Garnering Transit Ridership: A Case Study of Transit Use by Refugee and Limited English Proficiency Groups in Manchester, New Hampshire

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GARNERING TRANSIT RIDERSHIP: A CASE STUDY OF TRANSIT USE BY REFUGEE
AND LIMITED ENGLISH PROFICIENCY GROUPS IN MANCHESTER, NEW HAMPSHIRE

A Thesis Presented

by

CARRIE WARD

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Public transportation ridership levels have decreased since the end of World War II. Transit systems in small cities struggle to maintain ridership levels high enough to continue receiving local subsidies. Individuals with refugee status, and those with limited English proficiency (LEP), represent an opportunity to increase ridership. The bus system increases mobility for people without a car or driver’s license, including many refugees and LEP people, thereby increasing their accessibility to work and education. This thesis places the local bus system in Manchester, New Hampshire in a historical context and identifies some barriers and potentials for increasing refugee and LEP ridership. In addition to increasing headways and hours of operation, recommendations point to improved publicity, including distributing route maps and schedules more widely, using clearer bus stop signs, and providing bus passes for refugees in the first few months after arrival. It should be noted that language did not arise as a barrier to transit ridership in this study.
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CHAPTER I
INTRODUCTION

Project Description and Purpose

Public transportation is often the only available and affordable means of transportation for immigrants, especially in their first few months after arrival. This thesis describes efforts to provide public transportation in Manchester, New Hampshire and explores the relevance of the current service for people with limited English proficiency (LEP). The purpose is to determine methods to increase refugee and LEP populations’ ridership of the transit system in Manchester, New Hampshire. Background research provides a history of transit’s role in the city and shows who its proponents and riders have been over time. Focus groups provide views of the general LEP population as a specific user group; interviews with the transit authority, a social service agency responsible for relocating refugees, and a business improvement district provide an institutional viewpoint on transit’s role in the city as well as a basis for understanding its current purpose and planned future. The literature review outlines reasons to maintain public transportation, based on sustainability and equity criteria, and provides examples of programs designed to enhance these aspects and overcome effects of habitual auto use and existing land use in the United States.

Study Population in Manchester, New Hampshire

My original intent was to hold focus groups only with refugees resettled in Manchester and to focus this study on them. In fact, only the first focus group was completely composed of recent refugees, mostly from Bhutan, but also Iraq. I thereafter
widened the scope to include other people with limited English proficiency, such as people attending adult English classes.

Refugee Population

In New Hampshire, the majority of new refugees are currently from Bhutan/Nepal, with others from Iraq, central Africa, and nations formerly part of the Soviet Union. Source countries can change quickly. People from Iraq typically have more experience with automobiles. Those from central Africa and parts of the former Soviet Union come from a mix of very urban and very rural places, and tend to either be accustomed to walking or to multiple transportation modes. Bhutan and Nepal are used somewhat interchangeably as an answer to the question, ‘Where are you from?’ In general, refugees arriving from Bhutan/Nepal have been living in refugee camps in Nepal for approximately the past seventeen years, after they were more or less forced to leave Bhutan. Therefore, some of the younger people have little memory of Bhutan. Although Bhutan does not recognize them as citizens, neither does Nepal.

After arrival, social service agencies receiving federal funding specifically for refugees provide resettlement, employment, social, and legal services, as well as coordination of health care and English classes. Three non-profit agencies in the state provide these initial services: The International Institute of New Hampshire (IINH), Lutheran Social Services, and New Hampshire Catholic Charities (NHRP 2008b). The International Institute provides the most services to refugees within Manchester (NHRP 2008b), and is the agency with which I initially collaborated.

In the summer of 2008, I spent two days a week volunteering for the International Institute of New Hampshire, a branch office of the International Institute of Boston. In
the course of this experience I learned about the refugee arrival process. The service agencies arrange for most of the necessities in a refugee’s first few months in the U.S. They collect new arrivals from the airport and take them to their apartment that has been cleaned and stocked with a few days’ worth of food. IINH and new arrivals discuss which funding source they would like to use to provide basic necessities. The administratively preferred option is the federally funded refugee program, which requires all adults of working age without disabilities either to be working or taking English classes. With this option, families receive checks on a regular basis to pay for food and rent. The other funding option is the mainstream welfare system. IINH also makes appointments for initial health services and provides transportation to the health service provider. In the first few days, new arrivals also take an English language placement test and begin attending English classes. Service agencies also periodically offer citizenship and employment classes. The English classes typically connect new arrivals to the service agency on a regular basis longer than other services, especially if they cannot readily find employment.

Limited English Proficiency Population

In addition to focus groups with refugees, other focus groups included people from Albania, Columbia, Congo, Haiti, Japan, Mexico, Niger, Peru, the Philippines, Russia, Somalia, Sudan, Thailand, the Ukraine, Venezuela, and Vietnam. The one thing they have in common is that they are learning English as a second language. Some came to the U.S. officially as refugees, some came to join friends and family, and some moved to Manchester from other places in the U.S., mainly the New Jersey and New York City area. Two of the groups had been in Manchester for much longer than the new refugees,
some for over a decade, in general drove cars, and therefore provided a more in-depth analysis of the bus system and Manchester’s transportation options.

