

How the Poor Afford Public Transportation: the Case of New York City

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## ABSTRACT

### How the Poor Afford Public Transportation: the Case of New York City

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This research asks how universality of ridership is maintained in New York City's transit system given that it is gated by the fare. Transportation planning scholarship presumes transit is affordable because the fare has a relatively low price and ridership among the poor is high. The transit agency addresses universality by maintaining a fare structure that keeps the single ride fare relatively low. Its method is based on empirical evidence that low-income riders "prefer" cheaper fare products over those with lower average fares but that require higher initial cash outlays. Transportation scholarship observes that low-income riders are inelastic and presumes, based on economic theory, that riders will forego more elastic goods to ride transit.

Critical planning scholars have contested the tenets of the modernist planning project which utilize predict-and-provide empiricism and neoclassical economic models such as these. While urban planning has turned toward direct collaboration or at least participation with affected communities, transportation planning has not fully made this turn. There is thus little transit-related research that is informed directly by riders, especially low-income riders, suggesting the conventional approaches to understanding how riders afford the fare are incomplete.

To fill this void, this research engages with low-income transit riders to elaborate and challenge the explanations for universality of ridership. It finds that although the fare price is low, it is not

necessarily affordable. The “preference” for single ride fares is in most cases the result of constraints. Single fare rides are often combined with fare evasion and exploitation of free transfers, while unlimited fare cards are highly sought and widely shared. Low-income riders are more likely to undertake compensating behaviors than to forego goods. On the occasions when they do forego goods, they compromise necessities such as food, telephone service, rent and laundry. Finally, agents of the welfare state distribute fares to low-income individuals to promote rehabilitation and labor force attachment.

Together these findings suggest that universality of ridership is tenuous. It depends on fragmented systems of generosity, compromise and welfare of which transit advocates and planners are largely unaware. Fare evasion enforcement, pricing structures and fare payment methods can pose challenges to riders who rely on these fragmented systems. By explicitly acknowledging transit affordability, and incorporating knowledge on the role that welfare plays in enabling low-income ridership, planners can expand access to transit for low-income riders.

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## List of Abbreviations

ADC	Aid to Dependent Children
AFDC	Aid to Families with Dependent Children
EBT	Electronic Benefits Transfer
EITC	Earned Income Tax Credit
GAI	Guaranteed Annual Income
HH	Household
HRA	Human Resources Administration
ISTEA	Intermodal Surface Transportation Equity Act
MPO	Metropolitan Planning Organization
MTA	Metropolitan Transportation Authority
NYCT	New York City Transit
NYMTC	New York Metropolitan Transportation Council
OTDA	Office of Temporary and Disability Assistance
PRWORA	Personal Responsibility Work Opportunity Reconciliation Act
SBS	Select Bus Service
SMH	Social Mismatch Hypothesis
SNAP	Supplemental Nutrition Assistance Program
SSI	Supplemental Security Income
TANF	Temporary Aid to Needy Families
WEP	Work Employment Program



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*For Jacqueline Gares*

## Chapter 1

### Introduction

New York City's transit system is often lauded as the primary mode of transport for all New Yorkers, yet the transit system is gated by a user fee - the fare - which is low by many standards, but quite expensive to a growing number of New Yorkers. This research questions the fare's affordability, and whether it operates as a barrier to urban access.<sup>1</sup> I argue that when low-income residents evade the fare or exploit free transfers, and when social service agencies distribute free fare cards, they enable the transit agency to maintain a fare which rises over time irrespective of wages while portraying itself as universally accessible to an increasingly poor city. This research contributes to the explanations of ridership and fare pricing in transportation planning scholarship, which are based in economics, with qualitative, contextualized data from low-income riders. Its findings are generalizable to user fees that distribute or ration collectively-consumed goods in income-bifurcated cities. It examines the productive capacity of travel behavior: the way people travel and pay for travel facilitates the transit system's balancing act between the public goals of universal access and the private, market logic of user fees.

A city's strength can be judged in part by its residents' reliance on infrastructure to solve collective dilemmas. Everyone uses clean water, everyone has electricity, and thus the city as a whole is healthy; individuals do not spread disease as a matter of course, and crime is not rampant in unlit homes on unlit streets. A city where the typical resident uses public transportation is likewise a good city. The rider is a good citizen who is not contributing to congestion or choking his neighbor's air with automobile emissions. Networked infrastructure which saves us from our collective dilemmas is invaluable, and its capital cost is often broadly socialized, even to the federal level. Operations fees - user fees or entry fees - seem nominal and reasonable to many citizens given the great value of the infrastructure and low prices (relative to the price of housing, where the value of that infrastructure is said to be reflected). There is, however, a weakness to the system of relying on user fees for universally necessary goods. The problem lies not in funding the infrastructure itself, for if there are no options (i.e., if the infrastructure is a regulated monopoly, precluding superior competitors) the fees will be

collected. The problem is in the mechanisms by which universal access is achieved, that is, how those who cannot afford the user fees manage to pay them or otherwise use the infrastructure.

Unless the reigning economic system and the state have conspired to provide a minimum level of cash on hand sufficient for each citizen's daily rounds - and they have not - gating infrastructure necessary for a city's success with a price is problematic. For public transportation in New York City, there is no policy of state intervention aside from discounts for the disabled, elderly and young students; cash assistance to poor New Yorkers is notoriously insufficient (Appendix A shows that a family with one adult and two children can receive a maximum of \$336 per month from the City's welfare agency). The transit agency finds that ridership and fare card purchasing in low-income areas is commensurate with higher income areas, and this obviates the need for its intervention; the transit agency's interests are not at risk. The state regulates a user fee that will not rise too high too quickly and become a threat to politicians' incumbency, and its interests are protected. However the city's poor are by some measures growing poorer and greater in number (Berube 2014). The methods they use to afford the fare are important, not only because individual compromises can be burdensome and deleterious to quality of life, but because without these methods, transit cannot both collect fares and meet a standard of universality necessary for a successful city. Further, because it is gated with a fee, a scholar of transit-dependent cities cannot understand how networked infrastructure works without explaining the mechanisms by which its universality is maintained, by and for the poorest users.

The explanation currently found in transportation planning scholarship is that riders will afford the fare by forgoing more elastic goods. This explanation stems from the economic underpinnings of transportation planning which posit the individual as obedient to market rationality. There is little empirical evidence to either confirm or challenge the simple, totalizing presumption that universal access to this critical utility is maintained solely by people buying fewer other items.

As an increasing share of urban residents is in the lower end of the economic spectrum, it becomes relevant to ask whether user fees are universally affordable. Transportation planning scholarship is loquacious on matters of equity, with considerable research comparing

transportation options between marginalized populations and higher income areas. It is, however, largely quiet on fare affordability. In planning practice, affordability is measured in the aggregate by comparing a price to household income. This method is bound to show most user fees as comprising very small percentages of even the lowest household income. Comparisons to household income are, however, misleading metrics for the poorest households who have no discretionary income. Transport planners and economists impute affordability from statistics on consumption: if a good is broadly consumed by low-income users, it is presumably affordable to them. The approach suffers from the conservative fallacy that equates revealed preference with demand.

While there is little scholarship on fare affordability, consideration for the poor is found throughout public transport planning. Public transportation is in the equity planning tradition because it is redistributive when placed in context of modal alternatives. It is consistent with the equity planning tradition's intention of maximizing choice for those with few options (Metzger 1996). Transit is expected, among planners, to be accessible to disadvantaged groups and to provide service universally. These ideals have been codified in federal policy through the redistribution of gas tax revenue to transit and by holding transit agencies, which are recipients of federal subsidy, to an expansive implementation of the Civil Rights Act. Progress toward these obligations is made through both funding and fare policies, as well as capital planning. Within this tradition of equity planning, the practice of charging *qua* charging is not questioned, rather the equitability of fare changes, and the distributive incidence of changes to fare structure, are closely assessed. The formal planning process is as follows. First, knowledge is gathered by observing aggregate travel behavior. That knowledge is then translated to policy by comparing the travel behavior of income and racial groups, predicting their response to fare policy alternatives given past observations, and choosing the alternative that disproportionately favors, or is least costly for, low income and minority racial groups. Underlying the reliance on observations of aggregate travel behavior is a presumption, from economics, that individuals obey market rationality. Both ridership and the fare are explained, then, with an assumption that individual riders act to realize their own preferences, which are prior to social concerns.

Alternative theoretical approaches, like institutionalism, posit an individual's preferences as socially constructed. An individual's behavior, including travel behavior, may spur from social mechanisms, including constraints and reactions to power differentials, rather than individual preferences (Smesler and Swedberg 2010, Young 2011). Riders can be posited as socially embedded actors who are disciplined by institutions.

This research seeks to challenge and elaborate observations of aggregate travel behavior - specifically transit fare media purchasing and transit ridership - with disaggregate, qualitative knowledge. Contextualizing travel behavior in individuals, with all their complex embeddedness, allows social and institutional mechanisms to become evident. This research employs a method from outside economics that uses riders' own voices to explain fare card preferences and travel behavior. It deviates from economics epistemologically because it does not examine aggregates to seek predictive knowledge. It instead presumes preferences are mediated by power and politics. It expects households, workplaces and other institutions and relationships to inform individual decision making.

The dilemmas inherent to measuring affordability point to the special, extra-market qualities of "social goods", in this case public goods (Walzer 1984). Here I refer to public goods as those that are supplied or distributed by the state, rather than the classical definition of public goods as non-rivalrous and non-excludable. Capital-intensive, public-use facilities are priced not by the market, to find an equilibrium supply, but by the state to ensure equity while rationing use and collecting revenue. Different user fees reflect the unique qualities of each public facility: in some cases, the state may deem a good of necessity to all and price it very low or free, such as parks. In other cases it is considered a more discretionary good and perhaps priced a bit higher but made free on occasion so that all may participate, such as community pools. In other cases user fees may be modified to reflect the means of the user, with discounts awarded to those who qualify.

This dissertation chooses as its case a publicly-provided facility which is widely considered a necessity, public transportation in New York City. The transit fare in New York City is a price on both mobility and urban access. The price of the fare, in New York and many other cities, is neither consistent with economic principles nor with sound business practice. Its price is

typically explained as “political” (Cudahy 1990, Hood 1995, Kirby 1982). For public transportation, the extent to which the state intervenes to assure affordability is unclear and relatively unstudied.

This research finds that transit’s user fees are a barrier to the poor, albeit one that is unobservable in transport research because it is overcome through compensating behaviors and by intervention from the welfare state. It finds that the observed preference for single ride fares is in most cases the result of constraints. Single ride fares are often combined with fare evasion and exploitation of free transfers, while unlimited fare cards are highly sought and widely shared. It further finds that low-income riders are more likely to undertake the aforementioned compensating behaviors than to forego goods. On the occasions when they do forego goods, they experience those travel behavior decisions as compromising other necessities such as food, telephone service, rent and laundry. Together these findings suggest that universality of ridership is tenuous, and supported by problematic behaviors of riders themselves, and by the state from outside the sphere of transportation both by welfare state agents that provide free transportation cards and by welfare state programs which support other daily necessities.

The question of how transit maintains universality is pertinent to planning because it interrogates how infrastructure is used and its accessibility to the disadvantaged. It is an apt question for academic research, moreover, because it challenges the neoliberal tenet of pricing beneficiaries, which is largely unquestioned in planning practice, and the ideal of public transit as a system open to all including the poor. It is a planning research effort in that it is oriented to the future: as prices outpace wages, the practice of relying on regressive fees for public services becomes questionable; public transit can become unaffordable, and transport scholarship and planning are not currently situated to explain or respond to this issue.

This dissertation begins by critically reviewing the transportation planning literature and related research from geography and sociology. I review transit policies that target the poor, welfare policies that provide transit, and scholarly work that relate to those policies. The case of New York City is then discussed: the history of the transit fare and welfare state, the transit system’s reliance on user fees, and methods for assessing the fare’s effect on marginalized populations. This dissertation uses two similar methods, both of which posit a socially embedded



individual. I conducted narrative biographical interviews with 25 low-income residents and semi-structured interviews with 15 professionals (social workers, transit advocates and planners). The findings discuss how low-income New Yorkers afford the fare, and how professionals understand fare affordability. Finally the findings suggest how policies from beyond the realm of transportation, and travel behavior of low-income riders themselves, mediate the price of the fare. The last chapters describe ramifications for transportation planners.

## Chapter 2

### Literature Review

*“On the continuum between biography and aggregate statistics, there is a twilight zone to be explored ...” (Hägerstrand 1970, p. 9)*

Planners concerned with equity and the welfare of the urban poor have long advocated for public transportation because it can provide “access for all” (Schaeffer and Sclar 1980). Public transportation, when accompanied with sufficiently dense, mixed land uses, provides a low cost alternative to driving, and can create equitable access across the economic spectrum. Since the fare effectively gates this promising infrastructure, its affordability to low-income riders is important. Economic theory does not define affordability, and transport planning is situated firmly in economics. In economics, the fact of ridership implies affordability, or at least that the price is not too high. The literature shows that monetary cost does not impede ridership in developed economies, but there is little research on how low-income riders are affording the fare.

This chapter reviews conventional and alternative approaches to price and ridership. It also reviews research that has either directly studied or developed findings regarding transit affordability, including research from the areas of social inclusion (e.g., Dodson 2004, Lucas 2012), the spatial mismatch hypothesis (e.g., Ihlanfeldt 1998, Kain 1968), and transport planning studies from the developing world.<sup>2</sup> There are several qualitative studies of low-income public transportation ridership, some of which address fare structure or price (e.g., Agrawal 2011, Williams et al. 2014). Section 2.4 “Transport and the Welfare State” considers the place of transportation among welfare state goods. Finally, since this dissertation seeks to discover whether practicing planners and transit advocates know how riders afford the fare, the political economy of user fees and fare setting is discussed.

## 2.1 The Fare's Effect on Ridership

Transportation planners and scholars understand the fare and ridership in terms of elasticity. Price elasticity is the ratio of the proportional change in ridership to the proportional change in price, or fares. For many goods, including transport, the full price includes taxes and fees, however transport elasticity studies concerned with ridership tend to be limited to the sticker price, that is, the fare. The demand for transit service is commonly expected to decline by 1/3 of one percent for every one percent increase in fare. This is known as the Simpson & Curtin rule (Cervero 1990, McCollom and Pratt 2004). Other research finds it may be higher or lower, but not far off, depending on the mode, city and transit system. In the U.S., short-run transit price elasticity is estimated at between -0.23 and -0.28. These elasticities reflect mainly bus ridership and are found to be lower for the subway, around -0.15 (Hirsch 2000, McCollom and Pratt 2004)). In the the U.K., bus price elasticity is around -0.40 for the short run and -1.0 long run. For subways (metros) it is -0.30 and -0.60, short and long run respectively (Paulley et al. 2006).<sup>3</sup> Elasticities also vary by fare structure and trip purpose, and time elapsed since the fare change. Regardless, for all transit price elasticities the percent change in demand is less than the percent change in price. This is generally explained by the transit trip's necessity and absence of substitutes. For comparison, the mean elasticity for eggs is -0.27 (Andreyeva 2010), and for gasoline -0.34 (Brons et al. 2008). The metric of elasticity implies that consumers faced with financial constraints will forego more elastic, discretionary goods to afford less elastic necessities: "Within economics, demand is defined as a want backed by a willingness and ability and pay," (Martens and Hurvitz 2011, p. 185).

Elasticities are derived from discrete choice models, which estimate demand for ridership on a given mode. Neoclassical economics' approach is to standardize and simplify complex behavior, including that of groups, and model it as individual preference or utility.

Microeconomics presumes individual consumer rationality: that consumers have full knowledge of their preferences, their perception is unbiased by faulty, un-mathematical perception, and they will always act to maximize their utility. The transport economics literature is rich with models using individual utility to predict aggregate transportation patterns. Specifically, transportation demand estimates have evolved from nonstructural aggregate models, which are rough estimates

of modal split based on relative travel times and costs, to structural disaggregate qualitative choice models which estimate elasticities given decision-maker characteristics. The current literature uses behavioral disaggregate models, which strive to account for heterogeneity. These are known as random utility models, and discrete choice models are one type. It is notable that all these derive from empirical observations of individual behavior (Winston 1985). The models require large datasets, and in the U.S. these are mainly journey-to-work statistics collected by Metropolitan Planning Organizations (MPOs) and the U.S. Census.

The goal of demand modeling is to predict travel behavior. Predictions based on empiricism have been criticized for inherent conservatism: since the only data available are observations of the past, predictions presume the constraints that structured past behavior, resulting in a “feedback loop” of inequitable distributional patterns. “The focus on travel demand, in short, dismisses transport planners of the obligation to look critically into current travel patterns of households and the reasons for the disparities between them,” (Martens and Hurvitz 2011, p. 185). The distribution of demand, modeled this way, thereby reflects the distribution of money in society as well as choice or preference.

### **2.1.1 Economic Explanations for Low Income Ridership**

While “public transport fares are well investigated in the economic literature,” (Borndörfer et al. 2012, p. 2,591), “the effect of income on fare elasticities is not well researched” (McCollom and Pratt 2004, p. 36).<sup>4</sup> McFadden (2001) and others have improved discrete choice models, by better specifying the error term to account for preference heterogeneity, but different income groups remain un-compared. Low-income groups are observed as having high rates of ridership, and interpreted as having a high utility or preference for public transport (Taylor et al. 2009). That said, the relationship between ridership and income can be complex. In the U.K., for example, “Income has a positive impact on public transport demand, but with an offsetting negative impact, particularly in the bus market, through its effects on car ownership” (Paulley et al. 2006, p. 305). There is little research on how income directly effects an individual rider’s sensitivity to the fare. It may be logical that lower income transit passengers would be more responsive to price because of their constrained financial resources

(Cervero 1990; Garrett and Taylor 1999 assume this is the case), but it is also logical that they are less elastic since they are less likely to own automobiles and take fewer discretionary trips; collinearity between income and car ownership confounds the modeling (Amador et al. 2008, Paulley et al. 2006, Preston 2001). There is likewise scant research on how income groups' differing marginal utilities of income effect their sensitivity to the fare (Viaroux 2011).

One reason different income groups' varying fare elasticities are not well researched is that the fare is not found to be a major factor in determining aggregate ridership. Early models concluded that reducing travel time is at least as effective as reducing the fare for increasing ridership (Winston 1985). Later work confirms and expands on the findings: the important factors for ridership are land use, transit network density, and car ownership (Taylor et al. 2009). An urban planner with an agenda of increasing ridership, then, will look to residential density or bus speeds rather than the fare.

Jara-Díaz (1989) asserts another reason that income has been “forgotten” in demand models of public transport. He suggests that demand theory refers to the behavior, habits and tastes of “the developed world.” Jara-Díaz (1989, 1998) shows that the income effect on public transport demand increases in areas of Santiago, Chile with higher poverty. “Mode choices by individuals in the lowest income group are twice as sensitive to income as those with double income, and six times more sensitive than those earning three times the money,” (Jara-Díaz 1989, p. 22). He concludes that transport demand should be specified by income group. Those few transport scholars researching affordability have cited this finding (e.g., Carruthers et al. 2005, Serebrisky et al. 2009).

### **2.1.2 Alternative Explanations for Ridership**

Discrete choice models draw conclusions about traveler preferences and specify the individual as unrealistically rational, accounting for heterogeneity by manipulating error terms. With a goal of predicting ridership, economic methods are bound to fall short of providing meaningful insights into individual behavior. Three alternative approaches have sought to improve the level of realism when considering the individual rider: activity-based, psychology, and time-geography.

Activity-based modeling extends economic travel behavior analysis with individual-level empirical behavioral realism, but stops short of exploring how decisions are made. It addresses the motivation for travel by observing the scheduling of household activities. That is, it measures the temporal and spatial incidence of obligatory and discretionary activities to determine travel demand. The primary method is to collect travel diaries which provide details as to location of activity, whether it was planned in advance, duration, mode of travel, and whether another person was involved at the destination or during travel. Often activity-based modeling efforts incorporate questions about qualitative factors - attitudes - that may influence travel behavior (Clifton and Handy 2001). Activity-based approaches thus account for trip-chaining and permit observations of travel decisions that do not seem to follow the rules of rational decision-making or cost minimization (Golledge and Stimson 1997). Many of these studies use simulations and game theoretical experiments developed specifically for activity-based research (for example ALBATROS, STARCHILD and HATS).<sup>5</sup> Activity-based research finds that individual travelers do not behave according to utilitarian rationality: they do not consider sunk costs, and they wrongly estimate costs and benefits and fail to minimize trip-making. While it is a promising field for understanding the effect of fares, there have been no major activity-based studies of low-income, transit-reliant urban residents.

Those geographers and planners who have theorized about decision-making and meaning behind travel behavior have looked to psychology for insight (Golledge and Stimson 1997). Psychology contributes to travel behavior analysis theories that connect preference (as modeled by discrete choice) and behavior (as described in activity-based models). Psychology provides methods for analyzing how those individual and environmental attributes used in economic models influence behavior: “While economists have been interested in mapping from information inputs to choice, treating the decision process as a black box, psychologists’ prime objective has been to understand what happens inside that black box: the nature of these decision elements, how they are established and modified by experience, and how they determine values,” (Cherchi 2009, p. 2).

Van Acker (2010) describes how geographers have used *social* psychology to understand the causal mechanisms at work in travel behavior. First there are theories that presume

conscientiousness. The theory of rational action, for example, posits that behavior results from information filtered through perceptions or beliefs, which determine attitudes or orientations. These attitudes may result from lifestyle-driven location and job decisions to which behavior then adapts. Attitudes over time become intentions and then action. The complementary theory of planned behavior adds subjective societal norms and perceived behavioral control (in other words, ideas about what others think of the potential behavior and whether one believes one can perform the potential behavior) to the factors forming attitudes. Transport geographers have operationalized various elements of these theories to explain travel behavior such as mode use. For example, a commuter may drive a car to work because driving accommodates his workplace and residential location decision, it concedes to social norms, it upholds his beliefs about distance and cost, and/or because he purchased the car for a different purpose but now feels he must get more use out of it (see Bamberg et al. 2011, Gärling and Axhausen 2003). Others have highlighted unconscious/irrational behavior, such as habit and routine. Fujii and Kitamura (2003) have shown that inertia from habit explains a significant part of travel behavior.<sup>6</sup>

Like psychology, the individual's preferences are posited in sociology as a response to status or social position, and societal and institutional constraint. Early on, Healey (1977) called for understanding transportation planning with Weber's emphasis on the social nature of actions. She called for understanding how relationships among actors and institutions explain transportation systems. Transport planners have not used sociology or economic sociology to explain ridership however. Economic sociology is particularly promising for transportation planning because it emphasizes embeddedness. Riders can be considered not just by their modal choice (subway riders), modal options (captive riders) or trip purpose (commuters), but also as members of households, neighborhoods, social classes and industries. By explaining riders in their larger, more complex roles, economic sociology has the potential to contribute a richer explanation of desired trip making and fare payment.

A third approach focuses on systems of constraint to understand individual behavior. The Lund time-geography approach, pioneered by Hägerstrand (1970) is rarely used, but important for how it specifies the individual. Rather than modeling a series of activities to which an individual or household desires access, time-geography models individual life-paths. Individuals

are granted or denied access to various domains (envisioned as time-space cylinders, such as a seat in a theater or one in an office conference room) based on constraints and capabilities. The ‘commuter’ or ‘shopper’, then, is modeled as an individual subject to constraints and capabilities based on his place in society, and his journey is thus socially and economically contextualized. Time-geography insists that “the individual is indivisible” but overcomes the problem of potentially infinite travel behaviors by focusing on the few types of constraints that shape most travel behavior (Hägerstrand 1970, p. 21). This in turn highlights injustices and inequities rather than predicting outcomes. An entry fee like the fare is an “authority” constraint: the domain of transit, or the ability to collapse time and space via transit, can only be entered with payment. Other domains subject to the “authority” constraint require invitation or rule following. The theory was expanded briefly with a consistent framework of motivation for travel behavior. Its broad, complex construction of accessibility and its focus on constraints has been adopted by some scholars in the “new mobilities” branch of geography, such as Cass et al. (2005). Hägerstrand’s was a structuralist response to the post-positivist movement in planning in the early 1970s, ultimately sidelined, along with marxism, by the continued relevance of quantitative approaches bolstered by the growing power of computers and digital mapping.

To summarize, the economics-based approach, used most often in planning, has the least to contribute regarding how the poor afford the fare and how transit systems maintain universality despite user fees. Discrete choice models posit the individual as a consumer with preferences, and reductively conclude that individuals will prefer transit when it compares favorably to driving according to pre-determined values. The cost of the fare is rarely a variable in these comparisons. Instead, costs refer to the value of time which in turn refers to the wage and results in status quo-affirming predictions (Friedmann 1987, Lee and Keen 2004, Vasoncellos 2001). Activity-based, empirical analyses observe complex, often irrational individuals. Their methods have not drawn conclusions regarding the fare because they have not been applied to transit-dependent settings. Like economics, activity-based approaches are limited because they are exclusively empirical: activity-based analysis captures a depth of observations of activity participation and trip purpose but cannot include the explanations for behaviors,



compensating behaviors outside trip making, latent demand and other factors which are not directly observable through a travel diary.

Geographers have used psychological constructs to explain the meanings behind travel behavior. In these, the individual is posited as reactive to social norms and expectations. These contributions are potentially informative for explaining low-income transit ridership, but like activity-based models, they have not been applied to the transit-dependent context. Finally time-geography uses constraints to explain the behavior of indivisible individuals. There is a place for monetary costs in the time-geography construct, but like psychology, this approach has not been applied to the transit-reliant, urban context.

## **2.2 Studies of Poverty, Deprivation and Transport**

Academic studies of deprivation often specify individual and household necessities. Common components of these hardship scales are medical care, food, housing, utilities, winter clothes and telephone service (Edin and Lein 1997). A car may be included, but its absence is not necessarily considered indicative of deprivation (Whelan et al. 2004). Studies of poverty, by contrast, focus on income, income transfers and means-tested programs such as AFDC, Medicaid, Medicare, Social Security and Earned Income Tax Credits (Oakley 2006). Income transfers for transportation, e.g., carfare, free or discounted transit fares, are very small by comparison and rarely studied.

In planning, geography, and sociology there exist rich bodies of research that discuss the links between poverty and transportation. Most problematize access to activities such as jobs and healthcare, or access to transportation itself. Affordability is modeled as one among many constraints or barriers to accessibility. The object of these studies is often low-income populations and isolated neighborhoods.

The American research responding to Kain's spatial mismatch hypothesis (SMH) identifies space as the primary barrier to individual success, measured as job attainment, employment stability or income growth (Kain 1968). SMH posits that low-income, inner city residents have reduced job opportunities because of the suburbanization of low skilled employment. Without transportation to dispersed job locations, inner city residents become trapped in poverty. In this literature, which is largely from sociology, access is narrowly

operationalized as the ability to seek employment and commute, and latent demand is implied by high unemployment of inner city residents. The population addressed by the SMH literature is the same as ‘captive riders’ in that they have very low average access to cars, however they are grouped by their residential distance from job locations rather than their primary transport mode. As a result, SMH research has considered policy options that reach beyond mobility, including residential relocation (programs such as Moving To Opportunity) and job relocation (through commercial land use incentives such as Enterprise Zones) (Blumenberg 2002, Gobillon et al. 2007).

In the U.K. and Australia, the social exclusion literature has focused on the relationship between transport disadvantage and activity participation. Geographers embarked on a fruitful strand of theory and empirical research following the U.K. government’s requirement that local land use planning address social exclusion and access.<sup>7</sup> A report from the Rowntree Foundation in 2000 prompted the policy. Rowntree surveyed people in poverty and found that those who could be categorized as transport disadvantaged were unable to fully participate in certain necessary engagements that normally entail travel. These included not just employment, education and healthcare but visiting sick friends, traveling to see family at holidays, and other activities not typically considered in transportation planning.<sup>8</sup> In this literature, the terms ‘transport disadvantage’ and ‘social exclusion’ are mutually contingent: those who lack mobility and/or lack access to basic services may become socially excluded, while social exclusion may lead to low activity participation. An individual is considered socially excluded if he is not participating for reasons beyond his control, and he would like to participate, in consumption (purchasing goods and services), production (economic and social), political engagement, and social interaction. Travel is thereby theorized among the indicators of social inclusion. Despite these broad tenets, most social exclusion research has narrowly focused on how lack of auto-mobility effects the well-being of specific groups, notably the elderly and low-income, usually in rural locations (Currie 2011).

### **2.3 Prices**

Transportation planning has rarely studied fare price setting directly. In Yoh et al. (2012) the authors surveyed U.S. transit agencies on the potential for differentiated fares given new fare

technology. They find that political and institutional resistance is the greatest obstacle to marginal cost pricing or any type of variable pricing. Transit agencies are found to be reactive to budgetary pressures, reluctant to change fare structures when changing the price, and focused on avoiding risk and minimizing public scrutiny. Transit agencies hold competing goals and ambiguous missions, which leads to reactive rather than rational fare setting. Anderson et al. (2012) similarly argue that transit operators would benefit from a more principled approach to fare setting and regulation. They argue that fares should be adjusted regularly and systematically; fares should better reflect the costs of inputs and affordability, support the imperative to renew assets and enhance service quality and, through differential pricing, more closely reflect the variable cost of travel.

The price of public transit - the fare - is theorized within economics and determined politically. Transport planners and economists have theorized the public-ness of public transportation according to its qualities of excludability and exhaustibility (or rivalry). Truly public goods cannot be priced because they are not excludable. The literature overall concludes that a seat on a bus is not a public good, but rather a congestion-prone 'club' or 'toll' good, "consumed collectively by a group of consumers all of whom derive utility from sharing the services of a common facility and disutility from the size of the sharing group" (Berglas and Pines 1981, p. 141). Club goods are priced according to congestion which theoretically optimizes the size of the sharing group (e.g., the number of passengers) and fully recovers the cost of providing the facility from user charges.

