany*. The resulting film grossed almost a million dollars. The profits allowed the Warners to shift their operations to California, joining Jack who had earlier established a studio in Santa Paula, California. Now the brothers built a large studio on Sunset Boulevard in Hollywood and incorporated their business as the Warner Brothers Pictures,

Inc. However, in 1923 they were still selling their pictures through independent distributors who advanced them money to make their films. The brothers set out to obtain control of a nationwide distributing system.

Jack Warner married Irma Solomon in 1914 and they had one son, Jack L. Warner, Jr. The couple divorced and Warner married actress Ann Page in 1936. Warner accepted her daughter from a previous marriage, Joy, as his own and the couple adopted a two-year-old girl whom they named Barbara.

In 1925 they borrowed enough money to buy the Vitagraph Company, which had a nationwide distribution system. Success was still precarious, however, and Warner Brothers was close to bankruptcy when the brothers decided to experiment with sound films. In 1926 they released *Don Juan*, starring John Barrymore with a completely synchronized musical score, although Barrymore's voice and that of the rest of the cast were not recorded. Its success encouraged Warner Brothers to make other sound films while improving the sound tracks. In 1927 *The Jazz Singer* became the first true "talking picture." The effect of film speech was electrifying to its first audience; the era of the silent film had reached its conclusion. By 1928 Warner Brothers was a \$16 million corporation and within two years they were worth \$230 million. In 1929 Warner Brothers acquired the Stanley Company with some 250 theater outlets nationwide, which insured audiences for Warner Brothers' movies.

With a head start over their competitors in sound, Warner Brothers became one of the dominant film studios during Hollywood's Golden Era. Warner Brothers' contract players included such stars as George Arliss, Leslie Howard, Paul Muni, James Cagney, Bette Davis, Humphrey Bogart, and Joan Crawford. Jack Warner, as production chief, oversaw such classic films as *Little Caesar* (1930), *A Midsummer Night's Dream* (1935), *The Adventures of Robin Hood* (1938), *Casablanca* (1942), *The Corn is Green* (1945), *Mildred Pierce* (1945), *A Streetcar Named Desire* (1952), *Rebel Without a Cause* (1955), and *My Fair Lady* (1964). Although it produced films in all the genres Warner Brothers' specialty became social issue films. During World War II Warner Brothers became the first studio to direct its resources toward the war effort.

One of the keys to Warner Brothers' success was Jack Warner's intimate and scrupulous attention to detail and his constant economizing. He looked upon the movie industry as any other kind of factory production. Every economy was employed, including repeated use of material, reassembled sets, and a minimum of

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wasted time and space. Warner personally supervised the selection of story material, the assignment and supervision of producers and directors, and the discovery and assignment of acting talent.

In the late 1940s Warner Brothers became the first of the Hollywood studios to go into television production. In 1956 the Warners relinquished financial control of their company, although Jack Warner remained President and largest single shareholder. In 1966, when Warner finally sold his interest in the studio, he received \$25 million after taxes.

Warner lived the life of the stereotypical Hollywood movie mogul in great splendor in his Hollywood mansion. Difficult to work with and often rude, Warner had a reputation for arbitrary firings and feuds with his brothers and son. Like other movie titans such as Louis B. Mayer and Darryl F. Zanuck, Jack L. Warner defined the role of the movie executive during the studio era when individual personalities could dominate every aspect of the making and marketing of movies and their stars.

As the cofounder of Warner Brothers Pictures Jack Warner helped shape the direction of U.S. entertainment through the infancy of the film industry and into its Golden Age, creating some of most important and significant U.S. cultural exports. Images of our society have been so dramatically affected by film portrayals that it is difficult to imagine areas of modern life untouched by film's influence. By exploiting the technical innovation of sound recording, Warner Brothers' created film's modern era.

As studio production chief Jack Warner contributed significantly to the production of many film masterpieces and he helped define the studio system for the production of films that was directly related to their creation. His dominating personality and tight control also helped to set in motion the reaction against the studio system and the wresting away of ultimate control over films to individual directors and actors, which has had both positive and negative impacts on the industry. In today's Hollywood it is difficult to imagine the power of a studio executive like Jack Warner, who was one of the last of his breed of visionary businessmen who helped create the influential mass entertainment industry. Jack L. Warner has contributed in significant ways to Hollywood legend and its unprecedented success as our culture's dominant artistic medium. Jack L. Warner died in Los Angeles on August 2, 1978.

See also: Entertainment Industry, Movies

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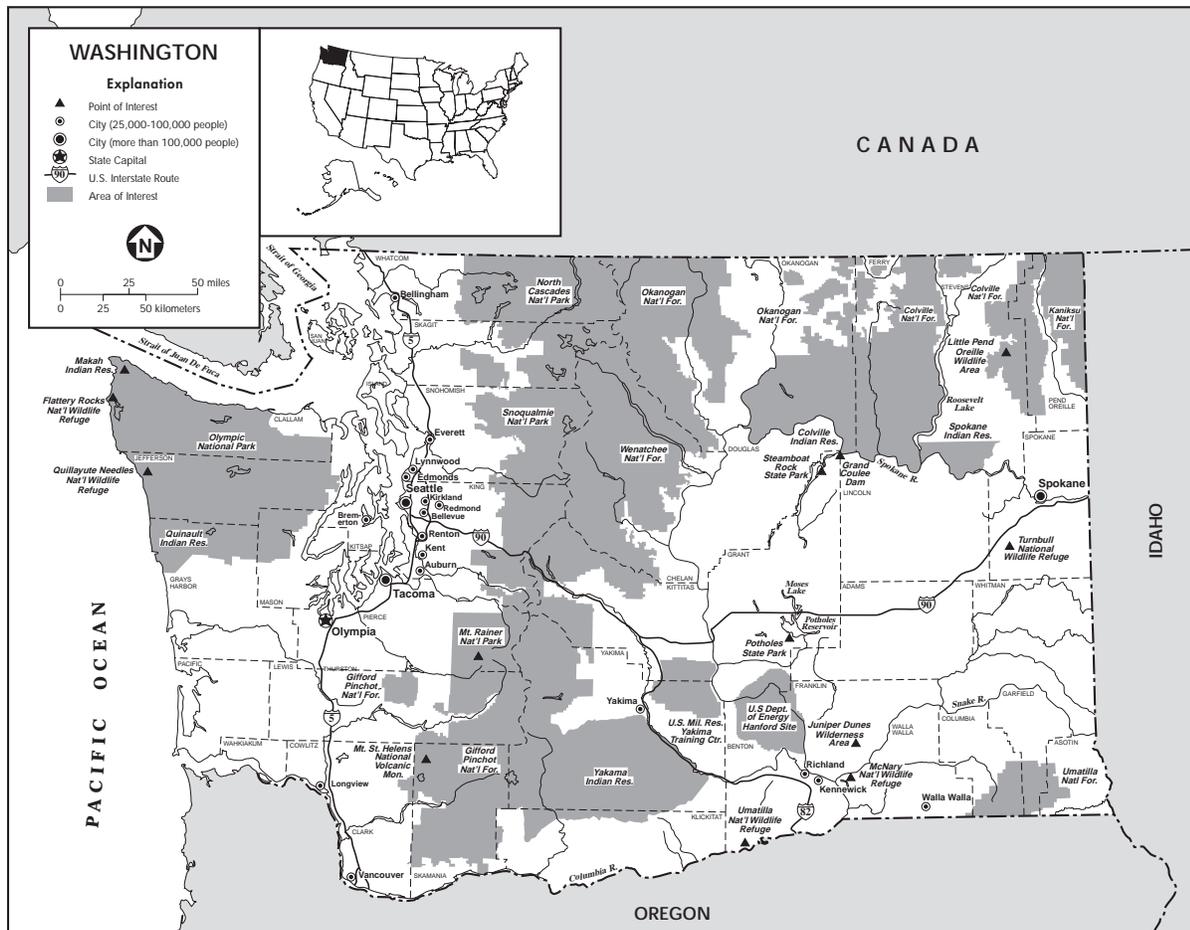
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WASHINGTON

According to Gordon V. Dodds in his 1986 history of the American Northwest, life in the states of Washington and Oregon has been marked by “the absence of severe class or cultural or economic or environmental conflict.” It is a “pleasant, undemanding life for most residents. . . . It has been a place where people could start over by escaping from their constraints to carry on the old ways better in a new environment. It is perhaps most typically American in this characteristic of providing a chance to start over.”

The Pacific Northwest must have seemed a very remote place indeed to anyone who wanted to “start over” during the nineteenth century. Because of its rugged coast, distant location, and impenetrable mountains, for centuries Europeans only sporadically visited the region. Sir Francis Drake (1540–96) and some Spanish explorers may have seen the Washington coast in the sixteenth century. The Spaniard Juan Perez explored the northwestern coast in 1774. Other Spanish explorers made the first known landing at the mouth of the Hoh River, but were ambushed by Native Americans. The Englishman Capt. James Cook (1728–79) followed the fur trade to the area in 1792. His fellow countryman George Vancouver (1757–98) later made maps of the Pacific coast and Puget Sound. Fur trading companies such as the Hudson's Bay Company eventually began to attract overland traders as well. Reports from the Lewis and Clark expedition, which first sighted the Pacific from the bank of the Columbia River in 1805, also inspired others to set out for the Northwest.

From the beginning of white settlement, the history of the area was characterized by disputes between Great Britain and the United States. Both countries wanted control of the land and the water ports. The



State of Washington.

border between the United States and Canada was settled in 1846, and the Oregon Territory was organized in 1848. It included the present state of Washington. About this time people were beginning to migrate from Missouri via the Oregon Trail to the present states of Oregon and southern Washington. A new Washington Territory was established in 1853. Most of the Indian uprisings which had hindered settlement in the territory were suppressed during the late 1850s.

Discoveries of gold in the Walla Walla area, in British Columbia, and in Idaho during the 1860s created a boom in the whole region. Immigration swelled following the completion of the Northern Pacific Railroad line to Puget Sound. By 1890 Washington's population had grown to over 357,000, up from just 24,000 in 1870. Lumbering, cattle farming, sheep raising, and agricultural farming were well established in Washington when the territory became a state in 1889. The city of Spokane literally boomed overnight when it became a hub for the Great Northern and the Northern Pacific railroads.

THERE HAS NOT BEEN MUCH TRAGEDY FOR WHITE PEOPLE IN THE HISTORY OF THE PACIFIC NORTHWEST.

Gordon B. Dodds, *The American Northwest: A History of Oregon and Washington*, 1986

The city of Seattle on the natural port of Puget Sound quickly became Washington's premier city. At first a center for coal shipments, it began to serve the lumber trade and expanded its commerce to Alaska, California, Europe, and other cities on Puget Sound. In 1909 Seattle hosted the Alaska-Yukon-Pacific Exposition, which celebrated both the Alaska gold rush and Seattle's own pride in its large seaport.

The era of railroads changed Washington significantly. It became much easier for raw materials to reach Puget Sound, and people were drawn from the eastern regions by promises of good land and unlimited opportunity. Manufactured goods from the East were now readily available to farmers and city-dwellers. In addition better waterways including canals along the

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Columbia to bypass falls and rapids were helping lumber companies get their products to market.

Seattle in particular prospered during World War I (1914–18). Shipbuilding thrived during this period. Radical labor activities thrived as well, and Seattle became the headquarters of the Industrial Workers of the World (IWW). The first general strike in the United States, involving around 60,000 workers, was staged in Seattle in 1919 by the IWW. Centralia and Everett also experienced violent conflict between the IWW and conservative groups such as returning veterans.

Postwar readjustments followed during the 1920s as many farms were lost and the lumber business experienced a downturn. Apples, always a profitable crop for Washington, became even more important during this period as many wheat farms began to fail. By the middle of the 1920s, however, farm income was increasing. Lumbermen had to cope with an inadequate supply of timber because forests had been decimated to keep up with wartime demands, and the U.S. Congress passed several acts designed to provide better conservation of forests.

The Great Depression of the 1930s affected Washington much as it affected most of the country. Markets for field crops and forest products plummeted, and Washingtonians looked to President Franklin D. Roosevelt's (1933–45) New Deal programs for relief. Notable among those in the Northwest were the Grand Coulee and the Bonneville dam projects, which provided hydroelectric power and water for irrigation. More than one million acres were eventually reclaimed for farm production as a result of these projects.

World War II (1939–45) brought a new boom of economic activity, particularly to the Seattle area. The Boeing Corporation quickly established the aerospace industry as the state's primary employer. Boeing's rapid growth strained the housing facilities and infrastructure of the city; between 1939 and 1944 the number of workers employed at Boeing increased from 4,000 to 50,000. Shipyards also employed thousands in Seattle, Tacoma, Bremerton, and Vancouver. In addition, the federal government built the Hanford Reservation nuclear research center. This plant was instrumental in constructing the first atomic bomb and during peacetime was engaged in nuclear-powered electricity generation.

Postwar readjustments were inevitable in Washington as industries and farms began their transition from a wartime economy to a peacetime one. Small farms declined in favor of larger, technologically sophisticated ones; Boeing began its long reorientation to passenger aircraft after years of supplying military

planes; fisheries declined because the salmon supply had rapidly been depleted; and large lumber concerns such as Weyerhaeuser in Tacoma solidified their operations while smaller firms went under.

In 1962 Seattle featured a world's fair, "Century 21," which showcased the city's assets. Rapid population growth marked the 1960s and 1970s, with concentration around Seattle and the Puget Sound area. This trend challenged both government and industry to balance economic needs with environmental protection. Both economic and environmental damage was suffered when an unexpected eruption of Mt. St. Helens's in May 1980 shocked the state and the nation with its destructive power.

A deep recession gripped Washington in the late 1970s. Logging was particularly hard hit. Between 1978 and 1982 employment in wood products industries dropped 30 percent. In the 1990s the economy was recovering after the 1980s expansion of Microsoft Corporation, Boeing, and Weyerhaeuser Paper. In the late 1990s the most important segments of the Washington economy were wholesale and retail trade, manufacturing (particularly aerospace equipment, shipbuilding, food processing, and wood products), agriculture, lumbering, and tourism. Another important segment in the 1980s and 1990s was film production. Many feature films, television movies, and documentaries used Washington locations and added millions of dollars to the economy. Washington ranked fifteenth among the states in per capita income in 1996. By the end of the decade unemployment in the state dropped to around five percent.

See also: Boeing, Fishing Industry, Industrial Workers of the World, Lumber Industry, Microsoft, Weyerhaeuser

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WASHINGTON, BOOKER TALIAFERRO

Booker T. Washington (1856–1915) became one of the leading spokespeople for African Americans after the American Civil War (1861–1865). Washington strongly promoted the education of African Americans in practical skills and manual trades—he founded the Tuskegee Institute in Alabama to promote such goals. He became popular among white political leaders for his views on racial harmony, which emphasized economic opportunity over political protest.

Booker Taliaferro Washington was born in Franklin County, Virginia, on April 5, 1856. His mother was a slave who worked as a plantation cook. Washington's father was an unknown local white man who took no responsibility for his son. His mother later married another slave, but her husband escaped to West Virginia during the American Civil War, leaving his family behind. After the war ended in 1865, Booker's family was emancipated and the family was reunited in Malden, West Virginia. His stepfather had found a job at the salt furnaces and young Booker worked with him as a salt packer.

Booker desperately sought an education for himself, but his family needed him to work in order to support itself. His stepfather reluctantly agreed to let young Booker go to school on the condition that he continue to work in the salt mines before and after school. It was in school that Booker acquired his last name; he had only been called Booker until that time. When the pupils at school responded to roll call with two names, Booker named himself Washington. He later learned from his mother that he already had a last name, Taliaferro. So he became Booker Taliaferro Washington.

Washington continued his work at the salt furnaces, took another job at the coal mines, and still pursued his education. It was at the coal mines that Washington learned of the Hampton Institute in Virginia—this was a school dedicated solely to educating former slaves. It was suitable for Washington and his family because students could finance their education by working at the school.

Washington attended the Hampton Institute in 1872, and it proved to be a critical move for his future. It was at the institute that Washington learned of the educational philosophy that would shape his later beliefs and influence his writings. The Hampton Institute focused its program on practical skills and manual



Booker T. Washington.

trades to improve the status of African Americans in the community. The institute emphasized industrial and agricultural education as well as teacher training.

Washington graduated with honors from the Hampton Institute in 1875 and went on to teach in rural schools in Malden. In 1878 he began his studies at the Wayland Seminary in Washington, D.C. He left the school, however, because he found the purely academic and theoretical atmosphere to be too superficial for his tastes. The world of books and ideas did not reflect the reality that most African Americans were living at that time. He appreciated the more practical approach of the Hampton Institute and returned there in 1879 as a teacher.

In 1881 the president of the Hampton Institute General Samuel Chapman Armstrong (1839–1893) recommended Washington for a new position. Washington would be the principal of a new school for African Americans to be built in Tuskegee, Alabama. The school had an annual legislative appropriation of \$2000. It had no campus, buildings, pupils, or staff and Washington had to recruit pupils and teachers to the school himself. He also raised money for buildings and equipment, as the future site of the school was located on an abandoned plantation. Washington's first lessons to his students were practical ones. Students and faculty together planted crops and made the bricks for the new buildings.

At the Tuskegee Normal and Industrial Institute (later named the Tuskegee Institute, and now Tuskegee University), Washington taught the same self-help philosophy that he himself had learned at the Hampton Institute. Washington emphasized manual and industrial education, as well as practical trades such as carpentry, farming, mechanics, and teaching. He additionally emphasized discipline, cleanliness, and thrift among his students. Washington sought to impart to them a philosophy of African American self-sufficiency, and he urged his students to become capitalists. In 1900 Washington put his own teachings into practice and founded the National Negro Business League. The school, however was his real legacy, and he continued to watch his institute grow over the years. By 1888 Tuskegee Institute expanded to cover 549 acres and have over 400 enrolled students. By 1915 the school had 1500 students and a larger endowment than any other black institution.

Washington's influence and educational philosophy, however, extended outside of Tuskegee, Alabama. In 1895 he was asked to address the Cotton States and the International Exposition in Atlanta, Georgia. The event had an all-white audience of about 2000 people. Washington gave a speech at the exposition that was later dubbed the "Atlanta Compromise." The soon-to-be famous speech outlined Washington's proposal for racial harmony in the United States. He explained that self-improvement of African Americans in economic and educational matters would make them more law-abiding and less resentful toward white Americans. This would eventually, he asserted, promote racial harmony. Washington spoke out against the public protests occurring at that time and saw economic advancement as a more effective solution than political demonstrations to racial discord. Ultimately, he accepted racial segregation in exchange for economic opportunities. As he said in the speech: "In all things that are purely social we can be as separate as the fingers, yet one as the hand in all things essential to mutual progress."

Washington's speech was very popular among white Americans, and he soon became a spokesperson for his people. He developed strong ties with northern philanthropists such as Andrew Carnegie (1835–1919), George Eastman (1854–1932), Henry H. Rogers (1840–1909), and Julius Rosenwald (1862–1932). They appreciated Washington's entrepreneurial approach to race issues. Washington also became an advisor on racial matters to Presidents Theodore Roosevelt (1901–1909) and William H. Taft (1909–1913). His advice was sought as well by various governors and members of Congress.

The late 1800s were a difficult time for African Americans despite Washington's calls for racial harmony. Lynchings increased, Jim Crow laws enforcing racial segregation in public were passed, and there were threats of disfranchisement for African Americans in the South. These were clear signs that African Americans needed more than economic advancement to improve their social position in the United States. Other black intellectuals such as W.E.B. Du Bois (1868–1963) and William Monroe Trotter (1872–1934) began to speak out against the "accommodationism" that Washington supported. Du Bois in particular was critical of Washington's educational philosophy. He felt that it discouraged African Americans from striving for a higher education, instead Du Bois supported the opportunity for talented African Americans to attain a college education and serve as leaders of the black community. This opposition to Washington formed the Niagara Movement in 1905. It provided an alternative view to Washington's position of compromise and humility. In 1910 the same group founded the National Association for the Advancement of Colored People (NAACP).

Washington himself realized that economic opportunity alone was not enough to improve the conditions of African Americans. His public position never wavered, but Washington privately supported campaigns against injustice. He anonymously financed lawsuits against disfranchisement and segregation and secretly influenced other legal actions. Washington maintained a demanding public life until he became ill during a lecture series and died on November 14, 1915.

See also: Civil Rights Movement, Jim Crow Laws

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WASHINGTON, GEORGE

George Washington (1732–1799) was commander-in-chief of the Continental forces during the American Revolution (1775–1783). He also served as the first President of the United States and was responsible for building much of the country's political and economic structure. Washington served two terms as president before retiring to his estate in Mount Vernon, Virginia.

George Washington was born at Bridges Creek in Westmoreland County, Virginia, on February 22, 1732. He was the first child of Augustine Washington and his second wife, Mary Ball. His father was a middling planter who owned about 10,000 acres of land. Augustine Washington was also very active in public life, serving as sheriff, church warden, and justice of the peace. George Washington received a basic education, studying math, surveying, and reading. In 1749, at the age of 17, he began working as the county surveyor. This job helped him become familiar with the frontier. With that knowledge and experience Washington was appointed major in the Virginia militia in 1752.

One year later Washington was faced with his first major military challenge. In 1753 the French were encroaching on British territory in the Ohio Valley, and the governor of Virginia sent Washington to dislodge them. This event was the beginning of the French and Indian War (1754–1763). Washington was then appointed as aide-de-camp to General Edward Braddock, who was ordered to oust the French in 1755. A year later Braddock died in combat and Washington was promoted to colonel and commander-in-chief of all Virginia troops; in 1758 he was promoted to brigadier.

When the French and Indian War ended, Washington resigned his commission and returned to Virginia to concentrate on his family. On January 6, 1759, he married Martha Dandridge Custis, a widow with two children. He was a dedicated stepfather and a skilled farmer. He also became actively involved in politics and was elected as representative from Frederick County to the Virginia House of Burgesses in 1758. He then served as justice of Fairfax county from 1760 to 1774.

In the late 1760s and early 1770s tension had begun to mount between Britain and the colonies, particularly over taxation and importation issues. As a legislator, Washington was very involved in colonial affairs. In 1774 he helped write and pass the Fairfax Resolves, which formed the Continental Association and the Continental Army. When the disputes with Britain turned into war, the Continental Congress on

June 15, 1775, unanimously elected Washington to command the Continental Army. Throughout the American Revolution, from 1775 to 1783, Washington served as *de facto* chief executive of the United States. He proved to be a gifted leader with good administrative skills and political acumen. When the war was finally won, Washington handed over his powers to Congress at Annapolis, Maryland, and returned home to Mount Vernon to retire.

However, Washington was soon called back to serve his country. The Articles of Confederation proved too weak to hold the new country together, and in 1786 Washington described the situation as “anarchy and confusion.” In an effort to revise the articles, Washington presided over the Constitutional Convention in 1787. In 1789 he was unanimously elected as the first President of the United States. He began his term by stating: “I walk on untrodden ground. There is scarcely any part of my conduct which may not hereafter be drawn into precedent.”