**Benefit to the Manchester Transit Authority**

The LEP population is difficult to define, but the refugee population is much easier. If resettled refugees in Manchester were to use bus transportation, ridership figures could increase significantly. A report completed for the Manchester Transit Authority calculated an average of 1,905 riders per weekday, not including school bus service (Edwards & Kelcey 2005). Between federal fiscal years 2002 and 2007, 1,258 refugees were resettled in the city of Manchester. After five years of permanent residence they can become naturalized, thereby losing refugee status. Of these, 341 were under the age of 15 or over the age of 80, and I have considered them unlikely to use transit alone. This leaves approximately 917 independent potential transit riders with refugee status as of September 31, 2007 (NHRP 2008a). The average starting wage for refugees from fiscal years 1999-2000 was $8.15 for men and $7.58 for women ($10.08 and $9.34 in 2009 dollars, respectively) (GOECS 2000). As of April 2009, the fare for one bus ride is $1.25. Many people with refugee status cannot afford automobiles. In the one focus group composed entirely of refugees, almost ninety percent had walked to class. Assuming no refugees use transit currently, capturing the market of the 917 refugees between 15 and 79 years old would increase total transit ridership by approximately 42%. Of course, some people do use the transit system, but the population still represents a potentially significant proportion of bus riders.
CHAPTER II

METHODS

To describe efforts to provide public transportation in Manchester, New Hampshire and determine appropriate means of increasing refugee and LEP populations’ use of the bus system, I used three methods: historical research, focus groups, and interviews.

**Historical Research**

The past can help us understand the present. The history of the development of Manchester’s public transportation system shows the changing priorities of its proponents as well as changes in its customer base. I conducted research at the New Hampshire Room of the Carpenter Memorial Library in Manchester, at the Manchester Historic Association and I also searched the online archives of the Union Leader, available from 1989 to the present. The library holds recent master planning reports. The historic association has documents from other planning exercises and grant programs through the 1970’s as well as publications about the city’s various public transportation systems, also up to the 1970’s. In addition, it has brochures and other evidence of advertising efforts of the Manchester Transit Authority in the 1970’s. Efforts to find information at Manchester’s Municipal Archives and Records Center and its Planning and Community Development Department, as well as the Central New Hampshire Regional Planning Commission all ended back at the library and the historic association. I also found no journal articles on the topic.
Focus Groups

In the spring of 2009 I conducted five focus groups with refugees and LEP people to determine barriers to their ridership. Group size ranged from nine participants to sixteen.

The first group was held at the International Institute of New Hampshire (IINH), with students of one class. I started with IINH because it resettles more refugees in Manchester than other organizations, and it also provides English language classes for the newest arrivals who have yet to find work. From there, I followed staff suggestions to other programs. The second group was also held at IINH, but with students of an affiliated program. The third group was held at the First Congregational Church in the city, with students of the English for New Americans program coordinated by St. Anselm College. At IINH and the church, the teachers recommended the most appropriate and convenient classes. Notice that lower levels of English proficiency often correspond to more walking, biking, and transit use, teachers tended to suggest conducting focus groups in their classes with lower English proficiency. The last two groups were held with students of upper-level English classes at the Adult Learning Center of the Manchester School of Technology (MST), where I asked for access to the two uppermost levels to gain a broader view from the target population.

For groups with lower English proficiency, I generated a list of modes and places with the participants, for two reasons: to initiate talking and thinking about transportation, and to transition into a discussion about the bus system. In these groups, all students in class agreed to participate. Participants in the more advanced English classes, at the MST, were able to begin talking about the bus system and transportation needs more quickly.
We therefore jumped right into discussions of the bus system. Less than half of the class volunteered to participate in the discussion in these more advanced groups.

I taped most of the focus groups, except for the beginning so that I could first ask if participants would allow me to record, and also at the very end. I later transcribed the tapes as well as possible, having assigned a number to each participant. This proved useful for understanding the flow of conversation from the transcript, but it was challenging to decipher exactly which participant was speaking at any one time.

**Interviews**

Lastly, I contacted professionals and officials in organizations in the city that I thought may lend some insight into how various agencies in the city could work together to ensure integrated service provision and encourage equitable and sustainable transportation practices, which I believe they have a responsibility to do. In this category I contacted the following organizations:

- Intown Manchester, a downtown business improvement district
- Manchester Department of Planning and Community Development
- Manchester Transit Authority
- Southern New Hampshire Planning Commission

I also contacted the three organizations that resettle refugees in the city to learn how these agencies perceive the adequacy of service and potential areas for improvement.

- International Institute of New Hampshire
- Lutheran Social Services
- New Hampshire Catholic Charities
Of these organizations, I was only able to conduct an interview with the MTA. I also received written responses from IINH, and communicated informally with staff at Intown Manchester.
CHAPTER III
LITERATURE REVIEW

Public transportation can promote sustainability and equity, but existing land use and habitual auto use decrease its viability. Especially in cities, public transportation holds great potential for increasing our sustainability. However, existing land use patterns and habitual auto use are major challenges to promoting transit (Jain and Guivier 2001). These two phenomena – our land use and our auto use – have become self-perpetuating such that even people who want to use ‘alternative’ modes of travel find themselves almost forced to use the automobile. The literature review investigates transportation and sustainability, existing land and auto use, and equity. Successful practices elsewhere may provide useful ideas, but need to be amended to fit a certain place.