"Early discussions of pricing of transport services tended to be derivative of the more general issue of public utility pricing" (Gwilliam 2008, p. 11). That is, prices cannot equal marginal costs as they would for a "normal" good. Because transportation infrastructure and other utilities are built to accommodate peak demand (i.e., to ensure its option value), marginal cost pricing leads to deficits that must be covered by subsidies. In other words, the marginal social benefit of increasing supply exceeds the marginal private benefit (Mohring 1972). Second-best prices are thus prescribed to ensure financial viability (Gwilliam 2008, Weisbrod 1964, Winston 1985). Subsidies are modeled as equal, per unit, to the difference between marginal cost and average cost (e.g., Mohring 1972).<sup>9</sup> While agencies in practice do not necessarily know

demand, marginal cost and average cost (Berechman and Giulano 1985), the literature helpfully concludes that with empty seats on buses and trains, it is impossible to fully fund operations from the fare.

Transit is also subsidized because its substitutes - alternative modes, namely private automobiles - are underpriced (Mayeres and Proost 2002, Serebrisky et al. 2009, Taylor 2009). The state has an interest in subsidizing, and underpricing, those goods which must be broadly used to benefit society, such as potable water. Transit may fit this definition because of its positive environmental and economic development externalities (Grengs 2005, Gwilliam 2008). Some transport scholars support subsidies because they recognize that access, rather than mobility, is the appropriate object of study. Access is a public good and should be maximized in the financing and regulation of mobility, including of transit. This perspective rejects the sole reliance on user fees and embraces transit financing from beneficiaries of expanded access, including property owners, employers and drivers (Sclar et al. 2014, Vasoncellos 2001).

Politically, price inelasticity presents a dilemma when determining fares. Since the transit-dependent are 'captive riders'<sup>10</sup> transit agencies cannot set prices to meet demand.<sup>11</sup> Pricing is therefore rarely determined by an economic prescription. In practice, nearly all transit properties use some operating subsidy which keeps the fares lower than they would be otherwise, whether it is explicitly to manage externalities or improve affordability.<sup>12</sup> Most also have discounted fares for specific rider groups, either imposed upon the transit agency by the state or self-imposed.<sup>13</sup> Nevertheless, transit agencies are held to a standard of operating like profit-motivated businesses and are expected to maximize farebox recovery ratios.

There is little discussion in transport planning texts on discriminatory pricing or other approaches to pricing club goods where the sharing group is comprised of both very high means and low means individuals. Some analyses find direct user subsidies preferable (e.g., Gwilliam 2008), but most transport economics scholarship does not address price discrimination. Prices, however, may help a transit system achieve affordability efficiently, depending on the distribution of benefits. Benefits distributions achieve affordability efficiently when the size of the target population which gets the benefit (the poor) is maximized and when the size of the rest of the benefitting population (the non-poor) is minimized.

There is a spectrum of subsidies in public transportation from supply- to demand-sided (Serebrisky et al. 2009).<sup>14</sup> Supply side subsidies accrue to the transit agencies and can be conditioned upon performance. Performance conditions may indicate the extent to which disadvantaged riders benefit. Demand side subsidies fall into four methods of targeting: means tested, categorical (i.e., senior and student discounts), self-selection (when redundant services of differing quality and cost are provided), and geographically targeted. Low-income riders may benefit from any of these, depending on how they are implemented.

In the U.S., the federal government used unconditional supply side subsidies for transit operations from the 1960s to the 1980s. State and city governments continue to support transit operations. Transit subsidies are redistributive to the extent that transit riders are lower income than the taxpayers from whom the subsidies are generated. The main effect of supply-side subsidies in the U.S., including in New York City, is to keep the flat, universal fare relatively low. Unconditional subsidies, however, are criticized for raising costs by raising budgets without requiring increased productivity (Serebrisky et al. 2009). Furthermore, it has been often noted that off-peak riders in effect subsidize peak riders with their fares, and in some systems bus fare revenue subsidizes rail service. Both are a regressive consequence of flat fares when low-income riders are more likely to ride the bus and ride off peak (Pucher 1981). Relatedly, capital grants to build infrastructure, which the federal government continues to fund, are the least targeted type of support for transit. There are high risks of these subsidies benefitting middle and higher income groups.

On the demand side, transit agencies in the U.S. also use categorical subsidies. Transit agencies are mandated to charge half price for fares for disabled riders and senior citizens. These are only as progressive as the targeted categories are uniquely poor. While the disabled and seniors are poorer as a group than others, not all are poor, and categorical subsidies can thus be inefficient.

“Subsidizing inferior or necessity goods” by keeping their price low “generates self-selection of beneficiaries since higher income households consume much less of the good than low-income households” (Serebrisky et al. 2009, p. 734). That is, keeping the price of a good like transit low is progressive in places like Los Angeles where the poor tend to ride and the non-

poor drive. The poor will self-select by consuming the inexpensive subsidized good, and the non-poor will opt out of the beneficiary group by driving. In New York City, all income classes ride transit; it is closer to a normal good than an inferior good, although it remains a necessity. In that case, the most progressive subsidies promote transit affordability by directly targeting the poor.

## **2.4 Transport and the Welfare State**

Public transportation systems nearly everywhere are built by states. They are capital-intensive, networked through public and private rights-of-way, and create positive externalities. Relying on user fees to finance construction would be untenable: it would require fares high enough to quash ridership, depleting the project's positive externalities. Public transportation is also operated by state agencies, in most cases. Agencies like New York City Transit (NYCT) are presumably technocratic and removed from politics; fare setting is, however, largely political. The amount and timing of fare hikes are responsive to pressures from the press and public officials.<sup>15</sup> Assessing the distributional effects of fare hikes is a technocratic exercise, required by federal mandate. Public transportation can be summarized as a quasi-public good administered by the state with the intention of wide distribution. It achieves wide distribution by keeping the price low; the shape of its distribution is determined by the market and by targeting fares to specific groups.

One role of the state is to insure citizens against poverty which would otherwise result from poor health, age, accident, disability or unemployment, and from deprivation among children in poverty. In addition to macroeconomic policy and redistribution through taxation, this is accomplished by welfare state programs: a system of cash transfers and in-kind provision of necessities, such as food and housing. The welfare state has been theorized as having two tiers: one set of universal entitlements tied to work and the other selective, means-tested entitlements directed to the poor (Katz 2002). One tier has remained federal and the other has devolved to state and local administration. Reducing the welfare state to two tiers is problematic, but useful. The two tiers may not be exclusive, and many welfare state policies do not strictly adhere to the criteria of universalism, selectivity, or labor force attachment in their respective tier (Howard 2007). There are also multiple goals for welfare state policies such as counteracting the business

cycle, growing the economy or quelling unrest (Block in Smelser and Swedberg 1994, Cloward and Piven 1997). The tiers, however, are reflected in a political division between what is commonly considered ‘social insurance’ and ‘welfare’.

The tiered construct disambiguates ‘welfare’ from national economic management and social security.<sup>16</sup> The first tier includes social security, unemployment insurance and workers’ compensation. These programs are based on the idea of contract through reciprocal exchange. The second tier includes assistance for single parents and able-bodied adults without dependents.<sup>17</sup> The programs in this tier are commonly and collectively known as welfare in the U.S. (cash assistance, food stamps, and Section 8 or public housing).<sup>18</sup> They are based on the adult’s role as a dependent person (dependent either on a spouse or the state) rather than entitlement as a citizen. Recipients in the second tier submit to means tests, surveillance and sanctions. The welfare state's first tier expanded with the New Deal, and the second tier expanded with the Great Society.<sup>19</sup> The last 50 years have been marked by maintenance of the first tier and devolution and contraction of the second tier.

In the U.S., public transportation fare policy aligns with the two tiers of the welfare state. In the first tier are categorical discounts and commuter tax benefits. In the second tier are a variety of programs, some completely separate from the transit agency. The following examples show fare affordability policies based on price, demographic category and means as currently implemented. Because it is accessed with a user fee, transit is treated variously as a direct service, like housing or childcare, and as an income transfer, like Social Security or the Earned Income Tax Credit. New York City’s fare reflects the welfare state structure as well, as addressed in Chapter 3.

**Free Fares for Residents:** Tallinn, Estonia exemplifies how transit can be treated by the state as a universal entitlement based on citizenship. The city implemented free fares for residents in January 2013. Residents are required to hold both a residential identity card and a transit card, which must be swiped on most modes.<sup>20</sup> Three points of context for this policy are important: there had been widespread dissatisfaction over fares and declining ridership leading up to the policy, the state had newly-lowered expenses because of the recent completion of major water

and sewer projects, and the fare policy compelled thousands to admit to residency in the city which meant more tax revenue overall. With impressive ridership gains, Tallinn's mayor now promotes the policy around Europe and hosts free-fare transport conferences. The policy rationale is promoted in terms of universal rights and affordability: "One of the reasons that Tallinn implemented a fare-free system was that they already subsidized the public transport by 70 percent and felt that it was hard to motivate why such a hefty amount of public funding should be spent on an operation that was *too expensive for some to use*. Instead they reasoned that if the public transport is something that is worthy of such a large public funding, should not everybody also have the right to use it?" (emphasis added) (Fare Free Public Transit 2015).

**Steeply-Discounted Annual Pass:** By relaxing the constraint that each ride be directly priced, Vienna, Austria treats transit as a direct service, partially subsidized for all and directly subsidized for the lowest income. Vienna's transit system is based on the honor system; there are no gates. Most riders use an annual pass, ordered online with an uploaded photo and connected to a bank account or credit card. The price was lowered in 2011 from €449 to €365 per year (one Euro per day), resulting in dramatically increased subscription. Riders may pay in monthly or 6-month installments via automatic deductions; partial payments raise the total price slightly, to €375. Single ride, daily, weekly and other time-based passes are also available, but not popular: about 96 % of riders used annual passes in 2012, and nearly every third adult resident owned a pass (Perrotta 2013). Although the unlimited yearly passes are quite inexpensive, there is a further discount for low-income residents. The Mobility or Social Pass allows qualified pensioners and welfare recipients to buy a monthly pass for about half the pro-rated yearly price or €15.20. The transit agency is reimbursed by the state's social services agency. An additional feature of the regular annual pass is targeted to families: on Saturdays the card entitles the holder to travel with two children for free for most of the day.

**Wage-Based Vouchers:** Brazil's policy links transit to labor force attachment and makes the employer responsible for the subsidy, in effect imposing a type of forced welfare capitalism. Employers in Brazil's large cities are mandated to offer travel vouchers to workers at a



discount.<sup>21</sup> Employers hold back six percent of workers' earnings and buy transit vouchers from a selling agent (bank, government agency, or union of transport operators). They give workers the vouchers which can be exchanged for monthly transit passes. Transit agencies in turn exchange the redeemed vouchers for money. Employers can deduct *vale transporte* expenditures, creating a general operating employer-based subsidy similar to commuter tax benefits in the U.S. *Vale transporte* targets lower income riders via self selection: workers can opt out, and those workers for whom 6% of income exceeds transportation expenses usually do so. Employers thereby choose between increasing wages or subsidizing low wage workers' transport.<sup>22</sup> *Vale transporte* is not available to the poorest residents who are either unemployed or employed in the informal sector, and workers often sell the transport vouchers instead of using them for travel. Nonetheless, the program was found to have "reasonable distributional efficiency" and to effectively share the cost between employers and government (Estupiñán et al. 2007; Gwilliam 2008, p. 12).

**Categorical Discounts with an Income Transfer Option:** Moscow, Russia acknowledges that transit could be either an income transfer or direct service, and allows recipients to choose between the two. In Moscow, citizens registered with social service agencies or entitled to certain benefits are entitled to free or reduced cost public transportation. These include a wider set of categories than typically specified in the U.S., that is, not just the elderly and students but veterans, those receiving maternity benefits, residents of a certain district (the Oblast region), and those entitled to housing support. Concessionary passengers can choose between the travel pass or the equivalent monetary compensation, loaded onto the card. The Moscow Social Card has many applications other than transit, although transit is the most popular. It is an e-purse that can receive subsidies, scholarships, and the equivalent of food stamps; can be used to pay for utilities, healthcare and housing; is effectively an identification card for students; can be loaded with discounts in certain shops and pharmacies; and functions as a bank card. It is also used to pay for taxis for the mobility impaired. Since it was piloted in 2001, subscription has grown, and in 2009 30% of ridership on transit was by Social Card holders (Marchenko 2009).

**Geography-Based Discounts:** Apartheid South Africa (1949 - 1989) provides a less-than-noble example of treating the fare as a direct service and creating categorical discounts based on residential location. Residents could purchase highly discounted weekly coupons for ten journeys from black townships to areas of industrial employment. The system “effectively targeted not only poor black workers but also limited the availability of the subsidy to workers for the journey to work. Approved bus operators who accepted the tokens were then able to cash them in with the authorities for the full ‘economic fare’” (Gwilliam 2008, p. 12). This case also exemplifies how categorical and geographic-based transit policy can reflect and facilitate unjust systems.

**Means-Tested Fares:** Seattle, Washington has added ‘low income’ to its category-based discounts. In Seattle, low-income riders can obtain a special fare card, Orca LIFT, for use on buses and light rail. The fare they pay is \$1.50, about 40% to 55% less than the regular fare, depending on zone and time of day. The card is an e-purse and can be loaded for unlimited rides or pay-per-ride. Riders must be at or below 200% of federally-established poverty level (\$39,580 for a household of three). Following a social service and transit advisory committee convened by the County Executive in 2013, the income-based fares were introduced in 2014 along with fare increases of 25 cents on all regular fares, which went into effect in March 2015. New cards are free but cost \$5 to replace if lost; cards are renewable, and income eligibility must be re-verified every 24 months. Income verifications are administered at social service sites that coordinate with the transit agency. Seattle’s transit agency pays for the discount directly. Similar low-income discounts are available in cities in Canada, most recently in Toronto. San Francisco offers Lifeline passes to income qualified riders, and free passes to children from income qualified households. In Canada, the programs are funded through social service agencies or municipalities; in San Francisco, the free youth passes are funded by a private donation from Google to the transit agency following protests against that corporation’s use of public bus stops for commuter shuttles.<sup>23</sup>

## 2.5 Transit Affordability

While there are numerous examples of the intersection of welfare and public transportation in practice, there are few studies of how these programs make transit affordable or whether and where they are necessary. The few studies are discussed here. Affordability is often measured as a cost burden. Housing cost burden, for example, is the percent of household income spent on housing; U.S. federal policies state that more than 30% is a high housing cost burden, and more than 50% is severe. There is no U.S. cost burden for transportation, although there are indices combining housing and transportation costs. The U.S. Housing and Urban Development and Department of Transportation's Location Affordability Index states that 45% of income spent on combined housing and transportation costs is "affordable".<sup>24</sup> Among transit commuters, the median cost burden of commuting is 3.5% compared with 5.0% for those driving to work; among the working poor it is 5.8% for transit users, and for all other workers it is 2.9% for transit users (Roberto 2008). That is, the median transit rider spends 3.5% of income commuting, and the median motorist spends 5% of income commuting. Cost burdens are by necessity arbitrary and sensitive to all other prices in a given context. Carruthers (2005) improves upon the cost burden with an alternative metric specifically for public transportation. He measures the share of the bottom quintile's income needed to take sixty 10 kilometer trips per month. In New York that number is 10 percent, as it is for Chicago and Los Angeles, the only other two American cities in the index. These three American cities make up the more affordable end of the middle third of the 27-city index; Brazilian cities are least affordable; Bangkok, Prague and (surprisingly) London are the most affordable. Serebrisky et al. (2009) find this a promising indicator to chart changes to affordability over time.

From the U.S. there is limited research on fare discounts to promote affordability. Most mention affordability in passing amid comparisons of pricing policies. Lovely and Brand (1982) describe how a direct user subsidy program emerges from among five alternatives as the most efficient at relieving low-income patrons. Chapple (2001) reviews welfare-to-work policies, including transit passes which are "in essence an indirect wage subsidy" (p. 167).<sup>25</sup> Blumenberg (2000) includes transit passes among other welfare-to-work programs as well, and further suggests implementing distance-based fares to lower costs for many low-income riders whose

trips tend to be shorter; the focus is on equity of fare structure rather than affordability of the fare itself. Taylor and Jones (2012) discuss which fare structures might best benefit low-income riders. Citing studies that favor direct user subsidies, they suggest a capped fare structure that reduces the initial price yet provides the benefit of an unlimited pass. Agrawal (2011) similarly promotes unlimited passes with lower, but more frequent, payments, specifically for low-income transit-dependent riders. Sanchez (2008) reports on the Community Transportation Association of America project where Medicare was found to save \$215 million if it would replace just 1% of individual single-trip tickets with unlimited passes. Schlossberg (2004) suggests ways to coordinate state-funded, decentralized transportation services for the transport disadvantaged. Kirby (1982) suggests reducing subsidy to high-income users by relying more heavily on employers and human services agencies or by installing peak pricing, zonal/distance pricing, or raising fares on subscription passes to capture more revenue from less elastic, higher income riders.

Fare affordability comes up in the context of a peripheral object of study: free fare experiments. Trenton, New Jersey and Denver, Colorado implemented federally-funded fare free pilot projects in 1978. The intention was to improve mobility for captive riders and divert drivers from cars to buses. The projects did not achieve either goal. While there were ridership gains during the free-fare hours, the gains were not predominantly from targeted populations. Ridership instead increased primarily from an influx of youth. The programs did result in longer term ridership growth, however, as some new riders attracted by the free rides continued to use the bus after fares were restored (Studenmund 1982).

## **2.6 Qualitative Studies of Transportation**

Urban planning scholarship has a strong tradition of using qualitative techniques including focus groups, interviews and participant observation. Eliasson (1999) is typical: he uses case studies involving different interview techniques and historical data to discover how climatology was used by planners in Sweden. Some of these researches incorporate travel behavior (Clifton and Handy 2001), but most focus on drivers.<sup>26</sup> For example, Handy et al. (2005) use interviews to understand the distinction between choice and necessity for drivers.

Jensen (1999) uses a similar method to understand motivation behind mode choice. Mokhtarian and Cao (2008) describe how “direct questioning” has been used to validate multivariate analyses and to inform survey development in studies that probe the relationship between land use, mode choice and trip making. A few qualitative studies investigate the behavior and decisions of low-income individuals. Lovejoy and Handy (2008) used focus groups to discover how recent Mexican immigrants obtain access to cars. Clifton (2001) used interviews to understand how mobility constraints effect provisioning among low-income residents of Austin, Texas. Two research efforts, discussed below, use qualitative methods to delve into low-income individuals’ difficulties affording public transportation.

Agrawal et al. (2011) investigated transport affordability among 73 low-income residents of San Jose, California, using semi-structured interviews. Most of their findings are about the cost of car ownership, however transit use among interviewees is relatively high (30%). They find, for example, that respondents sometimes reduce other household expenditures such as those for food, entertainment, or personal items to cover the costs of travel, and “they cluster their transit trips on a single day to take advantage of a transit day pass and to limit the number of days that they pay for a pass” (Agrawal et al. 2011, p. 50). Direct user subsidies are evident in practice as well: “Many low-income transit riders routinely depend on the receipt of transit subsidies from agencies and organizations that may or may not regularly provide them” (Agrawal et al. 2011, p. 50). While rising transit fares concerned many respondents, mode choice was the most important factor in managing transportation expenses.

Williams et al. (2014) used surveys followed up by in-depth focus groups to learn about the mobility and accessibility challenges faced by low-income Latino residents of Massachusetts. The research centered on qualifying residents’ challenges to mobility and their findings include affordability. They found that “the cost of both car ownership and transit are major problems and many respondents had gone without other basic necessities in order to pay for transportation” (Williams et al. 2014, p. 2). “Overall, 42.6% of transit users said that the cost of transit was a major problem,” and these percentages were higher in areas with more available transit (Williams et al. 2014, p. 9). Other findings reinforce the findings on affordability, for example, “Focus group participants described how a bus driver neglecting to give proper change

could result in not having enough money for a return fare” (Williams et al. 2014, p. 10). Like the respondents in Lovejoy and Handy (2008), the focus group participants in Massachusetts described extensive sharing arrangements among and within households to facilitate mobility. There was no discussion of fare discounts, direct user subsidies or welfare state interventions.

## **2.7 Political Economy of the Fare**

There is considerable research on how the merits of pricing rate among the myriad sources of funding for transportation (e.g., Altshuler 2010, Sclar et al. 2014, Taylor and Norton 2009). These tend to appeal to universal and abstract standards of equity, either for individuals, groups or jurisdictions.<sup>27</sup> Taylor and Norton (2009) for example lay out a spectrum of theories of justice, from egalitarianism to libertarianism, which could be applied to the distribution of goods. The fare is noted as regressive for individuals, consistent with horizontal equity or libertarian values, but ultimately more progressive than the sales taxes often used to fund transport.

In the U.S., the dominant ideology holds that inequality in the private sector is acceptable and necessary for prosperity, while it is unacceptable in the public sector; government-supplied goods should be equally distributed or distributed according to need (Altshuler 2010). Public transit is considered in the public domain, and it largely relies on broad-based and relatively progressive subsidies; regressive user fees represent a small part of operating revenue (more detail is in Chapter 3). The price of user fees can therefore be interpreted as reflecting political acceptability of distributing public goods according to the prevailing market paradigm despite their social character (Vasconcellos 2014). The value of operating subsidies likewise underscores transit’s social character.

To elaborate, pricing has been variously criticized for “splintering” networked infrastructure and lauded for efficiently distributing the same infrastructure (Graham and Marvin 2001). At one end of the political spectrum of beliefs about transit, user fees are contestable. Public transport can be classified as a merit good: a social service provided as a social imperative (Garrett and Taylor 1999, Martens 2012, Vasconcellos 2001). In that case fare pricing is rightly determined according to a metric of equity or social justice, be it geographic parity or income redistribution.<sup>28</sup> In Marxist terminology, those calling for higher user fees would have the

exchange value of a ride on transit better approximate the use value of access, which will uncritically reflect underlying inequities. At the other end of the political spectrum, user fees are a panacea. “Fees imposed on users in proportion to the costs users impose on society are typically the finance mechanisms that will help optimize transportation system efficiency and effectiveness” and “market equity,” if not other standards of equity (Taylor and Norton 2009, p. 29). This is because price is a signal of the burden the user imposes on society, and pricing is the only way to ensure efficient consumption. The political placement of user fees for transportation is then clear: user fees are consistent with neoliberal values on markets and market-based solutions while progressive values call for subsidy from an expanded set of the beneficiaries of public transportation, such as real estate interests and employers (Harvey 2007).

The presumption of transit’s social value, and its egalitarian mission, is found throughout transport planning scholarship. Access for All (Schaeffer and Sclar 1980) is the defining work. For low-income populations, public transport compares favorably to driving on metrics of access in a given city. Public transport companies are heavily regulated by the government and operate largely on public funds, and thus have historically been held to universal service obligations (Cudahy 1990, Hood 1995). Public transportation is part of the equity planning tradition (Krumholz 1982), and federal public transport policy has, in the past, redistributed resources to benefit the disadvantaged. The 1973 Highway Trust Fund provided operating funds for transit companies; in 1982 gas tax funds were earmarked for transit; and in 1991 the federal transportation act, ISTEA, empowered MPOs and required transit agencies to increase public participation. Academic transport planners began to incorporate equity into the literature in large part because of federal support. In the 1970s the Urban Mass Transportation Administration funded a considerable body of research that required attention to equity and justice metrics. Sanchez (2008) finds that research on transport disadvantaged groups flourished again in the 1990s in connection with federal welfare reform requirements. Academic transport policy analysis, in the 1970s and 1990s, debated how, not whether, to most accurately quantify equity variables such as the value of time, race, gender, city typologies, and income class.

The federal government has decreased its support of transit operations since the 1980s, and narrowed the acceptable uses of federal subsidy to reflect its bias toward capital projects

(Taylor and Samples 2002). Despite the efforts of equity planners and substantial scholarship on the transport disadvantaged, the goal of public transport shifted from serving its core riders to attracting higher income drivers (Grengs 2005). In the 2000s, “transit investment policy continues to aim at recapturing middle-class, car-owning travelers as a means of fulfilling broad social and environmental goals,” sometimes at the cost of enhancing services for “captive” riders, (Giuliano 2005, p. 63). While it could be argued that improving transit for choice riders ultimately benefits the poor, the trend toward increasing federal capital subsidies while eliminating operating subsidies has led to accusations of transit systems taking low-income and captive riders for granted and to major advocacy efforts in Los Angeles, Atlanta, New York, Boston and Pennsylvania (Bullard et al. 2004).

## **2.8 Conclusion**

Public transport scholarship is heavily tilted toward economics. Ridership, pricing and the calculation of costs and benefits, including to the poor, largely stem from the presumption of economic principles. Affordability has no formal place in economics. Although transit is often touted for its low cost to the poor, transit affordability is thus not widely researched. There are exceptions: the price of the transit fare relative to income has come under scrutiny in studies of developing countries and there are several qualitative studies of accessibility in the U.S. where transit affordability emerges as problematic. The former studies are applicable to any city where resident incomes are unequal and where low-income residents are deprived of necessities. The qualitative U.S. studies raise issues that are important for urban planners: that the welfare state is functioning to subsidize transit through methods unexplained in transit planning scholarship; that riders use fare cards and exploit fare structures in unexamined patterns, possibly misleading ridership and equity estimates; and that riders forego necessities to pay the fare despite its low cost. These studies show that transportation planners have been missing information that can both inform pricing and subsidies as well as explain transit’s place among publicly-provided goods. Transit agencies negotiate tensions between coverage and attraction, and efficiency and equity. Planners with greater qualitative knowledge can explain how transit systems are retaining



their low-income riders despite rising costs, and thus facilitate that important, ongoing negotiation.

## **Chapter 3**

### **Case and History**

This dissertation examines fare affordability in the four boroughs, or counties, of New York City that are connected by subway: Bronx, Manhattan, Brooklyn and Queens (the study area, see Figure 1). The boroughs are linked by a local transit system operated by New York City Transit (NYCT), which is a property of the New York State regional agency, the Metropolitan Transportation Authority (MTA). While other transit properties operate in New York City, residents make most daily trips by walking and on NYCT buses and subways. The study area is home to a large population of very low-income residents and an expansive welfare system. Public assistance benefits are distributed by the City's main welfare agency, Human Resources Administration (HRA) as well as through thousands of medical facilities and social service organizations, both private and public.

This research demonstrates how low-income residents afford user fees to access collective goods. Transit in the four boroughs is widely considered a successful provision of a collective good, and the MTA is an industry leader in structuring its user fee (the fare) to maximize equity. New York's transit is anomalous in the U.S.; no other transit system is nearly as large or well-used by residents. By choosing a large and successful case of a state institution distributing collective goods, the research points to considerations for collective goods gated by user fees in other cities. Specifically, the research highlights how other widespread institutions (in this case, the programs within the welfare system) help users overcome the fee, and how individuals tackle the barrier presented by fees even as they consider those fees broadly acceptable and fair. This chapter begins by describing ridership, demographics, and some elements of transit funding, with comparisons to other transit properties, cities and the U.S. It discusses the explicit ways the transit agency maintains ridership among the lowest income (the low fare and equitable fare increases), implicit subsidies that may target the poor (categorical discounts and commuter benefits) and fare products specifically for those on welfare.

**Figure 1: Study Area.** New York City Transit subway stations are indicated with dots. Names refer to counties.



### **3.1 Demographics and Ridership in the Study Area**

Affordability is of interest in New York because of its high poverty rates and income inequality. Poverty in the four boroughs of New York City outpaces that of the U.S. overall, and there is a greater share of residents with very low incomes in the four boroughs than elsewhere. In 2013, 37% of households in New York's four boroughs (39% without Manhattan) had incomes below \$35,000 compared with 34% of U.S. households. Twelve percent of U.S. families lived at or under the poverty level, compared to 27.6% in the Bronx, 19.5% in Brooklyn, 14.8% in Manhattan, and 12.3% in Queens. Fourteen percent of U.S. households receive Supplemental Nutrition Assistance Program benefits (SNAP or food stamps) compared with 22.6% of four-borough households.<sup>29</sup>

Like most other U.S. cities, the gap between the lowest income group and the rest is growing. Between 2007 and 2012, incomes of the 20th income percentile dropped by 9.2% while incomes of the 95th income percentile dropped by 3.7%. New York City has the sixth highest ratio of the 95th income percentile to the 20th percentile among the fifty largest U.S. cities. New York City's ratio is 13.2. In the U.S. overall, the ratio is 9.1. In the fifty largest cities, it is 10.8 (data are from 2012; New York City includes Staten Island; Berube 2014).

NYCT sells single rides and several types of unlimited ride fare cards. Lower income groups are somewhat underrepresented among monthly unlimited card users and over represented among 7-day unlimited card and un-discounted users.<sup>30</sup> Table 1 shows that the lowest and highest income groups are least likely to use unlimited ride fare cards. Low-income riders are least likely to use the highest priced option, the 30-day unlimited MetroCard. In 2008, only 15.8% of passengers with a household income under \$25,000 used the 30-day card, compared with 24.6% or more of other income groups. They are over-represented among 7-day card users. (Fare card prices are in Table 2.) These data also show that the population of transit riders who live in the four boroughs is slightly higher income overall: in 2008, 22.8% earned less than \$25,000 compared with 28.3% of four borough residents. Ridership is higher among lower income groups, and among 7-day unlimited fare cardholders which are predominantly lower income. Overall, the data show that higher priced fare card types are well-used by lower income

groups. Although they have very limited means, they are regularly purchasing rather high priced fare cards.