Washington immediately became involved in the creation of the new government. He created the first Cabinet, establishing the departments of State, Treasury, and War. Alexander Hamilton (1755–1804) became the first Secretary of the Treasury, and together with Washington he developed the country's economic system. On July 4, 1789, Washington signed the first bill passed by Congress. It gave the government the right to tax and was used to pay the debt accumulated by the Revolution and establish American credit at home and abroad. Washington also approved the Federalist financial program and other proposals by Hamilton, including funding the national debt, assuming state debts, establishing a federal bank, creating a coinage system, and establishing an excise tax. In addition to these economic policies, Washington presided over the expansion of the country from 11 to 16 states.

After his first term as president ended in 1792, Washington had plans to retire from political life. His colleagues, however, persuaded him to serve one more term. On February 13, 1793, Washington was once again unanimously elected to the presidency. His second term focused on the young country's foreign policy. In 1793 Washington announced the Neutrality Proclamation to keep the United States out of all foreign disputes. Relations with France and Britain were tested during Washington's tenure, but he managed to keep peace. By 1796 Washington had grown tired of the demands of political life and once again decided to retire. This time he was able to have his way and pacify critics who called him a closet monarchist. On September 17, 1796, Washington published his

Farewell Address and returned home to Mount Vernon following the next presidential election.

His retirement was brief, as Washington was called again to public service in 1798. The United States was on the verge of war with France and President John Adams (1797–1801) asked Washington to raise an army for defense. Washington answered the call to duty, but the threat quickly subsided due to diplomatic negotiations. Once again he resigned his commission and returned to Mount Vernon. Soon after returning home, Washington, suffering from a serious throat infection, died on December 14, 1799. After George Washington's death, Congress unanimously agreed to erect a marble monument, called the Washington Monument, in the nation's capital to pay tribute to the country's first president.

See also: **American Revolution, Articles of Confederation, French and Indian War, Alexander Hamilton**

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WATSON, THOMAS JOHN

U.S. business executive Thomas J. Watson (1874–1956) assumed management of the International Business Machines Corporation (IBM) in 1924 and built it into one of the world's largest and most respected corporations. As a manufacturer of business machines and computers IBM, under Watson's innovative and inspired supervision, led a revolution in the business world that heralded the information age. By the end of 1955 Watson's last full year as IBM's chief executive officer, he had guided his company from debt to having

total assets of \$630 million and from fewer than 4,000 employees to 41,000. IBM was poised to dominate the emerging computer market and by the 1960s and 1970s it controlled 80 percent of the U.S. market. Due to Watson's effective leadership, IBM had become a model for corporate planning, research, and customer and employee loyalty.

Thomas John Watson was born February 17, 1874, in Campbell, New York. He was educated in New York at Addison Academy. His father urged him to study law when he graduated and offered to pay his college expenses, but Watson was anxious to pay his own way and to begin his business career. Watson took a year-long course at the Elmira School of Commerce and, at age 17, found a job as a bookkeeper in Clarence Risley's market in Painted Post, New York. Soon bored, he took a job as a peddler selling organs and sewing machines.

From such a modest start Watson would eventually emerge as one of greatest and most influential U.S. business executives. He married Jeanette Mary Kittridge of Dayton, Ohio in 1913, and they had two sons and two daughters. The sons, Thomas J. Watson, Jr. and Arthur K. Watson, followed their father to work for IBM.

In 1895 Watson joined the fast-growing National Cash Register (NCR) Company as a salesman. At first the company manager was uninterested in hiring him but Watson persisted, making numerous trips to the company's Buffalo office. After several months he was finally offered a position. The United States was in the midst of a depression and Watson sometimes went many weeks without a single sale. He sustained himself by quoting the tried-and-true slogans and homilies that he later would use at IBM. Despite his early lack of success he received encouragement from his superiors, and within two years Watson had become the top salesman in the Buffalo office. He moved steadily up the corporate ladder to become general sales manager and was given a position in NCR's Dayton home office in 1903. This period was marked by Watson's aggressive assault on NCR's competition, namely the creation of a company to undercut competitor's prices on second-hand cash registers, which proved to be illegal; however, it is unclear whether Watson was aware of this. Watson, along with NCR's president and 28 others, was indicted and convicted for the scheme. An appeals court later ordered a new trial but it was never held. In 1913, in a dispute over an anti-trust legal issue, Watson was fired from NCR though he was presented with a \$50,000 parting gift.

Watson was selected to head the Computing-Tabulating-Recording Company of Elmira, New York,

a small holding company that controlled four small firms that produced punch-card tabulators, time clocks, and other business machines. As company president, Watson acted to secure loans to finance expansion. The move helped the company's gross sales increase from \$2 million in 1914 to more than \$33 million by 1949. Personnel increased from 235 to 12,000 during the same period. Watson was committed to research and development and much of the borrowed funds went into engineering laboratories that produced new machines such as the keypunch, card sorters, tabulators, and eventually the computer. In 1924 the firm merged with International Business Machines Corporation taking its name. By then the business he had taken over had more than doubled in terms of plant size, number of employees, and volumes of sales. As the head of IBM, Watson helped those figures double yet again about every five years during his reign.

In the 1930s a new engineering laboratory was built in Endicott, New York, and IBM entered the electrical typewriter business with the purchase of Electromatic Typewriters, Inc. of Rochester, New York. As the holder of more than 1,400 patents as of 1941, IBM held a virtual monopoly in the field of business machines. IBM would maintain its dominance through Watson's inspired leadership. Having been a salesman Watson devoted considerable effort in training his sales force, insisting that IBM salesmen should know how to install, operate, and repair all the equipment they sold. Working out the three basic steps in the selling technique, the approach, the demonstration, and the closing, Watson insisted that his salesmen stress that IBM sold not machines but service.

Watson's personality and manner defined the IBM corporate identity that extended to its severely conservative dress code and the ever-present stimulating signs that graced IBM offices such as "Aim High and Think in Big Figures," "Serve and Sell," and IBM's trademark, a Watson creation: "Think." Dignified and conservative in his dress and manner, Watson neither smoked nor drank, nor did he take vacations. He worked 16-hour days and spent most of his evenings at the functions of his many employees' clubs. Watson was extremely concerned about IBM's corporate image, and was rigid in his hiring and personnel practices. Before World War II (1939–1945), employees at IBM were exclusively male and white Anglo-Saxon Protestants. Jews, Catholics, blacks, and women were unacceptable to him.

All employees were expected to have a copy of *Men, Minutes and Money*, a collection of Watson's speeches and essays and to be freshly shaved. They were also to wear daily shined shoes, and to follow

their chairman's dress style—dark suits, quiet ties, and white shirts—whether in the main New York office or in the Endicott factory. The IBM image virtually defined the corporate concept of the "organization man." Yet the benefits of conforming to IBM's image were many. *Forbes* magazine declared in a 1948 article that Watson had created "the nearest to ideal working conditions." Watson paid higher wages than did his competition. There were few firings and benefits included health and life insurance, a rarity at the time. IBM workers were made to feel that they were members of a special group who were encouraged for their innovations and originality and they were expected to carry a THINK notebook to record their inspirations.

By 1955, Watson's last full year as IBM's chief executive, the company's total assets were \$630 million, with a domestic work force of 41,000 employed in branch offices in 189 cities and plants in six cities. The IBM World Trade Corporation had 19,000 employees, 11 plants, and 208 branch offices in 82 countries. Watson had seen his struggling company grow into a world giant that would continue, under the direction of his son, Thomas, Jr., to dominate the business machine market and the rapidly developing computer industry.

Watson's principal interest outside of business was as a patron of the arts. He began acquiring paintings when he was only 24, and he was an outspoken advocate of the mutual benefit in joining the world of art with business. At the 1939 New York World's Fair he exhibited paintings by artists from 75 countries and a collection by U.S. artists that IBM had acquired. For many years he served as a trustee at Columbia University and as the president of the International Chamber of Commerce. An adviser to several U.S. presidents, Watson, who never graduated from college, was the recipient of 32 honorary degrees. For offering IBM's considerable research and production capacity to the war effort during World War II (1939–1945), Watson was given the U.S. Medal of Merit. He also received numerous decorations from several foreign countries including the Merit Cross of the German Eagle, which Watson returned to German leader Adolph Hitler (1889–1945) in 1940, stating that the policies of the Nazis were contrary to the causes for which he worked.

Thomas Watson died in 1956, one year after his retirement from IBM. During his tenure as head of IBM, Watson created one of the world's largest and most influential corporations. Dominating its markets IBM supplied the business machines upon which U.S. business depended by creating new products to meet customers' needs. Through the development of data processing equipment and a successful computer line IBM changed the very nature of modern business itself.

Welfare Policy (Issue)

Watson also forged the dominating principles of the corporate culture with its emphasis on company loyalty and team spirit, accomplishing the difficult task of simultaneously encouraging employee uniformity and innovation and individuality.

See also: Computer Industry, International Business Machines

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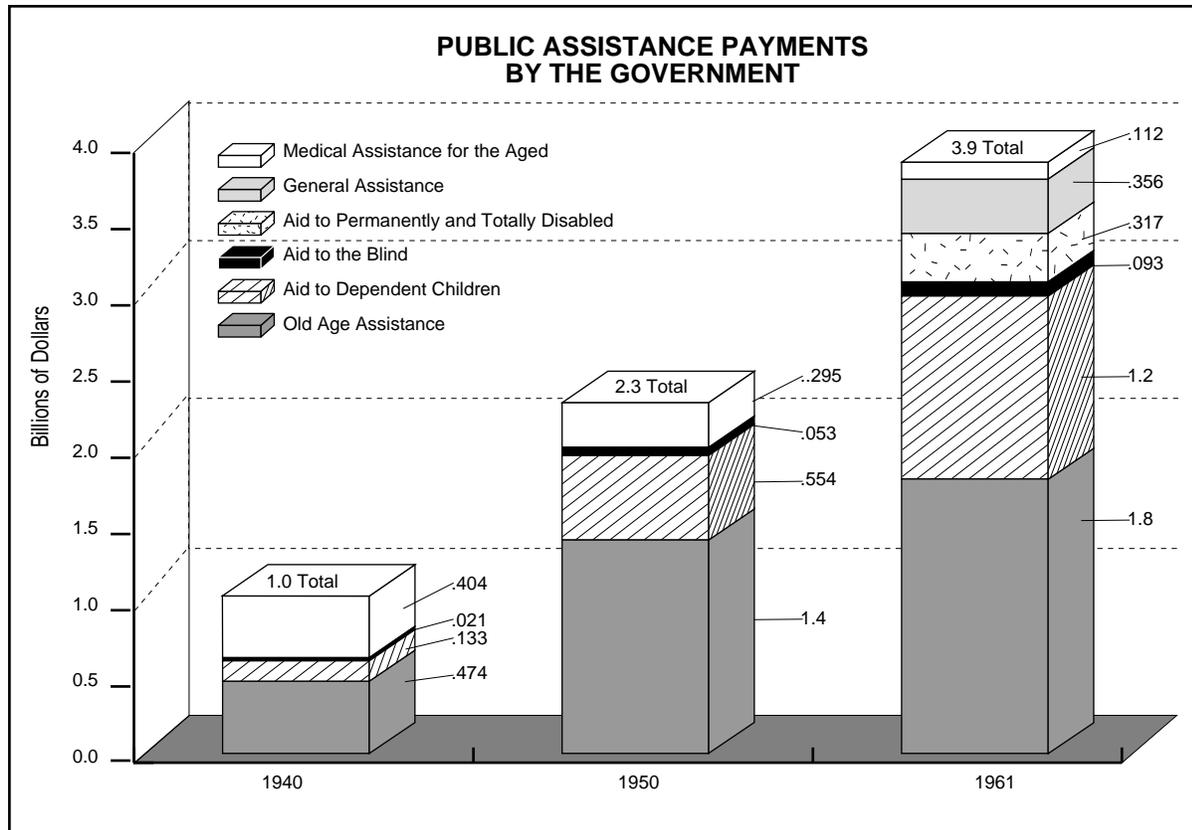
WELFARE POLICY (ISSUE)

There is no one single date that can be assigned as the beginning of the welfare system in the United States. Instead, both the ideology and the institutions of the welfare state have grown like weeds, cut back occasionally, only to reappear and to establish themselves again. There are, for instance, elements of the welfare ethic in the notion that people have an obligation to look out for one another's welfare going all the way back to the Puritan communities of New England. The "covenant" that each person had with God and with his or her immediate family also extended in some measure to all the inhabitants of the village. This is not to deny that the Puritans expressed the Protestant fixation with individual salvation, and that in this important sense they would make their peace with the competitive individualism of capitalism. But, especially before the rise of a systematic ideology of competitive capitalism in the eighteenth and nineteenth century, the social solidarity of the medieval village also informed the way that people looked at each other. It prompted the expectation that they could look forward to a certain helpfulness from each other. Even when this village world-view was in decline with the rise of the cities, there were still back-water religious communities—the Shakers, the Quakers, the Moravians, the

Amish, and the Utopian communities—and the general frontier neighborliness of cooperative labor exchanges—the barn-raising, corn husking, or quilting parties—that represented a much older tradition. This older, cooperative heritage, mediated by the labor movement and by the socialist tradition, contributed an alternative ethic that formed part of the welfare system in modern U.S. history.

The strength of the dominant ideology of competitive capitalism in the United States has meant that welfare policy has had countless critics. In spite of these attacks, in the twentieth century this welfare movement has been sustained by the great reform movements of the age: the Progressive Movement (1900–1920), the New Deal (1933–1940) and the Great Society (1964–1968). Each of these reform movements looked to the government as the instrument of reform. The cornerstone of the welfare tradition in the twentieth century was the Social Security Act of 1935. This reform came out of popular demands for a national pension system for the elderly. The "Townsend Plan" was the brainchild of Dr. Francis E. Townsend, a retired California physician. The essence of the plan was that the federal government would make monthly payments of \$200 to all citizens over the age of sixty. The sole stipulation was that the money had to be spent within one month. This would stimulate the demand for goods and pull the country out of depression. Five million mostly elderly citizens joined the Townsend Clubs in support of the plan. Although it was unrealistic in its approach to funding the proposed system, the Townsend Plan prompted President Franklin Roosevelt's administration—especially Secretary of Labor Francis Perkins—to consider the plight of the elderly and the Social Security System was the result. This mandatory system of government administered pensions (paid for by contributions from both the worker and the employer) expanded to include a program for unemployment insurance (funded solely by the employer) as well as aid to disabled people and to children.

President Lyndon B. Johnson's (1963–1969) Great Society and his War on Poverty went on from there in its expansion of the welfare system. The War on Poverty set out to reduce unemployment by helping the poor to improve their education, skills, work efficiency, and in general, equip themselves for success in the modern economy. In an effort to get local citizens to involve themselves in the programs, local governments or private nonprofit organizations were required to prepare plans, administer them, and pay 10 to 25 percent of their cost. In the ensuing years, the Job Corps, the Neighborhood Youth Corps, the College



Shown by this graph is the growth of Public Assistance payments by amount and programs from 1940 to 1961.

Work-Study Program, Project Head Start, Foster Grandparents, Upward Bound, Volunteers in Service to America (VISTA), and the Office of Legal Services were all initiated as the War on Poverty's arsenal.

Almost as soon as the programs began, they were met with open opposition. Critics claimed that training costs for VISTA programs averaged more than \$8,000 per graduate, and that nearly half of the graduates failed to find jobs. Others claimed that only a fraction of the poor ever received any benefits. Senator Walter Mondale once chided that the War on Poverty "authorized dreams and appropriated peanuts." Defenders claimed that the policies were stifled by the war in Vietnam.

During President Richard M. Nixon's (1969–1974) administration, the welfare system, partly federal and partly local in character, posed especially difficult problems. Throughout the 1960s there had been a marked expansion of relief rolls, especially in the category of Aid to Families with Dependent Children (AFDC). Between 1961 and 1970 the AFDC caseload rose from 921,000 to 2.2 million families, with an increase of almost 30 percent in 1970 alone. The

federal welfare bill grew from \$2.1 billion in 1960 to nearly \$18 billion in 1972, while the number of persons on welfare rolls increased from 7.3 million in 1961 to 14.9 million in 1972. Fifteen percent of the population of New York, 25 percent of the population of Newark, NJ, and about six percent of all U.S. citizens were on welfare. Of those families receiving welfare in 1971, 49 percent were white while 46 percent were black; 55.5 percent were children, 15.6 elderly, 9.4 percent were blind or disabled, and less than one percent were employable males.

The welfare explosion was attributed to several factors. The poor were becoming more visible as they moved from isolated rural areas into cities. Rising violence and rioting in ghettos convinced many people of the necessity to do something to improve opportunities. VISTA workers, poverty lawyers, and the National Welfare Rights Organization made the poor more aware of their rights and instructed them how to get welfare payments. The Supreme Court overruled state laws that denied benefits to newcomers. And finally the growing productivity of the national economy made the continued existence of abject poverty a less defensible blot on the U.S. way of life.

Welland Canal

The existing welfare system buckled under the new burdens thrust upon it. Critics everywhere condemned it because it required employed fathers to leave the household so that their families could qualify for public assistance. Its procedures were degrading and it helped only about a fourth of the poor. Some reformers proposed that the federal government pay the entire cost of all welfare programs. Some sociologists recommended a system of federal family allowances in which every family, rich or poor, would receive a monthly government payment for each child in the family. But critics of this system pointed to the cost (approximately \$14 billion annually) and charged that it would give poor families an incentive to have more children. Moreover, they claimed that because it wasn't based on need, more than 70 percent of the money would go to families above the poverty line. Other reformers sought to reduce taxation of the poor, arguing that taxes could be brought more in line with ability to pay by reducing sales and social security taxes, and collecting more of the needed revenue through income taxes. But opponents of tax reforms argued that the poor should be made to pay taxes to make them aware of the costs of government, give them a sense of contributing to their country, and make them better citizens.

In 1969, Nixon called for the replacement of the AFDC with a Family Assistance Plan (FAP) that would give every family of four on welfare with no outside income a basic federal payment of \$1,600 a year. There was also a "work requirement" in which recipients with school-age children could be referred to work or training on penalty of forfeiting a part of their FAP payments. Supporters of this path-breaking concept argued that a guaranteed annual income would stimulate economic growth. They claimed that putting money into the hands of the poor would raise consumer spending, stimulate production, and create new jobs, which would take many of the poor off welfare. Between 1968 and 1972, the Office of Economic Opportunity quietly conducted a test of the idea with seven hundred families in five communities in New Jersey and Pennsylvania. The results showed that nearly all of the families with guaranteed incomes worked at least as hard to add to their incomes as other families.

But the idea of a guaranteed income also had many critics. Some Democrats opposed it for partisan reasons (not wanting Nixon to take credit for the program), some because they deemed the benefits were too low and the work requirement too coercive. Some conservative Republicans opposed guaranteed income for being too liberal. Those already a part of the social welfare establishment opposed it because they had a

vested interest in maintaining the existing system. After passing the House of Representatives in 1970, the proposed FAP legislation failed in the Senate. From that point on the Nixon Administration backed off from it, but the idea of a guaranteed income remained on the agenda for the future.

In 1974 a new Supplementary Security Income (SSI) replaced existing federal-state programs for needy aged, blind, and disabled who did not qualify for adequate Social Security benefits. Application of federal standards of eligibility doubled the number of persons eligible to 6.2 million. The federal government assumed responsibility for guaranteeing persons in these categories a minimum income from all sources.

During the 1990s increased pressures to reform the welfare system resulted in the federal government relinquishing a good portion of its administrative, regulative, and enforcement responsibilities to individual states. State legislatures, however, frequently implemented what some liberals claimed were draconian changes in the system—cutting benefits and squeezing the welfare system to the point where welfare recipients were allowed far fewer months of benefits and were pressed to get jobs even if the jobs were so low-paying or so lacking in other necessary features, such as day-care provisions, that incentive to get the jobs was limited.

See also: Townsend Clubs, Social Security Act

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WELLAND CANAL

The Welland Canal connects Lakes Ontario and Erie. Because of the difference in elevation between the Atlantic and the Great Lakes, a system of canals and locks was required to allow large boats to navigate the connected waterways. (A lock is a section of a canal

that can be closed to control the water level and it is then used to either raise or lower a vessel to another body of water). The Welland Ship Canal is part of this system. It lies entirely within the Canadian province of Ontario, extending 27 miles (43 kilometers) from Port Weller on Lake Ontario (the eastern-most of the Great Lakes) to Port Colborne on Lake Erie. The natural waterway that connects these two bodies is the Niagara River. The height difference of the two lakes (Lake Erie is 326 feet or 99 meters higher than Lake Ontario) makes Niagara's spectacular waterway of falls and rapids unnavigable. The original Welland Canal was completed in 1829. Built by a private company that had secured government loans, the project cost nearly 8 million dollars. In 1833 an extension to the canal was completed. Six years later, Upper Canada (today the province of Ontario) took over the Welland to enlarge the canal to accommodate bigger ships. That project was completed by 1845; a second enlargement was undertaken in 1887. The Canadian government has continued to improve the waterway since. It remains the vital link for shipping between the nation's interior and the Atlantic Ocean.

See also: Erie Canal, Soo Locks

WELLS, FARGO AND COMPANY

On the morning of January 24, 1848, a construction foreman working for California land baron John Sutter, discovered something shining in the bottom of a ditch. Though Sutter attempted to keep this discovery secret, word soon spread across the country that gold had been found in California. To meet the needs of the every increasing number of Gold Rush pioneers, Henry Wells, William G. Fargo, and other investors formed Wells, Fargo and Company. Initially the company provided three services: banking, expressing (high-speed delivery services), and mail delivery. Five years later, Wells, Fargo and Company added overland stagecoach services. From these humble, yet inspired, beginnings rose a financial giant.

Wells Fargo opened for business in San Francisco on July 13, 1852. The company's banking department, run by banker Reuben W. Washburn, purchased gold from transitory miners, paying for it with standard-issue gold coins and bills of exchange that could be shipped back east. The company provided extensive communications and shipping services as well. To support these new services offices were built in Sacramento and Placer County to express the gold. Wells Fargo also contracted small banking and express firms to service other areas.

In 1855 a bank crisis felled two of California's largest banking houses causing a financial crisis from which Wells Fargo emerged as the primary bank and express company in the California region. The company continued to expand and it soon had over sixty agencies on the West Coast. The 1860s confirmed the dynamic nature of Wells Fargo. The California economy had expanded to include not only placer mining (which extracts material from deposits by hand, dredging, or with hydraulic nozzles) but also agriculture, manufacturing, and hard rock mining; industries of this type required long-term investment. Wells Fargo survived this economic shift while their express and communications services expanded. In 1861 Wells Fargo's growing express service would take over the famed Pony Express, and in 1864 the company provided the first electronic transaction by telegraph.

In 1866 Wells Fargo purchased the Overland Mail and Express Company. This strategic move placed Wells Fargo in control of essentially all express services west of the Mississippi River. However, in 1869 the new transcontinental railroad effectively brought an end to Wells Fargo's stagecoach empire. However, the "iron horse" became a great asset to the company, because it allowed for faster express delivery. Utilizing this faster mode of transportation as well as the new, expanded economy, Wells Fargo began to market agricultural products nationally. The company became the first express company to provide ocean-to-ocean delivery service. Thanks to this service, the earnings of Wells, Fargo, and Company topped one million dollars annually from 1890 to 1892.