Sustainability

Numerous urban planners promote sustainability (Blumenberg and Smart 2009). An argument for public transportation as a tool toward sustainability fits the United Nations World Commission on Environment and Development’s definition of the term: meeting “the needs of the present without compromising the ability of future generations to meet their own needs,” with priority for poor people (1987: 43). Public transportation is more affordable than automobile ownership.

Since 79% of United States residents live in urban areas, sustainability in this country depends upon cities (Census 2000). If city residents use energy without regard to the environment, they will largely undermine sustainability efforts elsewhere.
Sustainability also depends upon transportation, both of goods and people (Kennedy et al. 2005). People need to go to work, to school, to the grocery store, and to seek entertainment. If sustainability depends both on cities and on transportation, planners logically must consider the sustainability of urban transportation. Farrington (2006) points out that providing more efficient access can help address greenhouse gas emissions. One way to accomplish this is by increasing density so that people can walk, or have less far to travel if using motorized transport (Jain and Guivier 2001). And yet transportation systems around the nation, including its cities, are unsustainable (Bruun 2007). The automobile dominates the cityscape, a product of years of federal housing and highway subsidies (Bullard et al. 2004).

It is widely accepted that automobiles contribute substantially to air pollution, yet governments provide highway infrastructure as a public service (Bullard et al. 2004), and automobile drivers do not pay for the negative environmental and social effects of automobile use (Bruun 2007). Public transportation systems that attract riders are less environmentally harmful than automobiles but are also financially unstable. Beginning after World War II, public transit systems encountered disinvestment and finally began to be viewed as important again in the early 1990’s (McLafferty 1991). Becoming more sustainable while maintaining a high level of mobility requires either changing modes of transportation and using fewer automobile trips, or changing automobile technology (Kennedy et al. 2005). While alternative automobile technology currently exists, it is too expensive to be adopted by the majority of United States residents and their use must be integrated with other factors, such as improved travel choices and land use reform (Litman and Burwell 2006).
Policy changes and small scale investments could improve the attractiveness of transit or nonmotorized transport (Kennedy et al. 2005). Indeed, to reduce the number of automobile trips, transit subsidies tend to favor suburban services and commuter lines (Garrett and Taylor 1999), resulting in increased construction of light and commuter rail systems, which have a higher capital expense but a lower operating expense (Bruun 2007). If they attract riders, these systems more effectively deal with air quality and traffic congestion issues (Garrett and Taylor 1999). However, these projects can increase social inequities by focusing on areas with less need (Jain and Guivier 2001, Garrett and Taylor 1999, Bullard et al. 2004), and therefore sometimes environmental awareness overrides transportation equity (Garrett and Taylor 1999). Kawabata points out that public transportation is vital to sustainable development and transportation precisely because the automobile is not accessible to all members of society (2007). According to Farrington, “greater accessibility among a society can be seen as a means of achieving greater social inclusion, and hence social justice, and hence social sustainability” (2006: 323).

Land Use

Numerous studies investigate the relationship between development patterns and transportation habits. Kennedy et al. (2005) point out that investing in public transportation systems will not be economically sustainable with current macro land use patterns and neighborhood designs. Land use and travel behavior, as well as social networks, are all related (Blumenberg and Smart 2009), and sprawl reduces potential effectiveness of transit systems (Bullard et al. 2004). However, sprawl can have the opposite effect on automobile transportation (Jain and Guivier 2001). Since automobiles
can move faster with fewer other vehicles on the roads, sprawl increases their effectiveness. Thus, lowering commute time is a function of both urban and transport development patterns (Kawabata 2007). In addition, urban spatial structure is an equity issue, because density has a greater effect on accessibility for transit riders, who are typically poorer and not white (ibid 2007). Neighborhoods designed with housing, jobs, schools, and locations of other activities conveniently connected or proximate to major transit lines support public transit systems (Kennedy et al. 2005). People living in more compact, mixed-use, and pedestrian-oriented neighborhoods conduct more non-work trips by walking, bicycling, and transit modes than people living in typical middle and upper-middle class American suburbs (Cervero 1996). Compact, mixed-use neighborhoods are associated with reduced vehicle and personal miles traveled, as well as more trips with fewer stops (Krizek 2003). These types of neighborhoods also have relatively low household vehicle ownership rates (Hare 1992).

While the above studies looked at the correlation between transportation habits and neighborhood forms, other studies show a stronger relationship between transportation and socioeconomic variables. Researchers in San Francisco found that neighborhood characteristics there were influential factors of mode choice, but only by controlling for socioeconomic differences, including income, education, home type and age more (Kitamura et al. 1997). However, Blumenberg and Smart’s more recent study in Los Angeles, which looked at ethnic enclaves (mixed uses of residences and ethnic-specific businesses and services), did find a positive significant relationship between residential location in these clusters and, in urban areas, greater public transit use (2009). Residents in ethnic enclaves in suburban areas with little or no public transit accessibility
were associated with higher carpooling rates. Kawabata (2007) found that urban spatial structure is more important for transit commuters than for automobile commuters who drive alone, meaning that lowering transit commute time has a greater effect on job accessibility than lowering automobile commute time.