**Table 1**  
**Fare Card Use by Income, 2008**

	Less than \$25,000	\$25,000 to \$50,000	\$50,000 to \$75,000	\$75,000 to \$100,000	\$100,000 to \$150,000	\$150,000 to \$200,000	\$200,000 or More	Total
Share of Income Group Uses Unlimited MetroCards, 2008								
Single Day Fun Pass	1.5%	1.7%	1.1%	0.6%	0.8%	0.5%	0.4%	1.2%
7-Day Pass	13.4%	10.1%	5.0%	4.0%	2.8%	2.8%	1.3%	7.7%
14-Day Pass	1.6%	1.8%	1.7%	0.8%	0.9%	0.8%	0.7%	1.4%
30-Day Pass	15.8%	24.6%	34.8%	37.2%	35.1%	29.4%	30.4%	27.3%
Total Unlimited	32.3%	38.2%	42.6%	42.6%	39.6%	33.5%	32.8%	39.3%
Income of Riders and Population, 2008								
Share of NYCT Riders	22.8%	23.8%	16.8%	10.1%	11.2%	4.2%	4.9%	93.7%; 6.3% did not answer
Share of Four Boroughs Population	28.3%	22.3%	16.5%	10.8%	11.2%	4.6%	6.4%	100.0%
Share of U.S. Population	23.2%	24.8%	18.8%	12.5%	12.2%	4.3%	4.2%	100.0%

Sources: Metropolitan Transportation Authority, *MTA New York City Travel Survey*, Metropolitan Transportation Authority, 2008, Web. U.S. Census Bureau, American Community Survey Three Year Estimates (2006-2008), 2008, U.S. Census, Web, table DP3. MTA person-level data were

manipulated for comparability to exclude residents of Richmond County and those who travel exclusively by automobile.

### **3.2 Welfare in New York City**

New York's City's welfare system is similar to that of other U.S. cities but on a larger scale. Three of the venues which sometimes facilitate transportation assistance - cash assistance, homeless shelters and Medicaid - indicate that the City comprises a notable share of the country's welfare efforts. In New York City there are approximately 185,000 individuals receiving cash assistance; 60,000 individuals reside in homeless shelters; and there are 3.2 million Medicaid enrollees.<sup>31</sup> This is 5.3% of the 3.5 million individuals receiving cash assistance in the U.S.; 15.0% of the nation's 400,000 population in homeless shelters; and 4.6% of the 70 million American Medicaid enrollees.<sup>32</sup> By comparison, New York City only accounts for 2.6% of the nation's total population. In general, cash assistance caseloads have been declining, while homeless shelter and Medicaid cases have grown.

The way New York's welfare system presently administers cash assistance effectively began in 1996. After federal welfare reform legislation of that year was enacted, New York City began delivering time-limited (60 months lifetime) cash assistance to work-mandated recipients. Many other features, such as children's services and homeless sheltering, remained the same however, welfare reform resulted in the present manifestation of government agencies that operate the City's welfare system. The Office of Temporary and Disability Assistance (OTDA) is the New York State agency that distributes federal block grant funding to localities including New York City. The City's welfare centers are administered by the Human Resources Administration (HRA) and called Job Centers. Thousands of private organizations work alongside and connect clients to OTDA and HRA. They provide emergency food, operate shelters, deliver substance abuse treatment and job training, and facilitate enrollment in government assistance, among myriad other services. This complex web of actors comprises the welfare state in New York City. It is bound by a categorical logic which in turn implicates transit fare policy.

The categories of welfare - simplified as deserving and undeserving - date back much farther than 1996. In 19th century New York City, care for the poor was of two types: poorhouses and outdoor relief. Governments intervened in both, and what would later be called public private partnerships were evident (Oakley 2006). Poorhouses were residential. Occupants received shelter and food and sometimes other material supports. Some required of their residents sobriety, others work; nearly all segregated occupants by gender, age or illness. Outdoor relief referred to giving money to the poor wherever they happened to be living, which was often in quite squalid conditions. Outdoor relief was unpopular even before industrialization. Arguments against it continued throughout the 19th century. It was said to demoralize the poor, induce idleness and other vice, and threaten productivity (Pimpare 2004). Outdoor relief failed to directly address the living conditions which were blamed for deviant behavior and poverty itself. In the late 19th century, outdoor relief was curtailed and nearly abolished in many U.S. cities. Brooklyn was an early champion of abolishing outdoor relief (Katz 2001).

The arguments against outdoor relief targeted able-bodied adults. Cash and food handouts presumably depleted the moral value of labor, and presented the danger of removing the necessity of work. Most actual recipients of relief, however, were not potential workers. Outdoor relief recipients were predominantly widows, children, the disabled and elderly (Katz 1996, p. 42). With the reform movement and continued industrialization, charities were professionalized and those demographics which were not supported by the labor force were increasingly institutionalized. Poorhouses effectively became old age homes and orphanages. As charity professionalized and these groups of mostly women were segregated into institutions, able-bodied adults in need were singled out as a problem. Outdoor relief faded with the centralization, bureaucratization and professionalization of “welfare,” itself a Progressive Era word that connoted professionalism. There were few places where able-bodied adults could find assistance until the New Deal was enacted in the 1930s.

Public assistance - outdoor relief - had historically been profoundly local until the Great Depression when the needs of the unemployed overwhelmed localities (Katz 2001). The Economic Security Act of 1935 established old age insurance (Social Security), unemployment insurance, and public assistance for the blind, elderly, disabled and single mothers. The last

program, Aid for Dependent Children (ADC), was intended to underwrite local assistance programs that predominantly assisted “indigent widows of good character” (Jencks 1992, p. 2). In 1939, Survivors’ Benefits were added to regular Social Security, and thus widows whose husbands had contributed were subsumed into the first ‘tier’ of welfare and removed from ADC. “Problematic” unwed mothers were thus separated into their own program: those with illegitimate children, divorcees, women estranged from the fathers of their children, and widows who were in the workforce but earning too little to support their children (Blank and Blum 1997). The bill required case management for adult ADC recipients because mother-headed families were considered needy of rehabilitation (Bell 1965). In New York, as in other cities, the creation of ADC partially funded local efforts such as settlement houses and charitable providers of outdoor relief, that helped women, and continued the trajectory toward professionalization. The program left much to the discretion of States and their social workers; however there was no federal oversight of implementation, and families deemed unworthy were often excluded (Bell 1965). Depending on the policies of the particular State and social worker, a family might be excluded for having illegitimate children, for being non-white, for keeping an “unsuitable home,” or for living near a farm or factory which could use its labor (Blank and Blum 1997). Women who received ADC benefits, did not marry and then had another child were more frequently excluded in the 1950s. The program was renamed Aid to Families with Dependent Children (AFDC) in 1962 reflecting concerns that it encouraged out-of-wedlock births.

During the 1960s, the AFDC caseload grew dramatically, especially in Northern cities as migration coincided with the decline in jobs for unskilled labor. Welfare rights activists challenged AFDC’s exclusions in court, and caseloads further expanded. Even as the numbers and types of people enrolled in public assistance expanded, so did the political division between those on welfare and the rest of ‘deserving’ society (O’Connor 2002). The Great Society and War on Poverty programs reinforced the rehabilitative notions of public assistance by emphasizing opportunity over security. Along with AFDC, Great Society programs created health coverage (Medicaid), early childhood education (Head Start), and job training for the poor. Medicaid and AFDC were distributed automatically to individual recipients according to a federal formula. For New York City, this resulted in a greatly expanded municipal bureaucracy



and municipal spending, along with social service organizations, many established by and for specific ethnic and neighborhood groups (Berg 2007). The federal government further solidified the division between deserving and undeserving public assistance recipients in the 1970s. After a brief consideration of a universal Guaranteed Annual Income program (GAI), legislators created Supplemental Security Income (SSI), which guaranteed an income for the aged, blind and disabled. Separately, the federal government adopted a negative income tax for single parents (the Earned Income Tax Credit or EITC). These anti-poverty measures institutionally reinforced the categories that universal GAI had threatened to dismantle by separating these groups from the undeserving poor (Steensland 2008).

New York City's fiscal crisis led to a dramatic shrinking of both welfare rolls and the municipal workforce in the mid 1970s. Private, nonprofit organizations proliferated nonetheless due to new federal programs, especially the Community Development Block Grant. As the State and City shrank, and private organizations grew, the "contracting regime" was established. The state increasingly contracted with nonprofit organizations to distribute welfare, especially as the federal government continued to devolve welfare throughout the 1980s (Smith 1993). The 1980s and early 1990s saw several efforts to create more paternalistic and punitive rules for welfare recipients. In 1996, the Personal Responsibility and Work Opportunity Act (PRWOA) established a time limit and work requirements. AFDC was changed to 'Temporary Aid to Needy Families' (TANF) to reflect the time limit.

Welfare reform coincided with neoconservative leadership in New York. New York's mayor and governor were particularly interested in shrinking both the welfare system and the municipal workforce (Berg 2007). They accomplished both with the creation of the Work Experience Program (WEP). Cash assistance recipients (and, for a time, homeless shelter residents) fulfilling mandated work requirements replaced thousands of municipal employees. In 1998, the Income Support Centers operated by HRA, where clients could sign up for cash assistance, were converted to Job Centers.

The contracting regime has continued in the 2000s in New York City. In 2001, the Single Stop program was launched, bringing public assistance benefits enrollment to community-based nonprofit organizations throughout the city. For-profit job training and placement companies, as

well as program evaluation firms, proliferated as well. City welfare policy, undergirded by philanthropic interests, continued to emphasize reform and rehabilitation of individuals.<sup>33</sup> In the 80 years since the New Deal, universal entitlements for those connected to the labor force have remained in the hands of the federal government. Public assistance, shelter, substance abuse treatment and other social services have been curtailed, specified for the least deserving, devolved to states, and effectively implemented by private, contracted organizations.

### **3.3 Welfare and Transit Fare Policy**

Transit fare policy has come to reflect the categories established through welfare. First, there are discounts for those populations long considered deserving because of their inability to work: young students, the disabled and the elderly. These are categorical discounts or effectively direct user subsidies for specific groups. New York's transit agencies are required by the federal government to charge no more than half fare to seniors, people with disabilities and Medicare card holders. The agency does not receive any compensation for these discounts. The \$1.00 fee for new cards is waived for these riders when they purchase single round-trip fare cards. The agency extends the half fare to anyone eligible for Access A Ride, the wheelchair-accessible van service. Aside from federal requirements, NYCT also offers some discounts for students. Student MetroCards are free or half-fare depending on the student's grade level and distance from the school; they are time limited, ride-limited to three trips per day, and half-fare cards may only be used on the bus. The transit agency receives part of the cost of this \$214 million program from the State (\$25 million in 2011) and City (\$45 million in 2011). These amounts have changed over the last 20 years; prior to that the City assumed the full cost. In 2009 the MTA floated and then discarded a plan to eliminate student fares. Approximately 600,000 seniors and 500,000 students use the discounted cards (Montero, Remick and Namako 2010, Treffeisen 2013).

Second there are special fares for those attached to the labor force. Commuter tax benefits allow employees to set aside pre-tax salary for qualified commuting expenses, including transit fares. Employers benefit from reduced payroll taxes, and employees benefit from reduced pretax income. In New York City most employers use a transit voucher program such as TransitCheck. This is a federal policy intended to provide some parity with commuter tax

expenditures that benefit drivers. Both commuter and categorical concessions are universal in that recipients are eligible regardless of income or ability to pay.<sup>34</sup> A disabled person, for example, will pay half the price for any fare card in New York City even if he has a high income. Likewise, the maximum amount of pre-tax dollars which can be spent on public transportation is, as of this writing, \$250 per month regardless of income.

Finally there are fares for able-bodied adults who presumably either cannot pay or will not travel if a fare is not provided. Transit fares are distributed via welfare to selective, means-tested demographics using the infrastructure of the welfare state, including nonprofit providers, Job Centers, and medical facilities. Section 5.1.4 describes how this works in New York. The primary methods are to distribute cash assistance called ‘carfare’ to homeless adults, weekly MetroCards to those in some mandated work and training programs, and free two-trip non-refillable MetroCards at some medical facilities, food pantries, Job Centers and other direct service providers. Funding for at least some of these transportation benefits is from federal block grants to the State.<sup>35</sup> The social workers, case managers, trainers and others who interact with public assistance recipients and low-income individuals distribute transit fares with considerable discretion. Medicaid requires states to provide transportation for non-emergency medical appointments to qualified Medicaid recipients. In New York City, Medicaid patients usually receive a two-trip MetroCard after their appointment from a cashier in the hospital or clinic. Half to 76% of the cost is covered by federal reimbursement. The rider’s experience of accessing the fare policy targeted to his particular group varies widely depending on whether he is grouped with the ‘deserving’ (elderly, disabled, and workers) or the ‘needy’ (welfare recipients).

### **3.4 New York City’s Transit Fare**

New York City’s transit system is by far the largest in the country, and one of the largest in the world. NYCT carries 7.7 million passengers each day on 24 subway lines and 230 local bus routes. It amounts to 3.4 billion unlinked passenger trips per year and 12.2 billion passenger miles. NYCT is the largest of all transit properties in the U.S. for all modes except ferry.<sup>36</sup> Most residents ride: only 50.9% of households of the four boroughs own a car, compared with 95.5% in the U.S. overall; 57.9% use transit to commute, compared with 5.1% in the U.S. (U.S. Census

Bureau, American Community Survey Three Year Estimates (2011-2013), U.S. Census, Web, table B08141).

Transit operating policy, including fare policy, is political. Specifically, it is in large part a function of the relative strength of labor unions, governors and mayors. In the U.S. currently, 70% of all operating expenses for transit agencies are wages, salaries and fringe benefits (American Public Transportation Association 2014). This section describes how New York City came to have the fares it does today.

New York's subway fare started at a nickel in 1904. The nickel fare had already been in use on horse rail in New York and other cities for more than 30 years. Riders paid multiple fares of five or ten cents each to use competing modes and transit companies. Transfers were free within divisions but each transit company division did not widely connect the city. The one million riders living in Brooklyn and Queens and working in Manhattan in 1947, for example, had to pay the nickel twice as they shifted modes or transit companies between their origin and destination. Free interdivisional transfers, where available, were lauded by politicians, but without fare increases became untenable for transit companies (Cheape 1980).

Among riders, the nickel fare was popular and broadly considered affordable. Advocates for the poor claimed the fare was too high, but on the whole its amount was unquestioned, with occasional exceptions.<sup>37</sup> The five cent fare became more affordable over time as costs rose, especially following the inflationary period that started in 1917. Rising costs and competition from automobiles pushed both surface and rapid transit companies into receivership. Multiple subway, streetcar and bus companies went bankrupt, merged, and re-incorporated between 1900 and 1940. Transit workers demanded higher wages, private bus companies threatened to stop service due to low revenues, and the City acquired transit companies to prevent loss of service (Hood 1995, Jones 1985). In 1940, in an effort to maintain service, the City adopted a policy of transit unification. The City acquired and linked the three subway systems, and their affiliate surface transit, under the fare-setting authority of the Board of Transportation. The first fare increase, from 5 to 10 cents in 1948, followed a compromise between Mayor William O'Dwyer (1946 - 1950) and Michael Quill of the Transit Workers Union (TWU) which likely assured Quill's leadership of the TWU for the next 25 years (Heller 2004, p. 59).

After subway unification in 1940, the next step toward system-wide organizational integration occurred in 1953 with the creation of the New York City Transit Authority (NYCTA). It also marked the beginning of the institutional shift toward New York State control of the City's transit system.<sup>38</sup> The 1948 fare rise had provided only a short-lived financial jolt, and both municipal and private transit companies continued to accumulate deficits. City leaders debated whether to move the troubled buses and subways from the mayor-controlled Board of Transportation to a new City- and State-appointed - and presumably politically neutral - transit authority. The shift, though, would entail a fare increase. One side of the debate pointed to labor demands, deficits, City fiscal strains, and the need for transit to be run more like a business.<sup>39</sup> The calls for a higher fare were bolstered by a 1952 study comparing the cost of a ride (13.9 cents) to the price of a ride (10 cents).<sup>40</sup> Opponents warned of economic hardships should discretionary ridership fall following a fare rise.<sup>41</sup> By March of 1953, the City's Board of Estimate was squarely opposed to a fare increase. It did, however, seek to disentangle the City from the constant hassle of transit labor negotiations and calls for budgetary assistance. Despite the Council President's and Borough President's dissension, the Governor's proposed NYCTA passed a Board of Estimate vote and raised the fare a few months later. The majority of the transit system had its fares and transfer policies set by the NYCTA from 1953 to 1968.

New York's transit system further shifted toward state control and a single flat fare in 1966 with the creation of the Metropolitan Transportation Authority (MTA). The MTA brought commuter rail, toll bridges and tunnels, and NYCTA under a 9-member board dominated by New York State; buses were organized as a subsidiary of NYCTA. The system acquired by the MTA was relatively disjointed, with approximately 25% of riders paying multiple fares to travel on multiple modes system-wide.<sup>42</sup> The MTA raised the base fare from 15 to 20 cents. The increase was seen as one of many factors contributing to declining ridership. Universal free intermodal transfers were proposed in 1967 in a NYCTA-commissioned study of the bus system; the Board of Estimate, still the gatekeeper of bus transfer policy, rejected the proposal as too costly (EBS Management 1967).

For a brief time in the mid-1970s, fare-setting authority was entirely beyond the City's control. Following insolvency and a complete credit freeze for the City of New York in the

spring of 1975, the Municipal Assistance Corporation was created by the State to undertake capital financing on the City's behalf. It demanded the MTA raise fares as part of a larger program of fiscal prudence. The Emergency Financial Control Board was also established by the State to control the City's budgeting and management. Among other broad powers, the new State entities took on labor negotiations.<sup>43</sup> The fare had already been raised twice in the early 1970s. Fare rises were greeted with rider protests and concurrent ridership losses.

The MTA that emerged from the 1970s fiscal crisis was a more single-minded and practical entity focused on system-wide rehabilitation. For the first time since 1968 the MTA clearly articulated its primary mission: to provide a safe commute for workers.<sup>44</sup> It intended to boost ridership through station rehabilitation, car replacement and other investments to bring the system to a 'state of good repair.' The MTA laid out its intention in a series of 5-year capital plans funded with the fare and other sources. The MTA overhauled its internal management and adopted hundreds of short-term goals, such as reduction in derailments, increased number of new or overhauled cars in service, and graffiti free cars and buses. Along with improved branding and way-finding (maps and signage evolved quickly throughout the 1980s), the organizationally-integrated MTA of the 1980s set the stage for operational integration in the 1990s.

Riders continued to withstand frequent, albeit scheduled, fare rises throughout the 1980s and early 1990s. Concurrent with incremental fare hikes, the MTA was planning the MetroCard system. Automated fare collection would upgrade the turnstile-and-token system as well as meet the MTA's objectives of reducing fraud and adding convenience (Hirsch et al. 2000). The MTA released a request for proposals in 1983 and three winning firms completed technical analyses, rider surveys and policy recommendations. They found that a sizable and enthusiastic market existed for both fare cards and unlimited use passes (Antonik 1983).

Monthly passes had been considered in 1980, but rejected on the grounds that they would promote fraud as well as bias against the poor who could not pay \$25 all at once.<sup>45</sup> Bulk purchases were promoted in 1989 to dampen the impact of a fare hike, but Governor Mario Cuomo (1983-1994) derailed the proposal on the grounds of injustice to the poor. In a more favorable political climate, and relying on several commissioned studies, the MTA determined in the mid 1990s that a monthly unlimited ride fare card would be accepted by the majority of

riders. The MTA tested equipment using thousands of employees, high school students and members of the general public to simulate real-world conditions. By the 1990s, fare cards were capable of storing information, value and time, presenting opportunities for new fare structures, including zonal fares, means-tested pricing, and time-of-day demand management. The MTA chose to implement the now-familiar “market-based pricing” which is a type of “differentiated pricing: differential fares are offered based on frequency of use and willingness to prepay, rather than service or time of day differentials” (Fleishman 2003, p. 19). Riders greeted the new technology reluctantly at first but adopted it quickly once the MetroCard became more valuable (that is, provided more rides for less money) than the token. The free transfer system implemented with the MetroCard in 1997 eliminated the price differential between single- and multi-mode trips for hundreds of thousands of riders.<sup>46</sup> The average fare declined dramatically, from \$1.37 to \$1.08. As of 2013 the average fare was 18% lower than at its peak in 1996, after accounting for inflation (Treffeisen 2013). The calculation of the average fare has been called in to question, however, for failing to properly account for transfers (Russianoff 2013).<sup>47</sup>

By eliminating the differential, the MTA saved an estimated 200,000 to 400,000 commuters \$765 each per year, or about 3% of 1997 per capita income, the largest savings ever made available to riders. Ridership leapt 12% on subways and 40% on buses, with especially strong gains on the weekends.<sup>48</sup> Mayor Rudolph Giuliani (1994-2001) and Governor George Pataki (1995-2006) both took credit with Giuliani claiming the transfer policy as part of his One City, One Fare plan.<sup>49</sup> New discounts and fare structures were introduced, and tokens were discontinued when the fare rose again in 2003.

Since 2009, the MTA has planned for “modest biennial fare and toll increases designed to keep pace with normal inflationary growth” (MTA 2014, p. 8). As of 2015, the MTA is planning to replace MetroCards with new fare media capable of more complex fare structures. Table 2 shows how fares have changed since MetroCards were introduced. According to the Independent Budget Office, fares have outpaced inflation since at least 2007.

Fares now represent 33% of operating funding for all transit agencies in the U.S. Local government sources comprise 22%, state government 26%, and federal sources account for 9% of operating revenue.<sup>50</sup> New York gets more from its transit fare. NYCT collects just shy of \$4

billion each year from fare revenue. This is enough to pay for 40% to 60% of operating costs, depending on which costs are included. In 2013 the farebox recovery ratio for New York City Transit was 38.3% and the farebox operating ratio was 59.1%. Both are projected by the MTA to decline by 4 or 5 percentage points over the next 4 years. The recovery ratio accounts for more costs, including interest and depreciation on long term debt and NYCT's share of centralized MTA shared services, like security. Other sources of revenue include various subsidies from New York City and State, some levied on real estate transactions, commuters, or certain types of businesses, and others from general funds.<sup>51</sup> The federal government does not provide operating funds, although station rehabilitation and other "state of good repair" expenses are considered capital projects and therefore receive federal funding. The MTA's capital expenditures further effect the fare because debt service is an operating expense. The amount MTA spends on debt service approximately tripled between 2003 and 2013, and there remains a \$15 billion gap in the upcoming five year capital program. Revenue from fares will thus likely be in greater demand, and fare hikes are expected to continue barring a politically-unlikely intervention.



**Table 2**  
**New York City Transit Fare Prices, 1998-2015**

	Base Fare	Single Ride	One Day	Seven Day	Fourteen Day	Thirty Day	Volume Discount (%)	Volume Discount Minimum Purchase
1998	\$1.50	\$1.50	\$4.00	\$17.00	n/a	\$63.00	10.0	\$15.00
2003	\$2.00	\$2.00	\$7.00	\$21.00	n/a	\$70.00	10.0	\$15.00
Change 1998 to 2003 (%)	33.3	33.3	75.0	23.5	n/a	11.1	0.0	0.0
2005	\$2.00	\$2.00	\$7.00	\$24.00	n/a	\$76.00	20.0	\$10.00
Change 2003 to 2005 (%)	0.0	0.0	0.0	14.3	n/a	8.6	100.0	-33.3
2008	\$2.00	\$2.00	\$7.50	\$25.00	\$47.00	\$81.00	15.0	\$7.00
Change 2005 to 2008 (%)	0.0	0.0	7.1	4.2	n/a	6.6	-25.0	-30.0
2009	\$2.25	\$2.50	\$8.25	\$27.00	\$51.50	\$89.00	15.0	\$8.00
Change 2008 to 2009 (%)	12.5	25.0	10.0	8.0	9.6	9.9	0.0	14.3
2010	\$2.25	\$2.50	discontinued	\$29.00	discontinued	\$104.00	7.0	\$10.00
Change 2009 to 2010 (%)	0.0	0.0		7.4		16.9	-53.3	25.0
2013	\$2.50	\$2.75		\$30.00		\$112.00	5.0	\$5.00
Change 2010 to 2013 (%)	11.1	10.0		3.4		7.7	-28.6	-50.0
2015	\$2.75	\$3.00		\$31.00		\$116.50	11.0	\$5.50
Change 2013 to 2015 (%)	10.0	9.1		3.3		4.0	120.0	10.0
Change 1998 to 2015 (%)	83.3	100.0		82.4		84.9	10.0	-63.3

Source: Treffeisen, A., *Comparing Rider Costs Using Two Ways of Raising Transit Fares Over the Next 10 Years*. New York: Independent Budget Office, July 2013, Web.

Alongside local politics, federal policy has had a growing influence on fare prices and structure. At least partly because of its size, NYCT is a leader in equity analysis of fare structure in the U.S. Other transit properties seeking compliance with federal policy look to New York for guidance. Its approach is elaborated through publications with the Transportation Research Board. Given that its process of establishing the equity of fare raises has far-reaching effects among transit agencies in the U.S., the mechanisms by which New York maintains low-income ridership is worthwhile to study. The mechanisms are also informative for places seeking to establish or maintain ridership from low-income communities.

Two policies have influenced how transit agencies increase fares and change fare structure: Title VI of the Civil Rights Act (1964) and Executive Order (E.O.) 12898 (1994). Title VI prohibits discrimination against protected classes (e.g., race, national origin) by recipients of federal funding including transit agencies. E.O. 12898 is an environmental justice policy that expands upon Title VI. It directs federal agencies to avoid, minimize, or mitigate disproportionately high and adverse effects of their actions on minority and low-income communities, especially human health and environmental effects. Transit agencies changing policies, including changing the fare, must be in compliance with both policies or risk losing federal funding. The interpretation of Title VI has changed over time. The focus of compliance has shifted from substantive equity (realized disparities in benefits or burdens) to procedural equity (addressing equity preemptively through transit planning) (Yan 2013).

Efforts at judicial enforcement of substantive equity have almost all failed in the courts with one important exception: the case of the Labor/Community Strategy Center v Los Angeles County Metropolitan Transportation Authority, commonly known as the Bus Riders Union case. The case resulted in lower priced unlimited ride fares, new buses to ease overcrowding, and new routes designed to serve low-income communities. While this case was successful, others have not been, largely because “courts have been broadly skeptical of nearly every equity metric proposed” (Yan 2013, p. 4). Since the Bus Riders Union case, the courts have required plaintiffs to find an “appropriate measure” for assessing disparate impact, which has proven impossible. Nearly any given measure can have both positive and negative effects (e.g., increased distance

from transit station can lead to both low rent and poor accessibility) and there are hundreds of potential variables and model specifications that can accompany an “appropriate measure.”

In place of substantive equity, Title VI has been interpreted as a call for procedural equity. This has led to greater access to decision-making processes, for example through language interpreters and public hearings held at various times of day. For fare policy, it has spurred NYCT and others to undertake massive studies of the distributive incidence of their fare and route changes. The latest directive from the Federal Transit Administration formalizes the shift to procedural equity. It instructs transit agencies to evaluate the equity of major service changes, and all fare changes prior to implementation.<sup>52</sup>

New York City Transit has fulfilled Title VI requirements through close study of fare product use across neighborhoods. In most cases, this has led to greater price increases for monthly passes, and relatively lower increases for pay-per-ride and weekly fares (see Table 2). The transit agency bases this policy on analysis which shows that for the ‘first swipe of the day’ - the subway station where an individual fare card is first used on a given day - unlimited monthly fare cards are more likely to be used in higher income neighborhoods (Hickey et al. 2010). While the status quo of fare affordability is said to be maintained by fare increases which are not disproportionately burdensome to residents of presumably ‘captive’ disadvantaged neighborhoods, the specific level of affordability is not addressed.

### **3.5 Applicability to Other Utilities**

In New York all income groups ride the transit system (see Table 1). This is unusual for the U.S. and New York City is anomalous as a transportation environment. However its extent and universality make it comparable with other government-regulated, fee-for-use services where consumers can choose how much to use, but where consumption is often a necessity, such as water and electricity. This research has further political relevance as more expansive payment technology makes price discrimination a growing possibility for transit and other utilities.

## Chapter 4

### Methods

#### 4.1 Plan of Inquiry

This research seeks to discover (1) how low-income New Yorkers afford public transit and (2) how transit planners understand transit affordability, to explain (3) how the transit system maintains universal ridership despite gating the system with a user fee. The first is an empirical, idiographic investigation of action and choice. The subject is the individual low-income New Yorker (the “resident”) theorized as an agent whose actions, opinions and attitudes are at once autonomous and structured, independent and social. Transport literature’s near exclusive reliance on economics, which sees agents as subjects of methodological individualism, provides very little insight into travel-related behavior - aside from the act of commuting to work - of individuals or households, except by ecological fallacy (that is, inferring about individuals from a group).

This research seeks to learn both what the “residents” do and how they understand their actions and decisions in the context of constraints and resources. The goal is not to explain each individual’s behavior or the behavior of any population of low-income residents, but rather to inform the field of transportation planning with a relatively unexplored perspective: that of the low-income transit-dependent individual. The individual rider makes purchases, budgets, borrows, and participates in activities that require travel. The appropriate method for this type of complex, personal investigation is the unstructured narrative interview also called the Biographic Narrative Interpretive Method (Denzin and Lincoln 2000, Kvale 2009, Wengraf 2001). Narrative interviews are biographical in that they elicit stories of personal experience rather than using a question-and-answer format (Hollway and Jefferson 2000). They thereby avoid abstraction and remain contextualized, important factors for urban planning research (Lake and Zitcer 2012).

The second research question is directed to key informants, called “professionals”: social work and transportation professionals. For professionals I used semi-structured elite interviews (Kvale 2009). Like unstructured narrative interviews, they employed open-ended questions and a conversational style. They were more direct than resident interviews; whereas resident

interviews asked about day-to-day experiences and life paths to learn about travel behavior and attitudes, professional interviews asked direct questions about personal and institutional knowledge. Professional interviews relied on an interview guide tailored to each specific professional's work experiences.