Even the economic panic of 1893 could not damage Wells Fargo's financial earnings. By 1899 company earnings were once again over one million dollars. Earnings increased to almost five million dollars by 1909, with profitability soaring to \$27 million in that same year. Soon afterward express business for the company decreased because of railroad disruptions, competition from the U.S. Postal Service, and regulation brought about by the Interstate Commerce Commission. However, by July 1, 1918, Wells Fargo employed 35,000 people in 10,000 domestic offices. This considerable workforce was merged with the American Railway Express during World War I (1914-1918). The express division of Wells Fargo became a subsidiary of American Express, providing secured transportation of funds via armored cars.

The company's banking business merged with the Nevada National Bank in 1905. This move proved to be wise, as Wells Fargo maintained a strong banking presence throughout the Great Depression (1929-1939) and into the 1940s. The company continued to grow.

West Virginia

This growth can be partially attributed to the dramatic increase in the population of California after World War II (1939-1945). However, it is easier to understand the company's expansion by taking a brief look at the many strategic mergers and purchases made by Wells Fargo from 1960s to the late 1990s. In 1960 it merged with the American Trust Company. In 1986 Wells Fargo's purchased Crocker National Corporation and Crocker Bank, increasing the company's assets by \$19.2 billion. Other acquisitions in the 1980s included the personal trust business of the Bank of America (1987) and Barclays Bank of California (1988). A cooperative agreement with The Hong Kong and Shanghai Banking Corporation Limited in 1989 led to the establishment of the Wells Fargo HSBC Trade Bank.

Wells Fargo continued to grow ever larger and stronger throughout the 1990s. In 1990 alone the company acquired four California-based organizations: Valley National Bank, Central Pacific Corporation, Torrey Pines Group (totaling over \$1.5 billion in assets), and Citizen Holdings (with \$207 million in deposits). Wells Fargo merged with First Interstate Bankcorp in 1996. A merger with Norwest Corporation vaulted Wells Fargo to the seventh largest U.S. bank holding company in the United States with a total of \$92.8 billion in assets as of September, 1998.

See also: Gold Rush of 1849

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WEST VIRGINIA

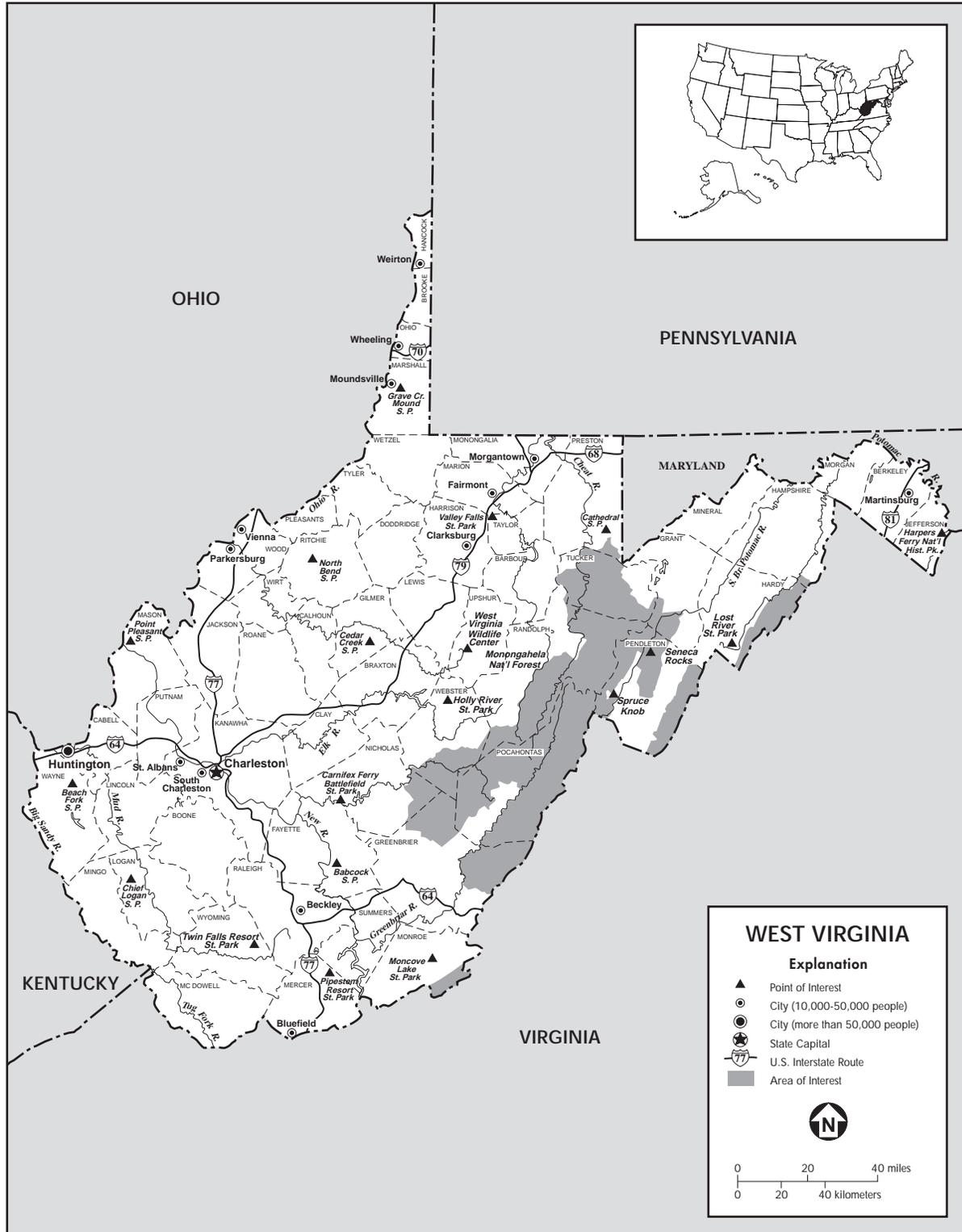
West Virginia is a state full of natural beauty yet it is plagued by economic difficulties. Its rugged terrain has made communication and transportation difficult. Though blessed with coal and timber resources, it has

gone through many periods of economic depression. Although the economy improved throughout the 1990s, West Virginia is still one of the nation's poorest states

In the 1640s, before European settlers reached the land, Iroquois and Cherokee Indians inhabited the area which later became West Virginia. When Europeans did arrive, Shawnees, Delawares, and Tuscaroras disputed their claims. Early explorers were fur traders, two of whom, Robert Fallam and Thomas Batts, claimed the Ohio valley for England in 1671. The French also claimed the area, not surrendered until after the French and Indian War. Several thousand settlers inhabited the eastern panhandle area of the territory by 1750. More settlement in interior sections occurred through the time of the American Revolution (1775-1783), though periodic skirmishes with Indians slowed the pioneers' progress. West Virginia was originally part of Virginia, which was instrumental in forming the Union in 1788.

After the War of 1812 (1812-1814), conflicts developed between eastern and western Virginia. Slaveholding planters dominated the eastern section while the westerners were mostly small farmers or workers in small industries. The east controlled most of the state leaving the west with unequal representation, poor roads, unfair taxes, and other evidence of economic deprivation. In addition, according to one historian, "Most parts of western Virginia were like the Shenandoah region, a true borderland between the North and the South." (John Alexander Williams) Two constitutional conventions failed to settle the differences and it was not until Virginia seceded from the Union in 1861 that West Virginia decided to side with the North and separate from Virginia, entering the Union in 1863 as the 35th state. The state did not gain control of the upper panhandle area until 1871.

Trade developed naturally along the state's rivers in towns such as Wheeling and Harpers Ferry, but traversing the mountainous terrain of West Virginia has always been a challenge. Although Wheeling was the western terminus of the National Road, other roads were slow in coming and often almost impassable. The first successful railroad to be built was the Baltimore and Ohio (B&O), completed to Wheeling in 1852. Later railroads enabled the state to gain access to its timber and coal resources and opened up areas of the interior. The Chesapeake and Ohio, completed in 1873, extended westward from the old Virginia Central to the Ohio River. At its terminus was a new town called Huntington, after the railroad magnate who had financed the line. The two panhandles at the northwestern and eastern ends of the state can be seen as West Virginia's successful attempts to hold on to two important railroad corridors.



State of West Virginia.

The rapid changes brought about by the American Civil War (1861–1865) and by the formation of a new state had some important consequences. Industrialism moved southward and eastward along the expanding railroads and new kinds of communities arose. Lingering rivalries between unionists and secessionists, along with the difficult transitions from an agricultural to an industrial economy, often caused open conflict. In the backward mountain areas, these sometimes erupted into the legendary “mountain feuds.”

After the Civil War governors of both Republican and Democratic parties worked to improve transportation, encourage immigration, and change the tax structure to encourage business. Several powerful senators from West Virginia who had made large fortunes in coal, oil, timber, and railroads held sway over party politics in the state for many years. West Virginia industrialists often cooperated with businessmen from other states, giving the state an almost colonial economy dominated by outside interests. Republican governors of the early twentieth century, notably Stephen B. Elkins, supported progressive legislation such as safety regulations for coal mines, revised corporate tax laws, and highway improvements.

The exploitation of the state’s vast coal resources after 1890 would not have been possible without the state’s network of railroads, especially after the completion of the Norfolk and Western. The same could be said of timber resources: From 1908 to 1911, 1,500 mills produced up to 1.5 billion board feet of lumber annually. Technological improvements in the industry, such as the band saw and the geared locomotive, helped to increase production of lumber and transportation of logs. An unfortunate consequence of this boom period was the destruction of millions of acres of virgin forest. After the 1920s a decline occurred and lumbering was again an important sector of modern West Virginia’s economy.

Since 1890 the United Mine Workers of America (UMWA) had been attempting to unionize West Virginia miners, often with violent consequences. One of the most dramatic episodes in United States labor history occurred in West Virginia in 1920–1921. In Mingo and Logan counties, federal troops were called in to quell miners’ unrest at the Baldwin-Felts mine in 1920. The so-called “Matewan Massacre” involved the deaths of ten men when the conflict got out of hand. When a union member was gunned down in 1921 by a company guard, 3,000 angry miners marched along the Kanawha River, fighting for five days on Blair Mountain with a sheriff’s posse until the violence was quelled by federal authorities, who threatened to use howitzers and poison gas dropped from several U.S.

Army bombers which were deployed at the Charleston airport.

The Great Depression (1929–1939) of the 1930s was devastating to West Virginia, with the greatest effects felt in the coal industry. Volunteer relief workers had difficulty keeping up with the needs of unemployed miners. President Franklin D. Roosevelt’s (1933–1945) New Deal programs, in combination with private philanthropy, brought a measure of economic stability to the state and helped to make the West Virginia Democratic Party the majority party. Later political developments also increased the power of labor unions in the state, particularly the UMWA, under the leadership of the dynamic John L. Lewis.

World War I (1914–1918) and World War II (1939–1945) brought several economic changes to the state as chemical, steel, and textile industries grew up in the Kanawha and Ohio river valleys and the eastern panhandle. Decreasing the state’s reliance on mining, these industries added new economic dimensions to the state and gave it a more diverse character.

After World War II, however, West Virginia’s coal industry went into a state of decline. Mechanization and strip-mining caused many mineworkers to lose their jobs, and many began to immigrate to other states. In 1960 West Virginia was one of the most economically depressed states. Though antipoverty programs in the John F. Kennedy (1961–1963) and Lyndon B. Johnson (1963–1969) administrations brought some measure of relief, the state’s manufacturing and mining industries had declined dramatically. In the early 1980s West Virginia experienced a serious recession, particularly in the steel, glass, chemical, and mining industries. In 1985 West Virginia had the highest unemployment rate in the nation. In 1995 the per capita personal income was still only \$18,444, the second lowest in the U.S., and 16.7 percent of the population lived below the federal poverty level.

In the 1990s things improved for the state in several ways. Industrial production is still strong in the Kanawha, Ohio, and Monongahela valleys. Coal and timber production increased and the state gained a number of federal projects under the tenure of Senator Robert C. Byrd, chairman of the Senate Appropriations Committee. After the completion of Interstate Highway 64, tourism has also become an important sector of the economy. West Virginia’s numerous, well-maintained state parks, glassmaking centers, and historic sites such as Harpers Ferry and the Cass Scenic Railroad have attracted approximately two million visitors a year.

See also: **Coal Industry, Virginia**

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WESTERN UNION CORPORATION

The first electromagnetic communication that revolutionized the world's economic and social life was transmitted on May 24, 1844, by Samuel Finley Breese Morse (1791–1872). At the Capitol building in Washington D.C., in the presence of Dolly Madison, Henry Clay, and other officials, Morse tapped out his famous message, “What hath God wrought?” This telegraphed message, transmitted in Morse Code, traveled 40 miles to a Baltimore, Maryland, train depot and was received in seconds by Alfred Vail (1807–1859), the financier of Morse's telegraph. The era of telecommunication had begun.

When Congress declined Morse's proposal for the government to purchase his telegraph patent, Morse and several partners formed the Magnetic Telegraph Company. Competition among telegraph rivals across the country was fierce. Prepared to compete with 50 other telegraph companies in operation throughout the United States, the New York and Mississippi Valley Telegraph Company (NYMVTC) was formed on April 8, 1851, in Rochester, New York. Five years later the growing NYMVTC was renamed the Western Union Telegraph Company. In 1857 Morse and his Magnetic Telegraph Company teamed up with businessman and financier Cyrus Field (1819–1892) in a project to lay a transatlantic telegraph cable. In the meantime, Western Union had begun the almost impossible task of stringing the first transcontinental telegraph poles to enable coast-to-coast communication. This rapid mode of communication heralded the end of the U.S. government's pony express service. It also saw the end of Morse's Magnetic Telegraph Company. In 1866 Morse recognized that his company could not compete against such a big rival, and in 1866 the Magnetic Telegraph

Company merged with Western Union Telegraph Company. Along with the introduction of the commercial telegraphic machine, Western Union was successful in developing its own transatlantic cable technology. The company was well on its way to becoming the fastest messenger service in the country.

The social and economic impact of the telegraph resounded across the country. As the telegraph lines followed the westward expansion of the railroad, ordinary people paid the expensive fees for communicating quickly across vast regions. Big business and governments experienced the advantages of communication as new services were offered to keep pace with the changing needs of the American people. After Western Union moved its headquarters from Rochester to New York City in 1866, it introduced stock tickers as a method to speed New York Stock Exchange quotes to brokerage firms. One of Western Union's key services was the Money Transfer. Introduced in 1871, this service was still used in the late 1990s.

Time was not yet standardized across the country, so in 1870 Western Union developed its own time service. The nation's tallest building in 1877, built by Western Union, had a time ball at the top, which dropped at noon on a signal telegraphed from the U.S. Naval Observatory. The need for a standardized time schedule was becoming apparent for safety factors and to avoid confusion as communication across the country became more immediate. Generally acknowledged by the public as the most reliable regulation of time, the official start of Standard Railway Time was signaled in 1883 from the descent of the Western Union time ball. With clocks that rang school bells, blew factory whistles, and flashed signal lights Western Union became known as “The Nation's Time Keeper.”

The technology of communication advanced rapidly. Western Union began using radiotelegraph to reach people on ships. Telegrams became extremely popular. The key and sounder had been replaced by the teletypewriter, only to be replaced by Western Union's introduction of the telex, a direct dial customer-to-customer teleprinter service in 1958. The telex would go on to serve as Western Union's second chief source of revenue. Mailgram messages began in 1970, becoming very popular for social and commercial use due to overnight delivery. The operation of the first domestic satellite communication system, Westar, was launched in 1974. By 1982 Western Union became the first U.S. company to have five satellites in orbit. For many years Western Union up-linked messages, data, and graphics to Westar satellites from major publishers, broadcasters, and corporations, and delivered the information across the country at the speed of light.

Westinghouse, George

As early as the American Civil War (1861–1865) Western Union was contracted by the U.S. government to provide direct messaging to the White House communications room. Services included the filling of special money transfers, ensuring messaging needs were met and delivered to the troops during wartime, and delivering military orders of condolence for the armed forces. The services provided by Western Union to the government grew widely in the years following the Civil War. The company was chosen to provide communication for the Department of Defense, linking agency offices and supplying microwave communications for defense and intelligence agencies. A Western Union network connected the Federal Reserve member banks to a central computer center. Through Western Unions networks, law enforcement agencies exchanged data, and the Federal Aviation Administration provided flight and weather information to pilots.

Generations of people associated Western Union with hand delivered messages announcing births, deaths, homecomings, and even proposals of marriage. Western Union's telex business experienced success as the company continued to focus on other innovative business ideas. By the 1960s, however, telegraph use was waning as the telephone became the preferred method of communication. When it became cheaper to send data by telephone, the telex business began to suffer. Western Union was on the decline.

Since 1987 Western Union experienced many corporate and business changes. Despite its many past successes, the company found itself on the verge of bankruptcy in the early 1990s. On April 18, 1991, Western Union Corporation shareholders changed the name of the company to the New Valley Corporation in an effort to distance the failing enterprise from its successful subsidiary, Western Union Financial Services. New Valley assumed existing debts, but these soon skyrocketed to \$800 million. In 1994 a bankrupt New Valley sold Western Union Financial Services Incorporated, all the Western Union money transfer trademarks, and trade names associated with the Western Union name, totaling \$1.19 million. Utilizing this capital, New Valley continued to function, posting significant financial losses well into the late 1990s.

See also: Samuel Finley Breese Morse, Standardization of Time, Telegraph, Utilities Industry, Westward Expansion

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WESTINGHOUSE, GEORGE

George Westinghouse (1846–1914) was an inventor who applied his talents to the railroad and electrical industries. He was a prolific inventor who obtained more than 400 patents during his career, best known for developing and promoting the alternating current power system as a substitute for direct current.

George Westinghouse was born in Central Bridge, New York, on October 6, 1846, the eighth of ten children. When Westinghouse was ten years old, his father moved the family to Schenectady, New York, where he opened a machine shop. Westinghouse worked in his father's factory as a child and gained experience and skill using a variety of machinery. In 1863 he enlisted in the Union Army as a private, serving during the American Civil War (1861–1865). One year later he became a third assistant engineer in the Navy.

After his military service ended, Westinghouse briefly attended Union College and continued to help in his father's factory. In 1865 Westinghouse received his first patent for a rotary steam engine. That particular product was not successful, but it was the first of many patents for Westinghouse. He next became interested in the workings of the railroad.

Westinghouse's first big success as an inventor came in 1869 when he patented an air brake for railroad cars—until that time, trains were stopped with manually-operated brakes. Westinghouse developed a compressed air brake, which was later improved through 20 additional patents. This invention led to the organization of the Westinghouse Air Brake Company in 1869 in Allegheny, Pennsylvania. He continued to improve the brake system and developed a revolutionary automatic train brake in 1872. His inventions greatly improved the railroad industry by allowing trains to operate safely at higher speeds.

In addition to brakes, Westinghouse was interested in other aspects of the railroad. With the increasing volume of rail traffic he saw the need to improve the signaling devices and interlocking switches of railroads. He studied European signaling systems and worked on signaling improvements using the combination of compressed air and electricity. In 1881 Westinghouse formed the Union Switch and Signal Company. Once again, his ideas made the railroads safer and more efficient.

Westinghouse's inventions, however, were not limited to the railroad industry. In the early 1880s Westinghouse applied some of his ideas about compressed air to the new natural gas industry. A well drilled in the yard of his home served as the source of several dozen inventions for controlling and distributing natural gas. Westinghouse invented a reduction valve for natural gas which allowed the gas to be transmitted at high pressure but distributed at low pressure.

This interest in natural gas then led Westinghouse toward involvement in the control and distribution of electricity. Westinghouse believed that a device similar to the reduction valve could be applied to electricity. Once again he studied European systems to see what could be applied to his new project. In 1886 he formed the Westinghouse Electric Company to develop and promote the use of alternating current electricity. A researcher for his company, Nikola Tesla (1856–1943), designed a polyphase system of alternating current and applied it to motors and lights. Westinghouse was one of the first inventors to understand that cheap, long-distance electrical power could come from transformers that would convert high alternating voltages to lower voltages at the point of use.

Westinghouse's revolutionary idea was initially tough to sell to the public. His main opposition came from Thomas Edison (1847–1931) and his company, which supported direct current rather than alternating current. Westinghouse slowly established a foothold in the electrical industry. By 1890 his company had installed more than 300 central power stations. The first big test for the system came in 1893 when Westinghouse won the contract to supply electricity for the World Columbian Exposition in Chicago. Westinghouse produced an impressive show of a quarter of a million lights. This success led to a new contract to build three generators to harness the power of Niagara Falls. The success of that project established the effectiveness and efficiency of alternating current power. In less than ten years Westinghouse had been able to convince the public of the value of

alternating current power. Soon afterwards 95 percent of all electrical power produced was alternating current.

Despite the success of this invention, the Westinghouse company ran into some financial troubles in the early 1900s. In 1907 the company went bankrupt due to the general business crisis and financial panic of the time. Westinghouse regained control of the company a year later, but could not quickly recover its prosperity. In 1911 he retired from active management of the company, though he continued to experiment with new products.

George Westinghouse died in New York City on March 12, 1914. The Westinghouse Company continued to market the alternating current system as well as electrical devices that worked well with the new system. To this end the company developed many new innovations during Westinghouse's lifetime and afterwards. Among these were the first steam turbine for an electric utility, the first mail roll drive for a steel mill, the first American-built tungsten lamp, the first commercial radio station, and the first television camera tube.

See also: Patent, Railroad Industry, Utilities Industry

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WESTWARD EXPANSION

The United States inherited, in essence, the British empire's imperialistic tradition and it eventually became a global power that surpassed Great Britain. In 1790, however, the United States held less than 900,000

The expansion generated major socio-political and economic issues. Should American Indian tribes be treated as conquered subjects or as sovereign nations? How could the then-limited federal government defend ever-expanding boundaries, provide safety to its citizens, and ensure stable social order? How could a market economy develop where no infrastructure existed? How could the vast raw materials of the West be transported to the emerging eastern industrial centers?

square miles of territory. Much of the land was still claimed by indigenous societies, and the borders were contested by various European nations. Yet, the notion of national expansion was ingrained in the minds of the young nation's citizens.

The general unifying philosophy of manifest destiny propelled desires for national expansion. Use of the term first appeared in 1845 in the context of the impending Texas Annexation. Coming from a quasi-religious ideological base, manifest destiny was a belief that Americans were a chosen people who were ordained by a higher power to carry forward the ideas of liberty, civilization, and individual economic opportunity while assuming control over more and more lands. This belief grew partly from Charles Darwin's (1809–1882) biological theory that only the fit survive and prosper. Many believed the United States was a nation of destiny, an inevitable self-fulfilling prophesy.