Cervero investigated whether it was more fiscally efficient to expand public versus private mobility to increase the success of welfare-to-work programs (2002). Many social service programs seek to provide cars to people instead of improving transit. Indeed, Cervero’s study found that spatial mismatch only had a modest effect on employment outcomes, and that automobile ownership is greatly correlated with finding work (2002). However, that same study found that the one significant spatial indicator of job accessibility for the ability to get off welfare was for those people who were able to walk to a transit stop (Cervero 2002).

**Habitual Auto Use**

Habitual auto use decreases the viability of public transportation systems. Research has shown that one of the transit industry’s strongest deterrents in increasing its customer base is existing habitual automobile use (Brown et al. 2003). “Substantial effort will be needed to popularize transit to bring forth a small reduction in automobile ownership among the general population” (Deka 2002: 288). In fact, attitude may be more strongly correlated with auto ownership than with the built environment (Cao et al. 2007). “As the cost of learning to use alternate modes increases the utility decreases” (Weinberger & Goetzke 2009: 14). Attitudes and perceptions of transportation systems are important in mode choice decisions (Gilbert and Forester 1977). Brown et al. (2003) discuss the difficulty encountered in encouraging automobile commuters to switch to
public transit during the Utah Olympics. In that study, external factors such as a reduction in air pollution and more sustainable land use were less effective than immediately perceived benefits. Encouraging riders to focus on avoiding traffic and parking hassles increased their willingness to use transit. Instead of encouraging drivers to switch to transit, Deka (2002) suggests that transit authorities may benefit instead by focusing on providing services to those who do not own or drive automobiles. Since transit already has an accepted welfare role, focusing on using it to provide mobility for people with low income does not change existing policy (Deka 2002).

Just as auto use can be difficult to change, some research shows that use of nonmotorized and transit modes can become habitual. Recent immigrants to Canada are much more likely to ride public transit than native-born residents, “even when controlling for demographic characteristics, income, commute distance and residential distance from the city centre” (Heisz & Schellenberg 2004: 170). Weinberger and Goetzke studied the relationship between prior familiarity with non-auto modes and later automobile use. They found that people who had recently moved from a U.S. ‘transit city’ (Boston, Chicago, New York, Philadelphia, San Francisco, or Washington, D.C.) were likely to own fewer vehicles than new residents from other places (2009). Other things being equal, “people who have been exposed to relatively lower levels of auto ownership are likely to own fewer autos,” so the study “highlights the importance of preserving and promoting environments where auto ownership is optional so that such learning can occur” (Weinberger and Goetzke 2009: 3). The authors theorize that people take their travel habits with them, so in some cases, habitual use of transit or non-motorized modes can pre-empt habitual auto use. Of course, preferences of neighborhood and travel
modes are also closely related (Weinberger & Goetzke 2009; Krizek 2003). Theorized along the same lines, transit use among recent immigrants to Canada has been differentiated by source country, but the reasons for this are unclear (Heisz & Schellenberg).

Refugees by definition have moved to a new place and are establishing new habits. Therefore, refugee communities, though small in number, represent an opportunity for the transit industry. Additionally, the diverse background of this population may prove useful in determining creative ways to make transit a more viable transportation mode than it is currently. What is useful for them may also prove useful for other immigrants, for the general limited English proficiency (LEP) population, and even for the entire general public.

**Equity**

Equity is an important reason to investigate urban transportation (Bullard et al. 2004), and working toward equity is one of transit’s growing roles (Deka 2002). Indeed, it has a mandate to do so for Limited English Proficiency (LEP) persons, according to President Clinton’s executive order 13166 signed in 2000 and entitled “Improving Access to Services for Persons with Limited English Proficiency.” Public transportation is the only means of transport for many people, including elderly, children, and youth, people with certain physical or mental disabilities, and people without a license or the ability to purchase a car. In times of economic downturn and/or when the cost of driving increases, the segment of the population financially unable to drive alone also increases. The price of gas in 2008 increased to over $4/gallon from a high in 2007 of $3/gallon (EIA 2009). The American Public Transportation Association released a report in March 2009 saying
that ridership of public transportation in the United States in 2008 was the highest in 52 years. The highest percentage increase since 2007 was on bus transportation in cities with fewer than 100,000 (Miller 2009).