The role of the researcher is important to both interviewing methods. Departing from scientific objectivism, the method requires the researcher to have a sincere conversation with the interviewee, eliciting stories through active, emotionally-present listening. The researcher brings bias which may influence the flow of conversation and the method is vulnerable to inconsistency: the researcher could direct interviews differently on different days. I took several steps to reflexively acknowledge my own bias and promote consistency among interviews. For resident interviews, I started with a script and a checklist (see Appendix C). The first 3 to 4 minutes of each interview were nearly identical. I read a statement about the research, the consent forms, the voice recording and finally about myself, including personal information (marital status, place of residence, income, rent, parental status). I then invited each interviewee to ask me further questions, and some did. I turned the interview toward the respondent while extending the invitation to question me. Professional interview introductions were made via personalized email and correspondence, so that I established rapport and made my methods and motives transparent prior to the interview (Rubin and Rubin 2011). I reflexively developed individualized interview guides. I began with a set of underlying questions, wrote how I expected the specific professional to respond, analyzed what assumptions I had made about that professional, and noted my preconceptions about the interview. Throughout both types of interview, I actively engaged with the respondent to discern his meaning, giving him a chance to rephrase and clarify. In other words, I allowed "the object to object" (Kvale 2009, p. 243).

I received approval to conduct anonymous interviews from the Institutional Review Board on March 25, 2013 (see Appendix D). To ensure candor, I excluded all names of institutions. Resident interviewees are referred to with a pseudonym and professionals by their position.

## **4.2 Pre-Interviews**

The first interviews were with two professionals who work directly with low-income residents, one at a large community-based organization in the Bronx, the other as an attorney whose clients are in homeless shelters throughout New York City. The goal of these pre-interviews was to assess the direction of future interviews: whether there are fare products or transportation support programs specifically for low-income New Yorkers, whether there are major unmet mobility needs, and whether there are areas of crossover between social workers and transportation professionals. From the first professional interview, with Social Worker 1, I learned the terminology used by social service agencies (“carfare”) and I learned of several *ad hoc* methods that help low-income clients with transportation. From the second, the Attorney, I learned how the city distributes transportation through public assistance. Both interviewees spoke of fare affordability challenges faced by their clients and noted that their clients’ mobility is typically adequate. Neither had any experience with transportation advocates or planners. The pre-interviews directed the rest of the research toward residents who have some interaction with social services and therefore might have received carfare or free fare cards.

## **4.3 Population and Recruitment**

Population construction involves choosing respondents based on traits theorized to be important to the topic of study. It is similar to strategic non-representative sampling or selecting on the dependent variable. Residents were chosen to demonstrate a specific characteristic, namely income poverty and/or deprivation, and interaction with social service agencies. Interviewees were therefore recruited from social service agencies through flyers placed in their lobbies and by intercepting them directly while they waited for social service appointments. The population of interest is working age adults. I conducted all interviews in English. Interviews were confidential to encourage candor about sensitive issues. Finally, the research was focused on affording local public transportation in New York City. Therefore the criteria for inclusion in the resident population were age (21-64), language (English fluency), presence of children (none over age 2 permitted), and borough of residence (Bronx, Brooklyn, Manhattan and Queens). These criteria limited recruitment at all sites.

I chose recruitment sites from a list of Single Stop centers. Single Stops are unaffiliated nonprofit organizations where clients can apply for a range of public assistance benefits. They provide many of the same services as HRA's Job Centers in a community-based setting. I contacted the directors of Single Stops in four boroughs, via email or telephone, until one in each borough agreed to serve as an interview site. I also recruited from sites where I identified professionals, as described below. In total there were six sites where I interviewed residents: two in Manhattan, two in Brooklyn, one in Queens and one in the Bronx. Three sites allowed me to leave flyers (Brooklyn, Queens and Bronx). Twenty four interviews were conducted at those sites and one was conducted in a classroom at Columbia University. The recruitment flyer is Appendix B.

The first social worker interviewed, for the pre-interview (Social Worker 1), was chosen because she was known to the researcher as a professional with many years of firsthand experience with low-income individuals. The other pre-interview subject, an attorney who specializes in transportation assistance for homeless welfare recipients, was identified through desk research. After them, several sets of professionals were recruited. One was planners and advocates whose primary work is on public transportation. Another was social service professionals who work with low-income New Yorkers firsthand. A third set combined the two: social service professionals who were members of transportation-related coalitions or had participated in transportation-related advocacy work.

The first and third sets of professionals were identified by their affiliation with recent transportation-related advocacy campaigns. Their organizations were signatories and the professionals themselves had been active in the campaigns. Social service professionals were a convenience sample taken from the Single Stop centers which permitted me to recruit and conduct interviews. Two additional professional interviewees were social service administrators who were independently involved with transportation-related issues. One developed a system of distributing fare cards at food pantries (Administrator 2); he was identified through desk research. The second, Administrator 1, has personally requested discounts on MetroCards so that the nonprofit where she is a fundraiser can purchase more of them for clients; she was identified by chance, at a Single Stop where I was recruiting. In total, professional interviews were with

social workers (5, plus one group of 4), two administrators of welfare services at private organizations, one attorney who works with homeless families, transit advocates (5 including one who is also a planner), and one transit planner at a transit agency.

#### **4.4 Relevance and Quality**

The purpose of this research is to explain a phenomenon: low-income residents ride public transit despite the cost. The research offers a partial perspective, that of 25 individual low-income residents and 15 professionals. The findings tell specific stories with thick description of a variety of lived experiences. The number of interviews was informed by a saturation point (Kvale 2009, see also Freeman 2006). I stopped interviewing residents when very little new information was being produced.<sup>53</sup> In the rich variety of experiences, there emerged redundant affordability challenges, travel behaviors and coping mechanisms. The findings are a new source of knowledge for policy makers and planners, and are therefore relevant.

Resident interviewees were required to be age 21-64, reside in the four boroughs, and to speak English. They were recruited from welfare-oriented community centers. They are therefore not expected to reflect the general adult population of New York or the U.S. but rather to have the characteristics commonly associated with lower income: greater percentage Black and Hispanic, more disabled, more female, lower education and lower labor force participation. Table 3 summarizes the demographic and economic description of the 25 resident interviewees compared with the population of the four boroughs of New York City where they live and the U.S. It bears out the expectation that interviewees resemble populations with lower incomes. It should be noted that the quantified data are in some cases misleading. For example, many interviewees regularly care for and financially support children although none is their own child who currently resides with them and is under 18. Some interviewees work full time as a welfare-related requirement but are considered unemployed because they are paid stipends, not wages. Many interviewees have volatile incomes; reporting an annual amount would misleadingly indicate the resident's resources on a given day or week. The data in the tables should not be interpreted as evidence of the interviewees' daily activity, resources or expenditures. Income, commonly included in descriptive statistics, was excluded for this reason; Table 7, in the



following chapter, indicates each interviewee's relevant resources, and the case summaries in Appendix E provide detail on income.

While the findings are not strictly generalizable to any specific population (no population was sampled), the findings reflect the experiences of English speaking adult New Yorkers who patronize welfare-oriented community centers due to financial difficulties. For example, there are 80 Single Stop Centers in New York City serving 125,000 clients per year (Robin Hood 2015), and the findings are applicable to them; four of the six sites where resident interviewees were recruited were Single Stop Centers. In addition to Single Stop Centers there are hundreds of community-based organizations that serve clients that resemble the resident interviewees demographically and who have had similar experiences with affordability, travel, and the welfare system. The method of continuing to conduct interviews until reaching saturation ensures the data are applicable to similarly-situated individuals.

Many writers on qualitative methods, based on both postmodern social theory and practical experience, have asserted that strict criteria for interview research quality may be impossible or misguided. The paradigm of validity and external reliability are rejected and replaced in some sociological studies with naturalistic concepts including credibility, transferability, confirmability and authenticity (Creswell 1998). Unstructured interviews are intersubjective: "Interviews are not neutral tools of data gathering but active interactions between two or more people leading to negotiated, contextually based results" (Denzin and Lincoln 2005, p. 651). As such interview quality is a function of the researcher's techniques. I use several procedures to ensure the quality of this research: triangulation, member checks (for professionals), and thick description. I triangulated findings on welfare state interventions by visiting sites where fare cards are distributed, where riders can sign up for para-transit (Access A Ride), and by attending and systematically taking notes at a public hearing on fare increases (December 11, 2014). I used a set of identical questions for both residents and professionals to establish whether the findings from residents could be explained differently or were similar to what might be found in other demographic groups. With professionals, I restated their words during the interview to clarify their meaning, and my bias until they were satisfied their views were correctly understood. Because I only interviewed English-speaking residents, I held one

interview with a group of social workers whose clients primarily speak Spanish, Chinese and Bengali, to check whether findings for those groups might be different. Along with extensive use of *in vivo* quotations, the case summaries (Appendix E) allow readers to draw conclusions at the same level of detail as the researcher (i.e., the data are transferable).

		<b>Residents N = 25</b>	<b>NYC Four Boroughs</b>	<b>United States</b>	<b>Notes</b>
Demographics	Race, White Non-Hispanic (%)	0	31.0	62.8	All respondents are Black and/or Hispanic
	Sex, Male (%)	40.0	47.6	49.2	
	Age, Median Years	50	33.1 - 37.5	37.4	
	Disabled (%)	32.0	10.3	12.3	
	Foreign Born (%)	16.0	38.3	13.0	
Employment	In Labor Force and Employed (%)	24.0	56.8	57.5	For NYC and U.S., denominator is population age 16+
	Not in Labor Force (%)	32.0	36.4	36.2	
	Informally Employed (%)	40.0	n/a	n/a	
Household Size	One-person household (%)	22.0	33.6	38.4	
	Two-person household (%)	32.0	27.7	46.5	
	Three-person household (%)	12.0	16.0	21.8	
	Four-person household (%)	24.0	12.1	18.1	
	Five-person household (%)	8.0	5.9	8.3	
	Six-person household (%)	0	2.5	3.2	

**Table 3**  
**Descriptive Statistics**

		<b>Residents N = 25</b>	<b>NYC Four Boroughs</b>	<b>United States</b>	<b>Notes</b>
	Seven-person household+ (%)	4.0	2.2	2.1	
Highest Educational Attainment	Less than High School (%)	28.6	35.8	30.8	
	High School Degree or Equivalent (%)	19.0	16.2	22.9	
	Some College (%)	38.1	8.1	10.2	
	Associates or Bachelors Degree (%)	9.5	27.3	26.7	
	Graduate or Professional Degree (%)	4.8	12.6	9.3	
Household Composition	0 Children (%)	56.0	48.7	51.5	Counts only respondent's own children currently living with respondent & under age 18
	1 or 2 Children (%)	28	41.6	38.3	
	3 or 4 Children (%)	16.0	8.4	9.2	

Source: U.S. Census Bureau, American Community Survey Three Year Estimates (2011-2013), U.S. Census, Web, tables DP05, DP03, DP02, CP03, B17012, B15001, and B11016.

**Table 4**  
**Age**

		<b>Residents N = 25</b>	<b>NYC Four Boroughs</b>	<b>United States</b>	<b>Number of Interviewees</b>
<b>Share of Population Age 20-64 by Age Group (%)</b>	<b>20-24</b>	8.0	12.1	11.9	2
	<b>25-34</b>	12.0	27.7	22.4	3
	<b>35-44</b>	20.0	22.0	21.6	5
	<b>45-54</b>	32.0	20.8	23.5	8
	<b>55-59</b>	16.0	9.3	11.0	4
	<b>60-64</b>	12.0	8.2	9.6	3
	<b>Total</b>	100.0	100.0	100.0	25

Source: U.S. Census Bureau, American Community Survey Three Year Estimates (2011-2013), U.S. Census, Web, table DP05.

#### **4.5 Data Collection and Analysis**

Interviews were conducted with 25 low-income New Yorkers (“residents”) from fall 2013 to fall 2014. Resident interviews were conducted with the aid of an interview guide (Appendix C). They were recorded digitally. During the introduction, residents were informed of the interview length (up to 90 minutes), confidentiality, recording, and compensation. They were given time to read and sign consent forms which were approved by the Institutional Review Board (Appendix D). Interviewees were given \$15 cash as a consideration for their time at the conclusion of the interview.

Prior to each resident interview, I noted the location and time of day. Each interview was held in a private room with the door closed. After each interview, I noted my perception of the interviewee’s race, gender, and ethnicity; my thoughts on the interviewee’s candor and tone; and my impression of the interviewee’s capability affording transportation. I transcribed interviews while noting potential codes and questions (e.g., sacrifices made to pay for travel, attitude toward fare beating). After transcribing, I conducted attribute and structural coding for residents

(Saldana 2009). I then wrote memos on each resident which summarized their experiences. The memos allowed me to preserve complete stories while identifying common features among residents. I revised the memos to note how each resident bought MetroCards; to what extent transit is a necessity for the interviewee; what they currently use transit for; compromises made to afford transit fare, and generally to make ends meet, now and recalled from the past; and reliance on free MetroCards currently and recalled from the past. Through exploratory coding, these additional codes emerged: fare beating, stockpiling MetroCards, perceptions of transit, perceptions of welfare, and unlimited MetroCards.

The process was similar for professionals with some exceptions. Interviews were conducted in the professionals' offices. The professional interview guides were personalized. One professional interview was in a group, and one - the planner with the transit agency - would not permit recording and conducted the interview with a colleague present. Coding was in part provisional (pre-determined codes) and in part affective; structural and descriptive coding was not as extensive (Saldana 2009). Appendix C shows which questions were asked of both residents and professionals.

## Chapter 5

### Findings

This chapter presents the findings from coding and analyzing interview transcripts. It is organized in two main sections, the first with results from interviews with 25 low-income New Yorkers (residents), the second from “professional” interviews (planners, advocates, and social workers). Both sections summarize the issues that emerged and provide extensive *in vivo* quotations from transcripts. Much of the focus is on how riders manage to ride when they cannot easily afford the fare. They forego goods, rely on the welfare state, evade the fare, borrow fare cards, and exploit fare structures. These behaviors overlap. An interviewee might borrow someone else’s welfare state-issued free MetroCard or evade the fare only if he cannot make a free transfer. For example, Lisa describes how multiple behaviors overlap and are contingent: “There were some times if the money shifted and I had to do laundry then I couldn’t buy the monthly so I had to buy the weekly. And if the weekly ran out between days then I had to hoof it.” The behaviors or practices are analyzed in separate categories and recombined as addressed by professionals. The concluding discussion considers their interactions and the implications of these combined behaviors.

#### 5.1 Findings from Residents

The following sections describe findings from 25 resident interviewees. Figures 2 and 3 and Table 5 show that residents’ distance from subway stations is comparable to citywide averages. Residents live in many different neighborhoods. Their geographic location is unexceptional.

**Figure 2: Home Addresses of Resident Interviewees with Pseudonyms.**



**Figure 3: Home Address of Resident Interviewees and Subway Stations.** Home addresses are marked by x's, subways by dots.





**Table 5**  
**Distance to Subway Station**

<b>Resident Interviewee</b>	<b>Distance from Subway Station, miles</b>
Robert, Vicki	0.00 - 0.10
Susan, David, Christopher, John, Teresa, Lisa	0.11 - 0.20
Wendy, Felicia, Sandra, Henry, George	0.21 - 0.30
Nicholas, Diana, Jennifer, William, Michael	0.31 - 0.40
Patricia	0.41 - 0.50
Zachary, Brittany, Angela, Emily	0.51 - 0.60
Linda, Yolanda	0.61 - 0.70
Interviewee Average	0.32
Four Boroughs Transit Shed Average*	0.38*
* Transit shed is comprised of 130 randomly generated Census tract centroids extending to the ends of the subway system. Distances are calculated using geographic information systems tools.	

### 5.1.1 Residents' Elaboration of Inelasticity

Studies of aggregate travel behavior show that low-income transit-dependent riders are fairly price inelastic, and that the fare is not a major determinant of ridership. Consistently, the interviewees in this research ride public transportation regardless of their income or price. As shown in Table 6, only four of 25 resident interviewees forego trips when they cannot pay; others will forego other purchases, engage in fare evasion, or borrow. None recalled when the fare was last increased, and only a few noted how much it had been raised. None described a point when mobility was limited due to lack of funds, although many described periods of severe economic deprivation. Many emphasized the necessity of transportation in their lives, and their tendency to spend meager resources on transportation.

The following experiences and observations generally underline that low-income riders will ride regardless of cost. Nicholas lives in a homeless shelter with his daughter and works in a pizza shop. When asked the last time he was without an unlimited card he replied, "I don't even remember. I just always have it." Wendy recalls collecting bottles to pay for transportation, and emphasizes its necessity, "I mean you gotta start somewhere, you gotta move around." Vicki is very poor and sometimes "cannot get 25 cents much less \$2.50" but she manages to travel at least twice a day, often by borrowing money. Likewise, Lisa says "I've been in the position where I've had to literally scrounge together change to get to work to get my paycheck to make sure I could cash it so I could get back home." William says, "I need a transportation card. That's high on my priority. That's extremely high on my priority. And I'm not telling you that I'm gonna take away from rent money to get my card but sometimes I do. Cause I know without a MetroCard maybe I can't get to work which gives me the money to feed my family, maybe I can't take my child to the doctor, a lot of things that I can't do without a MetroCard. It's important to me."

The necessity of paying for transit is perceived by the riders themselves as a lack of choice and powerlessness. Inelasticity, then, can be broadly considered as not just the observation of a revealed preference but of the consequence of constraints on mode options, trip making, and power in the policy making process. Christopher says "I can't do a damn thing about it. You gotta pay." Michael echoes this sentiment, "Realistically it doesn't matter cause you

have to pay it. If you want to ride, you have to pay it.” Felicia agrees, “But what you gonna do? You gonna pay cause you gotta go.” Yolanda has not bothered to voice her disapproval of fare hikes at public hearings because, “I don’t think they hear you.” Lisa attended public hearings about the fare and bus cuts, and was discouraged, “ ‘We had the hearing but we’re not listening to you. We don’t care what you need what you want. We already decided what we’re gonna do.’ ” Michael had a similar experience at an MTA public hearing he attended, “They were sitting up on the panel. They would sip their water or their soft drink. Everybody was kind of blasé. The public was in an uproar, people were yelling and screaming.” Susan feels the fare is “ok” but unlike most other topics, when she is asked about it directly her voice lowers and her tone softens. She says, “What can you do. What can you really do. Pay it. You know and that’s what’s messed up about living and - what can you really do. A bunch of people can make noise, ah, we not gonna take the buses no more, we not gonna take the trains, how many people gonna get together and do it, like really? Let’s be for real.”

### **5.1.2 Residents’ Ability to Pay**

This research found that although interviewee trip making is not sensitive to the fare, the fare is not necessarily affordable. Affordability is a relative concept, only meaningful in the context of household income and expenses. A given person might perceive the fare to be both affordable and unaffordable, depending on context. Affordability was ascertained therefore through a flow of conversation wherein interviewees were asked how they manage to afford their regular expenses, both in general and recently, over the past week and month. Wendy, for example, often goes to food pantries via public transportation. The fare is low compared to her value of the trip. “You trust me, you take food from all these pantries, you don’t have to go to the grocery store too often. They give almost every and any thing.” (It’s worth the \$2.50?) “Oh yes because you save more than that.” However, daily transportation expenses can be burdensome. She says that her daughter has lost her student MetroCard and Wendy is not replacing it. Although she does not like her daughter walking in the snow to school, “I can’t afford to buy her every day. It’s too much.”

Interviewees undertake several behaviors which facilitate ridership: foregoing presumably more elastic goods, skipping trips, borrowing, fare evasion and exploiting free transfers. These indicators of un-affordability and resources commanded by the interviewees are shown in Table 6 and 7. Those with fewer resources have more difficulty affording the fare. The interviewees can be divided into two groups: the eleven who forego goods and/or skip trips, and the fourteen who do not. Of the former, only one receives at least one free MetroCard per week compared to five of the latter; none relies on a household member for his MetroCard compared to three of the fourteen; and only one has a relatively high income, compared to six of the fourteen. Each of the compensating behaviors is discussed in the following section.

### **5.1.3 Residents' Resources, Foregone Goods and Compensating Behaviors**

Economics presumes consumers forego more elastic goods to purchase less elastic goods such as fare cards. Seventeen interviewees (68%) did not describe foregoing goods, however many of those did not regularly purchase the goods most mentioned by the others. Nine had free or extremely cheap housing (two reside in homeless shelters). Others had no telephones. Seven of the eight interviewees who do forego goods have very little or zero disposable income, and those goods which they compromise include necessary goods such as food, housing and laundry. Some of these goods - food, housing, and telephones - are subsidized by the welfare state, as are at least a part of their transportation expenses. (Whether the subsidies are insufficient or the resident fails to adequately budget can be determined only on a case-by-case basis.) Overall, for these interviewees, high ridership is incorrectly interpreted as affordability. Rather, transportation is among the daily necessities reluctantly traded by these low-income residents with few other resources.<sup>54</sup>

Resident interviewees identified certain goods they neglected to purchase specifically to afford the fare. These are listed in Table 6 and juxtaposed with other compensating behaviors. Table 7 shows financial and other relevant resources available to interviewees. Foregone goods and compensating behaviors are interpreted as indicators of un-affordability. Tables 6 and 7 reflect *current* resources and *recent* experiences; many interviewees also describe past

experiences, and these are discussed in later sections. The categories in Tables 6 and 7 are defined as follows:

Table 6

- Food: interviewees spent less on groceries.
- Housing: interviewees underpaid rent or paid it late.
- Phone: interviewees' cell phones ran out of minutes and they delayed adding minutes.
- Laundry: interviewees washed clothes by hand or take them to others' homes where they can use the machines for free.
- Hair: interviewees cut their own hair or delay haircuts.
- Skipped Trips: interviewees failed to take trips.
- Fare Evasion: interviewees boarded buses and trains without paying the full fare.
- Borrowing: interviewees borrowed money or fare cards for transportation, usually without the expectation of repayment.
- Transfer Exploitation: interviewees went to significant lengths to maximize the use of a single fare.

Table 7

- SNAP: interviewees received SNAP (food stamps).
- Subsidized Housing: interviewees reside in explicitly subsidized housing, such as Section 8, homeless shelters, and supportive permanent housing.
- Free or Cheap Housing: interviewees reside in housing which requires of them \$300 per month or less in financial contribution.
- Free Phone or No Phone: interviewees received a free cell phone through government programs or paid by family members, or have no phone.
- Free Two-Trip Card at least 1x/Week: interviewees receive one round trip MetroCard or more per week from an agent of the welfare state.
- Carfare Stipend: interviewees receive \$30 per week or \$112 per month from an internship or volunteer position, typically arranged through welfare agencies.

- Carfare or Cards from HH Members: interviewees rely on a household member for transportation. This is a regular, routine behavior; interviewees expect to receive the money or fare card, unlike those who borrow cards or cash on occasion.
- Income that Well Exceeds Expenses: individual income is more than \$1,000 per month and more than double household expenses.

Case	Foregone Goods					Other Compensating Behaviors				Total
	Food	Housing	Phone	Laundry	Hair	Skipped Trips	Fare Evasion	Borrowing	Transfer Exploitation	
Brittany				x		x		x	x	4
Felicia						x	x	x	x	4
Jennifer				x	x		x		x	4
David	x	x							x	3
Vicki				x	x			x		3
William						x		x	x	3
John	x								x	2
Lisa				x					x	2
Patricia					x			x		2
Robert			x				x			2
Christopher							x			1
Emily								x		1
Karen						x				1
Teresa									x	1
Total	2	1	1	4	3	4	4	6	8	

<b>Table 7 Resources Currently Available to Interviewees</b>									
<b>Case</b>	<b>SNAP</b>	<b>Subsidized Housing</b>	<b>Free or Cheap Housing</b>	<b>Free Phone or No Phone</b>	<b>Free Two-Trip Card at least 11/Week</b>	<b>Carfare Stipend</b>	<b>Carfare or Cards from HH Members</b>	<b>Income that Well Exceeds Expenses</b>	<b>Total</b>
Henry	x	x	x		x			x	5
John	x	x	x	x		x			5
Susan	x	x	x			x	x		5
Teresa	x	x		x	x			x	5
Yolanda	x	x	x	n/a	x			x	5
Angela	x	x	n/a		x		x	n/a	4
Diana	x	x		x		x			4
Felicia	x	x	x		x				4
Lisa	x		x	x		x			4
Robert	x	x	x					x	4
Wendy	x	x	x					x	4
Brittany	x		x	x					3
Nicholas		x	x					x	3
Patricia	x	x		x					3
William	x	x	x						3
Christopher	x				x				2
Jennifer	x	x							2
Karen		x		x					2
Michael			x					x	2
Sandra		x					x		2
Vicki	x			x					2
Zachary		x	x						2
David				x					1
George			x						1
<b>Total</b>	<b>17</b>	<b>17</b>	<b>14</b>	<b>9</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>7</b>	

The following describes the conditions under which interviewees deprive themselves of necessities to pay the fare.

David is a full-time receptionist who shares one bedroom in a private house with his adult son. His only resource from the welfare state is his free telephone. His landlady has allowed him to pay the rent late numerous times including during a lengthy spell of unemployment. He describes running out of money for transit more than once. "I would borrow from either my brother, my son, obviously I would take food from home for lunch or maybe stick to two meals a day which I've done numerous times ... but basically I try to make sure I don't compromise my responsibilities. Worst case scenario I'd probably say to my landlady I'm short this month, can I pay you, and she's pretty good." "I make sure I make it to work. Even if I don't eat I make it to work."

John is a full-time handyman undergoing methadone treatment. He receives about \$100 from his drug treatment center per month to compensate for travel expenses. He lives on couches and air mattresses in two apartments, both in public housing, and contributes groceries and cash to both. His other major expense is cigarettes which he sometimes trades for coffee. He buys unlimited weekly MetroCards every two weeks when he gets paid. His SNAP has been reduced to \$100 per month, and he has insufficient disposable income left for food. He describes buying pot pies for lunch and stretching them out over a week - staying hungry - because he does not have enough money to buy more.

Robert is a full-time office assistant. His income from work and SNAP is relatively high compared to his housing cost, which is subsidized. His other major expenses are money for his extended family, "That's why I stay broke all the time." This includes giving money for carfare. He does not have an unlimited card, and he describes not visiting friends and family in Westchester recently due to the cost of the fare and not having any money to chip in once he arrived: "Yeah like right now my phone's gonna be out, this is



the last day, my phone I don't have enough to pay the \$40 to keep it going so I gotta wait till next week to get paid.”

Jennifer is an unemployed mother of a two year old. She relies on welfare and her husband, who is out of work due to an injury; he is an illegal immigrant who does manual labor. She describes several ways she affords the fare which are consistent with her general frugality. When asked about daily rounds and expenses she also describes being her “own hairdresser” and, “For me to wash clothes I have to ask my brother to let me use his laundry cause he has a washer and dryer at his house. So that saves me about \$20, \$30 cause I would wash clothes once a month.”

Vicki is unemployed after 17 years as a domestic servant. She and her elderly boyfriend are extremely poor, relying on his pension, her food stamps, and frequent cash infusions from his adult children. She is often short of the \$20 per week she adds to her MetroCard. She describes regularly asking her hairdresser to work with a promise to pay later, and washing her clothes in the bathroom by hand.

Brittany is a 31 year old woman residing in a basement apartment with her mother, adult brother, and two young sons. Her expenses are quite low. Her only income is from SNAP and \$100 every two weeks from informal hairdressing. The \$100 is used to pay for her MetroCard, laundry, and items for her children and herself which her mother does not provide for the household. That week, she had run out of money and could only go out by borrowing a MetroCard. She washed her children's school uniforms by hand, “I didn't have enough money to go to the laundry.” She described it as a regular occurrence.

Lisa is a 50 year old woman who receives free housing in exchange for her services as an informal superintendent. Her income includes SNAP, cash public assistance and a stipend of \$112 per month. She uses the stipend for her monthly MetroCard and explains

that buying the card means “You forego your weekly laundry. If you usually do laundry for every week you’ll do it every two weeks or every three weeks or once a month. You forego - if you might have needed, designated yourself a new shoe from Payless you forego that because you can get a new pair of shoes for about \$30 or you know \$16 or whatever you would, you forego a lot of things when you have to factor in or figure out how you’re going to travel.”

Patricia is a 59 year old woman who was laid off from a bank job. Her pension, SNAP and income from informal work exceed her bills, however she supports her adult daughter who lives with her and attends college. She rarely buys a MetroCard and instead uses change to pay for the bus. She describes how “I used to go to the hair dresser. I can't afford it anymore, so I just do it myself.”

In addition to these eight interviewees who currently forego goods to pay for transit, two allude to having done so in the past. Diana describes periods of deprivation when she was working as a home health care aid, before she began collecting disability. She describes buying fewer groceries. William in the past has underpaid rent. Both emphasized that the MetroCard was more important at the time.

#### **5.1.4 Residents’ Experiences with Welfare State Interventions in Transit Fares**

Agents of the welfare state distribute thousands of fares to New Yorkers every day. The agencies, whether they are public or private, purchase the cards from MTA retail, at full cost, and distribute them for free. Most are in the form of single-fare rides. At some distribution sites, for example medical offices, there is an explicit policy guiding staff who distribute free fares, while at others it is left to the discretion of a social worker or administrator. Overall there is no coordinated state policy regarding transit fares for welfare recipients. Free fares distributed to low-income individuals are usually two-trip MetroCards, worth five dollars in 2014. Some City-based job and training programs mandated for public assistance recipients distribute weekly unlimited cards, worth thirty dollars. Medicaid recipients receive free two-trip MetroCards at

some medical facilities, or free MetroCards for multiple trips in the mail, depending on their insurance and the medical provider. The various public transit concessions and discounts are not administered by a single institution or negotiated in a cohesive policy realm. They are funded and administered by all three levels of government as well as the quasi-governmental authorities that operate the transit system and private institutions. The two-trip cards, ubiquitous throughout the welfare system, are purchased from the MTA at full price, either through a bulk shipment or at subway stations.