In actuality, reasons for expansion continually varied with changing domestic politics, economics, and military needs. The strong desire for a substantial land base to support a free market society was an early major factor. In order to grow, the capitalistic economy and republican form of government needed surplus land and abundant natural resources such as wood, fossil fuels, minerals, and water. Many feared that without a surplus the parceling of limited resources to a growing population would eventually lead to class conflict. Not everyone embraced this philosophy. Some believed that conquest, particularly the continuing subjugation of Indian societies, was not in keeping with Christian or democratic ideals. Anti-expansionist sentiments heightened when a clearly imperialistic war broke out against Mexico in 1846.

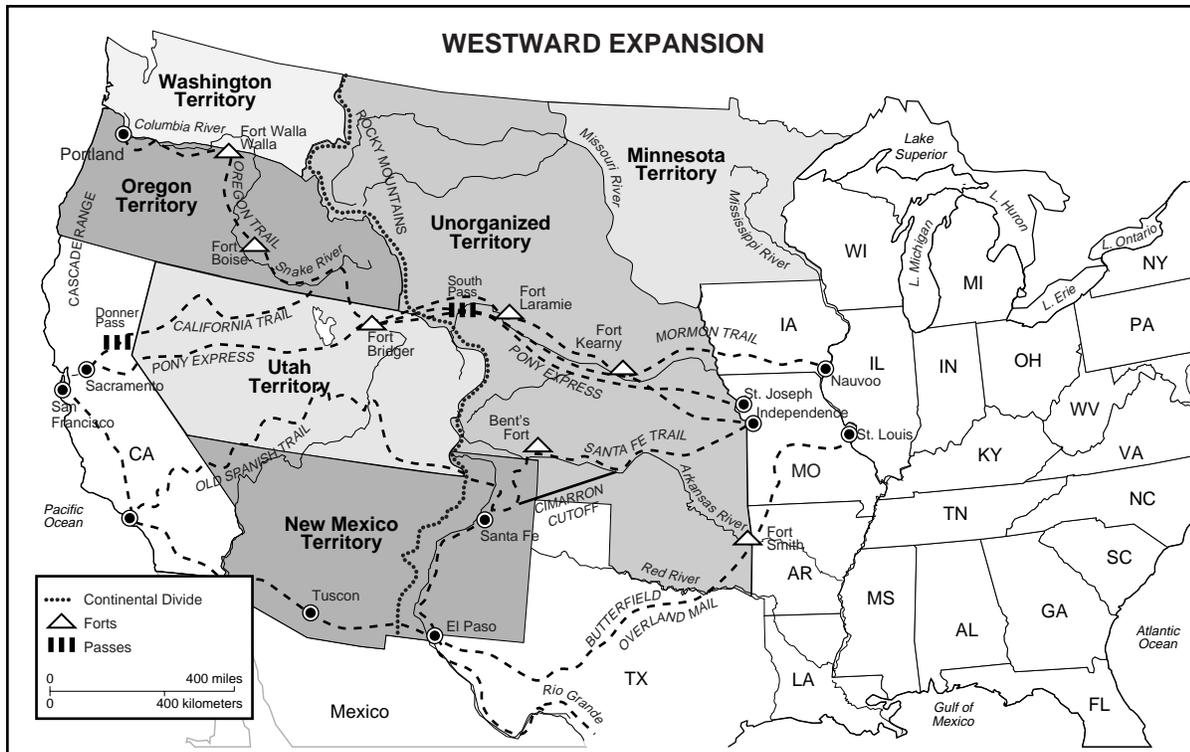
Major events marked the geographic expansion to the West. The Louisiana Purchase in 1803 almost doubled the size of the United States with the addition

of over 827,000 square miles. The lands included the future state of Louisiana and the entire Plains region between the Mississippi River and the Rocky Mountains north of Texas to the 49th parallel at the Canadian border. The Lewis and Clark Expedition (1804–1806) to the Pacific Northwest provided accounts of vast open spaces, rich soils, fast flowing rivers, and abundant game, and it thus gave impetus for further westward expansion. Driven by the prevailing Jacksonian populist ideals of economic equality, the country greatly expanded its borders in the 1840s under the policies of presidents John Tyler (1841–1845) and James Polk (1845–1849). The United States annexed the Republic of Texas in 1845, adding another 390,000 square miles. An 1846 treaty with Britain added the 286,000 square mile Oregon Territory stretching from the Rockies in Montana to the Pacific Ocean, including later Oregon, Washington, Idaho, and western Montana. Following the war with Mexico, the 1848 Treaty of Guadalupe added another 529,000 square miles, including the future states of California, Arizona, New Mexico, and Utah.

As the growing slave-based cotton economy attracted new settlers into the Texas Republic, emigration over the Oregon Trail to the Pacific Northwest began in earnest in 1843. Also due to a serious economic depression in the early 1840s and declining living conditions in eastern communities, the emigrants annually leaving the United States on the Trail substantially increased in number by 1845. Discovery of gold in California in late 1848 led to the fabled Gold Rush of 1849. Within thirty years gold was found in almost every region of the West. Western agriculture that was first established in many areas to support local mining booms now expanded producing surplus for export elsewhere in the United States.

The expansion generated major socio-political and economic issues. Should American Indian tribes be treated as conquered subjects or as sovereign nations? How could the then-limited federal government defend ever-expanding boundaries, provide safety to its citizens, and ensure stable social order? How could a market economy develop where no infrastructure existed? How could the vast raw materials of the West be transported to the emerging eastern industrial centers?

American Indian sovereignty was recognized in the 1850s through numerous treaties in which Indian groups ceded property rights to vast tracts of western land. In exchange they retained lessor lands and various promises of governmental assistance. These initially sizable reservations were later commonly reduced through governmental coercion as settlers crowded in and gold was discovered.



By the late 1840s, thousands of settlers had moved toward the West. They settled along many now famous trails.

During the 1850s and 1860s the United States underwent a revolutionary socio-economic transformation from a largely rural agrarian, slow-paced, fragmented society to much more closely integrated nationalistic society. In addressing socio-economic needs, the U.S. government adopted increasingly liberal land policies to facilitate settlement. By 1862 a person could obtain title to 160 acres of land for only a small filing fee and five years of working the land (a policy designed to also discourage land speculators). As the more productive lands filled, Congress passed revisions increasing the size of claims to foster economic self-sufficiency. These federal land laws promoted Jeffersonian ideals of widespread family ownership of farms; they also raised substantial revenue for the still young nation; and they supported infrastructure developments for transportation, education, and general economic development.

As for the infrastructure, most emigrants who sought new lives in the West brought their cultures with them. Starting anew with old ways, they replicated familiar churches, farms, house styles, and towns. The emigrants most often arrived in kinship clans and worked together in temporary labor pools and mutual interdependence to become economically viable; they also received considerable assistance from government subsidies.

Regarding the transportation dilemma, development of the West was closely tied to railroad construction. In 1862 Congress passed legislation authorizing construction of two railroads that eventually linked the Mississippi valley with the Pacific Coast in 1869. To promote settlement and economic development, the government provided generous subsidies in land grants and loans to railroad companies. Thus the railroad companies became the first big businesses of the United States. They held enormous power that was sometimes reflected in fixed prices and interference in state and local politics. The economic panic of 1873 and following depression slowed their expansion, but by 1877 railroad construction resumed. Three more transcontinental rail lines were completed by 1883: the Northern Pacific, Santa Fe, and Southern Pacific.

U.S. expansion in North America was essentially completed by 1867, when the United States purchased the 590,000 square mile territory of Alaska from Russia for \$7.2 million. Over a century later, the midpoint for population distribution in the United States for the first time moved west of the Mississippi River.

See also: Government Land Policy, Lewis and Clark Expedition, Louisiana Purchase, Manifest Destiny, Mexican Cession, Oregon Country Cession, Texas Annexation

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WEYERHAEUSER COMPANY

Weyerhaeuser Company, based in Washington state, was incorporated as Weyerhaeuser Timber Company in 1900. The company was a joint venture between railroad magnate James J. Hill of Pacific Northwest Timber, and Frederick Weyerhaeuser, joint owner of Weyerhaeuser and Denkmann—a Midwestern lumber company that relied on Wisconsin and Minnesota forests. Prior to World War I (1914–1918), the company was run by Frederick Weyerhaeuser, a German-born immigrant to the Midwest. His business philosophy evolved over his lifetime and became the operating philosophy for the new company. Weyerhaeuser felt that “The way to make money is to let the other fellow make some too.”

Timber holdings doubled in the period preceding World War I. The company opened a sawmill to produce lumber and soon had the nation’s first all-electric lumber mill in 1915. Although demand for lumber for railroad cars declined during World War I as steel was more heavily utilized, demand for lumber for military planes and other military uses increased.

John P. Weyerhaeuser, eldest son of the founder, led the company during the war and through the 1920s. He relied heavily, as his father had, on George Long, general manager from 1900 to 1930. Long, an early proponent of reforestation, approached the federal government before World War I to lobby for cooperative

forest fire prevention and for lower property taxes for timberland to make reforestation economically viable. This lobbying led to the Clark-McNary Act in 1924, which addressed these issues and expanded the national forest. The act also encouraged changes in taxation policies at the state level to promote reforestation. Weyerhaeuser responded by creating the Logged Off Land Company in 1925 to handle the sale of “logged off” land, study reforestation, and lobby at the state level for lower timberland taxes. By the end of the 1920s Weyerhaeuser was the largest private owner of timber in the United States.

The Great Depression (1929–1939) produced hard times for the company, as few businesses or homes were being built. The depression in the lumber market would have been devastating if not offset by the company’s 1931 diversification into pulp (a wood-derived raw material in the manufacture of paper, paperboard, and other products). By 1933 profits from pulp offset losses from lumber. In 1940 the company expanded its lumber business to include plywood and paneling. In 1941 the company started the first tree farm in the United States, near Gray’s Harbor in Washington.

Rapid technological and commercial changes in the lumber industry following World War II (1939–1945) affected Weyerhaeuser. The hand-operated whip-saw was replaced by the power chain saw, and truck hauling replaced hauling by rail. Pent-up demand in construction, from the 1930s and early 1940s, led to greatly increased sales of lumber in this postwar era. Under the continued leadership of the Weyerhaeuser family, the company expanded into particle board production, ply-veneer, hardboard, and hardwood paneling in the 1950s. Timberland holdings expanded beyond the Pacific Northwest for the first time, as land was purchased in Mississippi, Alabama, and North Carolina. In 1959, with its increased diversification, the company dropped “Timber” from its official name to become Weyerhaeuser Company, and adopted its current trademark, a triangular tree over the word “Weyerhaeuser.”

In 1960, and for the first time in company history, the presidency of Weyerhaeuser passed out of the family to Norton Clapp. Under Clapp the company went public in 1963 and expanded overseas, into Japan. George Weyerhaeuser succeeded Clapp as CEO in 1966, and served until 1988. The volcanic eruption of Mount Saint Helens in May 1980, was a setback for the company. Weyerhaeuser’s Saint Helens Tree Farm was just below the mountain’s dome and the company lost 68,000 acres of timberland. By 1983 the company

had completed a timber salvage program and replanted 18 million seedlings in the volcanic area.

As part of a diversification program, Weyerhaeuser entered the insurance, home building, mortgage banking, garden products, pet supplies, and disposable diaper markets in the 1970s and 1980s. These new ventures added little to the company's profitability. Under John Creighton, who became president in 1988, Weyerhaeuser returned to a focus on forest products. Weyerhaeuser strengthened its core businesses through the purchase of two pulp mills, several sawmills, and approximately 175,000 acres of timberland in Georgia from the Proctor and Gamble Company in 1992 for \$600 million. By the end of the twentieth century, Weyerhaeuser was the world's largest private owner of softwood timber and the world's largest producer of softwood lumber and market pulp. Weyerhaeuser had annual sales of nearly \$11 billion and owned 5.3 million acres of timberland in the United States.

See also: Lumber Industry, Environmentalism

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WHALING INDUSTRY

Whaling is an ancient industry. There is evidence that whales were hunted along the coasts of Alaska and Siberia since 2000 B.C. The first mention of it in European sources dates from A.D. 875, but it is uncertain whether this is a reference to harvesting beached whales or to hunting them at sea. Although whaling in some form was conducted throughout the Middle Ages by the English, French, Icelanders and Norwegians, there is no clear proof that live whales were captured in

A sailor's life is a hard life. (They) are exposed to many hardships, (of) which those of us who reside on land have no conception. Even when our ships are commanded by a pious man, the influence of the seaman is often very bad; and many are the young men who have left home with good habits, but when they have returned, they have become dissipated.

Reverend Daniel Lord, Pastor, Mariner's Church of Boston, July 30, 1841

Europe until 1575, when they were hunted in the Bay of Biscay. New England colonists brought the practice from Europe and made whale meat a part of their diet.

By the seventeenth century whale hunting was on the increase. Whale oil, which was produced when the animal's blubber (fat) was boiled down, was in great demand for lubrication and as a fuel for illumination. Realizing its commercial potential, the Massachusetts government encouraged the industry in 1639 by stipulating that whaling ships were exempt from taxation for seven years, and that members of the crew were free from their military obligations during the fishing season. The first organized whale fishery in North America was found on Long Island (an island near New York City) sometime after 1640, but Nantucket (an island off the coast of Massachusetts) had become the center of the industry by the late seventeenth century. These early whalers hunted the right whale, a forty-four foot mammal that migrated south to spend the winter off the American coast. The sailors slept in their own beds at night, since whales were spotted from lookout stations on land and caught near the shore by men in small boats. The animals would be dragged to the beach, where their blubber was removed and boiled down (the contemporary term was "tried out").

In the eighteenth century the growth in population and the beginnings of the Industrial Revolution increased the need for whale oil. It lubricated machines and fueled the lamps that illuminated the streets of major cities. It cleaned wool in textile mills and became a base for paint. By the middle of the century, spermaceti, a waxy solid that was extracted from the whale's head, was made into candles that were excellent sources of light and had a pleasant odor. It was also used for ointments and perfumes.

The increased demand for oil coincided with the hunting of the sperm whale, which began around 1812.

Whaling Industry



American commercial whaling was at its height in the 1840s and 1850s. Although whale's are still illegally hunted in various countries, the industry has been abandoned by America.

Its heads contained spermaceti and also a reservoir of oil that was known for its purity and lightness. In general the oil from sperm whales burned more brightly than that from right whales, and it was marketed separately. Since sperm whales preferred deep water, whalers built large ships were built that were capable of sailing in the open ocean. These vessels contained tryworks, equipment that allowed the sailors to render the oil at sea. Since sailors no longer had to return to shore after each kill, the new technology completely changed the nature of the industry. Voyages could last four or five years, and American whaling slowly spread to all the oceans of the world. The industry began to have an influence on U.S. diplomatic policy, playing a role in the opening of Japan, the purchase of Alaska, and other important events.

Larger ships and long voyages meant that the crew could be divided according to their social standing. The officers, who were usually white and middle class, ate better food and lived in the rear part of the ship, where they had more space and privacy than the crew. The

captain would have a parlor and bedroom. Many took their wives and sometimes their children to sea with them.

Ordinary sailors were usually poor whites, African or Native Americans. They were forced to live in cramped quarters in steerage or in the forward part of the ship. They ate food that was at best barely palatable and at times rancid. Fresh fruits or vegetables were rare, and death by scurvy, a disease caused by a lack of vitamin C, was relatively common. Nathaniel Robinson, a young man who went to sea in 1843, disliked the salt-cured horse and tar-like molasses he had to eat. He was particularly repelled by a pig's snout with bristles attached that he saw floating in a pan of food. Robinson became deathly ill on the voyage and died the day after he returned home.

Life aboard ship could be monotonous, but when a whale was sighted there was a flurry of excitement. The ship sailed near the creature and lowered whaleboats, which were about thirty feet in length and carried six men. The whale was approached carefully, so it would not become frightened, and so the harpooner could stand and steady himself. When he struck the animal, it would often dive to tremendous depths. The boat usually contained about 18,000 feet of line, which could be attached to the harpoon, and which whistled and burned as it spun out, following the diving whale. At times the whale would not dive, but swim along the surface at tremendous speed, taking the whaleboat on what was known as a "Nantucket sleigh ride." Once the sailors survived the stricken beast's initial reaction, the long process of weakening the whale by tightening and slackening the rope began. It could take seven hours to exhaust the whale. When the animal became tired, the whaleboat would pull along side and an officer would kill it by plunging a six-foot razor-sharp lance into its lungs. The entire hunt was fraught with danger. Sailors had to avoid the whale's powerful fins and jaws, and the animals were known to attack the whaleboat, crushing or capsizing it. In 1820, the mother ship itself, the *Essex*, was rammed twice by sperm whale and sank, losing nearly half the crew.

The proceeds from the sale of the oil were divided between the owners of the vessel and the crew. Those who owned the ship or provided the capital investment took at least a quarter and usually much more of the profit. Often ownership was shared among a number of investors to lessen the risk. Captains could receive ten times as much as seamen. The rest of the crew's pay was proportionate to their tasks, and those who performed menial jobs obtained the least. The owners often lent the crew money to purchase their equipment, and often they charged 25 percent interest for their

loans. In addition the ship usually had a company store, where the men could buy tobacco, clothes, and other sundries at high prices. After deducting their expenses, seamen might earn little for their hard and dangerous work. In 1844 John Murray returned from a voyage on the *Milton* for which the captain was paid nearly \$6,000.00. Murray's wages after expenses amounted to ten cents, but the owners gave him an extra \$10.00 on condition that he press no legal claim against them.

I WANT ONE MORE WHALE BAD. WE HAVE GOT BUT ONE MONTHS SALT MEET (MEAT) IN THE SHIP BUT I WOULD NOT MIND (STAYING) UNTILL THAT IS GON AND THIN LIVE ON FAITH UNTILL WE GET IN WHERE WE CAN GET SOME MORE.

Master of the *Roman*, His ship "intirly encircled with (Arctic) Ice", September 1853

American commercial whaling reached its height in the 1840s and 1850s, when at one point 700 of the 900 vessels engaged in the industry were registered in the United States. By that time New Bedford with its deeper harbor had surpassed Nantucket as the nation's whaling capital. Whaling began to decline after 1859, when oil was discovered in Pennsylvania, and kerosene, an oil derivative that burned more brightly, surpassed whale oil as a fuel for lamps. The Civil War (1861–1865) also damaged the industry, as Confederate raiders wreaked havoc on the largely defenseless whaling fleet. In addition, over-fishing made whales more difficult to find. By the late 1860s the business had contracted by 70 percent. It was saved by an increased demand for baleen, bony slats from the upper palate of certain whales that were used to strain food. It was excellent for making combs or umbrellas, providing support for corsets, and filling out Victorian skirts. Yet baleen could not prevent the eventual failure of the American whale industry, which declined by 20 percent every five years throughout the second half of the nineteenth century. With the development of spring steel in 1907, even the baleen market collapsed.

Whaling has continued in the twentieth century but not as an American industry. Indigenous peoples, many of whom live around the Arctic Circle, continued to hunt whales, and countries like Japan, Norway, Iceland, the Soviet Union (now Russia) and others engaged aggressively in the practice. The whale still provided many saleable products. Hydrogenated whale oil can be used for margarine, and bowhead whale oil is still the best lubricant for watches or clocks. Whale flesh is a valuable source of meat, and vitamins can be extracted from their inner organs. Whalebone can be ground for livestock feed.

The whaling nations built large factory ships that could drag the entire animal on deck for processing. They were so efficient that in 1946 the International Whaling Commission (IWC) was established to save the creatures from extinction. In its first 40 years the commission made little progress, but in 1986, a moratorium went into effect that banned all commercial whaling. Canada left the IWC in 1982 in order to protect the hunting rights of its native people, and Norway resigned in 1992, maintaining that some types of whales could be harvested without endangering the species. Japan takes about 500 minke whales a year for "research" purposes. The fear however, that whales may become extinct have made them a symbol for the Conservation movement. Although the United Nations has banned all commercial whaling, Japan, Norway, and Canada continue to hunt these creatures.

See also: Massachusetts

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WHISKEY REBELLION

In June 1794, innkeeper John Lynn agreed to sublet part of his rented house in western Pennsylvania to John Neville. Neville was an excise inspector whose job it was to make sure that the federal tax on whiskey was collected from the backwoods frontiersmen. When the news circulated that Lynn was sheltering a tax collector in his home, however, a dozen armed men went to the inn. The men kidnapped Lynn, carried him into the woods, stripped him naked, shaved off his hair, and coated him with hot tar and feathers. After extracting a promise from Lynn not to allow his house to be used as a tax office and not to reveal their identities to the authorities, the men tied him to a tree and left him overnight in the middle of the forest. Although Lynn kept his promise, the notoriety he gained from his association with the tax ruined his business. Events like

Whiskey Rebellion

Lynn's kidnapping threatened federal tax collectors all across western Pennsylvania during the summer of 1794. They marked the beginning of what became known as the Whiskey Rebellion—the largest and most serious challenge to federal authority yet faced by the new United States.

The Whiskey Rebellion had its roots in the period around the American Revolution (1775–1783). Before the war hundreds of families crossed the Appalachian Mountains, searching for better, cheaper land. They were accompanied by an equal number of land speculators, who were working for rich colonial interests. The speculators laid claim to hundreds of thousands of acres of the best farm land in the name of men who already owned thousands of acres in Virginia, Pennsylvania, New York, and elsewhere. George Washington (1789–1797), who had trained as a surveyor, was one of the largest buyers of land. He owned more than 63,000 acres in western Pennsylvania by the time he became president. Absentee landowners like Washington claimed most of the best land, and the poor farmers were forced to survive on the remnants.

A COMPETENT FORCE OF MILITIA SHOULD BE CALLED FORTH AND EMPLOYED TO SUPPRESS THE INSURRECTION AND SUPPORT THE CIVIL AUTHORITY IN EFFECTUATING OBEDIENCE TO THE LAWS AND PUNISHMENT OF OFFENDERS.

Alexander Hamilton to President George Washington, August 2, 1794

Separated from the older colonies by the mountains, the frontiersmen were forced to rely on themselves for protection and assistance. They were threatened by hostile Native Americans and hampered by lack of money, but they were especially frustrated by transportation problems. All the major colonial markets for their grain were on the other side of the Appalachians, and the costs of transporting their produce across the mountains were very high. The Spanish, who controlled the mouth of the Mississippi River, blocked an alternate route down the Ohio and Mississippi rivers. In order to turn a profit on their excess grain, the frontiersmen built private stills and converted it into whiskey. Whiskey was easier to sell than raw grain, and it held its value better.

When the U.S. Constitution was ratified in 1788 the new federal government agreed to assume the outstanding war debts of the former colonies. In order to pay these debts, President Washington's Secretary of the Treasury Alexander Hamilton (1755–1804) pushed a tax on whiskey and other alcoholic beverages

through Congress in 1791. Many congressional delegates from the West were opposed to the whiskey tax. For his part, Hamilton believed that such a tax was the fairest way of spreading the costs of the American Revolution and the maintenance of the federal government across the population.

What Hamilton failed to consider was how strongly the settlers across the Appalachian Mountains felt about paying the tax. The western frontiersmen believed that they were maintaining their rights against the distant federal government in the same way their predecessors had done against the British government during the 1760s and 1770s. They felt betrayed by John Jay's (1745–1829) negotiations with the Spanish from 1785 to 1786 that kept them from shipping their grain down the Mississippi. Further, after two major defeats of federal troops by Miami and Shawnee tribesmen, the frontiersmen believed that the federal government was even unable to protect them.