Overall, accessibility is central to a schema of social inclusion and social justice, and refers to the “ability of people to reach and take part in activities normal for that society” (Farrington 2006: 320), and “the potential for opportunities for interaction” (Kawabata 2007: 1761). Cass et al. note that transportation is only one way to achieve accessibility as a result of “increasing geographical mobility and the spreading out of social networks” which has led to virtual mobility (2005: 548). Thus, access to technology and other forms of communication may sometimes pre-empt the use of transport. Of course, in the interest of equity, having multiple viable choices is better than having only one viable transportation choice (Krumholz and Forester 1990, Garrett and Taylor 1999, Carll 1974). This leads to the oft-made point that the focus should be on accessibility rather than mobility (Jain and Guivier 2001), even though mobility may be easier to measure. Mobility refers to the ability to move about in space. The benefit of multiple choices is evident from a comparison of public (transit) and private (automobile) provision (Gao and Johnston 2009). In that study, providing cars and improving transit were both beneficial to initially carless households. However, the transit improvements not only provided more benefits to the carless households, but also provided benefits to households with a car. The provision of cars to previously carless households lowered the mobility for those already with a car because the new cars did not increase their mobility, but did cause more roadway congestion.
Murray and Davis’ study considered three factors of inequity: dispersed services, constraints on locational choice (such as for housing) and inadequate transportation (2001). Improving transportation is one avenue that can lead to increased accessibility and equity. Cass et al. point out that many studies use a predefined list of where people want to go and what services they need (2005, Sanchez et al. 2004, Talen 1998). Often, a car belonging to or driven by a friend or relative may be available at certain times of day or for certain destinations, meaning that public transportation could be desired for only a subset of people’s uniquely defined ‘social obligations.’ Indeed, different social groups have different mobility demands for effective access. Some things to measure to investigate transit accessibility, used by Cass et al., are the proximity of a bus stop or station, direction the buses travel, cost to travel, quality of the experience, and the conditions of waiting and transfer locations, in addition to measures of frequency, reliability, and punctuality (2005).

Race and class are the two main determinants of inequity in mobility (McLafferty & Preston 1991). In addition, mobility rates are lowest for children and the elderly (Pucher and Renne 2003). Many researchers consider carlessness a prime factor in need for transit. This criterion includes people who are young, old, have low income, language difficulties, and/or one car but multiple adults in a household (Murray and Davis). Numerous studies have shown a disparity in the commuting time and distance of women compared to men, partially as a result of a higher rate of public transit use among women (incl. Nelson 1986). However, McLafferty and Preston showed this only to be true for white women. They found that black and Hispanic men and women have similar commuting times, both of which are significantly longer than both white men and women,
thus, “differences based on gender are smaller than those based on race” (1991: 9). In Massachusetts, cities are home to a disproportionate percentage of households fitting environmental justice criteria, namely households of color, of birth outside the United States, that speak first languages other than English, and of poverty (MA EOEEA 2007). If disadvantaged groups can be spatially defined, as Talen points out, policymakers have an opportunity to help offset disadvantage (1998).

A disproportionate percentage of households in poverty in the United States reside in cities (US Census 2000). Poverty is not just a characteristic of people, but also of their location and level of access to life opportunities (Farrington 2006). Even though studies show higher poverty rates in cities, transportation policy tends to distribute transit funds based on the service area population without considering ridership levels, resulting in a proportionally larger amount of funding spent on lower density areas than the more dense areas which have higher ridership (Garrett and Taylor 1999, Blumenberg and Schweitzer 2006).

Talen (1998) provides four methods for measuring equity and access. First is the concept of equality, by which everyone receives the same benefits and pays the same costs, regardless of need or likelihood of using the service. This is similar to current transportation policy. Second, funds can be distributed in a compensatory manner, or according to need. This is similar to social justice, in that people with less of something are compensated. Third is demand, or the “squeaky wheel” phenomenon, by which groups who are loudest in the most strategic way receive the most funding. Important federal transportation legislation since 1991 – the Intermodal Surface Transportation Efficiency Act (ISTEA), Transportation Equity Act for the 21st Century (TEA-21), and
Safe, Accountable, Flexible, and Efficient Transportation Equity Act (SAFETEA), have devolved responsibility for transportation planning and implementation to metropolitan planning organizations (Kreda 1995, Blumenberg and Schweitzer 2006). The devolution sometimes results in the measurement of equity using the demand method because local governments are more susceptible to local political pressure. The fourth method uses market criteria, by finding those who are most willing to pay for the service. Talen argues that the compensatory method and the market criteria method are incompatible because need-based distributions are unlikely to coincide with those based on ability to pay (1998: 24). However, in the case of bus transit, they are compatible (Krumholz and Forester 1990). Many people with limited mobility live in cities, which is also where bus transport is most viable.

In higher density areas, more households cannot afford automobiles and therefore rely mainly on walking, bicycling or public transport for mobility (Bullard et al. 2004). In Great Britain, there is a growing divide between transit provision in ‘hot zones’ where people can pay more, and in ‘cold zones’ where they cannot (Cass et al. 2005). Deka points out that, due to suburbanization and reduction of transit services, households in the lowest income quintile may increasingly choose automobile ownership at the expense of other necessities (2002). Transit provides the most mobility at the least cost to society. By assuring the existence of public transit, government may increase equity.