Eighteen interviewees (72 percent) had received a free MetroCard through an agent of the welfare state at some point; six (24 percent) were receiving one or more two-trip MetroCards every week at the time of the interview. Most receive a single two-trip card at various appointments, but their experiences are varied, reflecting the sprawling implementation of welfare in the U.S. For example, Diana receives carfare from two welfare-related sources. She gets \$30 carfare each week because she receives cash public assistance and is required to attend training every day, and she receives \$101 each month for volunteering with a nonprofit to escort an elderly disabled woman to church on Sundays; for the latter, she will be eligible for \$1,485 toward higher education if she continues volunteering for 12 months. Vicki has enormous difficulty paying for transit to attend a home health care aid training, but she anticipates receiving a monthly MetroCard if she gets a job, “I think they say after you finish the training and you get a job like if you need MetroCard to get to the job for a month or something like that.” Transit is further connected to welfare as an acceptable expense: Karen is asked by her supportive housing worker for her Access A Ride receipts.

The New York City agency which administers public assistance, HRA, gives free MetroCards to welfare recipients and applicants, depending on stage of application and compliance; homeless individuals are generally given MetroCards at these offices. Some nonprofit organizations which are contracted by the State and City offer MetroCards as incentives for attending programs. Participants in various workforce development programs administered by New York City may receive MetroCards during training, and public assistance recipients who are mandated to work receive free MetroCards. In 2010 the Food Bank for New York City implemented the Tiered Engagement Network which allows approximately 200 food

pantries to distribute MetroCards when participants are referred for various social services. Other outlets include certain court appointments, harm reduction programs which mandate frequent, often daily, appearances, and at independent, privately-funded community-based churches, food pantries, and community centers.

Individuals receiving public assistance are, in some cases, eligible for an increased stipend for transportation. Homeless individuals can receive \$32.50 every two weeks and those assigned to work activities can receive up to \$30.00 every week. This is known in HRA policy documents as ‘carfare’ and it is cash added to the individual’s public assistance balance. HRA instructs case workers to add carfare for homeless individuals not already receiving free MetroCards through another mandated program. In practice, most eligible recipients do not receive carfare; fair hearings each year result in thousands of dollars of owed carfare being recovered. In other cases, recipients are overpaid: they receive both carfare and free MetroCards. William describes what he has learned as a past recipient of carfare: “They was adding exactly the cost of the MetroCard for the weekly but then the machines at MTA was not accepting the benefit card so the complaint was that individuals had to go take the money off the card. Now they can’t get a weekly. You have to pay \$2 check cashing to get it to \$29, then you can’t go purchase your card. But they told me that’s been fixed so the people who get the weekly allowance who really do go buy the cards they said they can buy it in the vending machines.”

Those seven interviewees who have never received free MetroCards via welfare are less connected to the welfare state than other interviewees, for several reasons. Brittany and Emily choose not to apply for cash public assistance, although they would be eligible, because it conflicts with their future goals which include leaving the state. Emily and George fear exposure to government because of informal employment and immigration status. For Vicki, applying for welfare is perceived very emotionally and negatively which she attributes to her culture. Karen and Patricia have had long periods of stable employment and are now ineligible for cash public assistance because of disability income and pension, respectively. Sandra is ineligible because she is currently employed, however when she was homeless (20 years prior) she received carfare in the form of tokens.

### 5.1.5 Residents' Experiences with Fare Evasion

Interviewees beat the fare in several ways, with varying degrees of legality. The boldest was to hop over the turnstile or otherwise sneak onto the subway platform without swiping a fare card, and the most common was to under-pay with change on the bus. While bus drivers are supposed to “challenge the fare”, according to Transit Advocate 4, they often allow those who underpay to ride.<sup>55</sup> Several interviewees describe beating the fare by asking for a swipe from someone exiting the subway station who presumably has an unlimited card. Finally, it is possible - but illegal - to buy a swipe for \$2.00 at the subway station from someone with a tampered or unlimited card. One interviewee regularly uses her father’s senior discounted MetroCard illegally.

Many interviewees often observe fare evasion, specifically people jumping the turnstiles. Robert resorts to fare beating and borrowing when he cannot pay the fare to get to work. “Normally I sneak in. I look for opportunity, I look for crowds, I look for no cops, you know you gotta check real good because they hide places.” Fare evasion for him is an unpleasant necessity. When he runs out of money to get to work, “Think about now I'ma have to sneak in or now I have to hustle some change, you know start hitting people up for quarters, you know it's stressful.” Yolanda likewise relates fare evasion to desperation and lack of money. “There's been times that I've had to ask him [her child's father from whom she fled to a domestic violence shelter] for like a \$5 or \$10 little advance or whatever so he would give that to me so I can get my child to school. Or sometimes I've risked jumping on the back of the bus and I do not - gosh I dread the day I would get caught for that cause it's so silly, but I mean I only do it - I've only done it if it was something that I'm trying to get my daughter to school. It's not like I was just jumping on there for the fun of it.”

Christopher beats the fare by waiting for swipes. He does this even when he could buy a fare. He also recalls swiping strangers in when he had an unlimited card when he was working. His experience is more positive than that of Robert. “I mean I know it's illegal. But you know you rationalize. You know, ok, ride, wait for a swipe. I could have the money but I just wait by the train. And somebody say ‘you need a swipe’ I say ‘sure’, you know.” “I could have the money but I'm like why? Cause when I had my MetroCard I did it for people. I mean I swipe,

you know, for people - is it wrong? Ah, I guess it depends how do you look at it, is it wrong or not. You know I'm not stealing from nobody." Regarding him swiping people in when he had the unlimited card, "Sometimes swipe in and just walk out. Sometimes I just hit the machine just for the hell of it. I'm like I'm sticking it to the man [laughs] you know so." He has sold swipes in the past, but says he does not do it any longer. "Somebody sell a swipe which I know that's illegal. You can go to jail for that. I don't do that no more." He also avoids asking for swipes because, he explains, it is considered panhandling and illegal.

Some paid the bus fare with insufficient cash or with a card with insufficient fare, and boarded with the tacit permission of the bus driver. Felicia is a frequent fare beater on the bus. "I would give the bus drivers a dollar I tell them like I only have a dollar. But when you're honest with them they'll like 'put it in'. Or like one time I only had like 55 cent and then the bus driver, and I wanted to get a cigarette, and I was like damn if I put my 55 cent in I'm not gonna get a cigarette. So the man asked can I get on the bus. He said you gotta put something in, a nickel, a dime, a quarter. I said alright so I put in a nickel, I kept the fifty cents, he was like get on the bus. I was like damn you could have just let me on for free."

Many interviewees observe bus drivers allowing those with insufficient fare to ride. In some cases this was expressed as a mundane moment of convenience for the driver. Lisa connects this practice with an ethic of economic equity, saying, "I think it's an unwritten rule that if a person gets on the bus and they don't have the fare, or they don't have enough, whatever they put in is sufficient and they let them go or whatever. But there used to be a time where if you didn't have your full fare to ride the bus, the bus driver would put you off, or actually if you got on the bus and you didn't have fare he'd tell you well you can't ride the bus. But I think now because they have an understanding that things are so tight that ok, don't hassle the person if they don't have all the money, or don't hassle them if they make it known to you, sir my card is empty or I don't have the fare may I still ride the bus. And they'll like wave you, ok come." Others questioned the discretion of bus drivers. Angela finds that "Some drivers be nice and be like 'ok ok'. And some drivers be 'no, you gotta pay your fare like everybody else'. It's only right cause you struggling to have a MetroCard to pay to get on the bus and then you see someone else younger than you want to get on the bus for free. So. Cause I've seen bus drivers.

That elderly lady ask if she can get on the bus, the bus driver was like no, and then a couple stops later a younger stop and ask if he can get on the bus, 'ok ok go get in'. So I didn't like that. I didn't like that. I didn't think that was fair to her."

Several interviewees observed fare evasion on Select Bus Service (SBS), which uses an honor system. Diana observes, "People are getting on that bus like a fat rat without paying." Felicia has witnessed enforcement of fare beating on SBS, "They pull people off the bus. Some kids got on and it was a woman and a man and they both got on. And they waited till the bus move up and then they said excuse me and pull out their thing and they said where's your ticket. I said I have my ticket. And they asked everybody on the bus who got a ticket. And there was four of them, the two kids. I don't know what he did by the two adults he called back up. And they took him to jail for not having it. I was like wow." Nicholas sees police on SBS often. "I see a lot of those machines don't work. And it's almost like, the police are at the next stop waiting just to see if you paid for the ticket or not. ... I seen it happen yeah. And when I go to take my daughter to school in the morning you see them. They're always there and they're writing up a bunch of tickets to people." (They're waiting?) "Yeah. And it's mostly because the machines don't work so people just don't care, they don't want to wait and they just get on the bus."

Henry describes how people who receive free MetroCards from welfare-related agencies often sell them. He knows this is "fraud" and stops short of saying he has sold cards. However, he says he knows working people who use food pantries and would like to get a free card every day for their commute. He says they often buy \$2.00 swipes in the station, but buying a welfare-issued two-trip card from someone *like* him is better, "Yeah so if you know somebody it's much more convenience then you know you don't have to, you know, go through all that stress."

Fare evasion is a contested issue. Interviewees generally feel fare beating is fair, and only problematic if one is caught or when bus drivers allow some fare beaters to board and not others. Sandra is afraid of fare beating, including of giving people swipes, because her son is a police officer. Teresa always pays for her son who is near the height limit. "I pay for him. Just not to be stopped." Often she uses welfare two-trip cards for her sons to travel. Emily has evaded the fare in the past, and now swipes people on with her unlimited card. "Yeah because I've been there and I'll be honest I hate to see people, you know they arrest people for hopping the train now. So

I think like, and I hate this, I hate when people have an unlimited and they'll just say no ... I like to cause I feel like I pay \$30, I want to use it as much as I can. Like go ahead. And I've been there like, how am I gonna get on this train." She has relied on swipes when she was around "17 or 18" and "I have hopped the train before too I'll be honest in my younger days. Like ah nobody's looking and then it's just looking like do I really want to waste this 2.50? And then back then it's just like you're thinking of a slice and soda and it's just like I can but that's just so not worth it." William often has an unlimited card, and "I don't like to because I found out you're not supposed to but yeah I'll swipe a person on the bus." He says he does not ask for a swipe or jump turnstiles for fear of getting caught, "I'm always figuring that I'll be the one that they want to process over at ...". Lisa grew up with fare beating as a normal part of survival in poverty. "My mother had six kids. If we had to go somewhere and we didn't have, she brought slugs, believe me. And so we would go wherever we had to go and just drop it in fast and go through." And now, as a middle aged woman, she observes, "Ok when the cost of living goes up and your income is not that much then you are at the mercy of someone's good graces to swipe you in or on."

#### **5.1.6 Residents' Experiences with Borrowing, Lending and Sharing**

Nearly all interviewees describe borrowing, lending and sharing fare cards or carfare. Many fluctuate between being recipients and providers. Felicia, for example, loans her card to her mother now and then. She also borrows from her mother and fare beats. The morning of the interview, combining her money with her mother's was not enough to cover the fare, "I was like mommy, I said, I don't have enough change to get on the bus. She said how much you got. I said I got a dollar. She said well I have a dollar, that's all I got. I said well I'm just gonna tell the man I only have \$2, can I get on the bus." The driver let her ride for \$2. She knew she would get a welfare two-trip card at her destination. Another example: William lends his unlimited MetroCard to his child's mother, albeit with some frustration, "I've done that. I don't like to do it. She takes her time sometimes coming back." He also recently borrowed money for a MetroCard, "I borrowed \$50 from somebody and I told him I could have it back within maybe a week, which I was able to get it back to him. I bought my unlimited weekly and I had like 20



extra dollars, put some knick knacks in my house that I needed for my kids, some pocket money for school.” Sandra has no trouble affording transportation given her low expenses and relatively high income. She still regularly accepts an unlimited card from her son and gives a pay-per-ride card to her daughter, both adults.

Some, such as Emily undertook these behaviors for work trips,. “My sister will share with me. She doesn’t work full time anymore cause she went back to grad school. On a Thursday - you see I told you my MetroCard expires on the 3rd. I’ll be like well let me use yours, I know you’re not going anywhere, and she’ll let me use hers ... To save money.” For others the behavior enables more discretionary trips. Patricia recalls borrowing an unlimited MetroCard from a neighbor on a Saturday to go to Macy’s for a sale. She used the card for several more trips that day, “I figured, why not? I could stop off and get off and then take the bus again.” Her ‘extra’ trips included more stores.

In two cases, carfare or MetroCards were loaned with an expectation of reimbursement. One interviewee remembers borrowing money from a shopkeeper. Yolanda says, “There was a store owner who would give me a cash advance cause I was a loyal customer to him, he knew I would pay him back for anything.” He would loan her \$5 or \$10 and she describes it as enabling her to get her child to school. Zachary effectively provides short term small loans to his little brother by lending him his pay-per-ride MetroCard and insisting it’s returned with the full amount on it.

Interviewees more typically receive free MetroCards or cash from family and friends with no obligation for reimbursement. Jennifer’s father buys a few “extra” senior discounted cards when he goes to the station, stockpiles them and gives them to her, “So he can always have them stacked just for a rainy day when he needs to use one. So when he comes to visit me if he has a couple he’ll give me some.” (This is also a form of fare evasion.) Vicki accepts money from her partner’s children out of state so that she can afford to attend a daily training. “Like this week I didn't have it. And son call home. And I said to him I don’t have the money for the MetroCard. And he wired me some money to buy it for the week.” Emily regularly accepts money from her daughter’s father to pay for MetroCards, either \$30 at a time or just \$5 for the day. She finds she needs transportation money when unanticipated expenses for her daughter

arise, which is often given her daughter's participation in extracurricular activities. Brittany's sister helps her out occasionally by handing her a MetroCard with cash on it.

Likewise, interviewees are often the providers of free MetroCards or carfare for their family and friends. Some give away the MetroCards they get from welfare-related appointments. Diana gives her free two-trip welfare cards to her daughter, and Robert has given them to friends, "I've had friends who needed to get somewhere and they couldn't." Susan has given them to "strangers" and to her boyfriend. Lisa is in a welfare-related program that will occasionally give her a weekly unlimited MetroCard; she also receives a stipend for monthly carfare. "Well sometimes when I do get a weekly I'll give it to my son so he can get to work. I tell them [her two adult children] I say look I'll help you with food and transportation to make sure you pay your rent and keep a roof over your head."

Others will give away cash. Robert gives his adult son carfare from time to time, including recently when his son was to start training as a home health care aid. "I mean if he don't have carfare money he never gonna find a job, he not gonna be able to look, running around, so I gave him that too." When the son stays with him, the son contributes small amounts of cash (\$20 or \$40), and his daughter gives him cash occasionally as well. Karen has given money to her sister for transportation, "I had my older sister who I helped many times. She had problems with public assistance. She didn't have any carfare to go look for a job, any carfare to go handle her business, they messed up her case. And she ask me for carfare. She would come by I would give it to her."

Finally, interviewees often share MetroCards within their households or workplaces. Usually this is with an unlimited MetroCard. David says, "When my son for example if he has to go to two different sites for work. I have an unlimited, I'll lend it to him, he gives me his card which is per ride." John loans out his unlimited card to his roommate for a day or two on the weekends when he has no appointments, and he either stays local or gets a ride with his brother. He also occasionally "swipes his roommate", waits the necessary time and swipes himself in. Christopher, when he was working and had an unlimited card, once leant it out for a week to a co-worker. He walked to work that week. He leant it out to others as well, during the day while he was at work, but eventually felt people were taking advantage of it. Brittany's mother loaned

her her unlimited MetroCard to run an errand on the weekend. She made some extra trips that day. “And then I went to my friend house. Boyfriend house. I took advantage of the MetroCard. Since I had the MetroCard and I took advantage and I was gone [laughs].” Some interviewees will “share” pay per ride cards as well. Angela’s husband borrows her MetroCard when he needs to travel without his car. Michael uses a pay-per-ride card and “I give it to my partner if he needs to go somewhere and he doesn’t have money on his MetroCard.”

### **5.1.7 Residents Who Exploit Free Transfers**

The MetroCard provides free transfers between modes, for up to two hours from the beginning of the trip. Same-mode transfers are limited to one direction, e.g., a rider cannot board a northbound bus and then get a free transfer to a southbound bus on the same line. An unlimited card has no time or directional limit on transfers, and can be used at the same station or same bus route 18 minutes after the first swipe. Both these features were well-known to most interviewees and often exploited to minimize the financial cost of travel. Some interviewees noted how free transfers have enabled their daily rounds. For example, George travels quite far for church-related activities and explains that he can afford it because it is only one fare. Generally, these are methods that extend the value of single fare when the rider does not have an unlimited card. In many cases, interviewees describe altering their trips and going well out of their way to save a fare.

For some interviewees, this means rushing between appointments. Lisa explains, “If I don’t have an unlimited then I have to worry or I have to strategically, strategically plan out how I can - like if I have to transfer I have to see which bus line where I can maybe transfer without having to pay another fare. So like if the appointment’s not long, get out within that gap.” She further describes regularly choosing bus and subway lines to ensure she only pays a single fare. William times his appointments to save on the fare, “Because once you swipe you’ve got two hours, so if I know I’m only gonna be somewhere for 45 minutes and it’s only gonna take me 30 minutes to get there I know I still got time to get back one way. So I’ll time my stuff according to the trip that way.” Brittany describes “trying to do everything in the same place so I can have that transfer” when she does not have an unlimited card.

For others, exploiting free transfers entails changing mode choice or adding a walking trip. Yolanda was accustomed to taking her children to school on one bus and returning on another for free. When routing changes removed that second bus, she was in a position of paying two fares to take her children to school and return home. She now walks home when she does not have an unlimited card. Both Teresa and Felicia economize by taking different bus lines and modes to complete a trip on a single fare. David takes the bus only when he wants to exploit free transfers. He recently took the subway from work to a supermarket, then walked with his groceries to a bus that would take him home to avoid paying a second fare. He says he would make this trip differently if he had an unlimited card.

For one interviewee, transfer exploitation is cleverly combined with fare beating. Jennifer regularly makes trips from Queens to Manhattan for medical appointments. She boards a bus, pays a single fare in cash and gets a paper transfer. Then she uses the transfer to pay for her next bus within Queens. At the end of that long bus ride she asks the driver for a transfer hoping he will not remember that she already paid with a transfer. She uses that second transfer within Manhattan. Jennifer says this “usually works.”

#### **5.1.8 Residents Who Skip Trips & Shift Modes**

There was some evidence that price directly effected ridership. As noted above, residents will ride regardless of the fare or their current resources. Michael, for example, says in the context of whether he beats the fare, “If I don’t have it, I don’t travel. Which that doesn’t normally happen.” A few discussed skipping trips and walking as regular but occasional occurrences. All were asked about access to a car and while some had relatives whose cars they used on occasion, none borrowed the cars for solo trips or when resources were scarce.

Brittany will skip trips when she has a pay-per-ride card. She recalls, with some reluctance, that she has skipped her high school equivalency class when she has been short of transportation money. When asked whether she attends church, she says. “I do sort of. It depend on my MetroCard situation. If I have a MetroCard I’m going, if I don’t, I’m not.” Karen likewise says she will forego trips, which are all Access A Ride, when she does not have the fare. She qualifies those trips as discretionary. “Lot of times I don’t have money I have to say forget it

don't have to do this it's not, it's not necessary I don't have to go. Something I could do without. I don't have the \$5 for the round trip and I just, I'm not going." And later, "I hold on to Access A Ride money, I try to. There's sometimes I can't go ... It's not an emergency like I just won't do it." Felicia has also skipped trips due to lack of transportation money. Nearly all of her trips are welfare-related. "If I don't have the carfare I have to reschedule. [Referring to welfare-issued two-trip MetroCards] Cause they'll give you the Metro when you get there but how you gonna get to there to get it?"

Two interviewees describe walking to save money. Lisa often walks long distances when she cannot pay the fare. Her usual technique is to take transit to her appointment to ensure promptness and "because I don't want to get there all sweaty", and then walking back, sometimes clear across Brooklyn. Patricia often walks instead of using transit, however her regular weekly trips across Manhattan are always done via transit. She explains, "I'm a good walker. I even walk to 34th street [from lower Manhattan] sometimes. Anything to save money."

### **5.1.9 Residents' Fare Card Structures & Preferences**

In addition to keeping the fare low and providing discounts to the elderly and disabled, the transit agency mitigates fare increases to ensure the fare does not compromise universality. The transit agency maintains low-income ridership, or at least minimizes losses to low-income ridership, when fares are raised through 'equitable' pricing of different fare products. This research finds that low-income riders maximize their use of unlimited passes, but are often constrained by the cost and fall back on single-ride fares. Further, when they use single-ride fares, they do so with the assistance of welfare state interventions and by fare evasion and free transfer exploitation. For many low-income riders, paying one fare at a time is a last resort which they use often due to financial constraints, rather than a preference. These findings also discuss how low-income riders depend on the welfare state to afford the fare.

Yolanda typically buys unlimited MetroCards, for which she pays half-fare because she is disabled. She prefers monthly cards, but cannot always afford one. "Depending on how things are going for the month I will put a monthly if things are really good you know, if my bills aren't too crazy or whatever I'll pay for the monthly. But otherwise I'll pay for the weekly." When she

needs to stretch money for a day or two, she uses one of her stockpiled two-trip MetroCards she receives from welfare. The unlimited cards give her “a chance to save up on MetroCards so that in case it comes to a point where I don’t have any money I have those [welfare-issued two-trip] MetroCards as backup.” Similarly, the last time Diana was without an unlimited MetroCard “it was a few months ago ... I didn’t have an unlimited so then I had to go through my pocket book to see all the [free welfare Metro] cards that I had.”

John typically buys a weekly unlimited, but when he doesn’t have one (because he does not have the \$30 all at once, or because he lost it) he uses a pay-per-ride card and maximizes it by changing modes to get a free transfer back from his daily drug clinic appointment. When John has a pay-per-ride card, he chooses to use a bus and a train, instead of two trains, to make his daily trip from home, to his drug treatment program, to work. Two interviewees expressed fear of losing unlimited cards. Michael has found it very difficult to be reimbursed for faulty cards in the past, and therefore buys pay-per-ride cards with lower value. John buys two weekly unlimited cards at once, every two weeks, because he is concerned about the implications if he loses a monthly card.

Many interviewees spoke positively, sometimes emotionally, about unlimited cards. Unlimited cards are described as a “graciousness” by Lisa, “a treat,” and “beautiful” by Yolanda, and “there is nothing better” according to Diana. Brittany often buys weekly unlimited MetroCards, but many weeks, including the week of the interview and the week prior, she is unable to afford one. In those cases, she adds small amounts to her MetroCard to get by. Sometimes she will go for one or two days without a MetroCard; she borrows unlimited cards from relatives from time to time. Her preferred method is to start using weekly unlimited cards on Mondays so that they are still in effect during the weekend. When she ran out of money the weekend before the interview, “Like it just threw me, my whole setup. Cause you know the weekend I like to do things with the kids and I hate to be looking for money for a MetroCard and stuff, so that just threw me off.”

One of the reasons Susan prefers unlimited cards is that it affords her the opportunity to help people. “I love to swipe people on. And I ask them do you need a card cause I don’t want them to ask me and then get in trouble.” “I feel I’m doing service you know helping someone,

you see people standing around you know I try not to think whatever reason that they've got money in they pocket could be standing there I don't think about that. 'Do you need to get on?' 'Oh yeah!' and they thank you you know like you know cause I just love helping people so I feel good. I feel great. I feel useful." For Lisa, unlimited cards protect you from relying on strangers. Diana connects it to certainty and a lack of anxiety. "Cause you don't have to be worrying about having money on your card in case of emergency. And you can just travel and go back and forth. You take the wrong train, you can get back on the train and take the right train." William also connects it to certainty. "It's like being down to your last roll of toilet tissue you never want to be down to your last roll of toilet tissue so if I only got one carfare in my pocket that's like having my last roll of toilet tissue. So I rather have the unlimited. When I use the unlimited I know I got six more days to worry about where I'm gonna get \$30 from." Similarly, Emily has some anxiety around her unlimited MetroCard expiring. (When will it expire?) "The third." (Do you always know that?) "Yeah I know the clock is ticking."

Susan relies on her partner to ensure she has an unlimited card, "Normally me and my partner we, you know, get together and make sure I have a monthly. He makes sure I have a monthly." Teresa preferred the daily unlimited card which has been discontinued. "Well I don't know if you remember we had the Fun Pass at one point. That was really good I liked it then. Because you know if you only had to go out one day and you had to do a lot of errands I think it was \$7 at one point, with \$7 you could do as many things as you had to do. They eliminated that. That was good."

Brittany travels considerably more when she has an unlimited. The last time she had one was "couple weeks ago. We went to the city and we spent the whole day in the city," referring to Manhattan. The unlimited card spurs other trips, too, "If I have the unlimited card I will take that trip all the way over here" for dollar pizza for her sons. Jennifer believes that having an unlimited card "would change my life with the fact that I would be going out more." She describes hypothetical trips to Central Park with her daughter. Christopher got the unlimited card through TransitCheck when he worked. Although he describes himself as having few social engagements, he says the unlimited card spurred him to go out more. "It could be Van Cortlandt,

it could be the park, could be just to see my brother, my friends. Or just me wandering, just going somewhere so I can come back.”

## **5.2 Findings from Professionals**

This section describes findings from fifteen professional interviews conducted from summer 2013 to spring 2014. Professionals were interviewed to gauge their opinions, attitudes and extent of knowledge about how the poor afford the fare and how the transit agency maintains ridership among the poor. Several professional described their own experiences of struggling to pay for transportation.

### **5.2.1 Professionals’ Opinions of Fare Affordability**

#### Transportation Professionals

The Transit Planner asserted the transit agency perspective on affordability: that the fare’s low price, generous fare structure and equitably-structured fare hikes ensure low-income riders are able to access the system. He noted that discounts built into the fare structure are there to benefit low-income populations, specifically citing free transfers and the relatively stably-priced weekly unlimited card. He asserted that the concerns of low-income riders are often considered by the MTA and NYCT, and pointed to efforts to “maintain” the impact of the fare on those riders. He feels that the fare rises infrequently - it ought to rise more - and the average fare is very low. His nod to the fare’s possible un-affordability is his personal opinion that the City and State should subsidize fares for low wage workers, but not the transit agency.

Transit Advocate 3 is the one transit advocate whose primary concern is affordability. “I would say for us we consider ourselves an advocate for lower cost transit. Not everybody agrees with me,” [because they assert that transit is a bargain for the rider]. From his perspective, however, “There’s just an awful lot of people here who can’t afford to take the system.” “The most direct way [low-income riders are addressed by his organization] is our work to keep the fare at an affordable level.” His organization has also used fare structure to promote affordability. “For example we recommended 14 day passes, unlimited ride passes, thinking there was a



market of people who were paid bi-weekly and lived from paycheck to paycheck, and it just didn't pan out. ... It was up for 4 years or so. It just didn't generate much in the way of customers." Consistently, Transit Advocate 3's organization's goal is to keep regular riders riding, "Those are the very people we want to convince to use the system as much as possible." Thus his group resisted MTA's initial attempts to raise the fare 8.4% in 2013. "I understand you wanting to rely on riders and make sure that they make some contribution to the furtherance of the system but twice the rate of inflation? We just elected a mayor who's raised all these affordability issues."

Although its primary concern is restoring bus routes, Transit Advocate 4's organization hears about affordability indirectly through the transit workers. "From the union side it [the fare] gets raised a lot because our members actually care. Some of them will drive around in two fare zones [areas where riders need to pay twice between origins and destinations]. They're like, I know that this woman can't go to work and she has to pay like \$10 to get to work - to and from - and they actually express these things to us." "The most poignant story I heard was at a bus depot. He [a bus driver] stood up and he goes 'the people I drive around every day can't afford it.'"

Other transit advocates expressed their opinions of fare affordability, although it does not come up in their work. Transit Advocate 1 finds affordability tenuous, "It really is a bargain but if it costs more it will be unaffordable to so many people." She puts affordability in the context of housing prices: "You sometimes hear folks say gee New Yorkers really could afford to pay higher transit fares, the fare has gone down, the real cost of the fare has gone down since the introduction of MetroCard, and the farebox ratio in New York depending on what you count is lower than it is in other cities, so there's really a solid argument you might hear [name] say for raising the fare, for raising it stepwise year after year after year. And a lot of us would say the only reason people can afford their housing is that transit is affordable." Consistently, Transit Advocate 1 says that commute time is a major issue for low-income residents. As housing costs decrease to reflect poorer transit service, "this is one of those things that amplify inequality because if you have an hour commute to your job, when are you going to go to take the community college course that will get you a better job. And when are you going to cook that

healthy food for your kids that they tell you you're supposed to cook." Transit Advocate 1 says that equitable fares would be determined by considering wages, "You would take people's real wages, like the median real wage for a New York City household year by year and the cost of their housing and the cost of their transportation and you would try to keep that kind of all on a line."

Transit Advocate 2's organization has joined Transit Advocate 3 in resisting fare hikes, although it has not been the focus of his organization's campaigns. He acknowledges that many people feel the fare is too high but "there's not a scientific way to distinguish between what's a deeply held belief that the fare should be lower and what's something that of course everybody wants to pay less for everything. Sure the fare should be lower and that's an opinion that people can hold quite casually because it's not something that you have to defend in a decision making capacity."

### Social Service Professionals

Social service professionals were asked what transportation issues are faced by their clientele. For Social Worker 2 it is, "Affordability. Can someone afford paying for carfare." Administrator 2 agrees "Not being able to afford it. Affordability I would say." Social Worker 4 sees the main transportation issues faced by her clients as, "The financial and I think the navigation of the system" specifically for clients who do not speak English and take the subway.

Administrator 2 developed a program to give free MetroCards away at food pantries because he heard there was a need. "They told me people won't come down because they can't afford the fare. ... The sites that refer, the sites that get referred to, they'd be like look, you know, we called him but he can't come down because he doesn't have any MetroCard." Transit Advocate 5 feels that the main transport issue for low-income riders is "absolutely the price, I mean it's ridiculous" and she connects it to wages, "If you're still making \$7.25 and the fare is, that's almost a full hour's worth of work just to get back and forth to work."