During September 1791, representatives of the four westernmost Pennsylvania counties—Washington, Fayette, Allegheny, and Westmoreland—assembled at Pittsburgh, Pennsylvania, to discuss how to persuade Congress to repeal the whiskey tax. Although Hamilton would later portray them as radical anti-federalists, they held moderate views about the national government. Other westerners were not so tolerant. By the summer of 1794 what little patience they had was exhausted. Early in the morning of July 16, 1794, some 50 men armed with rifles approached the house where John Neville was staying. They demanded that Neville resign his position as excise inspector and turn over to them all the information he had collected on distilling in the area. Neville and the armed men exchanged shots; five of the besiegers were wounded, one of them fatally. The next day a mob of hundreds of local residents surrounded Neville's property. Neville, who had been reinforced by several soldiers from Fort Pitt, escaped without injury, but several soldiers were wounded and died, as did three or four of the attackers. The mob burned Neville's home and property to the ground.

The attack on John Neville marked the beginning of the Whiskey Rebellion. Throughout August and September threats of violence against tax collectors and inspectors spread out of the western districts of Pennsylvania and into Maryland, Virginia, Ohio, and Kentucky. In most cases, the rioters got their way through intimidation, and little blood was shed. The largest assembly came outside Pittsburgh on August 1, 1794, where about 7,000 frontiersmen gathered—mostly poor people who did not own property or even a still

and were not directly affected by the tax. “Not surprisingly, then,” wrote historian Thomas Slaughter in *The Whiskey Rebellion: Frontier Epilogue to the American Revolution* (1986), “their grievances were primarily economic in character; their victims were primarily members of wealthier commercial classes; and the property they envied was often the object of violence.” However, the townspeople managed to defuse much of the threat by welcoming the frontiersmen into their houses and making whiskey freely available. They also convinced them not to burn property in the town and allowed them to expel some of the most obnoxious townsmen. The presence of the soldiers at nearby Fort Fayette also helped keep the rioters in check. Within a few weeks the whiskey rebels had dispersed and returned to their homes.

At the same time the Whiskey rebels near Philadelphia were beginning to disperse, the federal government was preparing to take action. President Washington called a meeting of his Cabinet to consider what action to take regarding the rebels. He found himself in agreement with Treasury Secretary Hamilton that the rebellion was a serious threat to the Constitution and the federal government. A proclamation was issued instructing the rebels to disperse by September 1. By that date, however, Hamilton had already begun to assemble a 12,950-man army that he believed would crush the rebellion and teach his political opponents a lesson. Although cooler heads had already prevailed among the leaders of the westerners, Hamilton’s army marched at the end of September.

The Whiskey Rebellion trickled to a halt without much bloodshed. There were only two fatalities in western Pennsylvania, both of them accidental—one boy was shot by a soldier whose gun went off accidentally, and a drunken rebel supporter was stabbed with a bayonet while resisting arrest. By November 19 the federal army had managed to round up only 20 accused “leaders” of the Whiskey Rebellion. Eighteen of the accused were later acquitted in the courts; the other two were convicted of treason but were later given a presidential pardon.

The Whiskey Rebellion ended not because of the threat posed by Hamilton’s army, but because many of the concerns of the frontiersmen were finally addressed. On August 20, 1794, an American army under General “Mad” Anthony Wayne decisively defeated a confederation of Native Americans at the battle of Fallen Timbers, outside modern Toledo, Ohio. The Treaty of Greenville (1795) that Wayne negotiated with the Native Americans opened the Ohio country to settlement. The Jay Treaty (1794) with Great Britain, and the Pinckney Treaty (1795) with Spain moved

foreign troops away from western American borders and opened the Mississippi River to American shipping. Perhaps the most significant factor, however, was the fact that a political party with sympathies toward the frontier position, the Jeffersonian Republicans, came into power in the election of 1800. One of the first actions of President Thomas Jefferson’s (1801–1809) administration was to strike down the Whiskey Tax and other internal taxes.

See also: *Appalachian Mountains, Jay Treaty, Pinckney Treaty*

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WILD AND SCENIC RIVER ACT

The federal government enacted protective legislation called the Wild and Scenic River Act (WSRA) in 1968 to preserve and protect wild and scenic rivers in America, including their immediate surrounding environment for the benefit of present and future generations. It was legislation to forbid all commercial development projects, along designated wild and scenic rivers, which might in any way affect the wilderness, the scenery, and the purely recreational use of the rivers. Some of the national Wild and Scenic Rivers include the Alagnak, Bluestone, Delaware, Donner and Blitzen, Great River, Missouri, Obed, and Rio. The Wild and Scenic Rivers are managed by different federal agencies, including the U.S. Forest Service, National Park Service, and the Fish and Wildlife Service. The designation of specific protected rivers near human communities has created the potential for significant conflict between resource and conservation management agencies and the commercial interests of

Wildcat Banks

local residents. Strategic efforts are made by managing federal agencies to incorporate local values with the planning and management of protected rivers to reduce conflict potential. According to the WSRA, a wild river is “free of impoundment’s and generally inaccessible except by trail, with watershed or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.”

See also: **Environmentalism**

WILDCAT BANKS

Wildcat banks were state-chartered financial institutions that operated in the United States from the early 1800s until the American Civil War (1861–1865). They were known as wildcat banks for their free lending policies and their issue of paper currency (called specie) that could not be backed up by gold or silver. A holder of the bank’s paper currency could have it redeemed with specie by presenting the currency (bank notes) at the bank’s office, which was located “where the wildcats” lived.

The Second National Bank of the United States (1816–1836), a federally controlled bank, was able to restrain the wildcat institutions, which predominated in the West and South, by requiring them to issue only the amount of currency they could convert to coin. But when the charter of the Second National Bank of the United States was allowed to expire (1836), the wildcat banks resumed their unsound banking practices. Paper currency issue and lending went unregulated amidst a rush to buy land on the frontier. The nation’s currency wildly fluctuated as the renegade financial institutions loosened and tightened the money supply to suit their own needs. Furthermore, because there were so many banks issuing their own notes, another problem introduced itself: counterfeiting. No one could tell what was true bank currency and what was the product of a good counterfeiter. On July 11, 1836, President Andrew Jackson (1767–1845), intent on reining in the wildcat banks, issued the Specie Circular—an order that government agents accept nothing but gold or silver as payment for new land. When prospective land buyers (particularly in the West) took their paper bills to the state-chartered banks to be converted to coin, they found the banks’ tills were empty. The holders were denied the face value of their notes. Bank after bank closed its doors, causing a financial panic in 1837. But many state banks remained in business and the issue of regulating paper currency continued to trouble the nation. During the American Civil War, Congress authorized the issue of 150 million dollars in national

notes, called greenbacks. Through subsequent acts of Congress, including the creation of a national banking system (1863), the federal government eventually put the state banks out of business and replaced them with federally backed institutions. The nation’s financial problems were not adequately addressed until 1913, when the Federal Reserve Act was passed to strengthen the federal control of the banking system and to bring about stabilization of currency.

See also: **Bank of the United States (Second National Bank), Currency, Federal Reserve Act of 1913, Greenbacks, National Bank Act of 1863**

WILDERNESS ROAD

The Wilderness Road was a trail blazed by American pioneer Daniel Boone (c. 1734–1820) as he led settlers westward across the Appalachian Mountains into present-day Kentucky between 1761 and 1771. By 1790 the road that passed through the Cumberland Gap (at the intersection of Tennessee, Kentucky, and North Carolina) had become a principal route westward. Settlers traveled Wilderness Road from Virginia, across the Appalachians, and into the Ohio River Valley. The route remained well traveled until about 1840. By that time the government–built National Road extended westward from Maryland, traversing the Appalachians, and descending into the fertile lands of Ohio, Indiana, and Illinois. Boone’s westward route allowed for the early development of the nation’s first frontier—the lands lying just west of the Appalachians. Wilderness Road later became part of U.S. Highway 25 and it is today part of the Dixie Highway.

See also: **Appalachian Mountains, Back Country, Daniel Boone, Cumberland Gap, Kentucky, National Road, North Carolina, Tennessee**

WILSON, THOMAS WOODROW

Woodrow Wilson (1856–1924), the twenty-eighth president of the United States, left a great legacy of domestic legislation that profoundly affected both American business and American workers. Most of that legacy was created during the first two years of his eight-year, two-term service in the White House.

Thomas Woodrow Wilson was born in Staunton, Virginia, in 1856, into the family of a Presbyterian minister. Wilson dropped the use of his first name after he graduated from college, and was known thereafter as Woodrow Wilson. Wilson grew up in an atmosphere



Woodrow Wilson.

of religious piety and scholarly interests. By the time he was two years old, the family had moved to Augusta, Georgia, where Wilson grew into young manhood. While he was growing up, his father took the young Wilson to many industrial and agricultural sites, where he learned directly about the conditions of ordinary working people.

Wilson began his professional life in a law office in Atlanta, Georgia, but by 1883, at age 27, he decided he wanted to be a college teacher instead of an attorney. He subsequently began to study history and politics at Johns Hopkins University in Baltimore, Maryland, where he obtained a Ph.D. in political science. Wilson thrived as a teacher and later as a professor and scholar. In 1902, at age 42, he was elected president of Princeton University.

His efforts and successes at Princeton University attracted wide public notice. Leaders in the Democratic Party of New Jersey sought him out as a candidate for governor. He was indeed elected governor of New Jersey in 1910. In that office, he enacted a primary election law, a corrupt-practices act, a public utilities act, employee liability law, and various school-reform laws. His work in New Jersey eased many of the burdens of the average working person and also began to reduce corrupt business operations.

Those who worked in national politics did not overlook Wilson's progressive work in New Jersey. He was encouraged to run for federal office, and in 1912, in a race against Republican William Howard Taft (1857–1930), and Progressive Theodore Roosevelt (1858–1919), Woodrow Wilson, a Democratic candidate, was elected to the presidency in a political landslide.

Beginning his presidency in 1913, Wilson quickly began to pursue his domestic political agenda. In October of his first year in office, Wilson's Congress passed the Underwood Tariff Act which lowered the unfair tax rates of imported items like wool, sugar, iron ore, steel rails, and many other important items.

Next he began his most crucial domestic reforms, including the creation of a Federal Reserve Board, later called the Federal Reserve System, to help control money policies in the United States and to insure fairness in all transactions. The creation of the Board is generally regarded as the most far-reaching piece of legislation covering banking and currency in the nation's history.

In 1914 Wilson had established the Federal Trade Commission (FTC) to halt unfair business trade practices. The Clayton Anti-Trust Act was also passed to police unfair practices in business. Wilson's Adamson Act established an eight-hour work day for railroad employees, while his Child Labor Act limited the work hours of children and began a new program of federal regulation in industry.

After two years of successful domestic legislation, Wilson ran into global problems with the start of World War I (1914–1918). Under his leadership, the United States declared war against Germany in 1917 in what he called an effort to keep "the world . . . safe for democracy." For the duration of his presidency Wilson worked on efforts dealing with international issues. Much of his important domestic legislation, which focused on controlling big business and easing the burdens of working people in America, was obscured by his interventions during World War I and his pioneering efforts in the creation of the League of Nations in the post-war era.

Though Wilson is largely regarded as the great war-president who led the United States in World War I (1914–1918) and whose efforts to create the international peace organization the League of Nations led later to its more-stable successor, the United Nations, it is arguable that Wilson's greatest achievements were made by his domestic policies. Such policies and programs began to effectively control the lopsided concentration of power in American business. Woodrow Wilson's first administration successfully enacted many

Wisconsin

of the progressive federal laws that controlled outrageously high tariffs, monopolistic and illegal industrial practices, and the federal control of the banking system. At the early stages of his presidency, Wilson was also successful in achieving progressive legislation to stabilize the balance between business interests and the interests of American workers, both industrial and agricultural.

Wilson, “tired of swimming upstream,” as he put it, died in his sleep in 1924. He suffered a series of strokes for many years before his death.

See also: Clayton Anti-Trust Act, Federal Reserve System, Underwood Tariff, World War I

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WISCONSIN

The state of Wisconsin is located in mid-America between the Great Lakes and the Mississippi River. The land it encompasses had several built-in advantages for development. From the early fur traders to the modern industrialists, Wisconsin entrepreneurs used the state’s waterways and water ports for transporting goods to markets elsewhere. Immigrants from northern, central, and eastern Europe created a prosperous farming region on the Wisconsin prairie. In modern times the area became known mostly for its dairy herds. Other industries have thrived in Wisconsin as well, particularly its breweries, lumber mills, and canning factories.

Native American tribes in Wisconsin first encountered Frenchmen in the 1630s, and became dependent on them for trading in furs. Father Jacques Marquette and Louis Jolliet traversed Wisconsin territory on their way to the Mississippi in 1673. Many other Frenchmen came during that period to establish missions or to

trade in furs. Following the French and Indian War (1756–63), the British took control of Wisconsin. They ceded it to the United States in 1783. The Ordinance of 1787 included Wisconsin in the Northwest Territory; later parts of Wisconsin were included in the Indiana Territory, the Illinois Territory, and the Michigan Territory.

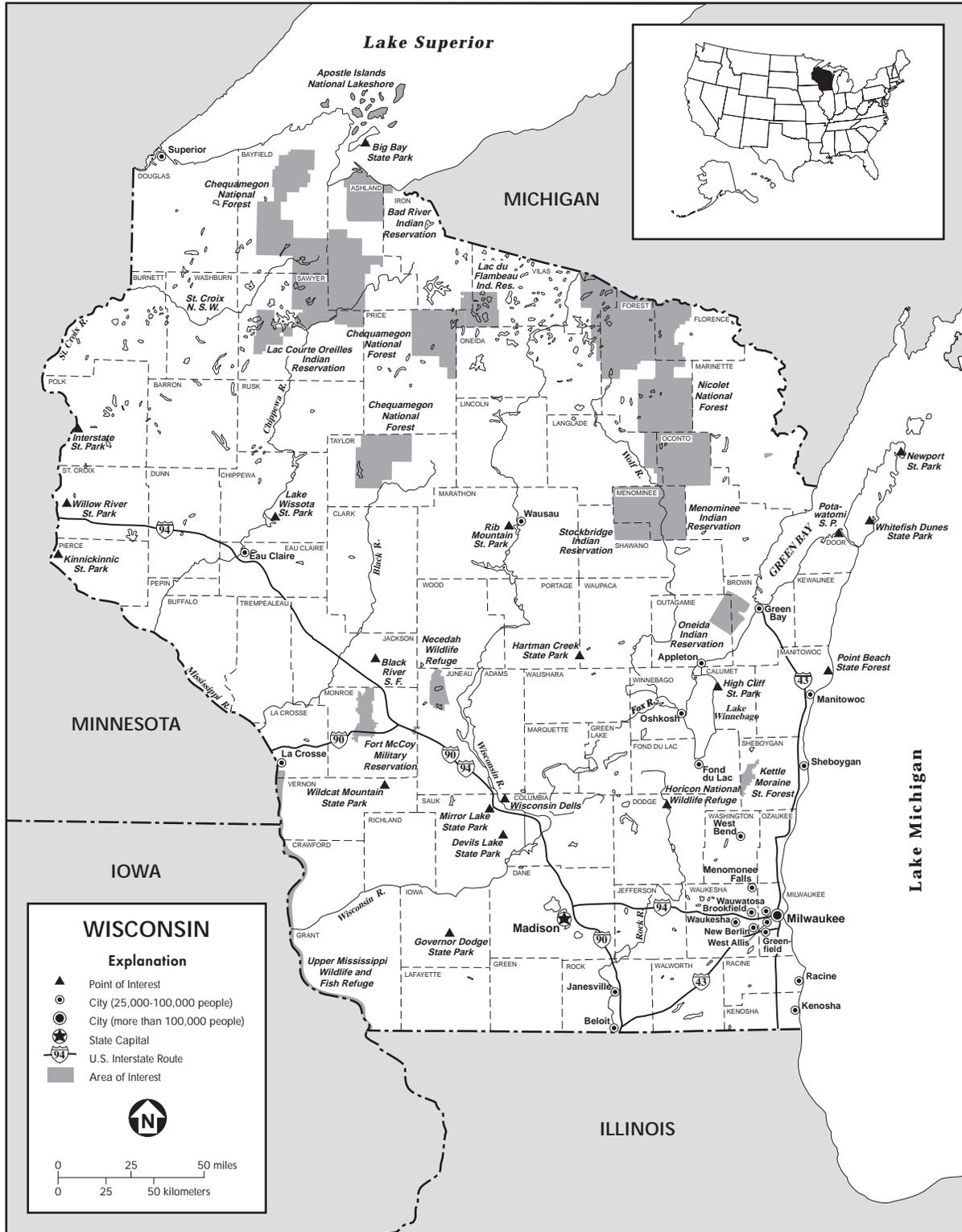
Lead mining originally brought white miners, called “Badgers,” to Wisconsin in the 1820s. They received their nickname because like badgers miners too must dig into the ground. The 1832 Black Hawk War drove out most of the remaining native Americans. White settlement began in earnest after that, and those indigenous people who stayed were eventually settled on reservations within the state. Wisconsin became a separate territory in 1836. New Englanders and southerners, lured by the lead mining in the southwestern part of the territory, flocked to the area during the 1830s. In 1848 Wisconsin became the thirtieth state of the Union.

Transportation and industry developed more slowly in the territory than some speculators had hoped. A canal was finally opened between the Fox and Wisconsin rivers in 1851. But it was not heavily traveled, despite millions of dollars in expenditures by the state and the federal government. The first rail line was built in the 1850s between Milwaukee and Prairie du Chien. Speculation reigned as farmers along the proposed route bought up railroad stock, often with disastrous economic consequences. Communities also competed fiercely to be included on the route. By the 1860s, the Chicago and Northwestern Railroad and the Chicago, Milwaukee, and St. Paul railroads dominated the state’s transportation system. They helped foster the growth of Wisconsin’s emerging lumber, dairy, and food processing industries.

CHEESE AND BEER—WHEN YOU THINK OF EITHER OF THE TWO, YOU THINK OF WISCONSIN.

Richard Nelson Current, *Wisconsin: A Bicentennial History*, 1977

The development of the state would not have occurred without a major influx of immigrants, primarily from northern Europe. In the 1820s these included mostly the Irish and the English, but by 1860 the predominance of German arrivals led some to call Wisconsin a “German state.” Yet, the area was attractive to many nationalities. In the 1880s the state lured as many Scandinavians as Germans, and later many immigrants from southern and eastern Europe settled there.



State of Wisconsin.

Many of these foreign-born Americans established farms across the entire state. At first they planted wheat, which was the biggest cash crop of the prairie because the McCormick reaper, first produced in Chicago in 1846, enabled farmers to harvest vast amounts of wheat in a short period of time. During the American Civil War (1861–65), sales of wheat to Great Britain provided the cash needed to finance the war effort. Usually departing from Milwaukee, the wheat shipments found their way through the Great Lakes and on to the eastern states and the rest of the world. After decades of wheat production, the soil began to be depleted of its resources. In response, Wisconsin farmers began to diversify, turning to the production of wool, sorghum, flax, sugar beets, tobacco, and hops.

Eventually dairy farming came to be identified with Wisconsin. The industry was established by New Yorkers and northern European immigrants who had brought their dairy-farming and cheese-making experience with them. By 1899 nearly 90 percent of the farms in Wisconsin had milk cows. Cheese factories proliferated, producing mostly “American” cheese or Cheddar, usually in a Wisconsin version that was called Colby. By 1919 Wisconsin was distributing almost two-thirds of the country’s cheese.

Wisconsin also became a major producer of pork and pork products. A pioneer in that industry was Philip D. Armour (1832–1901). He made his reputation by supplying cured pork to soldiers in the American Civil War. Vegetable canning also became an important sector of Wisconsin’s economy. In the infancy of the pressure-canning industry, Albert Landreth achieved significant success canning peas in Manitowoc. By 1918 Wisconsin canned as many peas as all the other states combined. Other vegetables such as sweet corn and beans also became important in the canning industry. The industry got a boost when large amounts of canned products were needed to supply soldiers in World War II (1939–45). Wisconsin remained a leader in the canning business thereafter.

Beer breweries are most prominently associated with Wisconsin in the public’s mind. German immigrants had brought with them the technique for producing a lager beer that withstood storage better than earlier versions made in the region. Milwaukee became the center of brewing, with the Blatz, Schlitz, Pabst, and Miller families leading the industry. Many other cities produced beer, mostly for local consumption, but Milwaukee exported large amounts to other states and countries. The city became identified as the producer of the best brews. The bigger breweries survived the days of the Prohibition era by producing other products like soft drinks and candies.

Since the days of progressive Republican governor Robert La Follette (1855–1925) in the early twentieth century, Wisconsin has been known for its forward-looking approach to government and the economy. La Follette obtained legislative approval for increased taxation of railroads, the first state income tax in the nation (1911), and the first workmen’s compensation program. La Follette’s son Philip continued the reform tradition during the 1920s by supporting state regulation of electric power, labor disputes, and business practices. Philip La Follette’s (1897–1965) so-called Little New Deal paralleled many of President Franklin D. Roosevelt’s (1882–1945) national policies during the 1930s.

Although Wisconsin’s economy diversified after World War II, the dairy industry remained its backbone into the 1990s. Cattle and calves in Wisconsin numbered 3.7 million in 1997 and were valued at 2.627 billion dollars. Dairy farming was also connected to two controversial environmental issues in the 1990s. The first linked agricultural runoff from animal wastes to contamination of Milwaukee’s drinking water in 1993; the second involved a dispute over the use of bovine growth hormone to increase milk production.

Southeast Wisconsin, especially the Milwaukee area, was the cradle of industry by the late 1990s. Although some major breweries left the city, others continued to produce there and in other Wisconsin cities like La Crosse. Important paper and lumber products firms included Consolidated Paper in Wisconsin Rapids and Fort Howard Paper in Green Bay. Racine became home to Johnson & Son, a wax products company, and J.I. Case, a producer of agricultural equipment. Meat-packer Oscar Mayer located his operations in Madison. New and existing industries were assisted by the state Department of Development, as well as hundreds of local development corporations.

Wisconsin’s water ports continued to be vital to the state’s economy. In 1959 oceangoing vessels were first allowed access to Wisconsin via the Great Lakes through the St. Lawrence Seaway. Traffic to Wisconsin on the seaway, however, failed to meet expectations. In the 1990s, the busiest of all U.S. ports was Superior on Lake Superior; it handled mostly iron ore and coal. Important Lake Michigan ports, which also depended heavily on coal, included Milwaukee, Green Bay, Port Washington, Oak Creek, Manitowoc, and Sturgeon Bay. On the Mississippi River, Prairie du Chien and La Crosse processed the largest amount of cargo.

See also: Brewing Industry, Robert LaFollette, Prohibition, Saint Lawrence Seaway

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**WOMEN IN THE WORKPLACE
(ISSUE)**

Over a 120-year period the identity of the woman worker has changed dramatically. From the 1820s, with the onset of industrialization in the United States, until 1940, the average female employee was young and single. If married, a woman working outside the home was likely poor and African American. From the 1940s to the 1970s, however, married women became the largest component of the female labor force. The number of gainfully employed, white middle-class women also rose rapidly.