Much of the literature on transportation equity concentrates on the trip to work (Sanchez et al. 2004, Gao and Johnston 2009). To some extent, this is because the discourse of transportation engineering is based on time equaling money, which values commuting trips over trip purposes such as health, shopping, and social trips (Jain and
Guivier 2001). One may also argue that work and school trips are more necessary than other types, including social trips, but Urry points out that “there is no simple way to distinguish between journeys that are and are not ‘necessary’” (2003: 171). In addition, people are more likely to use transit for the journey to work than for other trips (Pucher and Renne 2003). Commuting time is more significantly associated with job accessibility for public transit than for driving alone (Kawabata 2007).

Many transportation equity studies also focus on mobility needs for successful welfare-to-work programs, and points out that much of the research on welfare recipients leaves out considerations of transport and employment access (Sanchez et al. 2004). Indeed, “the provision of such goods as healthcare, education and work as means of achieving social justice often takes little or no account of the ability of people to actually reach and take part in them so as to fully realize their rights to them” (Farrington 2006: 327). While air quality was the most important social policy objective under the TEA legislations, meeting transportation needs of the working poor was also a significant objective, and these policies were intended to complement welfare policy reforms (Blumenberg and Schweitzer 2006). A common difficulty of welfare-to-work recipients is the spatial mismatch between recipients’ housing in high density areas and the lower density locations of jobs for which they are qualified (Gao and Johnston 2009).

**Equity and Participation**

Public participation on transportation projects has been mandated through federal transportation legislation since ISTEA in 1991, with the realization that successful projects need broad public support. Liu and Schachter (2007) also argue that the provision of transit information is a human-rights issue of non-discrimination according
to President Clinton’s Executive Order 13166, since meaningful access to services requires information about those services (Clinton 2000). Transportation funding agencies increasingly view public transportation as a public welfare provider instead of a viable transportation provider and therefore focus on the transportation needs of people with limited mobility (Bullard et al. 2004). However, officials such as planners and transit providers often do not fully understand the transportation needs of the people they serve without some type of communication with public transportation users or potential users (Kreda 1995). The views of officials are important, but should be combined with the views of the transit users (Kreda 1995, Liu and Schachter 2007). Transit planners may not fully understand the areas where transit users find the services insufficient, especially for immigrant communities (Liu and Schachter 2007). “An authentic community role requires citizen involvement in framing issues,” which means public participation must occur early to give questions not foreseen by experts an equal standing (Schachter and Liu 2005: 614-15). Questionnaires typically exclude “co-creation of meaning” since they are based on expert categorization (ibid: 619). Indeed, Liu and Schachter’s study in New Jersey, sponsored by the NJ Department of Transportation, framed the issue as one of information needs, and thus a questionnaire administered to hundreds of LEP residents, focused on communication. Focus groups conducted as part of the same study reframed the discussion, as evidenced by the fact that they led to a slightly different definition of equal access, and eventually resulted in state-level discussion of new issues, namely impolite employees, route placements, and bus stop locations.
Gaber and Gaber (2002) make the point that much of the data on transportation needs of the transit disadvantaged, such as immigrant communities, is not easily quantifiable. For this reason, focus group techniques elicit information more useful to the transit industry, while also providing an avenue for participation. This is especially important in the public transit realm since Heisz and Schellenberg (2004) found that recent immigrants in Canada use public transit to get to work more than native born residents.

Public participation in government should have an impact on the substance of government politics, and should stimulate interest and investment in both administrators and citizens (Kreda 1995). Overcoming barriers to public participation falls into three categories according to King et al (1998: 323): empowering and educating community members, re-educating administrators, and enabling administrative structures and processes. One aspect of empowering community members is the inclusion of a representative range of citizens (King et al. 1998). The focus of my study, refugees, is a group likely to be left out, due to language and cultural differences, as well as relative newness to an area. They are also one group likely to realize immediate benefits from service improvements because they have limited mobility following their arrival. In addition, they may bring with them transit or pedestrian-oriented transportation habits, which are worth maintaining and encouraging.

**Influences Leading to this Study**

In the United States, public transportation is charged with providing equitably for the poor and mobility impaired (Deka 2002, Liu and Schachter 2007). Numerous studies investigate whether transit providers are satisfactorily achieving this charge. By
analyzing residential locations of households in poverty in Los Angeles, Deka (2002) defined the location of a transit captive population. This relates to the current study because, at least initially, refugees are also a transit captive population. Blumenberg and Smart delineated ethnic neighborhoods by spatially defining immigrants’ residences, and determined that use of public transportation and carpooling were significantly associated with these neighborhoods (2009). Heisz and Schellenberg used census data to compare public transit use among recent immigrants and native-born residents (2004). They found that recent immigrants are more likely to use public transit, even when controlling for other factors, including income and residential distance from the central city. In seeking how best to increase bus ridership, Currie and Wallis reviewed patronage effects of numerous geographically dispersed bus development initiatives, meaning they compared ridership before and after implementation. They synthesized evidence of effective measures, concluding that “there does not appear to be a clear consensus on the most effective means to improve bus services” (2008: 419). Liu and Schachter sought to discover, through surveys, interviews, and focus groups in New Jersey, specific needs of another mostly transit captive population, LEP people, in order to serve them better (2007). They found that the LEP population there desires information in their first language, polite bus drivers, and services that take them where they want to go. Gaber and Gaber use survey and focus group methods to investigate transit needs, and argue that their qualitative research design allows for more locally applicable services (1999, 2002). Finally, Schachter and Liu (2005), writing about the study in New Jersey mentioned above, recommend defining the framing issues with the potential public
transportation customers early, which also has implications for public participation efforts.