Social Worker 5 often hears about fare affordability as a tenant and community organizer. "People definitely regularly complain about the fare. I've never not had a job where - when you have more open conversation, what are some things just making life more affordable." She

recalls, “We ... had gotten a grant to help victims after Hurricane Sandy and a lot of it was people lost out on their unlimited ran out and they lost out on that fare and that actually had an impact in their bottom line. That’s actually a lot of work that we did.” Administrator 1 agrees that fare affordability is one of those topics that perpetually arises with low-income people. When asked ‘Do you talk to clients about transportation?’ Administrator 1 says “Not on purpose but I just can’t help but hear it.” Social Worker 1 hears fare affordability as an excuse, “Like I didn’t have money to get there” and notes that nonprofit agencies often preemptively distribute free MetroCards.

Several social service professionals said that the fare is a barrier to clients accessing their services. Social Worker 4 says, “We sometimes get clients saying it was difficult to come or we try to concise [sic] the dates as much as we could get in, try not to tell them that they have to come back because we know that there’s another carfare involved,” and, “There are times the client says well I don’t know if I can go this week cause I don’t have the funds.” Social Worker Group members say that although they primarily deal with local clients, “Sometimes they don’t have money, believe it or not now it’s like \$2.50, it’s a lot for somebody that’s on a low budget somebody that doesn’t have, you talking about \$5 now and if they need to come back for another appointment ... that can take up to \$20, \$25 whatever it is but it’s still an amount of money they can use to pay bills or they can use you know to eat actually.” When asked for an example, Social Worker Group members describe a client who is raising two children and who collects bottles to make ends meet, “She’s like oh no I can’t come this week, can you make it for the other one, because it’s like transportation wise she had to stop collecting cans and then she have to spend \$5 to come.” Administrator 1’s organization was given 100 tickets to a Mets game. She tried to distribute them to food pantry and Single Stop clientele but, “I had families that couldn’t go because they didn’t have money for transportation. I was like my God how could that be.”

Social Worker 4 puts affordability in context, “So it’s not just the transportation but the rent, the food, there’s such a big demand on the pantry now due to so many cuts with the SNAP program and also just people getting laid off, or even hours cut.” Administrator 1 similarly says of affordability, “If you can’t afford to feed your family you can’t afford public transportation.” Administrator 1 connects transit affordability to income, “I just know a lot of our clients are also

the working poor. So if you're making minimum wage and you have to shell out transportation money, that's a chunk of change." Social Worker 2 says "If they're not working, they have no income coming in, and as you know the unemployment has not been approved by Washington, the extension so folks are really hurting. They come in here and ask do we have MetroCards. In the past couple of weeks we've gotten that."

Several professionals described personal struggles with affording transportation. For Social Worker 5 the problem is increased costs. "I'm always like every week calculating like what am I gonna do, what am I gonna do. I used to just get an unlimited because it was like a decent price." Social Worker 4 has had personal trouble with transportation affordability because her husband is out of work. She has skipped trips that could be made via transit, "We're saying it's three of us back and forth so it's 5 5 5 so it's \$15 sometimes we're like \$15 to get to my mom's, you know like I'd rather not." She appears quite sad as she describes this situation. She says that if she did not need to pay for transportation, "I would see my health improving because of stress I'm dead serious." Transit Advocate 4 personally struggles with fare affordability. "I lost my MetroCard last night and if I didn't have my tax refund I'd be screwed."

### **5.2.2 Professionals' Experiences with Foregone Goods**

Social service professionals confirmed the findings from residents on foregone goods. The Attorney's primary work is with homeless clients who are owed carfare from HRA. She puts affordability in the context of daily necessities. Speaking of EBT cards, she says, "They don't have to use that for carfare, they can use that for whatever else they need like toilet paper, or diapers, you know other things that might seem more necessary at the time. So if they run out of that, they don't really have any money to get on a train," and, "I've heard of people who are getting a lot more food stamps than they're getting cash assistance. So they'll maybe trade some of their - buy food for someone so they can get MetroCard or more cash." Other professionals could not speak to what goods each client foregoes specifically to pay for transportation, but they generally discussed what goods clients are foregoing to be able to live day to day. These include health care, housing, and telephone service.

For health care, Social Worker 4's clients feel they cannot pay any monthly amount yet do not qualify for Medicaid. "Some individuals have opted to take that penalty [a percent of income assessed yearly with taxes] because they cannot afford the amount that is supposedly affordable."

Regarding housing, Social Worker 4 has had "a few clients saying I had to go back and move in with my mom or we're pairing up like you have families, a group of three families living in a two bedroom, crowded spaces because they're trying to split that you know the rental like \$1,200 for rent, so then you have three families three head of households trying to provide that but then they're crowded .... Also some families have decided to rent a room and opted to just - and I've seen this I'm like wow - like a mom with her husband and maybe two kids and then they decided to rent a room versus a whole apartment and they all live in one room so we're seeing that as well." Social Worker Group members asserted the same observation and noted that some clients are living "illegally in some NYCHA apartments."

Social Worker 4 knows that clients regularly forego telephone service, "There's a lot of families that even though you see them with a phone it's not always active." The Attorney says of a client in a homeless shelter, "I tried calling her the day before to confirm and her phone wasn't working which is also really typical. Um and then I got a message from her as soon as I got to the hearing and she said I don't have carfare, I can't get to the hearing. So that was really typical. And it's also frustrating because the reason we were having the hearing was because her benefits were reduced. But she couldn't afford to get there because her benefits were reduced and she didn't have enough money." She later says that "a lot of our clients" have telephones that do not work because "they can't pay for them at the time."

Social Worker 4 sees lack of funds for transport as resulting in social exclusion, "There's also social factor where I think there's a lot of people that are isolated and depressed besides not having food on the table or maybe even a relative saying you know I can't get to you but can you come and pick up some food or come to dinner to alleviate that and then in the middle they're like I can't get to you because I don't have the means to get to you because of you know money."

Transit Advocate 4 was the one transport professional who spoke about foregone goods. She is sensitive to the issue, "I mean aside from food every month you do need clothing, you

need socks, you need basic necessities. Just giving people at least transportation gives them a way to define those needs for themselves.”

### **5.2.3 Professionals’ Knowledge of Welfare State Interventions**

There is a lack of information among transportation professionals about how low-income groups receive free MetroCards. Nearly all professional interviewees, and all residents, were familiar with the widespread practice of contracting agencies distributing transit fares to the poor. The social workers and welfare advocates expressed the greatest familiarity, in part because the nonprofit agencies where they work either currently or in the past had given away MetroCards. Among the transportation professionals, two were unaware of the practice. The four who had some familiarity with the practice were all involved with community organizing. Professional interviewees were largely unfamiliar with the official transportation policies of the HRA and Medicaid. Only one social worker expressed awareness of HRA’s carfare policy, stating that she believed the policy may have been discontinued. Half of the welfare advocates and social workers were aware of free MetroCards being given to Medicaid enrollees at doctor’s offices. Regarding Medicaid cards, Administrator 1 says, “I don’t know if a lot of people know that they have to ask.”

The only welfare advocate who knew about HRA’s policy was the attorney who specializes in recovering carfare owed to homeless clients. Her experience shows that welfare workers and clients alike are unclear about HRA’s carfare policies. “We usually end up getting like hundreds of dollars back for clients because they just didn’t get carfare. ... I’d say most of the time it’s something they don’t know they’re entitled to,” and, “We’ve heard that sometimes they get individual cards and then sometimes they also get it on their EBT cards so a lot times clients are overpaid carfare and we just kind of don’t say anything.” The attorney explains one reason, “The policy bulletins [from HRA] are really confusing.” She has heard of free transit cards being distributed by nonprofits and other welfare-related agencies by “word of mouth from clients,” underlining that there is no comprehensive policy.

Social Worker 4 has a program within her agency that provides MetroCards “as needed” to parents. When she came across a client who was in “dire need” of a MetroCard she had to get

special permission from someone in a different program to provide her with one. Social Worker 4 recalls a young woman who had been sleeping on rooftops and needed to get to a placement in a shelter. She had no money and was going to give up and walk back to the building where she had been staying, but Social Worker 4 was able to get her a MetroCard after getting permission from her supervisor to use a card from the ‘family’ program. Social Worker Group members and others told similar stories. Their anecdotes reflect how the practice of handing out free MetroCards is *ad hoc* and at the discretion of the case worker.

Two noted that welfare-issued fares were insufficient. Social Worker 2 sees a gap in services where a person gets a two-trip MetroCard at a welfare office but it is not enough for all of the client’s trips, such as job interviews. The Attorney points out that welfare state-issued carfare and MetroCards are insufficient for families because the same amount is issued regardless of family size.

#### **5.2.4 Professionals’ Experiences with Fare Evasion and Sharing**

Findings from both resident and professional interviewees suggest some forms of fare evasion are widely acceptable (e.g., underpaying on the bus and giving someone a swipe), and that fare beating is often observed. The Transit Planner says of fare beating “It’s a culture, you can’t change that.” He says that people will always sell swipes and enforcement in one place merely displaces the activity temporarily. He says for certain people fare evasion is just “how they live.” The Transit Planner is not surprised that low-income riders often share cards, noting that the built in time limits enforce the legality of the practice.

Although none was asked about it directly, several professionals mentioned that they observed fare evasion regularly, and some helped to facilitate it. Professionals were also asked whether they share their own MetroCards. Most said no; other responses are noted here. Their sentiments reflect those of the resident interviewees: giving someone a swipe is a fair and just act.

Administrator 2 echoes the sentiments of many resident interviewees, “I think they could do more for low-income people in terms of helping them get through the turnstiles the regular way instead of over or under. (Do you see a lot of fare beating?) Yeah. And I help people beat

fares, anytime anybody's waiting and are like hey can I get a swipe I will swipe them. (Do you know whether it's legal to share your card with strangers?) I imagine it's not but I don't care." Social Worker 1 has observed clients evading the fare by using student cards, although she does not indicate its illegality, "If they have school age children that are taking public transportation to get to school ... parents will sometimes use the card cause you can only use it up to a certain point so yeah there's a lot of that." She also often has clients ask to borrow MetroCards. She notes that this happened "just the other day" when a client asked to borrow her unlimited card "and bring it back when I'm done." When asked about the practice among non-English speakers, one member of the Social Worker Group says, "I can tell you Chinese people their family they just like buy one unlimited MetroCard monthly and then they will share the whole family and then like one people come to like stay there and pick up their MetroCard and they wait like 15 hour (sic) then they use it. I know a lot of people the Chinese people they do that." Another member chimes in, "That's common among Bengalis and too. I've seen people do that," and a third "Spanish too - I use my boyfriend's on Saturdays! [laughs]." Social Worker 4 is also a lender and borrower of cards, as are her clients. "I have lend it to co-workers and I've lend it to family and it's funny too because I've also had families lend me their unlimited. That's funny but it has happened they're like 'Use my unlimited don't worry'."

Other professionals spoke at length about their personal experiences with sharing cards and fare evasion. Transit Advocate 5 when asked if she shares her MetroCard exclaimed, "Of course! And I swipe people in who are stuck. I was in that position for a while too when I had no money before, there was a long period of time I didn't work." Transit Advocate 5 shares with "Family members, my friends, if I don't need it that day yes absolutely." Several professionals had themselves borrowed money for transportation, either recently or in the past. For Administrator 2 it was before he became financially stable, "I mean I was really broke up until like probably a year ago, year and a half ago. There would be a lot of times where you couldn't afford like an unlimited or you couldn't afford whatever you had to get you just had to get some dough somehow." Similarly, Social Worker 5 says "When I first moved to New York I feel like I was always borrowing money for a MetroCard."



For most professionals, sharing cards is a mundane part of household or workplace coordination. Administrator 1 lends out her unlimited MetroCard to co-workers and volunteers, some of whom are clients. She did so “more” when she worked for a private insurance firm in Manhattan, because her co-workers often commuted from out of state and did not have unlimited MetroCards. For others, it indicates financial constraint. Transit Advocate 4 has personal struggles with fare affordability and shares an unlimited card within her household to get by. “Times are hard sometimes so we have to share. Sometimes it will be me walking to the train station or ... (so you can swipe him in and then use it) Yeah. (Does he have a job?) He has a job but it’s a minimum wage job. So it really doesn’t give him that much. (What kinds of MetroCard does he usually have?) He works with a weekly but he used to do monthly but he opted to do weekly just so he could have a little cash. A little extra cash, even though like overall it would save money but ...”

### **5.2.5 Professionals’ Opinions of Universal Access**

Professionals were asked about the primary goal of public transportation, and whether they felt it was operated with consideration for low-income passengers. Most professionals indicated that transit has a universal service obligation: that it is a “public service” that makes the city accessible to everyone. Their choice of words belies their understanding of transit as a progressive system.

The Transit Planner believes the transit agency’s primary goal is to ensure the transit system provides “equal service” as well as high quality service (i.e., frequent, clean and reliable). Transit Advocate 3 says, “It makes the city possible,” and, “I think the system was built with the working class in mind. You don’t get to travel in a limousine, it’s not upper scale accommodations. To use a word rarely used, the proletariat, the common - - it certainly wasn’t designed to some fancy standards.” Transit Advocate 2 similarly says, “You know transit is especially in New York, an essential public service. The city would not function without public transportation.” Transit Advocate 1 connects universality to affordability and mode, “It’s there to provide everybody with safe, environmentally reasonable and sustainable and reasonably convenient access to all of the things that we all need so that’s economic opportunity obviously

jobs but also education, that's services, health care, education, retail, recreation, all the stuff you need to round out your life. The goal of transit is to make it possible for people to do that affordably and without having to rely on a car." Transit Advocate 1 summarizes, "The ubiquity of transit in New York is the only thing that makes working class and poor people's lives economically tenable."

Administrator 2 describes the transit system's horizontal equity, saying whether you are rich or not, "Your subway commute's gonna be the same. You're gonna smell the same thing, same dude's gonna breathe in your face and that's sort of why I like it, I think it's actually different than transportation where I'm from which is 100% car focused and you have poor families all over the place buying cars they can't afford, out of control, families with three or four cars, families who buy cars just because it's a status symbol. The lack of a status symbol of our own transportation system is sort of like an equalizer." Transit Advocate 2 sees universality as primary to transit's mission, "I mean the ability of people who don't own cars and don't have a lot of money to get to jobs where the jobs are, to access education wherever the schools are, to be able to do all the other things that life requires, and to be able to get around the city."

Two transportation professionals compared transit with other public services. Transit Advocate 2 says, "I think of it as being on par with emergency services, fire and police and ambulance for example, I don't know that people have a constitutional right to a fire department but it's expected, and I think public transportation is, like I think that a functional society has a public transportation system." For Transit Advocate 5, "Part of our work that we're trying to do is make people respect transit as central as having a fire department as having hospitals and as having school teachers."

Professionals reiterate residents' sentiments that transportation, and the fare specifically, is outside the realm of protest and entitlement. Social Worker 5 finds that the fare is, "Something that people sort of more accept ... It's more of a kind of a gripe, but not feeling that it's something where people would say I deserve better schools and it's really awful that every time I go to meet with my case worker they treat me this way." Transit Advocate 5 has heard a similar sentiment from community members, "The people in the communities, they don't organize, they don't think about that they can do something about public transportation not that they take it for

granted they just think that that's something that's outside of their power or they just never thought about changing it," and, "They think it's this monolithic entity and you know it's the wizard and he's in charge of everything and they just got to accept and be grateful for whatever they get." "They feel like it's just a blessing, it's a gift and they shouldn't complain about it." Transit Advocate 5 contrasts this attitude of outer borough residents with the "very spoiled" attitude of Manhattanites who will complain at the slightest transit problem. Transit Advocate 4 says that, "I don't think people really think of transportation as a right that they have. People feel that education is a right, everyone has the right to a good education, everyone has the right to health care, but when it comes down to transportation it's not really like on the radar." Transit Advocate 1 disagrees, with some nuance. "I think it's a public service. A thing that people rely upon as opposed to like a thing in the marketplace that they can choose to consume or not. ... It's a public service. It's a right."

Social Worker 3 feels that transit compares so favorably in terms of cost and often speed of travel to alternatives that it is able to maintain low quality services without public dissent. "It's almost like being in [public] housing, you know, you go in some of these housing buildings I guess because people or situations are whatever they are to be able to qualify to live in those places it's almost like the thought is you should just be happy we're giving you somewhere to live so don't complain. So that's what I say when I say that subways is kind of like this is what it is, deal with it, what's your alternative."

### **5.3 Summary of Findings**

This research has found that relying on user fees from financially constrained consumers with few choices can have deleterious effects on low-income residents. Those effects are mitigated by the resources available to residents, most prominently resources from welfare (e.g., housing subsidy, free telephone, SNAP). For low-income residents, paying the fare is one of many hurdles to overcome to obtain basic necessities day to day.

The findings suggest that the economics-based understanding of fare affordability and ridership among low-income passengers is incomplete. Interviews with residents show the fare, and especially the unlimited MetroCard, has a use value, not just a market value, that informs

how and when it is purchased. Distribution is often accomplished by the welfare state rather than in the market. Ridership, moreover, is afforded by forgoing basic necessities, risking arrest, and relying on welfare state agents.

The sole explanation within the economic paradigm for how transit maintains universality is inelastic behavior of riders. This research finds that when low-income riders forego goods for the fare, they are necessities. It is also at least as common for interviewees to use other behaviors to afford the fare, including reliance on the welfare state, fare evasion, borrowing, and transfer exploitation. These behaviors or practices, along with skipping trips and mode shift, are the ways that the transit system maintains universal access.

Without recognizing welfare-related fare practices, which exist largely outside of transit's policy realm, transportation professionals may overestimate the ability of low-income individuals to pay for transit. The MTA's current method to discern the equitability of the fare and fare structure identifies the location of the 'first swipe' of a MetroCard. This is probably a reasonable proxy for passenger income, and certainly the closest proxy possible given available data. The method does not, however, incorporate any information about how the MetroCards are acquired.

Title VI policy documents presume all cards are purchased by the user (Hickey et al. 2010). The presumption that the fare is purchased directly by the passenger may be false in the case of many low-income riders. Furthermore, the MTA's explanation for fare card use by demographics is missing information about the free MetroCards: "Disadvantaged customers (low income and minorities) generally favour fare media with lower sales values due to less frequent travel, inability to pay higher amounts and cultural attributes," (Hickey et al. 2010, p. 5). When we leave aside the economics paradigm that rider behavior expresses individual preference, we find that low-income riders may not "favour" these fare media, including two-trip cards, but instead may simply use them because they are provided at various points of contact with welfare services. The finding that low-income residents often share unlimited MetroCards indicates greater preference for that fare media than can be observed from purchasing data.

The research finds that low-income riders expect bus drivers to allow them to ride, from time to time, with insufficient payment. The behavior is aberrant but widely tolerated. While it

would be difficult to discover the extent of this behavior, it is telling that so many more very low-income riders use the bus exclusively. Thirty five percent of those earning under \$25,000, and 25% of those earning \$25,000 to \$50,000 use the bus exclusively, compared with 14% or less of higher income groups (Seltzer 2014). The pattern may be explained by transit options in lower income neighborhoods, however fare payment may also be part of the explanation. Future transport research could more closely measure the relationship between bus ridership, income and fare underpayment or fare evasion.

That many interviewees deem fare evasion justified, and that many help others beat the fare when they can, belies their sense of belonging in the transit system and reiterates its universality. They consider the fare to be a reasonable gating mechanism, however their right to this part of the city supersedes their obligation to pay. The interviews demonstrate that riders evading the fare are claiming transit as public space to which everyone is entitled. This idea of transit contradicts the business-based utility model used by transit operators and many planners. Under the current fare structure and payment options, these two models sometimes collide with consequences for both fare evaders and drivers. These are unintended consequences of the fare payment technology that happens to be currently in place.

Unlimited cards emerged as particularly important to low-income riders. Most interviewees preferred them, although many did not regularly purchase them because of competing expenses. For interviewees, fare cards are consumed in the context of not only financial constraints but also welfare- and household-supplied resources, such as subsidized rent and telephones, shared housing, stipends for carfare and free welfare state-issued MetroCards. Transportation planners, including the professionals interviewed herein, are unfamiliar with the resources and constraints faced by low-income riders and therefore miss opportunities to work across policy spheres to address fare transit challenges faced by low-income riders. “Rarely have transportation providers had to coordinate with social service providers” (Sanchez 2008, p. 840). Transport planning scholars likewise place the fare among regular, or inferior, economic goods, rarely accounting for the unique conditions with which low-income riders face the fare.

Residents displayed strong emotions around unlimited MetroCards. The fare has a “use value” or extra-market value. In addition to understanding transit as an instrumental mechanism

for access to amenities and necessities, its gating mechanism is understood as a source of anxiety, certainty, risk and/or freedom for riders.

Further complicating any economic conclusions, interviewees both borrow and lend fare cards and money for transportation, and both evade the fare and facilitate other fare beaters. Possessing an unlimited MetroCard enables some to give away swipes, exhibiting their generosity or sense of justice. While many interviewees described their own deprivation, they also compared themselves favorably to those they knew who were in poverty. The ability to help a friend or relative by lending a MetroCard was often discussed with a smile and lighthearted tone: it was that type of good reviled by economists, a gift. Whether an interviewee is lending or borrowing, giving or receiving, changes depending on the day. When interviewees borrow, lend and gift MetroCards and carfare, they enable themselves and people in their social networks to ride transit. In only two cases was this behavior expected to be reimbursed. In many cases it was a way to save money within a household. This underscores that the fare is not *per se* affordable. In most cases, interviewees gifted or received gifts of transportation, with some mix of reluctance, kindness, generosity and obligation.

The findings on fare evasion, unlimited cards and borrowing demonstrate the extra-market value of a transit fare. They are evidence that transit is what Walzer calls a “social good” with a unique set of parameters - not just money - that determine its distribution (Walzer 1984). This research shows that those parameters are often, in New York City, determined by agents of the welfare state. When agents of the welfare state are partly responsible for letting the poor ride transit, it is problematic because the welfare state itself is subject to the periodic reductions in resources, while the transit fare continues to increase. Barring an expansion of the welfare state current practices will lead to fewer free cards distributed to the poor over time. Anecdotally, Henry has noticed a reduction in the free fare cards upon which he relies over the years. At a food pantry he frequents, “At one time they used to give you two MetroCards, give you \$10 when you take the tests and give you a pantry. But now through the years they told me they don’t give out MetroCards or \$10 no more. They just give out food pantry. So I knew things changed then.”

## 5.4 Conclusion

Fare affordability can be summarized as ability to travel on transit without risk of deprivation, arrest, or being refused admission. For low-income interviewees, traveling on transit often entails risk because the price of the fare is out of reach at the time of travel or competes with necessities such as food and rent. While these individual experiences may be important for planners researching fare prices and structures, the idea of affordability is largely absent from transportation planning research.

The transportation planning literature constructs fares as price signals. Within this construction, riders maximize their utility displaying fare card preference through their purchases. The literature explains aggregate ridership with these assumptions; individual ridership is explained through alternative approaches from geography and psychology. None of those alternative approaches has been applied to understanding how the fare effects travel decisions and ridership among low-income transit dependent riders. There is therefore little research that uses individual experiences, rather than theoretical constructions, to explain the transit fare. This research contributes a novel explanation of the fare as a social good, traded among necessities. Specifically, fare card preference can be interpreted as a result of how constraints and resources, from both the welfare state and household, combine for a specific individual. Fare card prices are not necessarily paid by individuals, but by welfare agencies and household members. The price signal of the fare not only effects travel decisions, but decisions about sharing and borrowing. Paying for travel is experienced as an opportunity for generosity and obligation or entitlement: low-income riders are glad to facilitate access for others, and in some circumstances have come to expect that their fares will be provided (i.e., by bus drivers and at certain welfare agencies).

The research highlights the gulf between social welfare and transportation planning policy and research. Perhaps the fragmented, scattered implementation of the welfare state explains why it is so distanced from transit agencies which by contrast are centralized and “legible” in the modernist tradition (Scott 1998). Several other explanations for the distance between the two policy realms hold promise as well. One instrumental explanation is that transportation planning does not include meaningful contributions from riders who are welfare

recipients. Professional interviews confirm that transportation planning and advocacy agendas are established prior to engaging riders, and riders are engaged for their presence at hearings and protests but not for their substantive contributions. A more global explanation is that welfare is stigmatized while transit aims to be customer friendly to attract broad ridership (Farmer 2009). From a political economy perspective, we can observe that transit is tied to the city's real estate values and transit advocates focus on capital expenditures; welfare is tied to the city's labor force and its advocates focus on wages and entitlements. The division between the policy realms may be summarized as between capital and labor.



## Chapter 6

### Policy Implications and Recommendations

Fare policy must be adjusted if the goal is for the transit system to be universally accessible. Transit planning's approach, however, sidesteps affordability. Transit planning envisions fare policy along a spectrum from zero to 100% cost recovery, and correspondingly from the political left to the right.<sup>56</sup> Cost recovery, while it has important implications for fare price, is itself irrelevant to the problems of affordability and universality of access, which are instead part of the discourse of social welfare and social justice. This chapter discusses the practical implications of the findings and presents ways to structure fares, income supports and/or welfare to ensure a distribution of fares that aligns with the goal of universal ridership. They are in the urban planning tradition of "muddling through": observing fare policy in practice (how it is afforded, how it is subsidized) and making adjustments from those "branches" rather than the "root" (i.e., cost recovery) (Lindblom 1959, p. 80).

Planners tend to rely on positive, quantitative data which cannot account for these practices and compromises, both by individuals and within households. Without this information the surveys administered to riders, which then inform the determination of fare prices and concessions, are incomplete. The findings suggest that MTA's surveys should ask about free two-trip cards and other cards that riders themselves did not buy. By asking riders directly about these behaviors, the surveys will gain a more comprehensive explanation of ridership and preferences about fares and fare structures. Only a large-scale representative survey, like that conducted by the larger advocates and transit agency, can reveal the extent to which nonprofits and welfare-adjacent organizations are providing transit for riders.

For transit advocates and planners promoting off-board fare payment, the finding that low-income riders expect to underpay the fare is important. Fare evasion on SBS is enforced by the police rather than at the discretion of the bus driver. The authority which would allow an occasional fare beater to access the system with little money is thereby removed from a potentially sympathetic actor to a punitive actor. Fare beaters on the bus are changed from riders accepting a kind favor from a driver to criminals hoping not to be caught. Off-board fare

payment creates efficiencies, which benefit all riders, however these findings suggest that it may incur increased risks and decreased fare affordability for some riders. More study is needed to understand the extent of those costs.

In practice, the policy of keeping the pay-per-ride fares low while raising unlimited fare pass prices may have important, difficult-to-quantify consequences for low-income households. This knowledge can be incorporated into fare structures, equity analyses and welfare state carfare policies, perhaps leading to a more comprehensive policy for the non-market-based distribution of unlimited MetroCards to low-income riders. Future fare structure changes should include policies specifically to expand the distribution of unlimited cards to lower income groups.

Changes to the welfare system and to fare payment systems effect low-income New Yorkers' accessibility to the transit system. The welfare system, as noted, is likely too fragmented to make a wholesale change to its myriad policies on carfare and free fare cards. Fare payment technology changes, however, are very likely. Any shift in fare payment that removes the discretion of the bus driver, or that prevents sharing of fare media, will be problematic for those riders who struggle with affordability. The two systems could potentially coordinate to resolve these issues. Despite the intractable division between their policy realms, welfare and transit intersect daily in the lives of thousands of New Yorkers, and some measure of collaboration across policy realms seems wise.

There are several ways to make transit more accessible to those who cannot afford it: benchmark the fare to wages, make it fare-free for everyone, and target lower or free fares to specific groups of passengers. The first two are inefficient or untenable. Benchmarking might curb fare increases but will not necessarily make fare prices affordable to the lowest income residents. Fare-free transit has been implemented for residents of Tallinn, Estonia, as discussed in Chapter 2, and there is a Sweden-based group promoting the idea with a primarily environmental justification.<sup>57</sup> Eliminating fares is only practical if another source of revenue becomes available, and is only equitable if that alternative revenue source is more progressive than the fare.

Other options require targeting subsidies to specific groups of travelers. Categorical policies are already in place in both transit (e.g., discounts for seniors and the disabled) and welfare (e.g., carfare for the homeless, free fares for those in mandated training programs).

Formalizing the policy would recognize that transport is, and has been, a component of social services, and that income supports are necessary for citizens of an income-disparate city to enjoy some equality of access. Depending on the policy, different agencies would purchase and/or administer the fares, including HRA, NYCT, MTA or another agency. The challenge is to neither under- nor over-distribute fares to individuals who often embody intersecting recipient categories. This research finds that current attempts to provide transit fares for welfare clients are *ad hoc* and often under- (and sometimes over-) distribute fares to individuals. Any additional categorical discount - for example, offering half price fares to public housing residents or cash assistance recipients - risks multiplying those errors and encouraging those agencies now distributing fares to curtail their efforts. The following options attempt to mitigate those risks.

#### Add Transit to EBT Cards

Transit could be made explicit in cash assistance grants and loaded on all EBT cards automatically. Cash assistance is now comprised of the basic grant and energy allowance.<sup>58</sup> The total of those two amounts is credited as cash to a recipient's EBT card. HRA could add carfare as a third item in cash assistance. Currently, cash carfare is linked to homelessness and free MetroCards to work and training. Both are administered poorly due to clients' intersecting and changing statuses. Many clients, however, are cash assistance recipients and cash assistance status is at the forefront of all other welfare state programs. That is, welfare program administrators are keenly aware of whether clients are receiving cash assistance. If all cash assistance recipients automatically received carfare, then programs would only need to hand out two-trip cards to everyone else. The additional cash assistance amount should be pegged to the re-sale value of an unlimited fare card.<sup>59</sup>

This research additionally finds that unlimited ride fare cards are particularly valuable to low-income riders, providing certainty and relieving anxiety. Cash assistance recipients could have an option to receive an unlimited ride MetroCard in place of carfare. This way, recipients can decide which is more valuable given their mobility needs and cash needs at a given time. This policy option would simplify the administration of carfare. It would prevent court cases by homeless individuals for unpaid carfare, because every cash recipient would be entitled to the

same amount.<sup>60</sup> It would also prevent the complications that arise when a recipient fits multiple categories (e.g., mandated training and homeless). Carfare would simply be loaded on to every EBT card in equal amounts unless the recipient prefers to receive an unlimited fare card or, depending on technology, use the EBT card as fare card.