In 1920 women composed 23.6 percent of the labor force and 8.3 million women older than the age of 15 worked outside the home. By 1930 the percentage of women in the work force rose to 27 and their numbers increased to 11 million. World War I (1914–1918) had expanded women’s employment in new sectors of the economy and by 1920, 25.6 percent of employed women worked in white-collar office-staff jobs, 23.8 percent in manufacturing, 18.2 percent in domestic service, and 12.9 percent in agriculture. While the first generation of college-educated women entered professions in the 1920s, they found opportunities only in nurturing “women’s professions” such as teaching and social work, and within medicine, nursing, and pediatrics. In factories, while male factory workers on federal contracts in 1920 started at 40 cents an hour, women started at 25 cents.

The Women’s Bureau, a new federal agency approved by Congress in June 1920, was charged with reporting the conditions of women in industry and promoting the welfare of working women. The Women’s Trade Union League (WTUL) also fought to improve women’s labor conditions in the 1920s. The WTUL argued that protective legislation based on

After World War II ended, a woman’s average weekly pay fell from \$50 to \$37, a decline of 26 percent that contrasts sharply to an overall postwar decrease of four percent. Although three-quarters of women employed in war industries were still employed in 1946, 90 percent of them were earning less than they had earned during the war.

women’s special position as child bearers should not be used against women workers by restricting their access to certain jobs.

Women laborers worked long hours and both the Women’s Bureau and WTUL fought for shorter workdays. By the early 1920s all but five states upheld the 10-hour day/50-hour week work schedule; those five embraced the 54-hour workweek. Efforts to improve working conditions for women were consistently undermined by society’s ambivalence about combining the roles of wife and mother with those of worker and professional.

The Great Depression (1929–1939) did little to alter the role of women in the U.S. workplace. According to the 1930 census almost eleven million women, or 24.3 percent of all women in the country, were gainfully employed. Three out of every ten of these working women were in domestic or personal service. Of professional women three-quarters were schoolteachers or nurses. The greatest numbers of women continued to work in domestic service with clerical workers just behind. Out of every ten women workers in 1940 three were in clerical or sales work, two were in factories, two in domestic service, one was a professional—a teacher or a nurse—and one was a service worker. During the Depression women entered the workforce at a rate twice that of men—primarily because employers were willing to hire them at reduced wages. In unionized industries, however, women fared better. Women constituted seven percent of all workers in the automobile industry and 25 percent of all workers in the electrical industry. The integrated International Ladies Garment Workers Union had 200,000 members and it secured for pressers in Harlem high wages of \$45 to \$50 per week. But such pay was the exception, not the rule.

Married women who worked faced particular hostility. They heard that they were taking jobs away from men, that the woman’s place was in the home, and that children needed a mother at home full time. Both



Female switchboard operators connecting telephone calls in the 1940s.

private companies and the government dismissed large numbers of married women and made it difficult for married women to get high-paying professional or clerical jobs. Section 213 of the 1932 Federal Economy Act prohibited more than one family member from working for the government, barring many married women from federal employment. Even positions that were traditionally held by women, such as teacher and librarian, were affected.

New Deal legislation provided relief to both male and female workers in need although women often did not receive their full share of benefits. The 1933 National Recovery Administration (NRA) designed codes that improved women's wages, shortened their hours, and increased the number of women employed, but the codes did little for the two million women who lost their jobs and sought relief. Although the Works Progress Administration (WPA) launched successful projects for women's employment, women had difficulty getting such jobs. Only one member of a household was eligible to qualify for a relief job and women had to prove themselves economic heads of households. Women with physically able husbands could not

qualify because men were considered heads of households, even if they were unable to find jobs.

Things quickly changed with World War II (1939–1945). Government posters featured women rolling up their sleeves and affirming “We Can Do It.” Radio stations sponsored contests for “Working Women Win Wars Week.” The number of workingwomen rose from 11.9 millions in 1940 to 18.6 millions in 1945. By the end of the war women comprised 36.1 percent of the civilian workforce and they were enjoying increases in income created by the wartime economy. Once women's employment became vital to the war effort it was applauded as patriotic. Between 1940 and 1945 women's presence in the labor force grew by more than 50 percent.

After the war, however, traditional gender assumptions about work retained their hold. The government position was that “now, as in peacetime, a mother's primary duty is to her home and children.” Although some 1.5 million mothers with small children worked, childcare remained inadequate. The government financed only 3,102 childcare centers to serve

working mothers, providing for only a small fraction of the children in need of care. Most working mothers left their children with family members or left them to fend for themselves. The scarcity of institutional assistance for these women implied that while society approved of working women, it still expected them to take care of their children themselves. Moreover, most people considered women in the workplace a temporary phenomenon. Though women proved themselves the equal of men in many jobs, they were still being paid less. Because most of the working women had been trained primarily to be homemakers, they lacked the education and skills necessary to enter career paths leading to good pay, advancement, and security.

After World War II ended, a woman's average weekly pay fell from \$50 to \$37, a decline of 26 percent that contrasts sharply to an overall postwar decrease of four percent. Although three-quarters of women employed in war industries were still employed in 1946, 90 percent of them were earning less than they had earned during the war. Faced with a postwar decrease in the already inadequate number of childcare facilities many working mothers withdrew from the workforce. While the actual number of women in paid employment rose, they tended to be older women with no children to care for at home and were employed in an increasingly narrow range of jobs.

By 1960 over one-third of women were employed, while more and more married women went to work to obtain the many accoutrements of middle-class life. In 1963 Betty Friedan's best seller, *The Feminine Mystique*, argued that women were oppressed by a culture that consistently denied them opportunities outside the domestic sphere. Friedan went on to suggest that women should have the same freedom for self-fulfillment that men possessed. The book reawakened the feminist movement. In 1966 Friedan and others founded the National Organization of Women (NOW). By the late 1960s the government required that all institutions receiving federal funds use non-discriminatory hiring practices and by the early 1970s affirmative action laws were in place. In this atmosphere public opinion about women in the workplace began to change. But few women were able to break into the male-dominated professions and careers and the pay for women who worked full-time was less than 60 percent of the median for men.

The battle to gain rights for women in the workplace equal to the rights of men began before World War II and continued into the early 1990s. The specific legislative fight at the federal level to gain equal wages for equal work took about 17 years. Not until 1963, with

the support of President John F. Kennedy (1961–1963), did such an act finally pass. The Equal Pay Act was intended to ensure that women would get paid the same wages as men for equal work. It was carefully written to raise women's wages, not to lower men's. Women filing suit under the Equal Pay Act could win up to two years of the wages they would have earned had they been paid equally with men. Discriminating employers could also be required to pay that same amount again as punishment, in addition to reimbursing successful claimants for the costs of hiring an attorney and court charges. Unfortunately, the act contained loopholes. The Equal Pay Act stipulated that the jobs of men and women must require equal skill, equal effort, and equal responsibility, each factor to be examined separately, for the jobs to be covered by the act. There was no provision that women must have access to the same jobs as men.

In subsequent years several other actions bolstered the rights of female workers. In 1964 the Civil Rights Act was passed and its broader language helped close some of the loopholes of the Equal Pay Act and further advance the rights of female workers. Title VII of the Civil Rights Act did not allow employers to deny jobs to women because of their sex. Thus it became illegal to manipulate jobs so that women would be excluded from those with higher pay. The Equal Employment Opportunity Commission (EEOC) was created to enforce this new employment right.

See also: Home Front, National Recovery Administration, Rosie the Riveter, Women's Movement, Works Progress Administration

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WOMEN'S MOVEMENT

As the United States approached the age of industrial expansion in the 1800s, an increased awareness of social problems began to arise. Advocacy groups rallied for the abolition of slavery, reform in mental institutions and prisons, and equal rights for women. While these social issues gained attention, the roles of men and women began to change. The industrial age brought about a shift in family life as more married men worked in factories, which kept them away from home for 10 to 12 hours each day. Because women could not own property and were not allowed equal access to education and employment as were men, a married woman's life was limited to staying home and caring for the children, tending to household chores, and working at menial jobs. Single women were allowed to work in factories, but their wages were only half that of their male counterparts.

The movement toward equal rights was led by Elizabeth Cady Stanton (1815–1902) who was born in 1815 in Johnstown, New York. Cady Stanton and her husband, Henry Brewster Stanton, a lawyer and abolitionist, attended the World Antislavery Conference in London, England, where they met other reformists such as Lucretia Mott (1793–1880), a Hicksite Quaker. The women, however, were not allowed to participate in the conference because they were female. On July 19–20, 1848, in Seneca Falls, New York, the two women organized the first public political meeting in the United States that focused on women's rights. The meeting was attended by 240 people, 40 of them men. The Seneca Falls Convention focused on the "Seneca Falls Declaration of Sentiments," which was modeled after the *Declaration of Independence*. The document was written by Cady Stanton, Mott, Martha Wright, Mary Ann McClintock, and Jane Hunt; it included a detailed list of female oppression by men, specifically citing depriving women of the rights to vote, to own property, and to equal employment and education. The "Resolutions" included in the "Declaration of Sentiments" were approved.

In 1865 the Fourteenth Amendment was introduced to Congress which allowed African American males the right to vote but specifically excluded females. Cady Stanton and Susan B. Anthony (1820–1906), who began campaigning for women's rights with Cady Stanton in 1848, reviewed an early draft of the proposal and took issue with the term "male citizen" which had never been used before in the U.S. *Constitution*. While they were sympathetic to the fact

that former slaves needed this ballot to protect their rights, Cady Stanton and Anthony did not support it. Despite their opposition, Congress passed the Fourteenth Amendment in July 1868.

Over the next 20 years additional women's rights groups were formed and some success was attained at local levels. In 1870 women were given the right of citizenship in the Wyoming and Utah Territories and in the Washington Territory in 1883. In Michigan and Minnesota, widowed mothers of school children were given the right to vote on school issues in 1875. The same was afforded to widows in Vermont and New York in 1880.

In 1882 the U.S. Senate and the House of Representatives appointed Select Committees on Woman Suffrage and, for the first time in 1886, the "Susan B. Anthony Amendment," or the woman's suffrage amendment, was debated on the Senate floor. Gradually women won the right to own property and to have professional careers but it wasn't until 1920 that the Nineteenth Amendment was passed, giving women the right to vote.

The women's movement gained momentum and made important strides toward equality during the social unrest of the 1960s when civil rights groups and Vietnam War (1964–1975) protesters were demanding change. In 1963 author Betty Freidan wrote the best-seller "The Feminine Mystique," which described the unhappiness of the majority of middle-class women who wanted more out of life than to be housewives. At the same time, the Presidential Commission on the Status of Women (chaired by Eleanor Roosevelt) issued a report titled *American Women*, which documented discrimination against women in education, employment, taxes, and the law. As a result, the Equal Pay Act (1963) was passed that required employers to provide equal wages for equal work for men and women. President John F. Kennedy (1961–1963) further mandated that the federal government hire "solely on the basis of ability to meet the requirements of the position, and without regard to sex." This was the government's first attempt to address women's issues since 1920.

In 1964 the Equal Employment Opportunity Commission (EEOC), an organization developed to defend employment rights of minorities, also began to work toward securing rights for women. The Civil Rights Act of 1964 was broadened to include not only discrimination in jobs based on race, creed and natural origin but also sex.



Women rallied all over the country advocating for equal rights.

In 1966 Betty Freidan and others founded the National Organization for Women (NOW). NOW's statement of purpose was "to take action to bring women into full participation in the mainstream of American Society NOW, assuming all privileges and responsibilities thereof in truly equal partnership with men." The group focused on increasing the number of women in government jobs, legalizing abortion and increasing the number of day-care centers, and most of their goals were accomplished. In 1969 Betty Freidan, with author and feminist, Gloria Steinem (1934–), and U.S. representatives from New York Bella Abzug (1971–1976) and Shirley Chisholm (1969–1983) formed the National Women's Political Caucus (NWPC). The group worked to increase the number of females holding political office; they were very successful in this mission during President Jimmy Carter's (1977–1981) administration. Smaller radical groups formed over the next 10 years that advocated for various women's rights. These groups encouraged Congress in 1974 to pass the Equal Credit Opportunity Act (ECOA), which made it illegal to deny anyone credit based on gender.

Challenging the barriers to women's rights over the years led to more opportunity and economic power for women during the latter half of the twentieth century. In the early 1990s women received 54 percent of university Bachelor's degrees and 53 percent of all

Master's degrees. By the mid-1990s women continued to advance in politics as well as the workforce. In 1997 there was still a difference in pay between men and women in the same positions—women holding mid-level jobs were still paid an average of 26-cents less per hour than their male counterparts.

See also: Fourteenth Amendment, Nineteenth Amendment, Women in the Workplace

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Women's Trade Union League (WTUL)

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WOMEN'S TRADE UNION LEAGUE (WTUL)

Founded in 1903, the Women's Trade Union League (WTUL) sought to represent the cause of working-class women to middle- and upper-class reformers. Women were openly excluded from other labor organizations, which maintained that women simply did not have a place in the workforce. Male laborers were wary that including women in the labor cause would lower their own wages, and most felt that the woman's place was in the home. Whatever the prevailing sentiment among working-class men, the fact was that women were in the workplace in numbers. In 1903, the year the WTUL organized, there were 6.3 million women in the American workforce. The organization sought to secure state and federal legislation to protect female laborers, sponsor educational programs, and campaign for woman suffrage (the right to vote). By 1906 Jewish cap-maker Rose Schneiderman (1882–1972) rose to a position of leadership within the WTUL. In 1909, the Schneiderman-led WTUL joined forces with the International Ladies Garment Workers Union (ILGWU) and staged a strike against sweatshops (exploitative garment factories) in New York City. After a three-month strike, called the "Uprising of the 20,000," tens of thousands of garment workers won wage increases, shorter hours, and somewhat safer work conditions. In 1911 Schneiderman was among those who turned out to join an April 5 procession to mourn the victims of the infamous Triangle Shirtwaist Factory fire. One hundred and forty-six workers, most of them Jewish immigrant women, had perished in the March 25, blaze in a building that failed to meet required safety standards. In the wake of the tragedy, Schneiderman resolved that workers would never again be forced to risk their lives to earn a living. Public outrage was now on the side of the movement to increase worker safety. The WTUL eventually became dominated by middle-class leaders who steered the organization away from union activities (including strikes), alienating its working-class membership. In the early 1920s the organization rallied against passage of an equal rights amendment to the U.S. Constitution, asserting that women workers needed protection from

exploitation, not equal opportunities. By 1930 the WTUL had dissolved.

See also: American Federation of Labor (AFL), Triangle Shirtwaist Factory Fire

WORK ETHIC

The work ethic is characterized by the desire to work hard and efficiently. Significant aspects of the work ethic include frugality, accumulation of wealth, organized and systematic ways of life, and approval of diligence and disapproval of indulgence.

Early Greeks and Romans believed manual work to be a curse and left it to slaves. Aristocratic disdain for work continued throughout the Middle Ages except in monasteries, where work was of the ways by which a monk was sanctified. In early modern times, with the rise of capitalism and the middle class, the monastic respect for work was spread to the laity. In 1903, the sociologist Max Weber (1869–1920) proposed in *The Protestant Ethic and the Spirit of Capitalism* that the modern work ethic developed from grew out of the thought of the Protestant reformer John Calvin (1509–1564). Calvin taught predestination, a belief that a person's eternal destiny (Heaven or Hell) is independent of one's actions on earth. It has been predetermined ahead of time. Yet, one may have a hint of God's plan by observing whether certain signs of election are present in one's life. Calvin's followers suggested that material success was one of these. In other words, success in this world, which is usually attained through hard work, means that you have been chosen to go to heaven. Scholars have long debated whether the Weber thesis is true. Nonetheless, a belief in the moral value of work, whatever its origin, has been an important facet of the West's material progress.

Largely because of a productivity rate decrease in the 1970s, questions arose regarding viability of the work ethic in the United States. The productivity drop off apparently resulted from an increased proportion of young inexperienced workers in the labor force. By 1979 an upward trend resumed. At the end of the twentieth century time spent working, attitudes toward work, and economic indicators point to a continued presence of a strong work ethic. Increasingly, studies showed that workers believed work rather than leisure yields not only material goods but self-fulfillment. With increases in education, technology, life expectancy, and with the need to balance family care with work, the logistics of work continue to evolve but the work ethic remains constant.

WORKING CONDITIONS IN FACTORIES (ISSUE)

During the late nineteenth century the U.S. economy underwent a spectacular increase in industrial growth. Abundant resources, an expanding labor force, government policy, and skilled entrepreneurs facilitated this shift to the large-scale production of manufactured goods. For many U.S. citizens industrialization resulted in an unprecedented prosperity but others did not benefit as greatly from the process. The expansion of manufacturing created a need for large numbers of factory workers. Although the average standard of living for workers increased steadily during the last decades of the nineteenth century, many workers struggled to make ends meet. At the turn of the century it took an annual income of at least \$600 to live comfortably but the average worker made between \$400 and \$500 per year.

Factory workers had to face long hours, poor working conditions, and job instability. During economic recessions many workers lost their jobs or faced sharp pay cuts. New employees found the discipline and regulation of factory work to be very different from other types of work. Work was often monotonous because workers performed one task over and over. It was also strictly regulated. Working hours were long averaging at least ten hours a day and six days a week for most workers, even longer for others. For men and women from agricultural backgrounds these new conditions proved challenging because farm work tended to be more flexible and offered a variety of work tasks. Factory work was also different for skilled artisans, who had once hand-crafted goods on their own schedule.

Factory conditions were also poor and, in some cases, deplorable. Lack of effective government regulation led to unsafe and unhealthy work sites. In the late nineteenth century more industrial accidents occurred in the United States than in any other industrial country. Rarely did an employer offer payment if a worker was hurt or killed on the job. As industries consolidated at the turn of the century factories grew larger and more dangerous. By 1900 industrial accidents killed thirty-five thousand workers each year and maimed five hundred thousand others, and the numbers continued to rise. The general public became concerned with industrial accidents only when scores of workers were killed in a single widely reported incident, such as the many coal-mine explosions or the tragic Triangle Shirtwaist Company fire in 1911. In one year alone 195 workers in steel and iron mills were killed in Pittsburgh, Pennsylvania.

In order to save money many employers hired women and children to work in factories because these workers would work for lower wages than men. Some women were paid as little as six dollars per week, a sum much lower than a male would have received. Most female workers performed unskilled or semi-skilled machine work but some worked in industries that demanded heavy labor. Some women, for instance, worked on railroads, while others were employed as machinists.

IN THE LATE NINETEENTH CENTURY MORE INDUSTRIAL ACCIDENTS OCCURRED IN THE UNITED STATES THAN IN ANY OTHER INDUSTRIAL COUNTRY BY 1900 INDUSTRIAL ACCIDENTS KILLED THIRTY-FIVE THOUSAND WORKERS EACH YEAR AND MAIMED FIVE HUNDRED THOUSAND OTHERS, AND THE NUMBERS CONTINUED TO RISE.

Children also worked long hours for low wages. The number of children employed in factories rose steadily over the last three decades of the nineteenth century. By 1900 roughly 1.7 million children under the age of 16 worked in factories; less than half that many children had been employed 30 years before. Under pressure from the public many state legislatures passed child labor laws, which limited the hours children could work to ten hours per day, but employers often disregarded such laws. In southern cotton mills children who operated looms throughout the night had cold water thrown in their faces to keep them awake. Long working hours for children also meant that accidents were more likely to occur; like adult workers, many children were injured or killed on the job.

Worker responses to poor factory conditions and low wages were varied. Some employees intentionally decreased their production rate or broke their machines, while others quit their jobs and sought work in other factories. Other workers resorted to a more organized means of protest by joining labor unions although most industrial workers were not union members. Most workers, having few alternatives, simply endured the hardship of factory work.

In response to the problem of poor working conditions and the apparent indifference of industrial barons, membership in the American Federation of Labor (AFL), a union for skilled workers formed in 1886, grew rapidly from 256,000 members in 1897 to 1,676,000 in 1904. More radical and politically active trade unions often had even larger memberships, mostly because they were not as exclusionary as the AFL and because they welcomed unskilled labor, like those

who worked in factories. One of the most radical, the Industrial Workers of the World (IWW), founded in 1905 and popularly known as the Wobblies, recruited primarily among the unskilled immigrants but also competed with the AFL to attract skilled laborers. Less radical than the Wobblies and more successful at recruiting supporters were the socialists, who gained political strength because of the growing numbers of immigrants and disenfranchised unskilled laborers. The lack of real class conflict in the United States and the electoral reforms of the era undercut the socialists' efforts on a national level. Despite growing union activism the vast majority of workers remained unorganized throughout the first decade of the twentieth century.

Trying to prevent legislation to provide job security, guarantee a minimum wage, or ensure the safety of the workplace, most businessmen and conservatives argued that wages were set by the marketplace and that higher wages and worker protection would lead to higher prices for consumers. Government had long supported business using court injunctions and armed troops to put down strikes and break unions. In the 1890s, ruling that unions operated as "combinations in restraint of trade," the federal government used the Sherman Antitrust Act against unions more often than against businesses.

During the Progressive era several states passed legislation helpful to labor, such as laws establishing a minimum wage for women, maximum work hours, and workmen's compensation, and abolishing child labor and convict leasing. Groups such as the National Child Labor Committee, the Woman's Trade Union League, and the National Consumers League spearheaded the drives for many of these measures. Ironically, organized labor opposed minimum-wage laws for women because it preferred to win such measures through collective bargaining or strikes rather than through legislation. Business had to persuade labor to accept workmen's compensation plans, which unions opposed because the benefits were not very generous and many sorts of workers were excluded. Businessmen wanted the plans to protect themselves against the large payments that courts sometimes awarded in injury cases.

In 1904 a group of reformers established the National Child Labor Committee, an organization that dedicated to investigating the problem of child labor and lobbying state-by-state for legislation to end the abuse. It was, however, not effective because each state feared restrictive legislation could give other states a competitive advantage in recruiting industry. In 1907 a federal law against child labor, sponsored by Senator Alan Beveridge (1899–1911) of Ohio, went down to

defeat and three years later in 1910 there were still an estimated two million children employed in factories. Only when the loopholes in state laws become apparent to reformers did they lobby for federal legislation, most of which did not come until the end of the 1920s.

In 1912 a Children's Bureau was established as an agency of the Department of Commerce and Labor. Its mandate was to examine "all matters pertaining to the welfare of children," which included child labor, and it was led by Julia C. Lathrop, the first woman to head a federal agency. Progress, however, was still slow. In 1916 senators Robert L. Owen and Edward Keating sponsored a bill that restricted child labor; the bill passed both houses of Congress with the strong support of President Woodrow Wilson (1913–1921). The law was based on a recommendation of the National Child Welfare Committee but it only prevented the interstate shipment of goods produced in factories by children under 14 and materials processed in mines by children under 16. It also limited children's workday to eight hours. In 1918 the Supreme Court declared this law unconstitutional because it was directed toward the regulation of working conditions not the control of interstate commerce. In 1919 Congress passed the Child Labor Act, which placed a tax on companies that used child labor, but the court again overturned the law. In 1924 there was an attempt to amend the Constitution to prohibit child labor but it never received approval from the required number of states.