**Gaps in the Literature**

Blumenberg and Smart recently noted that, “while numerous scholars have examined immigrant neighborhoods, much of this research has focused on their location, formation, and economic effects. Transportation, mobility, and accessibility have been noticeably absent from this body of scholarship” (2009: 1). The authors of the New Jersey study on Limited English Proficiency (LEP) individuals and transit ridership said “almost no studies [had] investigated the impact of limited English proficiency on the use of public transit even though LEP individuals use this travel mode more than the general population” (Liu and Schachter 2007: 90). As far as I know, input of individuals with refugee status, which usually are a subset of LEP populations or immigrant communities, has not been documented separately from the general immigrant population. Gee et al. (2006) describe the cumulative effects of discrimination on recent minority immigrant populations in the Manchester, New Hampshire region, showing that longer-term immigrants have a greater perception of race-based discrimination. This means that programs and services targeted for minorities may be most efficiently beneficial to newer immigrants, which are the focus of this thesis.

This thesis investigates the transportation needs of refugee and limited English proficiency groups in Manchester, New Hampshire. I use focus groups with the target population because focus groups have been shown to more accurately identify barriers to transit use (Schachter and Liu 2005). Appropriate services for immigrant populations may help reduce their perception of race-based discrimination. Increasing ridership on
the Manchester Transit Authority’s buses can increase the system’s financial viability and also increase the perception of the transit system as a viable transportation option. This thesis therefore seeks to make recommendations that are mutually beneficial to refugee and LEP groups as well as to the local transit provider.
CHAPTER IV

MANCHESTER, NEW HAMPSHIRE TRANSIT HISTORY AND TRENDS

In its early years mass transportation in Manchester was an investment opportunity, taking advantage of rapid industrial growth and increasing population. Over time, transit took on more of a social welfare role, and has been a public authority since 1973. Since then, responsibilities of public transportation and the city converged, and the two forged a stronger relationship than had previously existed, although there is still little connection in terms of policy and planning.

The first organized mass transportation were horse omnibuses, which began running in 1853, at which time over 14,000 people resided in the city. These were essentially horse-pulled carriages that could carry a number of people. Routes could easily change, just as they can for bus transportation today. The Manchester Horse Railroad began operation in 1877. It was organized in 1864 by a number of bank executives and other influential Manchester residents who, after visiting cities in Massachusetts with horse railroads, thought they could profit off a similar system in their own city. They advertised that their services would enable workers to move their residences out of the business and grime of the city. On the first day, a Saturday, 700 passengers rode the horsecars, and on Sunday, there were 1,320 riders. Cars left every fifteen minutes, and the cash fare was five cents, with packages of eleven tickets set at fifty cents. (O.R. Cummings 1976) Even today, the transit authority sells ten-ride tickets at a discount.
O.R. Cummings writes in *Queen City Horsecar Days* (1976):

It’s a harsh judgment to make but all indications are that the principal owners of the Manchester Horse Railroad took only a minor interest in the property, most of them being involved in other and more extensive enterprises. Superintendent Gage ‘ran the show’ and so long as he kept expenses down so that reasonable annual profits could be earned and dividends paid, they were satisfied. They didn’t ride the horsecars themselves so why should they care about the condition of the cars or track or the erratic service? The company was making money – and that was all that really mattered. (32-33)

Only one week after the president of the board in this period died, General Williams, a native of England, was named president. He was also by far the largest shareholder out of a total of seven, and from 1892 to 1894, the company distributed nearly half of its profits to the stockholders.

The Manchester Horse Railroad changed its name to the Manchester Street Railway in 1889, although it was only in 1895 that the system was electrified (O.R. Cummings 1976). The Manchester Traction, Light, & Power Company, a consolidation of various properties owned by the Boston investment house Tucker, Anthony & Co., purchased the Manchester Street Railway in 1901 (Lawrence 1973). This continued a trend of management by people and companies unfamiliar with the city and its residents.

Competition came in 1915 by two jitney services, which ranged in size from taxis to buses. One provided service anywhere along twenty-two blocks of Elm Street, the main street, for the same five-cent fare as the street railroad. Residents of the predominantly French-speaking Notre Dame section of the city formed an informal jitney association and began providing service between mills on the east side of the Merrimack River and many residences on the West Side. The existing railway service did connect these two areas, but by a more circuitous route. Again, the fare for this service was five
cents, so it provided no savings, but since the Model T Fords used for the service followed a more direct route, it saved enough time to enable workers to return home for lunch. Responding to opposition by the Manchester Street Railway, in 1919 the New Hampshire legislature passed legislation to regulate motor carriage of passengers, which temporarily stopped all jitney services, since they were previously unregulated. The service to Notre Dame resumed a month later, operating on different streets than the trolleys as required by the new legislation, but also operating on a fixed schedule and charging ten cents. Six years later, the service incorporated as Notre Dame Bus Line and ran the route with buses (Lawrence 1973).