The policy creates its own complications, however. It would complicate the position of those medical providers that now give free two-trip MetroCards to Medicaid recipients. If they continue distributing the cards, those patients who are also cash assistance recipients will be overpaid in carfare. Nonprofit organizations that distribute two-trip cards are similarly positioned. These agencies could either adopt a policy of excluding cash assistance recipients or just continue to distribute the cards. This research has found that two-trip cards are often stockpiled and gifted. Sanctions could be a major impediment to consistently providing transit fares to very low-income residents: welfare agencies frequently stop payments to clients' accounts for myriad reasons (e.g., failure to keep an appointment, failure to find work, failure to complete a training). If carfare were grouped with cash assistance it would have to either be kept free from sanction by policy or would be vulnerable to sanction.

#### Offer Low-Income Fare Discounts

This research finds that the targeted subsidies often elude those who might need them but are unattached to the welfare system. One option is to expand categorical discounts to all low-income riders, making transit a stand-alone welfare benefit based on income. Seattle's transit agency began price discrimination by income this year, and Toronto's government is currently debating the proposal. In New York, free fares and cash carfare are already distributed by welfare state agents to many who would qualify as low-income. Those who are not engaged with the welfare system but find the fare unaffordable could become free fare recipients by engaging Single Stop or other welfare state agencies in administering transit as a new stand-alone benefit, or by shifting administration to the transit agency, or some combination of the two. Those welfare state agents that now distribute free fare cards and carfare as part of other benefits packages would likely curtail their practices if this policy is implemented.

An alternative that would address those unattached to the welfare system is to create a city-based variation of the commuter tax benefit program. Currently, workers save money by dedicating a portion of their pre-tax income to transportation. A city- or transit agency-based system could impose a discount that is scaled to reflect the worker's income. For example, a worker who earns less than a given amount in a month could qualify for a transit card without any reductions to his income. Both these options are flawed because they would exclude informal workers.

#### Replace the Fare with an Annual Tax-Based Fee

In general it is worthwhile to consider the option of relaxing the requirement for fares to be direct user fees paid at the gate. As fare payment technology develops and payment becomes more remote and seamless, converting to a tax-based, annual-fee transit system may become more feasible. A transit agency could, for example, offer an annual fare pass, with an option to buy it with one's income tax refund. Offering a tax-based fare payment option presents opportunities to scale the fare to correspond with income. For those who choose to buy fares retail - not through taxes - the transit agency could offer a variety of payment plans, as in Vienna, and single trip or daily fare cards. Nonprofit social service agencies could buy annual cards for their clients and manage payment plans the same way supportive housing agencies manage clients' rent payments. An annual pass, tax-based system could be consistent with a more comprehensive conversion to an honor system (gate-free all-doors boarding) since passes would be physical evidence of payment. Fare evaders would be those not holding cards, and those holding cards which they do not own; this option precludes the sharing of farecards within households and workplaces which is now quite common, including as a way to enhance affordability. This option would effectively remove the price signal from ridership demand, however remote and automatic payment options are already accomplishing that for transit agencies. It could also compete with, and diminish the value of, the federal commuter tax benefit program now in place (e.g., TransitCheck) for some income groups.

### Give Nonprofit Organizations Discounts

Nonprofit organizations distribute two-trip MetroCards to clients according to their varying policies. If they could purchase them at a discount, they would distribute more. This policy would be consistent with the ideological underpinnings of welfare state devolution. It would empower direct service providers to implement whatever policies they feel work best. A nonprofit might, for example, give free cards to everyone who visits the food pantry, only to those clients who are deemed needy by a case manager, or to low-income workers who are not receiving welfare. There is potential for fraud since nonprofits could distribute fare cards to those who would otherwise easily afford them, or to clients who then resell them. The transit agency or the welfare agency could, however, require some statement of fare card distribution accounting and then undertake periodic spot checks to detect fraud.

Ridership for low-income people depends on welfare programs, generosity and fare evasion. The relationship between transit and welfare is almost entirely unacknowledged in both scholarship and planning practice, yet it has a critical implication: transit (specifically its core ridership) is vulnerable to welfare regimes and their divisions between deserving and undeserving populations.

The U.S. welfare state distributes necessities according to a categorical logic that separates the deserving from the undeserving needy, with the primary distinction in deservingness being attachment to the labor force. Low-income individuals have difficulty affording public transit whether employed (formally and informally), disabled, or not working. When a transit agency relies upon the welfare system to distribute fares, it implicitly complies with the welfare state's values and categorical logic. Not all who need access to transit will receive it from the welfare state, leaving the generosity of bus drivers, loved ones and strangers to make up the difference. When there is a shift in welfare policy and resources decline, the accessibility of transit to the poor changes. In New York, as in many cities operating with a contracting regime, welfare system changes are *ad hoc* and scattered (Smith 1993). A person's access to the transit system can change because of his luck at using one of the thousands of

contracting organizations, any one of which may happen to change its policy or lose the unrestricted funding it uses to buy fare cards. One organization may start offering fare cards while another may discontinue distribution. The transit agency currently has no method to discover the state of the practice. Without even accounting for free fare cards in its equity analysis, the transit agency is particularly ill-equipped to assess the justice of the distribution of mobility and accessed administered within the welfare system.

## Notes

1 Most transit advocates, including many planning scholars, are interested in universality of ridership as a gain for mode share: attracting more elastic would-be riders from cars on to transit (e.g., Kawabata and Shen 2007, Krizek and El-Geneidy 2007). This branch of transportation planning tends to favor user fees as long as they are competitive with tolls and gas.

2 The social inclusion literature has focused on vehicle availability rather than public transportation. Church et al. (2000), Delbosc and Currie (2011), Farrington and Farrington (2005) and others theorize the constraints faced by low-income transit riders and delve into their coping mechanisms. Financial constraints are listed among the limits to access which impede social inclusion. These researches provide a useful spectrum of constraints that can lead to transport disadvantage and social exclusion.

3 Short run is 1-2 years, long run is 12 or more years, depending on the study (Paulley et al. 2006).

4 In less well-specified models, the cost estimate among modes may only include value of time and tolls, rather than gas, transit fares, parking and other costs. For example, Winston (1985) presents a transportation cost estimate for auto, rail (San Francisco's BART) and bus by passengers per hour. It is considered an estimate of full costs because it includes value of time (\$3.00 per hour). The fare and variation among riders are not part of the model.

5 These stand for A Learning Based Transportation Oriented Simulation, Simulation of Travel/Activity Responses to Complex Household Interactive Logistic Decisions, and Household Activity Travel Simulator.

6 Transport economics acknowledges that behavior is due to habit as well, but that habit is reflected in observed elasticities (Button 2010). Others emphasize the importance of knowing how habits and attitudes are formed in order for policy interventions to be designed effectively.

7 The Social Exclusion Unit was instituted in 2003 and supported research and planning until 2006, when it was scaled down. Some university efforts on social exclusion continue.



8 Transport academics have largely praised the U.K.'s social exclusion unit, however there are some detractors. Levitas (2001), for example, criticizes the Social Exclusion Unit for unjustly problematizing deviance from wanting to work, including young parenthood.

9 There is substantial literature on whether marginal costs and subsidies should refer to the short or long run, how to account for budget constraints, and how prices should reflect economies of scale.

10 When referenced in the singular, the inelastic rider is one with few alternatives for trip making, hence the label "captive rider."

11 The Ramsey principle from economics would raise the price of the goods with the most inelastic demand because consumers will buy those goods regardless of price. This principle was developed originally in transport economics in the 19th century. It has generally not been employed for government-supplied goods, including transit, due to political concerns: it is "plagued by equity problems" (Winston 1985, p. 81).

12 Hong Kong may be the exception. Its transit agency operates with revenue - not strictly subsidy - from real estate associated with its rail lines.

13 There is at least one transit agency that does not offer discounts based on demographic category or location. Trans Milenio, the bus rapid transit system in Colombia, offers no discounts.

14 In line with the consideration of the incidence of subsidies on income groups, a separate branch of literature in North America and Europe compares both the benefits and burdens of transportation overall, with the fare occasionally an explicit factor. Beneficiaries and payers are specified as not just riders but also tax payers who contribute to subsidies, land owners who benefit from proximity to transit, and others (Pucher 1981).

15 The place of politics in fare policy is clear from transit histories, such as Hood (1995), and often reported on in the popular press (e.g., Gelinis 2013).

16 The social insurance and welfare tiers have also been described as masculine and feminine, respectively (Goode 2002, Skocpol 1995).

17 Welfare state agencies categorize clients by both ability to work and status as a caretaker of children. With the 1996 federal welfare reform act, able-bodied adults without dependents not collecting unemployment were targeted with stricter time limits on benefits and requirements for work and training.

18 Since 2008, food stamps have been renamed the Supplemental Nutrition Assistance Program (SNAP).

19 The prospect of guaranteed annual income in the 1970s briefly shifted the discourse toward associating poverty with structural economic problems such as wages rather than individual dysfunction, but the policy was not adopted and the discourse quickly reverted (Davies 1996).

20 The transit card in Tallinn, Estonia costs residents a one-time fee of €2.0. This is the same card non-residents can load with money to pay the regular fare, €1.6 for a single trip. The free fare policy was adopted in a referendum with light turnout and 76% in favor (Leufstedt 2014).

21 The *vale transporte* system has been mandated in Brazil since 1987.

22 Workers earning about three times minimum wage or higher who spend less than six percent of their income on transportation usually choose to keep their full income rather than participate in *vale transporte* (Estupiñán et al. 2007).

23 Lagos, John Cote and Marisa. "Google Says \$6.8 Million for Youth Muni Passes Just a Start." *SF Gate* February 28, 2014.

24 A transport cost burden of 6% is used, in effect, to guide the *vale transporte* policy in Brazil. In South Africa, a 10% cost burden initially developed by the World Bank has been cited in policy documents (Venter and Behrens 2005).

25 Like much of the spatial mismatch hypothesis literature, Chapple (2001) finds that transportation is a necessary but not sufficient component for gaining employment.

26 Transport geography has called for qualitative approaches to studying transportation (Røe 2000).

27 Martens (2012) is an exception to the bulk of transportation equity literature. Martens rejects a distributional approach that narrowly examines specific modes or revenue streams. Instead, he investigates the distribution of access and seeks a distributional criteria for access other than money. His analysis starts with the idea that access has social value and thus a unique "sphere" of justice (Walzer 1984), and concludes with a principle from Rawls that would maximize the amount of access for the least advantaged while minimizing the range of accessibility between the most and least advantaged in society.

28 In addition to social arguments for state support of transit, it has been argued that the value of transport derives from its network connectedness which is best coordinated by the state.

29 U.S. Census Bureau, American Community Survey Three Year Estimates (2011-2013), U.S. Census, tables DP02, DP03 and DP 05.

30 MTA learns about its passengers through two surveys, the comprehensive New York City Planning Survey and yearly Customer Service survey for subways and buses. The Planning Survey captures a representative sample of linked trips. The most recent data are for 2008 and are analyzed in this dissertation. For the annual Customer Service survey, only summaries are publicly available.

31 New York City cash assistance data are from the Human Resources Administration February 1, 2015 “Weekly Report - CA - Weekly Caseload Engagement Status”, Total Active Cases. Homelessness data are from Coalition for the Homeless, November 2014, “The Catastrophe of Homelessness - Facts About Homelessness”, Total Shelter Census. Medicaid data are from the New York State Department of Health, calendar year 2013, “Average Number of Medicaid Enrollees by Category of Eligibility by Social Service District,” Total Medicaid Enrollees. Note that New York City data include the fifth borough, Richmond County (Staten Island).

32 U.S. cash assistance data are from the U.S. Department of Health and Human Services Administration for Children and Families, calendar year 2014, “TANF Total Number of Recipients.” Homelessness data are from the U.S. Department of Housing and Urban Development report for sheltered individuals (Henry et al. 2013). Medicaid data are from the Center on Budget and Policy Priorities which cites a Congressional Budget Office estimate for 2012.

33 The Conditional Cash Transfer program piloted by the Michael Bloomberg mayoral administration (2002-2013) exemplifies how welfare is expected to be reformative for the recipient.

34 While commuter tax benefits are available to workers regardless of income, they are more prevalent among workers with higher incomes. Thirteen percent of the top quarter of private industry workers by average wage have access to commuter tax benefits compared with 8% of the third quarter, 4% of the second quarter, and 2% of the lowest earning quarter of workers. Workers in larger firms (500+ employees) are far more likely to have access to the benefits than those in smaller firms (Winters 2013). In New York City, approximately 16.5% of working adults make pre-tax contributions to a transportation account.

35 The primary block grant is Temporary Aid to Needy Families. States have significant discretion over this funding and can permit localities to use it for transportation. A separate program, the Federal Jobs Access Reverse Commute program cannot be used to subsidize fares.

36 Numbers cited for NYCT exclude Staten Island Railroad. In the U.S., the transit property with the second highest number of unlinked passenger trips is Chicago with 546 million, and the second highest number of miles is New Jersey Transit with 3 billion. Seattle has the largest ferry system in the U.S. (American Public Transportation Association 2014).

37 Most sources refer to the fare in passing as affordable. McCammack (2009) lauds the low fare for making transportation available to African Americans in the early 20th century. The MTA writes that the “low-cost” fare was within reach of “even the poorest,” especially after it was devalued by inflation following World War I (Jablonski 2004, p. 5) .

38 Most U.S. transit systems, with the exception of Portland, Oregon, shifted toward state rather than city control in the early 20th century (Bianco 1999).

39 Post-war rhetoric emphasized “business like” procedures and reliance on the fare for operations, although the transit system was never able to operate solely on revenue from fares (Cudahy 1990, p. 182; A.H. Raskin, "Transit Loss Soars to \$20,000,000 Rate, Imperils 10c Fare," *New York Times*, November 14, 1951).

40 Peter Kihss, "Transit Ride Costs City 13.9c; Fare among Lowest in U.S.," *New York Times*, March 6, 1952.

41 Mayor Robert Wagner (1954-1965) called the potential creation of a transit authority “convenient” and accused supporters of political expediency rather than care for the public welfare. Robert F. Wagner Jr., letter to the editor, *New York Times*, December 30, 1952.

42 "Brooklyn Transit Study Urges Changes," *New York Times*, August 22, 1971.

43 "New York City Plans Transit Fare Boosts as Cash Woes Grow," *Wall Street Journal*, July 28, 1975.

44 Metropolitan Transportation Authority, *Annual Report*, 1981 as compared with annual reports 1968-1980 reviewed by the author.

45 Lawrence Bailey, Vice Chair of the MTA, disapproved of the idea of monthly bus passes because he did not think the poor would be able to assemble the needed funds at the beginning of the month. Monthly express bus passes were implemented in 1980. Still, bemoaning the MTA’s reluctance to implement system-wide monthly passes, one report wrote that experts consider New York among the least innovative transit systems in the U.S. (David A. Andelman, "Innovation Lags Behind Schedule on the MTA," *New York Times*, June 29, 1980.)

46 Other types of differential fares had been considered for New York City transit since the 1930s, more by planners and advocates than by the elected officials. The American Transit Association (ATA) in 1933 posited the 'ideal' fare differentiated by time, passenger income, and geographic zone. In 1946, the Board of Transportation mentioned the idea of zonal charges as a straw man, asserting zonal charges would be rejected by passengers but were the only alternative to a funding proposal it supported (Paul Crowell, "Estimate Board Set to Adopt '5 and 10' Transit Fare Plan," *New York Times*, July 31, 1947). Leading up to the 1948 fare rise, the city considered raising the fare only for peak hours, keeping off-peak fares at 5-cents, but the ATA objected to the plan claiming it would cause intolerable rush hour conditions and increased operating expenses. In 1953, economist William Vickrey called for fares to be differentiated by time of day, direction and length of trip (William Vickrey, "Subway Fare Rise Opposed," *New York Times*, April 8, 1953). The matter rarely emerged over the next 45 years, other than at conferences of federal funding recipients where transportation planners discussed the potential for the fare to manage demand. The MTA implemented off-peak discounts for certain groups of riders over time, but they were either extended to cover all time periods or discontinued altogether (Michael A. Kemp, "Transit Fare Issues in the 1990s--Where Are We, and How Did We Get Here?" *Transportation Research Circular* 421 (1994): 25-34). In 1992 the Straphangers Campaign called on the MTA to use the off-peak incentives (Gene Russianoff and Joseph G. Rappaport, "With Subway and Bus Fares at \$1.25, the MTA's Got to Give; Be Creative on Pricing," *New York Times*, January 16, 1992).

47 The average fare is found to be lower for minority/low income points of origin, whether that is tied to the first swipe of the card for the day or if fare media types are aggregated and weighted by station demographics. Yet minority/low income points of origin are more likely to sell pay per ride cards than monthly unlimited cards. The average fare for the monthly card is lower, but the average fare for the minority/low income origin is lower. This is explained by the fact that minority/low income origin cards get transferred more often. Subway-to-subway transfers are not counted as separate transactions because they don't require a swipe; bus-subway transfers are counted as transactions. The transfers are free, pushing the average fare down.

48 Part of ridership gains can be attributed to a stronger economy. Ridership was already growing at about 1% per year (Hirsch et al. 2000).

49 Bruce Lambert, "Pocket Change, Not Social Change," *New York Times*, May 23, 1998.

50 American Public Transportation Association Fact Book 2014, Table 26. Data are for 2012.

51 The MTA receives approximately \$5 billion from dedicated transit taxes and fees each year, some regional and some statewide, including: sales taxes, corporate franchise taxes on certain types of corporations, taxes on petroleum businesses, the payroll mobility tax, taxes on real estate transactions.

52 The Federal Transit Administration occasionally issues circulars to guide transportation agencies on matters of compliance with both Title VI and Executive Order 12898.

53 Most social science research of this type uses 3 to 15 interviews as noted in a review of qualitative methods texts (Onwuegbuzie and Collins 2007).

54 When discussing what they might purchase if relieved of the fare, interviewees mentioned more elastic goods. Some mentioned vacations, others smaller goods such as makeup. The mechanism theorized in economics - that consumers will forego more elastic goods to buy inelastic goods like the fare - were thereby confirmed in hypothetical musings, but when discussing actual experiences, interviewees mentioned other daily necessities.

55 Interviewee William recalls drivers and station agents allowing children to board without paying in the past. There was a system, he says, in the 1980s where children received paper passes that required them to pay a half fare before boarding and “most of the time the token booth guard just tell you to go ahead.”

56 Pegging the fare price to the cost of a ride is more often promoted by political conservatives. According to the Citizens Budget Commission, for example, the fare ought to equal half the cost of a ride.

57 The Swedish group can be found at <https://planka.nu/eng/> and is discussed at <http://farefreepublictransport.com/>, accessed March 2015.

58 Depending on residential status, shelter allowance may be added to EBT cards, or it may be paid directly to the landlord.

59 Theoretically, the amount of carfare added to the recipient’s cash assistance should equal the (illegal) resale price of an unlimited MetroCard. For example, if an unlimited 30-day MetroCard costs \$116 retail, and could be sold (illegally) for \$100, then bi-weekly carfare should amount to \$50 (cash assistance is distributed every two weeks). The recipient is thereby choosing between one month of travel, \$100 per month cash, or a card which could be sold for about \$100.

60 The professional interviewee who is an attorney stated that there are many cases brought against HRA by homeless clients who have not been paid the carfare to which they are entitled. The attorney handles dozens of these cases each year and estimates there are hundreds, or more, in New York City each year.

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**Appendix A**  
**Cash Assistance Grants, New York City**

Cash Assistance Grant Levels for Households with Children  
 New York City  
 Effective October 1, 2012  
 Levels have not changed as of February 2015.

<b>Household Size</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Basic Grant</b>						
<b>semi-monthly</b>	\$79.00	\$126.00	\$168.00	\$216.50	\$267.00	\$308.50
<b>monthly</b>	\$158.00	\$252.00	\$336.00	\$433.00	\$534.00	\$617.00
<b>Home Energy Allowance</b>						
<b>semi-monthly</b>	\$7.05	\$11.25	\$15.00	\$19.35	\$23.85	\$27.60
<b>monthly</b>	\$14.10	\$22.50	\$30.00	\$38.70	\$47.70	\$55.20
<b>Supplemental Home Energy Allowance</b>						
<b>semi-monthly</b>	\$5.50	\$8.50	\$11.50	\$15.00	\$18.50	\$21.00
<b>monthly</b>	\$11.00	\$17.00	\$23.00	\$30.00	\$37.00	\$42.00
<b>Total Public Assistance issue directly to the recipient's EBT card</b>						
<b>semi-monthly</b>	\$91.55	\$145.75	\$194.50	\$250.85	\$309.35	\$357.10
<b>monthly</b>	\$183.10	\$291.50	\$389.00	\$501.70	\$618.70	\$714.20

Duffy-Gideon, Roisin. *Re: Cash assistance grant levels?* Message to author. 25 Feb 2015. E-mail.

## **PUBLIC TRANSPORTATION STUDY**

### Participants Needed!

Would you like to participate in a study of travel and transit fares in New York City? Columbia University researchers are interested in learning about **your experiences**.

You will receive \$15 for participating in an interview that will last up to 90 minutes.

Interviews are by appointment. We will set up a convenient time, date and location.

**To schedule an interview**, please call Alexis at 917-579-2715 or email [ap130@columbia.edu](mailto:ap130@columbia.edu).

Participants must be age 21-64 and must speak English. No children 3 years or older may be present. All interviews are anonymous and confidential.



## Appendix C

### Interview Guide

**Professional (elite) interview guides were each tailored to the specific interviewee.**

**\* The starred (\*) question prompts were asked of professional interviewees as well as residents.**

#### Resident Interviews

##### Eligibility Check

- Do you speak English? Do you understand English?
- What is your age? (21-64)
- Will there be any children with you during the interview (under 3 only)
- Are you available for up to an hour and a half?

##### Start

- Put phone on airplane mode.
  
- Bathroom break before we get started?
  
- READ: Hello - My name is Alexis Perrotta. I am a student at Columbia University in Urban Planning. This interview will be about transportation. I will be asking you some personal questions about where you go and how you get there. The answers are being recorded but no one will listen to them except me. By signing this consent form, you are acknowledging that your answers will be kept anonymous. Your name or address will not be printed. The form also says that this is voluntary: if you don't want to do the interview, you don't have to. After the interview, I will give you an envelope with \$15 as a "thank you." Do you have any questions about the consent form?
  
- Consent form signed.
  
- Voice recorder on.
  
- Quicktime Player on.

READ: Let me start by telling you about this project and about myself. I am a doctoral student and I am hoping to be a professor of Urban Planning in a few years. I designed this research project to learn about how people use public transportation in New York City. I do not work for the MTA. I do not work for [NAME OF INTERVIEW LOCATION]. I am an independent researcher interested in public transportation. Do you have any questions about me that you would like to ask?

READ: I would like this interview to be like a conversation. If you have any ideas, thoughts, or questions you can say them any time. If I am speaking too quickly or you don't understand, just tell me.

START: I've lived in New York City for 17 year. I take the subway and the bus, I don't have a car. I've had jobs all over the city. I have no kids, just a nephew in Florida and my goddaughter. I earn \$25k/year + savings. Describe this morning's trip.

### **Open Ended Questions**

Tell me about yourself - where you live, your family.

Tell me about where you go during the day.

Tell me about your neighborhood - what's it near, where can you get to?

How do you feel about the Metro Card prices?

Note HH composition, places of residence and work - clarify.

### **CHECKLIST**

Current residence - location, length of stay

Prior residences - location, how long lived there. Homeless periods of your life? jail/prison?

Household composition & earnings

Employment / school / training status

Place of work - how long worked there

Prior places of work

- How they found out about/got the apartments and jobs.
- Knowledge of local geography and transit options - near home, work, school
- (if not work, young kids) How do you spend your days? What were you up to yesterday, last weekend?
- Division of labor in HH - who does the shopping, escorting children etc.
- Metro Card now? type? when purchased? how much?\*
- Tell me about your week so far - Monday trips, Tuesday trips, expected trips tomorrow, last weekend, all details with addresses. Get details on cross streets - take notes for full prior week.
- Latent demand: Is there somewhere you wanted to go last week but didn't go? \*
- Last time/next time you socialized - went out with friends, someone's house for dinner, park with the kids with other parents\*
- Attend church regularly - where? mode?\*
- Travel outside borough of residence?
- Grocery shopping - where. Specialty stores - hairdressers, certain type of food?
- Access to car / last time used a car\*
- Dollar van usage\*
- Taxi usage\*
- Bicycle usage\*
- Share Metro Card with family, co-workers\*
- Borrow money for a Metro Card?\*

Compensate with other household expenses

Travels with children? Stroller?

Problems with making appointments or getting to work

Walk instead of take the bus or subway?

Public assistance now? Past? When you were growing up, did you get public assistance? Do you remember having tokens...?

Carfare - now, past? know anyone? Did you have to ask the caseworker?

If you get new Metro Cards from appointments, do you keep them and refill them, or give them away?

Navigation - Maps? Trip planner or MTA website? Phone app? Write down directions?

READ: How would you feel about these options:

- Getting a Metro Card instead of getting carfare from HRA.
- Getting a monthly/yearly unlimited metro card by having an automatic withdrawal from a bank account or credit card every week.
- Capping the amount you can pay in a given day: this would be like if you have a pay-per-ride card but after a certain number of rides each day it stops charging you.
- Fare is free for everybody.

How would (any of those ideas) change things for you?

Age

Self-described race/ethnicity

Other ideas?

Remember when something changed with the trains or buses, how did it affect you

Have you ever participated in a public hearing about transportation?

**END**

Deliver \$15.

May I contact you at a later stage for a follow-up interview or to discuss the research results?

Phone number \_\_\_\_\_.

**Consent to Participate in the Study,  
“Contested Goals and Policies of Public Transportation”**

The purpose of this dissertation is to explore the goals and policies of public transportation in New York City. This research is undertaken by interviewing a variety of people about their opinions and experiences of using and planning for the transit system. There are no anticipated risks to you if you agree to participate in the study. The benefit of conducting this study is that it can provide a better understanding of transit in New York City. This results of this research may ultimately inform a public or academic conversation on transportation planning and policy.

I will make every effort to ensure that **your participation in this project is kept confidential**. I am required to obtain this informed consent to which you will sign your name. At no time will this document or your name be connected to the results and reports of this study. The only people who will keep a copy of this form are you and me. You may do with your copy as you wish. My copy will be kept in a secure drawer.

**I will be recording this interview.** The digital recording is only used so that I can keep an accurate record of our discussion for transcription later. After the recording has been transcribed it will be deleted. In this way the identification of you with your specific responses will be eliminated.

Your participation is completely voluntary. You will not be forced to answer any question or discuss any topic that makes you uncomfortable. Since your participation is voluntary you may end the interview at any time without consequence. Refusal to participate or the desire to discontinue the interview will not result in any penalties or the loss of any benefits to which you might otherwise be entitled.

You are free to ask me questions concerning this study at any time before, during or after the interview.

Following the interview you will be asked if you would be willing to be contacted in the future for a follow-up interview. You may freely accept or decline this offer without consequence.

The other side of this document is the signature page.

-----  
I am voluntarily making a decision to participate in the research study described herein. My signature certifies that I have decided to participate, and that I have read the information presented in this document. I further expect that I will be given a copy of this consent form to keep, and, upon my request, I will be given a copy of any final reports.

Signature of Research Participant

Date

\_\_\_\_\_

\_\_\_\_\_

Signature of Researcher

Date

\_\_\_\_\_

\_\_\_\_\_

Contact Information:

Alexis Perrotta 917-579-2715  
Doctoral Program in Urban Planning  
Graduate School of Architecture, Planning and Preservation  
Columbia University, New York  
[ap130@columbia.edu](mailto:ap130@columbia.edu)

COLUMBIA UNIVERSITY  
IN THE CITY OF NEW YORK

COLUMBIA INSTITUTIONAL REVIEW BOARD  
MORNINGSIDE OFFICE

March 25, 2013

Elliott Sclar  
ARH Urban Planning, PhD - 5010703  
400 Avery Hall  
0330

Protocol Number: IRB-AAAL5656

Title: The potential for transit fare structure to promote social inclusion among low income New Yorkers

Approval Date: 03/18/2013

Expiration Date: 03/17/2015

Dear Professor Sclar,

On March 18, 2013, the Chair of the Columbia University Institutional Review Board (IRB) reviewed the above mentioned protocol and determined that this research meets the criteria for exemption under category 2:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Therefore, this research is exempt from further IRB review in accordance with the Department of Health and Human Service (HHS) regulations at 45 CFR Part 46.101(b)(2).

Note to investigator:

Alexis Perrotta has not complete human subjects training module TC0087 or the Conflict of Interest Form. Both must be completed before she participates in research activities.

This study does not collect Personal Health Information. HIPAA Form A is therefore not required. Please submit a modification to remove the form (HIP-AAAI2771 ) from the protocol.

The following study related materials have been approved and stamped:

Consent, attached 3/11/13

Text For Recruitment, attached 3/11/13

InterviewPrompts, attached 3/11/13

If you propose to change the protocol in any manner such that the criteria listed above no longer apply, you must submit a modification with the proposed changes to the IRB for review and approval prior to the implementation of the revised protocol.

For tracking purposes, you will be required to submit an abbreviated status report to the IRB prior to the expiration date listed above. The purpose of the submission is to confirm that the research is ongoing, which will facilitate accurate accounting at the University of all active research projects involving human subjects.