See also: **American Federation of Labor, Child Labor, Industrial Workers of the World, Mass Production, Frederick Winslow Taylor, Women in the Workplace**

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WORKS PROGRESS ADMINISTRATION

The Works Progress Administration (WPA) was the first major unemployment program of the New Deal and one of the most successful of the public works programs authorized by the Emergency Relief Appropriation Act in April 1935. The program, under the leadership of Harry Hopkins (1890–1946), provided about 3 million public sector jobs per year to unemployed heads of families. Most WPA workers built libraries, schools, hospitals, playgrounds, airports, bridges, and roads, but the program also employed writers, actors, musicians, and visual artists at jobs in their fields. The concept that the federal government, and not private industry, should create jobs was a sharp departure from conventional policy, and aroused significant controversy. Many objected that the WPA was a handout, joking that its initials really meant “We Putter Around.” Some charged that WPA writers and artists were Communist sympathizers who did not deserve a government paycheck. Despite such criticisms, the WPA was a well-managed program that funneled almost 85 percent of its total budget into wages and salaries. From 1935 to its end in 1943, the WPA employed more than 8.5 million people and instituted almost 1.5 million projects, including sewer and road construction, murals in public buildings, written guides to each state, and the Historical Records Survey. Equally important, the program improved morale for millions of jobless Americans.

See also: Harry Hopkins, New Deal

WORLD WAR I

When the United States entered World War I (1914–1918) by declaring war on Germany on April 6, 1917, the global conflict had been underway for more than two and a half years. Also known as the Great War, World War I started as a result of the assassination of Archduke Franz Ferdinand, heir to the Austro-Hungarian throne. What began as a skirmish between Austria-Hungary and Serbia (the archduke was killed in the Serbian city of Sarajevo) quickly snowballed into a massive conflict when these nations’ more powerful allies joined the dispute. Europe’s existing alliance structure pitted the Central Powers—Germany, Austria-Hungary, and Turkey—against the Triple Entente—France, Britain, and Russia. After provocation from Germany, whose naval fleets had begun to

sink American merchant ships in British waters, President Woodrow Wilson (1913–1921) made the decision to mobilize U.S. troops.

Wilson’s decision had immediate economic repercussions, as the U.S. government faced the task of raising money for the war effort. Analysts determined that the country would need upwards of \$33.5 billion to finance its participation in the war, plus money for loans to European allies. With the War Loan Act (1917), Congress proposed that the U.S. would provide \$3 billion in such loans, though the sum was later increased. Now it fell upon President Wilson and Congress to determine where the necessary money would come from. They offered a solution by passing the War Revenue Act (1917), which stated that 74 percent of funding for the war would come from taxation imposed on the highest individual and corporate incomes. With this bill Wilson and Congress demonstrated an intent to place the financial burden on the wealthy and to give a break to middle- and low-income individuals and families. A year later Congress passed another revenue act, which increased this burden on the nation’s wealthiest, who were now called upon to provide 80 percent of funding for the war.

In another move designed to raise money, the U.S. Treasury Department issued a series of bonds called liberty loans. These were long-term bonds that promised to earn the holder 3.5 to 4.25 percent in interest. The campaign to sell the bonds was massive in scope. Liberty loan committees formed in all regions of the country, and spokespersons appeared in theaters, hotels, restaurants, and other public gathering places. Even clergymen contributed to the marketing effort, urging members of their congregations to support the country through liberty loan purchase. Banks stepped forward to lend money for liberty loans at rates lower than the interest on the bonds. The campaign was a tremendous success. Of the five bonds issued between May 1917 and April 1919 (the last of these was called a victory loan), all of them were oversubscribed.

Although participation in World War I required vast government spending, the country’s domestic economy benefited greatly from the effort. Established in July 1917, a War Industries Board endeavored to tap the nation’s industrial resources while protecting its basic economic infrastructure. A demand for supplies, weaponry, food, and other materials resulted in increased productivity among manufacturers and farmers. It was a boom time not only for large corporations, many of whose profits wildly multiplied, but also for farmers, who saw a rise in agricultural prices, and for blue-collar workers, whose wages increased. Businesses expanded their international markets by exporting



American troops advancing in France on May 20, 1918. The soldier without a mask (left) is overwhelmed by mustard gas fumes.

goods to European ally countries. All in all, American industry profited enormously from increasing its production, exploiting its resources, and mobilizing its workforce.

Other participating nations, however, suffered more losses than gains during the course of the war. After the defeat of the Central Powers and the signing of an armistice in 1918, the Triple Entente and its allies pressed for reparations from Germany, which more than any other nation was held responsible for the war. The Treaty of Versailles, signed on June 28, 1919, placed the bulk of financial responsibility on Germany, and a Reparations Commission was established to determine the amount that the defeated Country would pay in damages to property and civilians. When the U.S. Senate refused to ratify the 1919 treaty, the United States forfeited its place on the commission, which decided in June 1920 that Germany would pay upwards of three billion gold marks a year for 35 years. The committee increased this amount in the following year, demanding a sum that Germany simply could not produce (indeed, in 1933 then-German leader Adolf Hitler (1889–1945) announced Germany's refusal to make further payments). Although the United States did not receive compensation for damages directly from Germany, it did collect payment on loans from its European allies, who derived these sums from German reparations.

American participation in World War I resulted in the loss of lives and a tremendous output of its financial

resources. In addition to the \$33 billion the U.S. government initially spent on the war, interest rates and veterans' benefits increased this sum to \$112 billion. Yet the economic gains that were achieved during wartime far outweighed such losses. Between 1914 and the end of the decade, average annual incomes rose from \$580 to \$1,300. Moreover, the increase in international trade continued to raise profits for various industries. Propelled by the economic boost of war, America ushered in a new decade—the prosperous 1920s.

See also: **War and the Economy, War Industries Board**

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WORLD WAR II

World War II (1939–1945) was an international conflict involving 61 countries that mobilized over 100 million people for military service in four geographic regions: Europe, Asia, Africa, and the South Pacific. The war left 55 million people dead (30 million civilian and 25 million military), cost over one trillion dollars, and resulted in more material destruction than any other armed conflict in history. The United States emerged from the war as the most powerful nation in the world, while the Soviet Union gained a stronghold over Eastern Europe.

The war pitted the Allied Powers (the United States, Canada, Australia, Great Britain, France, Russia, and China, among others) against the Axis Powers (Germany, Italy, Japan, Hungary, Bulgaria, Romania, and others). The leading figures for the Allies were U.S. President Franklin D. Roosevelt (1933–1945), British Prime Minister Winston Churchill (1940–1945, 1951–1955), and Soviet Premier Joseph Stalin (1928–1953). The Axis was led by German dictator Adolph Hitler (1933–1945), Italian dictator Benito Mussolini (1922–1943), and Japanese Prime Minister Hideki Tojo (1941–1944).

World War II began on September 1, 1939, when 1.5 million German troops invaded Poland. Germany's superior air power and technologically advanced armored and motorized divisions overwhelmed Polish forces that were often fighting on horseback with obsolete equipment. By September 20, Poland had been overrun by the German *blitzkrieg* (lightening war).

England and France declared war on Germany in response to the invasion. Undeterred, German forces swept through Western Europe in the spring of 1940, taking Norway, Denmark, Belgium, Luxembourg, and the Netherlands. In June France was overtaken. The German war machine was not stymied until that fall when Hitler attempted to subdue Britain by air and sea. Aided by the development of radar, Britain handed Germany its first significant defeat of the war, forcing Hitler to indefinitely postpone a land invasion of England.

Despite its proclaimed neutrality, the United States was preparing for war. Congress approved the sale of surplus war material to Britain in June 1940, and it passed the first peace-time-draft legislation in September. In March 1941, Congress appropriated \$7 billion in Lend-Lease aid to countries fighting against the Axis. Four months later the United States stationed Marines in Iceland and authorized the Navy to escort convoys in the area. In August President Roosevelt and

Soldiers, Sailors, and Airmen of the Allied Expeditionary Force! You are about to embark upon the Great Crusade, toward which we have striven these many months. The eyes of the world are upon you. The hopes and prayers of liberty-loving people everywhere march with you . . . I have full confidence in your courage, devotion to duty, and skill in battle. We will accept nothing less than full victory!

Dwight D. Eisenhower, Supreme Commander, Allied Expeditionary Force, D-Day, June 5, 1944

Prime Minister Churchill signed the Atlantic Charter, outlining joint national policies for the postwar period.

U.S. relations with Japan were also deteriorating. In September 1940, the United States prohibited the exportation of steel, scrap iron, and aviation gasoline to Japan after Japanese troops entered northern Indochina. When Japanese troops occupied southern Indochina in July 1941, President Roosevelt retaliated by freezing Japanese assets in the United States. Diplomatic efforts between the two countries ended when Japan bombed the U.S. naval base at Pearl Harbor, Hawaii, on December 7, 1941. The next day Congress declared war on Japan.

Axis military conquests continued in 1942. In January Japan invaded New Guinea, the Solomon Islands, the East Indies, Burma, and the Philippines. In February Germany invaded North Africa and two months later sent troops into Greece and Yugoslavia. On June 22, 1941, Hitler ordered three million troops into Russia. Dubbed Operation "Barbarossa," Germany's invasion took the Soviet Red Army by surprise. More than a million Soviet troops were taken prisoner during the first three months of battle, and by the end of the year, German soldiers had advanced several hundred miles, camping outside of Moscow and fighting in Stalingrad.

Hitler's drive into Russia marked the peak of territorial expansion for Axis powers during World War II. It also marked a turning point. German advances were slowed by autumn rains, and then halted by the Russian winter. Most German soldiers in Russia lacked warm clothing and sufficient supplies. A number of German divisions retreated, while others were taken prisoner by the better-outfitted Russians. Reinforcements and resources sent to bolster German troops on the Eastern Front in 1942 did so at the expense of Axis



The attack on Pearl Harbor, Hawaii, on December 7, 1941, thus causing the U.S. to declare war on Japan the following day.

campaigns on the Western Front and in Africa during 1943.

The Allies began 1943 with a string of victories in North Africa, ultimately leading to the surrender of all Axis forces on the continent by May. From North Africa the Allies invaded Sicily, where they routed enemy troops and proceeded onto the Italian mainland. Hitler's attempt to invigorate the Russian invasion during the summer of 1943 only further depleted Axis resources. As 1943 ended the Soviets were on the offensive, driving German forces back across Poland. At the same time the Allies were on the offensive in the South Pacific where U.S. troops captured the Solomon, Aleutian, and Gilbert Islands.

At the outset of 1944 the Allies drafted plans for an invasion to end the war in Europe. U.S. General Dwight D. Eisenhower (1890–1969) headed "Operation Overlord," the largest amphibious assault in history. In the early morning hours of D-Day, June 5, 1944, 5,000 ships, 10,000 planes, and 176,000 soldiers crossed the English Channel and pounded the beaches at Normandy, France. Despite suffering heavy casualties against well-armed, concrete-fortified German defenses known as pillboxes, the Allies opened a 60-mile beachhead through which a million troops would pass during the next month. Paris was liberated by August. The Germans made a desperate Nazi counterattack at the German-Belgian border in December 1944, which is called the "Battle of the Bulge" for the deep bulge it created in Allied lines. After its failure, the German

army collapsed inside the Allied vise. U.S. forces from the west and Russian forces from the east converged at the Elbe River in April, and Germany unconditionally surrendered the next month, on May 7, 1945.

Following victory in Europe, the Allies turned their attention to the South Pacific. After securing control of Iwo Jima, the Philippines, and Okinawa, the Allies made plans for invading Japan. To avoid the heavy casualties predicted to result from such an invasion, President Harry S. Truman (1945–1953), who took office following President Roosevelt's death, authorized the dropping of two atomic bombs. On August 6, 1945, the first bomb was dropped on Hiroshima, and three days later the second bomb was dropped on Nagasaki. Japan unconditionally surrendered on September 2.

Prior to his death Roosevelt met with Churchill and Stalin in February 1945, at the Yalta Conference, where the three leaders agreed to separate postwar Germany into four zones that would be occupied by the United States, Great Britain, France, and the Soviet Union. During the period of occupation Germany would be disarmed and its economy rebuilt. The Red Army's occupation of its postwar zone, however, gave way to the creation of Communist governments in Eastern Europe under Soviet control. The Yalta Conference also established the groundwork for an international war crimes tribunal at Nuremberg for the prosecution of Nazi leaders. Finally, the Yalta Conference finalized details for the creation of the United Nations.

World War II also brought greater unity to the U.S. home front. Over 16 million U.S. citizens served in the armed forces during the war, so just about everyone knew a relative, friend, or acquaintance that was fighting in some part of the world. Families pulled together through food shortages, increased taxes, and lines at the gas station. An unprecedented number of women went to work, particularly in factories. Not surprisingly, the troops' return home in 1945 precipitated the postwar Baby Boom.

See also: Baby Boom, Home Front, Lend-Lease Act, Postwar Prosperity, United Nations, War and the Economy

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WOZNIAK, STEPHEN GARY

The technical genius behind the Apple I and II microcomputers that launched Apple Computer, Inc., Stephen Wozniak (1950–) revolutionized computer design. By creating machines that were easy to use and relatively low in price, he helped launch the era of the personal computer. With Apple cofounder Steven Jobs (1955–), Wozniak worked out of his garage to develop Apple's breakthrough computers. Within 10 years he was running a company with 1,000 employees and annual sales of \$500 million.

Stephen Gary Wozniak was born on August 11, 1950, in San Jose, California. Wozniak was the eldest of three children. His father, Jerry, was an engineer at Lockheed. Wozniak's interest in science and engineering came early. His father gave him a crystal radio kit

when he was seven and an electronics kit a year later. Around fourth grade Wozniak recalls reading Tom Swift books about "this young guy who was an engineer, and he owned his own company. . . . It was just the most intriguing world, like the first TV shows you ever watched." His father also helped with various science fair projects on electronics. By sixth grade Wozniak had designed a computer that played tic-tac-toe. Wozniak continued to design computers through high school and college, without taking a course or even buying a book on how to do it. He just pieced things together with a group of like-minded friends. At age 14 Wozniak won an award for building a binary adding and subtracting machine, one of hundreds of small computers he designed before Apple.

Growing up in Sunnyvale in the Silicon Valley, the area between San Francisco and San Jose that is studded with electronics firms, Wozniak felt right at home. Something of a math and science prodigy, Wozniak was also a cutup and a practical joker. As his mother, Margaret, recalls, "I knew my son would either be rich or wind up in jail." Although Wozniak scored a perfect 800 on his math SAT, he lacked social skills and shunned parties, preferring technical magazines. In 1968 Wozniak attended the University of Colorado, having been rejected by Cal Tech. His second year was spent at De Anza College before he transferred to the University of California at Berkeley to study electrical engineering. Dropping out of Berkeley after his junior year, Wozniak became a designer of calculator chips at Hewlett-Packard. He also began to attend meetings of the Homebrew Computer Club, a group of Silicon Valley high-tech enthusiasts that set him on the course of designing inexpensive personal computers.

Wozniak met the younger Steven P. Jobs, another Homestead High alumnus, in 1968. In 1971 the pair started their first business venture: making "blue boxes" that allowed people to make free long-distance phone calls. They built the devices and sold them for \$150 each to Wozniak's fellow students. He and Jobs continued to build microcomputers for the Homebrew Computer Club and in 1976 Jobs proposed starting a computer company, Apple Computer. He was 22 and Wozniak was 26. After several high-tech names were rejected, Jobs, who had worked in an orchard, proposed the name Apple. With Jobs concentrating on marketing and sales, Wozniak began to build the first Apple computer.

The Apple I was assembled in Jobs' family garage. Wozniak's design stressed simplicity and ease of use. Microcomputers prior to Apple were mainly for

electronic hobbyists; Wozniak had constructed a machine that was affordable, useful, fun, and simple. Within a month of assembling the Apple I, they landed a \$50,000 order. Wozniak's later design of a flexible disc (a "floppy disc") to replace the clumsy magnetic tape that all small computers then used for information storage was a revolutionary breakthrough. It was incorporated into the Apple II, a computer that made the company's fortune and transformed the personal computer business. The Apple II was the first small computer with a plastic case, the first with high-resolution color graphics, the first with so few chips for a complete system, and the first with a built-in speaker port for sound. Wozniak had designed a small but effective personal computer that could be used by ordinary people without complex training and commands that had been essential in microcomputers up to this time. Apple, therefore, had extended computer use to a much wider audience and pioneered the personal computer market. In subsequent refinements Apple marketed the IIe, III, and the IIC, as well as Lisa and Macintosh in the early 1980s. Wozniak's technical genius was behind each of these projects.

Wozniak married three times. He met his first wife, Alice Robertson, over a Dial-a-Joke line that he had started and sometimes manned as "Stanley Zeber Zenskanitsky." They divorced in 1980. Wozniak's second wife, Candi Clark, was an Apple financial analyst who made the 1976 Olympics as a kayaker. The couple had three children. In 1981 the two were aboard Wozniak's Beechcraft Bonanza on a flight to San Diego to purchase their wedding rings when the plane crashed on takeoff. Candi suffered a skull fracture and numerous broken bones in her face. Wozniak was afflicted with short-term amnesia for five weeks. The accident, Apple's growing bureaucracy, and management hassles precipitated Wozniak taking a leave of absence from the company. While away from Apple, he resumed studying for his computer science degree at Berkeley, which he received in 1987. In the late 1990s Wozniak married Suzanne Mulkern, who also had three children from a former marriage. Mulkern, a lawyer, had been a seventh-grade classmate of Wozniak.

Wozniak gave away about half his shares in Apple before it went public in 1980, including \$40 million in stock to his first wife, \$4 million to his parents, brother and sister, and \$2 million to friends. However, Wozniak's remaining 3.7 million shares were worth around \$100 million. In 1982 and 1983 Wozniak, a rock music enthusiast, organized two U.S. Festivals of rock music and in 1987 the first U.S.-Soviet stadium rock concerts in Moscow, Russia. He has donated over

\$7 million to various charities, particularly in the San Jose area.

Wozniak remained devoted to his family in the late 1990s; he said that he would rather be remembered as a good father than as an icon of the computer era. His leisure activities included attending Golden State Warrior games, playing Tetris on his GameBoy, and going through manuals on new computer programs. He also collected uncut sheets of two dollar bills

Wozniak, who continued to see himself as an engineer and programmer rather than as a business executive, became less and less involved in the running of Apple in the late 1990s; he continued to offer design ideas, maintain an office, and earn a small salary from the company. In 1991 he embarked on a new career as a grade-school teacher. Inspired by his son Jesse's growing interest in computers, Wozniak began an ad-hoc class for him and his fifth-grade classmates in 1992. He later expanded Jesse's class, started a new one of 20 fifth-graders, and taught a class for teachers at the local middle school. Wozniak intended to complete his teacher certification and maintain his teaching at the elementary school level. He said, "I was born to teach—I have always had this gift with children."

Wozniak is one of the true pioneers of the computer age. By designing a simple-to-use and relatively inexpensive microcomputer, he helped to create the personal computer business that has transformed modern life. More of an inventive engineer than a businessman, Wozniak's computer designs have become standard in the technological revolution that he helped to start. The multibillion-dollar personal computer industries can trace its origins in part to Wozniak's innovations. Wozniak helped initiate the continuing development of smaller, faster, and easier to use computers that could reach more users. The world following the appearance of the first Apple computer has changed remarkably, and Wozniak's innovations have contributed greatly to those changes.

Wozniak has used the fortune he gained from his inventions to make a difference in his community and in the world. He has brought people together for rock music, accelerated the thaw in U.S.-Soviet relations by offering computer expertise and arranging exchanges, and served in his local community as a teacher of the next generation of computer wizards. Wozniak has predicted that computers will eventually reach the physical limit of their hardware, which will allow programmers to create what he has called "something like a Ten Commandments of Software." For example, computers shall not crash, and error messages shall

be understandable. Wozniak foresees future computers becoming more like real people, moving away from menu-driven controls. At the very end of the twentieth century, despite his withdrawal from active work at Apple, Wozniak remained on the cutting edge of computer design.

See also: Paul Allen, Computer Industry, William Gates III, Steven Jobs

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WRIGHT, FRANK LLOYD

Frank Lloyd Wright (1869–1959) was considered one of the most influential and most important twentieth century U.S. architects. His buildings—more than 400—possessed the quality and feel of genius at work. His designs, his unique ideas about homes, seemed eternally futuristic, enormously functional, and have influenced every sphere of twentieth century architecture.

Frank Lloyd Wright was one of the most dramatic and eccentric U.S. geniuses. He was born on June 8, 1867, the eldest of three children born to William and Anna Lloyd Wright in the small town of Richland Center, Wisconsin, on the American prairie. Wright's mother had emigrated from Wales with her family. Her brothers and her father, who was a Unitarian minister, became skilled carpenters and built themselves homes in the Wisconsin River Valley. Wright's relationship with his mother was very close throughout his life. When he was very young his mother, who was a schoolteacher, used the Froebel Kindergarten Method at home, which introduced children to pure geometric

forms and their patterns on grids. Scholars have speculated that Wright's later use of so much sophisticated geometric design in his work was an outgrowth of his early integrated exposure to geometric design as a learning tool.