If you have any questions, please call Joyce Plaza at (212) 851-7043.



COLUMBIA UNIVERSITY  
IN THE CITY OF NEW YORK

COLUMBIA INSTITUTIONAL REVIEW BOARD  
MORNINGSIDE OFFICE

March 25, 2013  
IRB-AAAL5656  
Status: Approved  
Expiration:03/17/2015  
Page 2 of 2

Columbia University appreciates your commitment towards the ethical conduct of human research.

Sincerely,

Joyce Plaza  
Manager  
Columbia University IRB-Morningside

Electronically signed by: Plaza, Joyce

## CITI Collaborative Institutional Training Initiative

### Human Research Curriculum Completion Report Printed on 3/19/2013

**Learner:** Alexis Perrotta (username: ap130)

**Institution:** Columbia University

**Contact Information** 67 East 3rd Street #2B

New York, NY 10003

Department: GSAPP

Phone: 9175792715

Email: ap130@columbia.edu

**Human Subjects Protection SBR:** Human Subjects Protection SBR

#### Stage 1. Basic Course Passed on 03/19/13 (Ref # 9985264)

Required Modules	Date Completed	Score
Belmont Report and CITI Course Introduction	03/19/13	2/3 (67%)
History and Ethical Principles - SBR	03/19/13	3/5 (60%)
Basic Institutional Review Board (IRB) Regulations and Review Process	03/19/13	5/5 (100%)
Informed Consent - SBR	03/19/13	5/5 (100%)
Conflicts of Interest in Research Involving Human Subjects	03/19/13	5/5 (100%)
Columbia University	03/19/13	no quiz
Elective Modules	Date Completed	Score
The Regulations and The Social and Behavioral Sciences - SBR	03/19/13	5/5 (100%)
Research With Protected Populations - Vulnerable Subjects: An Overview	03/19/13	3/4 (75%)

**For this Completion Report to be valid, the learner listed above must be affiliated with a CITI participating institution. Falsified information and unauthorized use of the CITI course site is unethical, and may be considered scientific misconduct by your institution.**

Paul Braunschweiger Ph.D.  
Professor, University of Miami  
Director Office of Research Education  
CITI Course Coordinator

[Return](#)

## **Appendix E**

### **Case Summaries**

The purpose of this section is to provide a reference for the many *in vivo* quotes used throughout the findings. The summaries report each resident interviewee's age, race, current living accommodations and household composition, employment status, educational attainment (if known), monthly income and expenses, typical fare card purchasing and travel behavior. Each then summarizes the person's past employment and family history. The case summaries include prominent interviewees' characteristics that emerged from the interview.

**Angela** is a 40 year old Hispanic woman. She lives in a one-bedroom apartment in the South Bronx with her husband and 12 year old daughter. She is not working; she is disabled with a back injury, and her SSI case is pending. Her monthly income from food stamps and workman's compensation is \$2,108. Her husband has a municipal job. She was not forthcoming about expenses, but she splits the rent with her husband and each pays other bills as they arise; she has a new top of the line cell phone. Generally she travels by bus to medical appointments and relatives in the Bronx, occasionally via her family's car on weekends, and occasionally via subway to appointments. If she is carrying packages and/or in pain, she will take a taxi. She stockpiles MetroCards, buying a \$20 card every two weeks and receiving cards from relatives. Angela has lived in her current apartment for 7 years; prior to that she lived with her grandmother (deceased) who raised her and her daughter. She is very involved with her family and considers her status to be quite high, in part because she is able to help them financially from time to time. Her mother (only 14 years her senior) and five siblings (all under age 18) live nearby. She has always lived in the South Bronx, except for a brief stint in Queens with a boyfriend around age 17. She has been unemployed for two years; prior to that, she worked as a housekeeper in a hospital for 13 years. Angela is quite proud of her savings account which she keeps secret from everyone.

**Brittany** is a 33 year old black/West Indian woman. She lives in her aunt's basement (one bedroom) in Canarsie, Brooklyn with her two young sons, mother and brother. She is currently

an unpaid intern at a nonprofit organization. Her income from food stamps and informal hairdressing is \$625 per month; her mother occasionally gives her \$20 or \$30 and buys things for her sons, along with buying all the household supplies. Her only current expenses are laundry and transportation; her phone is free via public assistance. Her household's rent is \$800 and her brother, who works, contributes but she does not. Her highest educational attainment is some high school and she is currently enrolled in classes to get a high school equivalency certificate. Generally she travels in Brooklyn via bus and subway, using the bus instead of walking when she has an unlimited MetroCard for at least 10 trips per week. Brittany grew up with her family in Flatbush and East New York, Brooklyn, moved to North Carolina and then Atlanta at age 21, first living with a cousin there, who had a car, and then in her own place, until she returned to New York seven months ago. Her last job ended 12 months ago. She is currently waiting on a \$10,000 income tax check; when she gets it she plans to return to Atlanta, where she has a two bedroom apartment she can rent for \$650 and a pending job interview for \$11.50/hour. Brittany is enthusiastic about her future and excited about returning to Atlanta. Living with her mother depresses her, and she feels she has become "lazy" since returning to New York.

**Christopher** is a 43 year old black man. He is worried about meeting his expenses and feels disconnected from family and friends. He lives alone in the South Bronx in a one-bedroom apartment. He is unemployed. His highest educational attainment is a GED. He currently collects unemployment and food stamps amounting to \$1,600/month; his bills are \$1,119/month not including Con Ed, cable and phone. He generally stays within the South Bronx including short bus and subway trips. Last week's travel included picking up his children at the Metro North station, visiting a social service center, the unemployment office and farmer's market, all in the Bronx. He usually adds \$5 at a time to his MetroCard. Christopher grew up in the South Bronx and Harlem. His large family was on food stamps and his mother "hustled". He had stints of homelessness as a child and young adult, but never entered a shelter, then lived with women and their families. Christopher has been in his current apartment for 11 months. Prior to that he rented a room in a house for two years; prior to that lived with his children's mother for 10 years, all in the Bronx. He was laid off four months ago from a \$13-\$15/hour job he had in maintenance

for two years. He received about \$3,000 in back vacation pay when laid off. Prior to that he had worked informally, and had “always been self employed.” His two children regularly visit him from their home in Connecticut.

**David** is a 58 year old Hispanic man. He spent most of his life earning a middle class living, raising a family and enjoying vacations. He resents that the job he once held now requires a Masters degree, and that he has fallen into debt. He lives in Brooklyn with his adult son in a one bedroom apartment in a private house; he has lived there for 14 years. He has been employed for the last 20 months at a nonprofit organization. He also takes on seasonal work around Christmas. He graduated from high school and attended three years of college. His income from employment and his son’s contribution is \$1,790. His expenses are \$965 plus considerable debt payments for utilities and other bills. He has no cable, no internet, and a free phone. He generally travels to and from work via subway, with occasional trips on weekends to see family in Staten Island or shop in Manhattan. Many weekend and evening trips are via walking, often rather long distances. He puts \$20 on MetroCard every week and adds more as needed; he occasionally buys a weekly unlimited card. David has always lived in Brooklyn. He has four adult children. He worked for 34 years as a hospital administrator, was laid off, and was unemployed for four years prior to starting his current job.

**Diana** is a 51 year old Hispanic woman. She currently lives with her 17 year old daughter in a two bedroom apartment in Brooklyn where she has lived for 22 years. She is not working. She has a high school degree. Her income from child support, public assistance, food stamps, and carfare stipend is \$995 per month. Her expenses for rent, cable and internet are \$453; utilities are included with rent; her phone is free. Generally she travels in Brooklyn and Queens 4 to 6 days a week for welfare and medical appointments and her volunteer position. She uses a monthly unlimited MetroCard which she buys by letting the \$30 per week on her EBT (welfare card) accumulate and then using the EBT card to buy the MetroCard. Once a month “when I get my food stamps” she pays a friend \$20 to drive her to a big box store in New York. Diana grew up in the Bronx and Queens. She moved to her current apartment with her then-husband whose

mother had lived there since the building opened. She is currently under the threat of eviction because her daughter's age changes her Section 8 entitlement to a one bedroom. Her most recent job was as a home health care aide. She worked there for 7 years until she had a disabling back injury about three years ago.

**Emily** is a 21 year old black woman. She lives with her infant child, father, and sister in a three bedroom apartment in the Bronx (Co-Op City). She has been there for 4 years. She works as a nanny in Queens and Manhattan, often well over 40 hours per week. She graduated from high school and has completed some college credits. Her income from work is approximately \$2,400 per month in cash. She also receives WIC which pays for all her baby formula, approximately \$100/month value. Her expenses from contributions to rent and bills, cell phone, student loan repayment and child care are \$2,200 per month. Generally she travels by bus and subway very long distances throughout the Bronx, Manhattan and Queens at least six days a week; this particular week she was in Long Island via bus as well; she takes taxis 1-3 times per week; she occasionally gets rides in relatives' cars to the subway station and other places. She uses a weekly unlimited MetroCard, and sometimes uses a pay-per-ride card. Emily grew up in Rockland County, New York, with her mother. She moved in with her father in the Bronx when her parents divorced and she was 18 years old. She briefly lived with her child's father in Yonkers. She took the nanny job about 9 months ago when her child was born. Prior to that she worked as a security guard part time for \$14 per hour, and at a restaurant company for \$10 per hour full time. She is planning to move to Jersey City soon where she believes she can afford to live independently.

**Felicia** is a 36 year old black woman. She is very connected to the welfare system and has been for most of her life. She lives in Hunts Point, Bronx, in her mother's four bedroom apartment with four siblings, a newborn, two teenage daughters, a granddaughter and her mother; it is unclear whether her teenage daughters and granddaughter live there full time. She is not working; she is disabled and receives SSI for "mood swings" and "anger". Her highest level of educational attainment is some high school. Her income from p.a., SSI and food stamps is is

\$1,005; she also makes money on the side as an informal hairdresser; she also receives WIC, and p.a. gives \$215 to her mother for her rent. She pays her mother \$150 per month toward the bills but says she has no bills of her own; phone bill unknown. She travels around the South Bronx to family, friends, welfare, doctors and church, using public transit most days. Last week's trips included going to her son's father's apartment and medical appointments, all in the Bronx. She often uses change to pay for the bus, and sometimes has free two-trip MetroCards from appointments, or MetroCards with small amounts of cash on them. Felicia is one of 12 siblings, five of whom live in Georgia. She grew up with her grandmother and moved in with her mother as a teenager. She lived in her own apartment for about five years. The last time she worked was 10 years ago as a home health aide in the Bronx, a job she received as a public assistance recipient through a welfare placement program. After that her grandmother took care of her. She is proud that she only started receiving public assistance two years ago. She also attended GED training three times a week for four months before her most recent child was born.

**George** is a 61 year old Hispanic man with a quite strong Guyanese accent. He lives in a two bedroom apartment in Brooklyn with his two parents. He is not working. He did not disclose his educational attainment. His income is zero except for informal, small amounts (less than \$20) from cooking and selling dhalpuri; his brother gives him \$100 from time to time. He has no expenses except his \$40 phone; he perpetually pays back loans at \$66 per month so he can fly to Guyana every few years. Generally he travels via bus and subway and a relative's car nearly every day, to a social services organization, church and volunteering. He uses a pay-per-ride MetroCard to which he adds \$10 or \$15 at a time. George grew up in Guyana He immigrated to New York about four years ago, and he still has family there. He has 9 children (youngest is 7 years old) from one ex- and one current wife, and 10 grandchildren; his children are scattered in various places in the U.S. and Guyana. His current wife is in Guyana. George last worked in the U.S. about one year ago. He has worked as a home health aide, security guard, and "at JFK", earning from \$8.50 - \$10.00 per hour. He has also worked informally with his contractor brother. When he works he contributes money to his household.

**Henry** is a 51 year old black man. He lives alone in a one bedroom apartment in Manhattan. He does not work; he collects disability and says he qualified because he cannot read. His highest educational attainment is less than high school. His income from SSI, food stamps and the heat check on his EBT card is \$1,007 per month. His expenses for rent and phone are \$277 per month. Most days, Henry walks around upper Manhattan visiting churches and social service organizations that offer with programs “on my level.” He rarely uses buses or subways. He uses two-trip MetroCards which he receives for free from time to time. Henry grew up in Manhattan. He was incarcerated for most of his life, from his late teens until he was 30, for shoplifting, selling drugs, and bank robberies. After prison, he spent time in men’s shelters in Manhattan, received Section 8 and lived in public housing, and then resumed living in institutional facilities (shelters and residential mental health centers). He has resided at his current apartment for about four years. He has been receiving SSI since leaving prison.

**Jennifer** is a 31 year old Hispanic woman. She lives with her husband and two year old child in an apartment in Queens where they have been for about 18 months. She is unemployed as of five years ago. Her husband, who is an undocumented immigrant, lost his job this week due to injury. Her highest level of educational attainment is unclear; she did not go to college. Her income from SSI (she is deaf in one ear), food stamps, and cash assistance is \$1,120. Her husband had been earning an additional \$1,200 per month in cash. Her expenses for rent and phone, net of a rental subsidy, are \$713. Generally she travels by bus and walking around Queens, for appointments, food pantry, errands and to visit friends and relatives. She pays for the bus with change or with stockpiled two-trip MetroCards from her father. Jennifer grew up as one of 6 siblings in Brooklyn “in poverty”: her disabled mother did not work, her father owned a grocery store. Before her child was born she lived in Massachusetts (independently and with family) and with family in Queens. She has worked as a teacher’s aide in a day care center. Jennifer fondly recalls living in Massachusetts as a single person, explaining cheerfully how much trouble she would get up to in those days.



**John** is a 53 year old Puerto Rican man. He lives in public housing Brooklyn, sometimes in a three bedroom apartment with his mother and two brothers, and sometimes next door in a two bedroom apartment with his ex-girlfriend, her child and grandchild (he sleeps in the living room). He did not graduate from high school. He has been working at a nonprofit full time for about 18 months, and part time for 6 years prior. His income from earnings and food stamps is \$956 per month, plus another \$100 for carfare from his drug treatment center. His expenses for contributions to rent and bills in two households is \$450 per month; his phone is free; he also spends money on cigarettes. Generally he travels each weekday to drug treatment via subway, to work via bus, and home and to his mother's nursing home via subway. Every two weeks, when he gets paid, he buys two unlimited weekly MetroCards. John grew up in the same neighborhood where he now resides in Brooklyn. He has struggled with addiction. He has had short stays in jail as a teenager, and then in a residential rehabilitation center which he considers being homeless. He briefly resided in an SRO in Manhattan. He is currently in methadone treatment. He has had multiple jobs as a courier and handy man.

**Karen** is a 61 year old Black woman. She lives alone in a "disabled building" in Queens. She has been there for 10 years. She does not work due to physical disabilities, which are many, varied, and which she describes at length. She has a Bachelor's degree of which she is very proud. Her income from disability is \$1,600 per month. Her expenses for rent for two apartments (she pays for her adult son's apartment) is \$1,430 per month; she has Section 8. She does not pay for a phone and "sometimes" has cable. Generally she takes Access A Ride a few times a week, to medical appointments, the food pantry, and to see her son with whom she stays some weekends. She pays the fare in cash. Karen grew up in Queens. For 24 years she lived in the apartment now occupied by her adult son. She had an administrative job with a major corporation for over 10 years. She has been unemployed since she became disabled with a back injury in 1999.

**Lisa** is a 50 year old black woman. She lives alone in Brooklyn in an apartment where she has been for five years. She is unemployed. Her income from public assistance, food stamps and a

stipend for volunteering is \$462 per month. She receives free housing in exchange for her services as an informal superintendent. Her expenses are \$55 per month for the internet, plus transportation and laundry; she has no phone. She graduated from high school and completed some college classes. Generally she travels via subway and bus to the library in Manhattan, a job search center in Brooklyn, to visit her children in Brooklyn and to volunteer in Queens. She “usually” has a monthly unlimited MetroCard which she buys with the \$112/month stipend for volunteering. Lisa grew up in Brooklyn in a poor household with five siblings. As an adult she lived in Brooklyn for “24 years” where she raised her children with their father “and life was good”. She held several municipal jobs, but has not worked in 15 years. She became homeless about six years ago, lived with her brother for a while and then a shelter before moving to her current apartment. About six weeks after our interview, Lisa called me on the phone. She had become homeless and had broken her wrist. She asked for carfare at an HRA office and was told she could not get money for transportation added to her EBT. She told me she needed extra money to use a laundry machine because she could not wash her clothes in a sink with a broken wrist. I gave her the phone number of a social service organization that might help.

**Michael** is a 58 year old black man. He lives with his partner in a friend’s basement in Queens. He is not working; he is disabled with emphysema. He graduated from high school and has some college credits. His current income from disability is \$1,700 per month. His current expenses are \$300 for the entire time he’s been staying at his friend’s basement, which is a contribution toward utilities, plus about \$55 per month for his phone. His partner has very little income and Michael supports him. Generally he travels for errands and to visit people about 5 days a week, in Queens and Manhattan, via subway and bus, and occasionally takes taxis. He uses a pay-per-ride MetroCard and adds value as needed, usually \$20 at a time. Michael grew up in Queens as one of ten siblings. He has lived with partners, friends and their families. He lived in Hempstead, Long Island for 19 years in his prior partner’s family’s house, and he lived for many years after that in the home of a deceased friend with whom he had cohabited in Queens. Most recently he lived with his current partner in an “illegal conversion” for three years, supported by his partner’s medically-based housing voucher. David has worked in catering at airports, and then

for over 20 years as a retail manager for a shoe company. He traveled for work among department stores throughout the region. He ultimately earned \$50,000. He stopped working when he became disabled about four years ago. He is currently apartment hunting and expects to spend around \$1,100 for rent.

**Nicholas** is a Hispanic man in his early 30s. He lives with his daughter in a homeless shelter in the Bronx where he has been for two months. He works as a “pizza man” approximately 60 hours a week. He graduated from high school. His income is \$1,080 per month cash including tips; he does not receive public assistance or food stamps, although his case is pending. His expenses are for his phone (\$65) and laundry. Generally he takes the bus to and from his daughter’s school and his work and occasionally travels via subway to relatives in Manhattan. He “always” has a weekly unlimited MetroCard. Nicholas grew up in public housing in Manhattan and moved to the Bronx with his father at age 14. After high school he joined the Marines to continue a family tradition. He had his daughter while in the Marines in North Carolina. He moved back to the Bronx when she was 4, which was four years ago, started working at the same pizza restaurant where he is still employed, and met his wife (the child’s babysitter). Prior to entering the shelter he was living in his wife’s apartment in the Bronx; they are now estranged.

**Patricia** is a 59-year-old Puerto Rican woman. For most of her life, she earned a fair living and now she lives very frugally to compensate for her lower income. She lives on the Lower East Side of Manhattan with her adult daughter who is in college. Neither of them works, but Patricia receives some informal income for helping out an elderly relative twice a week. She also volunteers at a food pantry once a week to get free food. Patricia collects a pension, food stamps and informal income amounting to \$1,912/month; bills are \$1,158/month including Con Ed, cable and phone; she also has a free Assurance cell phone and Medicaid; occasionally there are assessments for repairs because technically she is renting in a Co-Op. She generally stays in the neighborhood and most trips are walking. Last week’s trips included walking and taking buses to volunteer appointments and a social service center, all in Manhattan. Patricia has lived in her current apartment for 19 years; prior to that she was in the Manhattan public housing where she

grew up with her brother and also has an aunt. She was laid off five years ago from a job in a bank where she worked for 29 years earning about \$36,000. She received unemployment for a few years and started collecting her pension one year ago.

**Robert** is a 61 year old Puerto Rican man. He lives alone in Brooklyn in an apartment managed by his drug treatment program. He is employed, and has been for 6 years, at a nonprofit organization. His highest educational attainment is some college; he has a GED (acquired at age 29); he has several certificates from mental health and other trainings. His income from employment and food stamps is \$1,049 per month; his expenses are \$318; his paycheck is garnished for child support. Other expenses include money given to his children for their children and grand children, to his ex-girlfriend who has cancer, and to a teenage daughter: “That’s why I stay broke all the time”. Generally he travels to and from work via subway five days a week, and often via subway to visit family and friends. He uses a pay-per-ride MetroCard. Robert grew up in public housing in Brooklyn where his three brothers still reside. He has four adult children from two marriages, two in Brooklyn and two in Long Island. For much of his adult life he struggled with heroin addiction. He has been homeless though not in shelters, spent short “skid bits” in jail, sold drugs, robbed houses, traveled the world, and been on methadone. He currently treats his addiction with a self-administered opiate blocker. His former jobs include a 10-year city job in school safety when he earned double the income he has now, and at a different nonprofit in Brooklyn. His prior apartments were with and through family in Brooklyn.

**Sandra** is a 54 year old Puerto Rican woman. She is very proud that her current income and family are quite stable, and she more than once tried to return the \$15 interviewee compensation. She lives with her two adult children, “husband” and three dogs in a two bedroom apartment in public housing in Manhattan, where she has lived for 21 years. She is employed as an administrator in a homeless shelter. She has a Master’s degree which she obtained at age 52. Her personal income from employment is \$1,600 per month. Her household income from employment and contributions from her family is \$4,000 per month. Household expenses for rent, everyone’s phones, cable and Con Ed are \$1,794; she also gives her daughter pay-per-ride

MetroCard which she tops up with \$20 when needed. Generally she travels within Manhattan to and from work and for errands via bus and sometimes subway, occasionally to the Bronx and big box stores elsewhere via subway and relatives' cars. She uses a weekly unlimited MetroCard which she gets from her son. Sandra grew up in public housing near where she currently lives. She has lived with her alcoholic and with two prior husbands, all nearby. Before she moved in to her current apartment, when her youngest child was a newborn, she spent two years in homeless shelters in Manhattan and Queens. She has worked in security, fast food, housekeeping, and in an administrative position at the District Attorney's office. Being homeless effected her deeply and she continues habits she developed then, such as certain types of frugality and sleeping in the living room.

**Susan** is a 52 year old black woman. She lives with her boyfriend in a one bedroom apartment in the Bronx. She is currently enrolled in college full time. She is also working at an internship at a social services organization. She will graduate with a Bachelor's degree in one month. Her income from public assistance, food stamps and a stipend is \$580. Her expenses are \$50 for her phone and she receives an additional \$200 for rent which is paid to her partner toward their \$900 rent. Generally she travels each day by bus to and from work, school, and errands in the Bronx and Manhattan, via bus and train. She travels weekly to Yonkers by bus and train. She uses a monthly unlimited MetroCard which she purchases with the \$30 per week stipend from her internship. Susan has lived with her boyfriend, in his apartment, for 14 years. Prior to that she lived in her own apartment in the Bronx, where she raised her son who is now 24. She spent one year in jail. Susan has had multiple internships, volunteer positions and work study jobs that pay small stipends (less than \$200 per month) or very low wages (\$9 per hour). Her longest stretch of employment was as a social work assistant for about five years, earning \$28,000.

**Teresa** is 47 year old Hispanic woman. She lives in a three bedroom apartment in the South Bronx with her three children (two 11 year olds and a 9 year old). She is currently unemployed. Her highest educational attainment is an Associates degree in Applied Science in early childhood education. She currently collects unemployment and food stamps amounting to \$1491/month;

her bills are \$407/month not including Con Ed and cable; her son pays for her phone. She has a Section 8 voucher for her current apartment; it would be \$1100 without the voucher. She generally stays within the South Bronx including short bus, subway and taxi trips. Last week's travel included welfare-related and medical appointments and visiting family in the Bronx and going to Costco in Manhattan. She has no computer and searches for jobs in the newspaper and with a counselor she sees weekly. This week she has a 7-day unlimited MetroCard; she usually either has an unlimited or a cash card, depending on her appointments. Teresa immigrated from Ecuador at two years old with her mother. Her father had come to the U.S. a few months prior. She met her husband while on trips in Ecuador, got pregnant and married there at age 22. She has been in her apartment for five years; prior to that, she lived with her parents and then in another apartment in the same building. While in college for three years in New York, she was on public assistance and received carfare as cash. She was laid off two months ago from a \$10.30 an hour receptionist job at her children's school she'd had for four years; prior to that she worked as an instructor in early Head Start nearby. She and her husband split up about one year ago. She had relied on him to pay the rent. Since losing the job she moved her children to a school closer to her home so they can walk. Her parents live nearby with her adult son in the apartment where she grew up. Her other adult son lives in Bergen County and takes her kids for sleepovers occasionally.

**Vicki** is a 56 year old black woman. She lives with her boyfriend in a two bedroom apartment in Brooklyn. She is not working. Her educational attainment was unstated but likely very low. Her income from food stamps is \$340, her boyfriend's income from a social security and pension is \$1,000, and they rely on contributions from her boyfriend's two sons in Texas, who pay their bills from time to time and send money. Her food stamps were recently reduced and she expects less than \$340 next month. Her expenses from rent, utilities and land line phone are approximately \$1,335. She has no cell phone but uses her boyfriend's free cell phone. Generally she goes to a social services center four days a week for training and job search via subway, walks to church on Sundays, and makes the occasional outing for shopping or doctors via bus and subway. She uses a pay-per-ride MetroCard. She adds \$20 when needed. On this particular

week, she had asked her boyfriend's son to wire her \$20 specifically so she could put it on her MetroCard. Vicki was raised in Montserrat. She immigrated to the U.S. 28 years ago. She has an adult child and grandchild in Montserrat. Since coming to the U.S. she has lived in Brooklyn, in two different apartments. She has worked as a housekeeper and child- and elder-care provider. For 17 years she worked for two families in Long Island, earning \$500 per week and often staying in the family's house for a few days at a time. Her last housekeeping job ended 19 months ago.

**Wendy** is a 35 year old Hispanic woman. Multiple times throughout the interview she expresses her gratitude for her job and for her homeless shelter; she is worried about what she will do when she has to move. She lives with her three children (13, 6 and 2) in a domestic violence homeless shelter in Brooklyn. She has a two bedroom unit with private kitchen and bathroom. She has been there four months, she can only stay a total of 6 months before being sent back to a placement facility. She is currently working at a social services organization. She did not graduate from high school. Her income from employment, public assistance and food stamps is \$1,330. Her only expense is \$25 per month for her phone; she is saving up for an apartment. Generally she travels 5 to 6 days a week to and from work, for her child's visits with their father, and to visit relatives, all in Brooklyn and Queens. She uses a monthly unlimited MetroCard which she buys through her employer's commuter benefits program. Wendy grew up in Guyana. She moved to New York three years ago, first living with her husband's mother, then in their own apartment, both in Queens. When living with her husband, he paid the rent (\$1,250) and all the bills. She has been working at the social services agency for two months. Prior to that she worked in Guyana in medical offices.

**William** is a 48 year old black man. He lives in the Bronx with his teenage daughter in a one bedroom apartment, where he has been for four years. He has a newborn son who lives with his girlfriend in the Bronx. He is unemployed now but works informally as a computer repairman/installer/vending machine mechanic. He graduated from high school and completed some college credits. His income from unemployment, food stamps, and informal work is approximately

\$1,221. His expenses from rent (Section 8, it will go up once he's off unemployment), Con Ed, phones and debt are about \$586. He generally travels by subway and bus in Manhattan and the Bronx, for informal work, job search, and to visit relatives. "I would say on a regular average day I go on the train or bus 4 times." He uses a weekly unlimited MetroCard. William grew up in Manhattan and the Brooklyn. As an adult he lived in Manhattan with girlfriends and independently. He worked for several years as a secretary in a law firm and earned \$60,000 with overtime. While working there he purchased a co-op but then lost his job, sold the apartment, and moved in with his daughter's mother and her family. He went through custody battles for his daughter, and lived in homeless shelters, then a psychiatric ward, and then a "halfway house," all in Manhattan and the Bronx. His wife died, he gained custody of his daughter, and he moved into a family homeless shelter. About four years ago he was placed from the shelter into the apartment where he now resides. He has been formally employed intermittently for the last four years, including for social service agencies and in temporary positions with municipal agencies which were arranged through public assistance.

**Yolanda** is a 35 year old black woman. She lives with three of her four children (16, 9 and 1; her 18 year old lives in Illinois) in a two bedroom apartment in the Bronx. She has been there for about five years. She does not work; she has an anxiety disability. She graduated from high school and has some college credits. Her income from two forms of disability, food stamps, and children's services for her foster child is \$2,074 per month, plus occasionally \$100 from her children's father. Her expenses for Con Ed, cable and her daughter's private school are \$420 per month. She has Section 8 and her rent is \$0. Generally she travels with her 9 year old and infant on the bus two and from school five days a week, and with her infant 3-4 days a week, all in the Bronx. She takes taxi trips 2-3 times a month, and occasionally gets ride with a friend. She uses a monthly unlimited MetroCard. Yolanda grew up in Illinois. She moved to New York about 10 years ago with her husband and child. She lived with relatives in Brooklyn for about four years until fleeing to a domestic violence shelter. She was placed in her current apartment from that shelter. Prior to leaving Illinois, Yolanda worked at a fast food restaurant for five years; she has also been a cashier in a thrift store and a school crossing guard. In New York, she worked at a



fast food restaurant for one week and then quit. She started collecting SSI and food stamps about a year after moving to New York.

**Zachary** is a 23 year old black man. He lives with his mother and three siblings (all young adults) in a three bedroom apartment in public housing in Manhattan. He has an infant son who lives, with his mother, in the neighborhood. He works at a nonprofit organization. He has a high school degree and has completed some college. His income from employment is \$1,300 per month. His expenses include his share of rent, his share of the babysitter, and his phone, totaling \$670. Generally he walks to and from work, the babysitter's and his son's mother's home everyday; occasionally uses subways for outings such as "kiddie parties" and visiting relatives in upper Manhattan and the Bronx. He uses a pay-per-ride MetroCard, adding \$10 or \$20 as needed. Zachary has been living with his family in their current apartment since they moved from the Bronx when he was toddler. His only job has been at the nonprofit where he now works. He attended programs there as a child and has been employed there on and off since he was a young teenager.