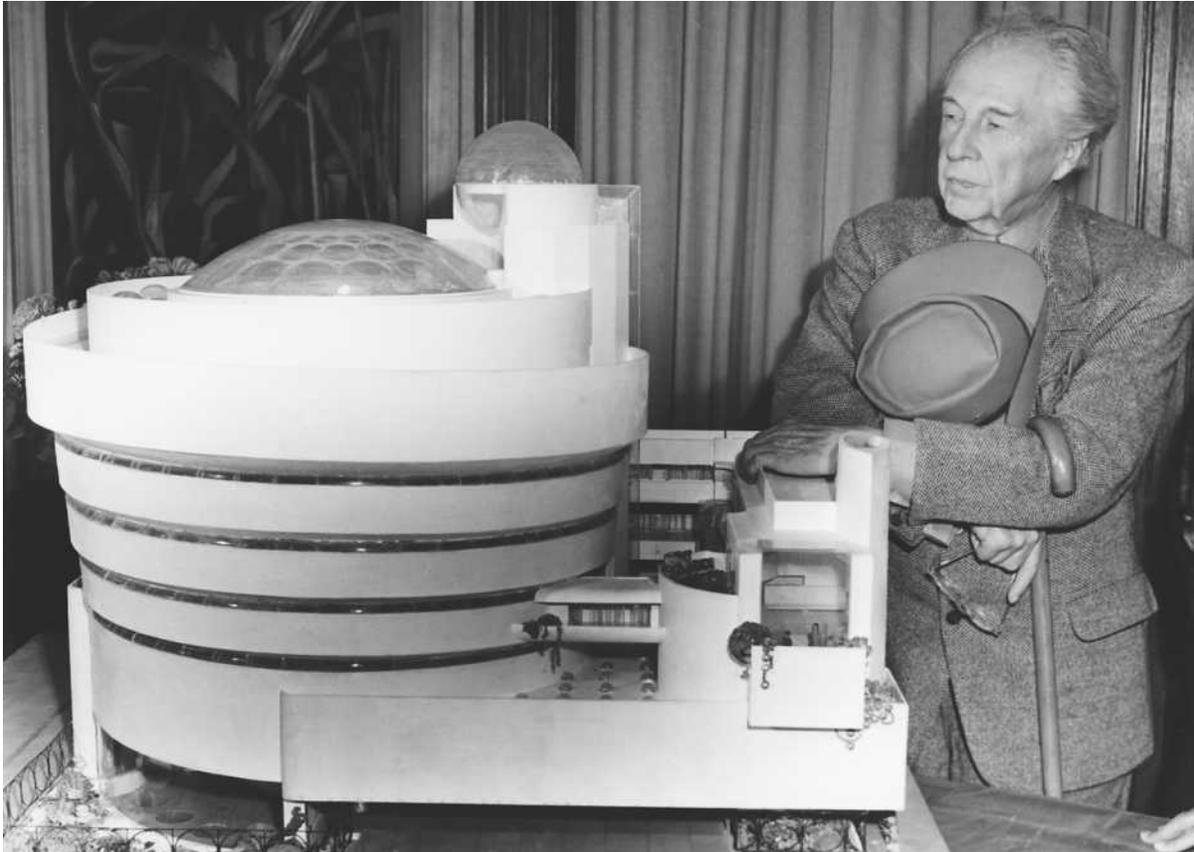
His father, William Carey Wright, was a Baptist minister and musician. When Wright was three years old, his family moved to Massachusetts, where his father worked as a minister. Around 1880 the family moved back to Wisconsin. His father opened a music conservatory and Wright went to school and worked on his uncle's farm. When Wright was 18, his father divorced his wife, leaving him with his mother and two younger siblings. After his parents' divorce in 1885, Wright sought part-time employment in Madison, Wisconsin. He also had plans to study at the University of Wisconsin. Wright took a job with a Madison contractor as a draftsman's apprentice, and he took engineering and graphics courses for a year at the university. That was the end of his formal education. To further his architectural training, Wright left Madison in 1887 for Chicago, Illinois, where he obtained employment as a draftsman with Joseph Silsbee, an architect.

Chicago in the late 1880s was booming and Wright was there to take advantage of the wealth of opportunities available. Architects from all over the world had come to Chicago to rebuild the city after it was destroyed in a devastating fire in 1871. Wright, having learned the architectural basics from Silsbee, began to undertake his own commissions and projects for private residential home design. In 1888 he joined the firm of Adler and Sullivan, where he primarily designed homes.

He landed a job with Dankmar Adler and Louis Sullivan, one of the most progressive architectural firms in the country. Here Wright developed a very close relationship with Louis Sullivan (1856–1924), who was known for his "form follows function" ideology. By the time Wright was in his early 20s, he had worked on some of the most impressive buildings in Chicago.

Wright left Sullivan in 1893 and established his own business. From 1893 to 1910 he built approximately 273 houses, many of which were the "Prairie-house style"—a combination of Japanese design elements and American influences.

In 1889 Wright married Catherine Lee Clark Tobin. Frank and Catherine had six children, two of whom became architects. To support his wife and children in the manner to which he was accustomed, Wright took



Frank Lloyd Wright with a model of a museum, the first New York building of the architect.

on extra work designing houses. Wright “bootlegged” designs from Sullivan’s firm, adding his own ideas—Sullivan subsequently severed his contract with Wright. In 1893 Wright started his own architectural business. In 1909 he abandoned his wife and children, running off to Europe with Mamah Borthwick Cheney, the wife of a former client. The couple stayed away from the United States for a year, returning in 1911 to settle in Spring Green, Wisconsin, where Wright built his well-known residence Taliesin (“shining brow” in Welsh). In 1914 a servant at the Taliesin residence set fire to the house and murdered Mamah, two of her children, and four other occupants as they tried to escape the flames. The house was almost completely destroyed. Wright rebuilt Taliesin and later traveled to Tokyo, where he was commissioned to build the Imperial Hotel.

During the 1920s Wright developed a new construction method using pre-cast concrete blocks that were reinforced with metal. Several houses were built with this new method, of which the most notable is the Mallard house in Pasadena, California. Wright’s personal life was in a shambles during this decade and his professional life was greatly affected: Commissions were not as numerous and many commissions that

Wright did have were postponed or cancelled due to the Great Depression (1929–1939).

In 1922 Wright married the sculptress Miriam Noel. In 1925 Taliesin burned down again. Wright’s career suffered because of continual scandal in his personal life, which was continually unraveling. Wright’s finances and emotions were depleted. His life was filled with lawsuits, bad publicity, bankruptcy, and bitterness. In 1928 Wright married his fourth wife, Olgivanna Milanoff, a Montenegrin aristocrat, who was at one time a student of G.I. Gurdjieff, a Russian-born esoteric thinker and mystic. This marriage lasted for the rest of Wright’s life.

During the early 1930s Wright devoted his time to writing and lecturing. In 1931 Wright set up the Taliesin Fellowship and turned his residence into a studio-workshop for apprentices who would pay to study with him and work on Wright’s commissions. As the economy in the country stabilized, building resumed and Wright designed two well known buildings: the Kaufman House, which was cantilevered over a waterfall at Bear Run, Pennsylvania, and an administration building for the S.C. Johnson and Son Company in

Racine, Wisconsin. Wright also kept himself busy designing houses and communities that he thought were the perfect answer to modern society; for example, Broadacre City was a decentralized community with no distinction between town and country. He designed homes that would reflect an ideal, democratic America—Usonia. In 1938 he built Taliesin West, a permanent desert camp made of stone, wood and canvas, near Phoenix Arizona.

Wright began to lecture and teach. Although his designs continued to be built at a steady pace for more than two decades, he was not to see fame re-emerge in his life until the 1950s. He was in his eighties then, but he had survived into old age with good energy and a burning passion about his beliefs in radical architecture. Wright wrote several books about architecture. He was idolized in the 1950s as a daring, individualistic genius. The eccentricities for which he was once scorned had helped to make him popular. Clearly, before he died, Frank Lloyd Wright had secured a position in the public imagination as a uniquely American icon; a brilliant, loner, “cowboy”-architect—a genius to architecture, as Albert Einstein was a genius to physics.

During the 1940s and 1950s Wright continued to design and build innovative and impressive structures. During this time his designs were perhaps more varied and radical than previous decades—college campuses, crescent-shaped houses, circular houses, and lastly, the unprecedented concrete, spiral-shaped Guggenheim Museum, his last major work. Although his work has been criticized as impractical and expensive, none of his structures have sustained damages due to faulty engineering.

Wright believed that U.S. architecture should reflect the environment in which it was built, the environment of the frontier and of the abundance of land. Wright described his work as “organic architecture, that which proceeds, persists, creates, according to the nature of man and his circumstances as they both change.” He created homes with strong horizontal lines and shapes, with roofs that were low pitched with large overhangs, and with flourishes that created a sense of the horizon and of spaciousness. The inside of his homes, influenced by Japanese designs, had large open spaces, huge central rooms, few closed corners, many large windows, and a geometric emphasis in the room’s decor. His homes were unadorned; nothing “fancy” or “fake” or unnecessary was present. His ceilings were built high—cathedral ceilings—and many of his houses were heated with radiant heat (coils built into the concrete slab floors which circulated warm water through the coils to radiate heat into the home

evenly). And since automobiles had become easier to start, he stopped building garages and instead attached simple carports that would protect the car from heavy snow but retain the open feel of the total design.

Frank Lloyd Wright’s designs of homes and buildings have inspired generations of architects, including much of what is called “modern architecture.” His influence has been international—many other countries have considered Frank Lloyd Wright’s designs to be a major influence on their contemporary styles. More than 30 states in the United States possess Frank Lloyd Wright structures, and most architectural critics agree that every state in the country has buildings that reflect Wright’s style. His many imitators constitute Wright’s greatest success. Even if his more severe designs are changed and distorted, the general horizontal style of Wright’s prairie architecture created a distinct shape of architectural content that has influenced the way Americans see modern architecture. His brilliant designs of Taliesin West, his Arizona headquarters; the inexpensive Usonian homes; the great Kaufman House, built over a waterfall in Pennsylvania; his designs for the Imperial Hotel in Tokyo, and the Guggenheim Museum in New York City are all breath-taking examples of his great success as an architect and an artist. Frank Lloyd Wright died in 1959.

See also: Louis Sullivan

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WRIGLEY, WILLIAM, JR.

William Wrigley, Jr. (1861–1932) was a salesman and industrialist. He started his career as a soap salesman and ended it as the owner of the largest chewing gum company in the United States. Wrigley was also the owner of the Chicago Cubs baseball team and had a baseball stadium in Chicago, Illinois, named after him.

Wrigley, William, Jr.

William Wrigley, Jr. was born on September 30, 1861 in Philadelphia, Pennsylvania. His father, William Wrigley, Sr., was a soap maker who had founded his own company, the Wrigley Manufacturing Company, in 1870. Wrigley worked for his father's company as a child, selling soap from a basket on the streets of Philadelphia. At the age of 11, Wrigley went to work in the soap factory. He stirred vats of liquid soap and earned \$1.50 a week. When Wrigley was 13, he returned to sales. He traveled by train or wagon from town to town selling his father's soap. This early sales experience would prove to be useful for his later career as a businessman in his own right.

In 1891 Wrigley left his father's company with hopes of starting his own business. He left Philadelphia for Chicago with only \$32 to his name, but an abundance of ambition and enthusiasm. In Chicago his uncle, William Scotchard, loaned him \$5,000 to start his own business on the condition that his cousin become his partner. In April 1891, at the age of 29, Wrigley started his business selling Wrigley's scouring soap. He offered premiums to merchants as an incentive to buy his product. Wrigley gave merchants baking powder as a premium, but baking powder soon became a more popular product than soap, so Wrigley switched his main product. In 1892 he began to offer two packages of chewing gum as a premium in place of the baking powder. When demand for the chewing gum surpassed that for the baking powder, Wrigley once again switched products.

At that time there were about a dozen other companies selling chewing gum, but the industry was not developed. In 1892 Wrigley hired the Zero Manufacturing Company to produce chewing gum for him. That same year he introduced his first two brands of gum called Lotta and Vassar. In 1893 he introduced Juicy Fruit and Spearmint gums.

Initially Wrigley had to work hard to break into the chewing gum business because established companies offered products already popular with the public. Wrigley relied on his sales and advertising skills to promote his products and distinguish them from other brands of chewing gum. He continued to offer retailers premiums for carrying his product. The premiums included a variety of products, such as lamps, razors, and scales. In addition, he saw the advantage of familiarizing the public with his products through newspaper, magazine, and poster advertising.

In 1899 six of the largest gum manufacturers merged to form a "chewing gum trust." Wrigley was offered the opportunity to join the merger, but he refused. As he explained, "We propose to keep our

identity . . . and if we cannot do business by fair and square methods, we prefer not to do business at all." The Wrigley Company still prides itself on this legacy of independence and integrity.

Though the company struggled during its early years, Wrigley's persistence and dedication paid off. In 1906 he put his advertising philosophy to the test. Wrigley had introduced Spearmint gum to the public several years earlier, but it was not initially very popular. In 1906 Wrigley began a limited advertising campaign in Buffalo, Rochester, and Syracuse, New York, to specifically promote Spearmint. The campaign was so successful that in 1907 Wrigley spent \$284,000 to continue to promote this product across the country. As a result of this effort, Spearmint sales rose dramatically and reached over \$1.3 million in 1909. By 1910 Wrigley's Spearmint was the most popular gum in the country.

The success of Spearmint made Wrigley the world's largest chewing gum maker. In 1911 Wrigley bought the Zero Manufacturing Company and established the William Wrigley, Jr. Company. He also began to expand his interests abroad. In 1910 he opened a factory in Canada, followed by factories in Australia in 1915, and Great Britain in 1927. Before Wrigley's death, his company had factories in Chicago, Manhattan, Brooklyn, Toronto, London, Berlin, Frankfurt, and Sydney. The company's expansion into international markets led to the creation of new products and flavors as well as new marketing techniques. Wrigley advertised in more than 30 languages and taught the world how to chew gum.

Wrigley retired as company president in 1915, though he continued to serve as chairman of the board. His son, Philip Knight Wrigley, took over the family business and Wrigley explored his other business and leisure interests. By 1921 Wrigley became principal owner of the Chicago Cubs and later acquired two other baseball teams. He also purchased Santa Catalina Island off the coast of California and turned it into a popular resort. When William Wrigley, Jr. died on January 26, 1932, his family business had already become one of the most popular brand names in the United States.

See also: Baseball

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WYOMING

The state of Wyoming has been bypassed by the sweeping changes which affected a majority of the United States in the nineteenth and twentieth centuries. It is ranching country with little population and many open spaces. Wyoming has small cities and it has, in recent years, prospered from its abundant energy resources. But a large portion of the state remains much as it was when pioneer wagon trains crossed it in the mid-nineteenth century.

French Canadian traders were the first Europeans to enter Wyoming, but an American fur trader, John Colter, was the first to do any important exploration. After he reported on the natural wonders of the northwestern part of Wyoming, other traders and trappers crossed the territory. The old Oregon Trail crossed Wyoming, and between 1840 and 1867 thousands traversed the territory on their way to Oregon, California, or other points west. Some were travelling to the California, Idaho, and Colorado gold countries; others were escaping from the American Civil War (1860–1865) and its aftermath; still others simply hoped for good land on which to build new homes. They stopped at landmarks like Devil's Gate and Split Rock and at supply points like Fort Laramie, but few chose to stay in the arid land of Wyoming permanently. The economy of the area at that time was largely based on trading posts which served the travelling wagon trains, most establishments were run by mountain men. Other enterprises, such as blacksmith shops and ferries or toll bridges across rivers, also sprang up to serve the needs of the pioneers.

The Union Pacific Railroad eventually brought permanent settlers to Wyoming. It was the first time a railroad had been built before the creation of a new territory. Cheyenne, Laramie, Rawlins, Rock Springs, and other towns sprang up as the railroad made its way across the country in 1866 and 1867. Each experienced a boom and then a decline as the railroad workers moved from town to town. Wyoming officially became a territory in 1868, but growth was slow. In 1869 it had a population of barely nine thousand.

After the quelling of Indian uprisings in the late 1870s, Wyoming soon became cattle country. The cattlemen and some foreign investors hoped to get rich because the grass was free and the price of cattle was high. Texas longhorns were driven to the southeastern part of the territory, and later Hereford cattle were introduced. Although sheep were also raised on the ranches, Wyoming came to depend on cattle more than any other territory. The American myth of the cowboy was especially strong in Wyoming. According to T. A. Larson's bicentennial history of Wyoming, the image of a strong, lonely figure in open cattle country appealed to a nation in which the grips of growing industrialization and urbanization appeared as signs of "a complex civilization in which the individual felt he counted for very little."

Small ranchers and cowboys had difficulty competing with big "cattle barons," who not only bought up much of the land but also held the most important influence in local and state politics. Though profiting from the land, many cattlemen lived in towns and visited their ranches only occasionally. Unfortunately for the cattle speculators, in addition to overgrazing and low cattle prices, a drought in the summer of 1886 and a harsh winter that same year had disastrous results. Shortly after Wyoming became a state in 1890, the so-called Johnson County War of 1891–1892 pitted large against small landowners and culminated in the arrest of large landowners for practicing vigilante justice.

Life in Wyoming proceeded at a slow pace throughout the early decades of the twentieth century. Stockmen suffered greatly during the Great Depression (1929–1939) of the 1930s. A long period of drought destroyed hay and grass and many animals had to be destroyed. Cattlemen were forced to accept government subsidies in order to survive. During World War I (1914–1918) and World War II (1939–1945), however, despite some grumbling among cattlemen about beef rationing, cattle ranches prospered. In the decades following World War II, Wyoming's economy came to depend more and more on cattle, and very large ranches became the norm.

Wyoming's growth was minimal throughout most of its history because the land was mostly unsuitable for traditional farming. It is still sparsely populated state, ranking last in population in the 1990 census. The development of coal, oil, and natural gas resources brought some growth in the 1970s during the nationwide energy crisis; but this growth too slowed during the 1980s. The 1990s saw some improvement in the oil and coal industry; in the late 1990s Wyoming ranked first in the nation in coal production. In addition to

energy production, the economy of Wyoming is based largely on feed grains and livestock, with the timber industry also an important sector. Tourism is becoming an important industry in the state, especially at the state's two national parks, Yellowstone and Grand Teton. In addition, urban dwellers are increasingly seeking seasonal or permanent havens in Wyoming's mountains and open spaces. With no personal or corporate income taxes, the state is favorable to business. It ranked 35th among the 50 states in per capita personal income in 1996.

See also: Cattle Industry, Cowboy, Cow Towns, Native American Policy

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YELLOW DOG CONTRACTS

A yellow dog contract is a labor contract in which workers are required to refrain from joining a union in exchange for being hired. It emerged in the nineteenth century as one of many tactics companies used to discourage workers from organizing to win wage increases and improved working conditions.

During rapid industrialization of the United States in the years after the American Civil War (1861–1865), many workers endured seven-day workweeks, minimal pay, and inhumane working conditions. As a result, the U.S. labor movement successfully organized many new unions. As unions pushed for eight-hour days, pro-business legislators and sympathetic judges passed laws to prevent labor unions from recruiting new members. Across the country legislatures passed laws outlawing “combinations” of workers that, in the words of one such law, “willfully or maliciously injured another in his . . . business.” Because unionizing a company’s labor force could be viewed as “injuring” that business, union activism was successfully thwarted.

In the famous Pullman Strike of 1894 which was led by socialist Eugene V. Debs (1855–1926), members of the American Railway Union went on strike against the Pullman Palace Car Company of Chicago

when it cut wages by 25 percent. Refusing to work on any train that pulled a Pullman railcar, the union looked like it could prevail because almost every train passing through Chicago carried Pullman cars. When the striking workers began attacking the trains, however, President Grover Cleveland (1885–1889) called in the U.S. Army to end the strike. When Pullman reopened its plant later that year, it required all new employees to sign yellow dog contracts.

In 1898 Congress passed the Erdman Act, which prevented railroads that were engaged in interstate commerce from forcing their employees to sign yellow dog contracts. In *Adair v. the United States*, however, the U.S. Supreme Court ruled that the Erdman Act was unconstitutional. Throughout the 1920s many U.S. businesses continued to require workers to reject union membership as a precondition of employment, but the onset of Great Depression (1929–1939) finally shifted the law to the side of labor. The Norris-LaGuardia Act of 1932, the National Industrial Recovery Act of 1933, and the Wagner Act of 1935 formally recognized the rights of labor unions to organize and explicitly outlawed yellow dog contracts.

***See also:* Closed Shop, Labor Movement, Labor Unionism, National Industrial Recovery Act, Norris-LaGuardia Act**



ZENITH ELECTRONICS CORPORATION

Zenith Electronics Corporation's beginnings were very modest. In 1918 two ham radio operators, Karl E. Hassel and R. H. G. Mathews, began manufacturing radio equipment at a kitchen table under the name Chicago Radio Laboratory. Hassel ran an amateur radio station with the call letters 9ZN, from which they named their first product Zenith. In 1921 these two men were joined by Eugene F. McDonald Jr. McDonald, already a self-made millionaire when he joined the company, was pivotal to Zenith's growth. He was much more than a financial backer. McDonald's flamboyant style was echoed in the company's dramatic advertising methods. This style, coupled with innovative genius and an ability to sense changes in public tastes, meant that for more than three decades McDonald was Zenith in the public perception. The company was incorporated as Zenith Radio Corporation in 1923 and it officially began to manufacture under the Zenith name.

Zenith's inventors and technicians kept the company at the forefront of the infant radio industry. In 1924 Zenith introduced the world's first portable radio. Two years later Zenith introduced the first home radio receiver that operated directly from regular AC electric current. Another early accomplishment was the first automatic push-button radio tuner, which was introduced in 1927. That same year saw the first use of the famous Zenith slogan, "The Quality Goes In Before The Name Goes On." By the late 1920s Zenith was in 12th place in a \$400 million industry.

During the Great Depression (1929–1939) Zenith's sales dropped from \$10 million in 1929 to less than two million dollars in 1932, but the company managed to stay afloat. Just prior to U.S. involvement in World War II (1939–1945) Zenith became a pioneer in television and FM radio broadcasting. In 1939 Zenith's station W9XZV went on the air as the first all-electronic television station. This was followed the next year by W9XEN, one of the first FM stations in

the United States and the first in the Midwest. By 1941 Zenith had risen to second place in a \$600 million industry, behind only RCA. Although World War II caused a decline in normal consumer business, this decline was more than offset by war production. Zenith manufactured radar, communications equipment, and high-sensitivity frequency meters.

Following World War II Zenith concentrated on improving television. The company introduced its first line of black-and-white television receivers in 1948. While experimenting with color television in its laboratories until the quality was up to the company standard, Zenith continued to work on its black-and-white televisions. The company invented the first wireless remote control in 1956 which revolutionized television tuning, and it held the leading position in black-and-white television production from 1959 on.

The color television breakthrough came in 1961, when Zenith introduced a ten-receiver line of color sets. Demand for these sets grew so quickly that the company had to expand its facilities. Also that year Zenith's experimental stereophonic FM broadcasting system was approved by the FCC as the national standard. Color television improvements continued steadily. In 1969 Zenith introduced the patented Chromacolor picture tube, which set the standard for brightness in the color television industry for many years. By 1972, the year it introduced a line of 25-inch televisions, Zenith was number one in production of color television sets. Between 1972 and 1978 Zenith was able to maintain the leading position in the fiercely competitive U.S. color television market, but the company was overtaken by RCA in 1979.

Starting in the 1970s the entire U.S. electronic consumer goods industry was under increasing competitive pressure from Asian manufacturers. Manufacturers from Japan, Taiwan, and Korea began selling great numbers of electronics products in the United States at prices below what U.S. companies could afford to offer. As a result, Zenith's share of the television-set market fell steadily in the 1970s and

Zenith Electronics Corporation

1980s. Searching for a turnaround, the company entered the personal computer field in 1979 but exited that sector in 1989, finding it to be just as competitive as that of television. Zenith marketed its last radio in 1982 and changed its long out-dated name to Zenith Electronics Corporation in 1985. In 1988, continuing its long tradition of innovation, Zenith became one of the earliest proponents of high-definition television, the super-sharp digital television technology that was supposed to replace the standard analog television.

From the mid-1980s into the late 1990s Zenith lost money every year except for 1988, when it reported a modest \$12 million profit. By the mid-1990s the company had shifted most of its manufacturing to Mexico in order to cut costs. By that time the company was also the last of the American-controlled television manufacturers. That changed in 1995 when LG Group, based in South Korea, purchased a fifty-eight percent stake in Zenith. The company's financial condition continued to worsen. In May 1998 Zenith announced that it planned to restructure under the protection of bank-

ruptcy laws, intending to emerge from bankruptcy as a wholly owned subsidiary of LG Group.

See also: RCA-Victor

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