Foreshadowing the company’s divestiture of the transportation system, in 1927, the Manchester Traction, Light, & Power Company became Public Service Company, now Public Service of New Hampshire. The Amoskeag Manufacturing Company, the main employer in the city, announced bankruptcy and closure of its 64 mills at the end of 1935. This was a major event, and loss of jobs and income likely meant a strong downward trend in ridership. Public Service Company changed the Manchester Street Railway’s name to Motor Coach Lines in 1939. This was in anticipation of the 1940 switch from an electrified railway to a diesel bus system, which increased revenue. Another increase in revenue came with the drastic increase in the number of riders during World War II. Patronage reached 15.1 million in 1948, and the company thereafter reshaped the routes, greatly increasing the route mileage. Nonetheless, in 1952, patronage had decreased to 10 million. On January 1, 1955, Public Service Company, “deciding to concentrate on its electric power business,” sold the bus system to the existing superintendents, who then formed Manchester Transit, Inc (Lawrence 1973: 10).
With patronage of the city routes still decreasing, this company also began operating school bus routes for the neighboring towns of Candia and Auburn in 1955; in 1959 they bought the company operating the Manchester school routes. Other attempts to diversify were thwarted (Lawrence 1973).

A 1966 planning report shows that Manchester Transit Inc. provided extra trips from industrial areas and schools in the morning and to the industrial areas in the evening (Wilbur Smith). A number of routes had high percentages of riders using student fares, mostly high school students. The report notes that the transit companies had seen a “progressive decline in patronage of its lines since World War II and a gradual increase in wages and employees benefits. This has promoted fare increases to make up the increased cost of employee compensation, which has been followed by additional losses in riding, and service curtailments to adjust for the decreased patronage” (Wilbur Smith 1966: 39). The report says that reducing the then half-hourly service would be detrimental to the public service, and also financially hazardous to the company. Today, most routes have hourly headways. Ultimately, the consultants were heavily pushing public subsidy of the bus system (Wilbur Smith 1966).

Nonetheless, in 1968 both the city aldermen and the public rejected a city proposal to subsidize the private company, even though the city had reimbursed Manchester Transit for the difference between student and adult fares in 1967, effectively subsidizing the company anyway (Lawrence 1973). Manchester Transit threatened to stop all services unless it received a public subsidy in 1972, but public opinion was against subsidizing a private company, and the city created the public Manchester Transit Authority (MTA) in May of 1973. It immediately contracted with ATE Management and
Service Co. Inc. of Cincinnati to manage the system (Lawrence 1977). The MTA still operates the transit system today with public subsidy, and its management team is still employed by a private management firm.

The public authority attempted to institute numerous programs and services, using various advertising avenues in the 1970’s; only a few remain. In the 1970’s, StepSaver service was a loop service with lift-equipped buses, connecting eight nursing homes and three hospitals with Elm Street. Today, StepSaver is a demand-responsive service for people with disabilities that prevent them from riding the fixed bus routes. All regular buses are now lift-equipped. The Authority also began organizing trips to places of interest in the state, the longest-lasting of which were summer trips to Hampton Beach on the Atlantic Ocean, although these were cancelled in the summer of 2008. In 1974 a free-ride zone along fourteen blocks of Elm Street was set to “fill otherwise empty seats, promote regular patronage, make shopping more convenient, relieve traffic congestion and ultimately improve the environment” (Lawrence 1977: 19). This no longer exists, but the city’s parking division and the MTA are collaborating now (2009) on a ‘downtown circulator’ service, which will provide free rides around downtown’s Elm Street and Millyard.

Model Cities Agency planning work from the late 1960’s lists “lack of adequate and low-cost public transportation facilities” as one of the most frequently mentioned problems at eleven meetings held with neighborhood associations in numerous ‘Community Action Program’ areas throughout the city (MCA 1967: C4). A 1977 list of MTA strengths and weaknesses by a former MTA general manager says that routes and schedules provided good coverage of the city, ridership was increasing, and the
community recognized transit as an asset (MHA 1970’s). This assessment does fit with the Model Cities reports – if people were complaining about the transportation facilities, it shows they recognized transit as an asset. While the list also says that the Authority’s relationships with the Public Utilities Commission and the New Hampshire Transportation Authority were good, the list of weaknesses says that relations with city departments were poor, and there was a lack of community demand for improved transit service. Another 1977 sheet, of perceived system weaknesses lists, “Board of Mayor and Aldermen are not completely sold on the value of public transit” (MHA 1970’s). These documents show a disconnect between the transit authority and the city. Union Leader newspaper articles with ‘Manchester Transit Authority’ from 1989 through 2008 show a similar trend.

There is very little record about the MTA in the 1980’s, which was a period of decline for the Authority (Whitten 2009). In 1981, the MTA changed general managers. The same year, the Authority cut quite a lot of service. It also held two public hearings and asked riders to send letters concerning the effect the changes would have on them. Much of the funding lost was federal, and it seems the MTA was relying on current riders to prove the value of the service to city-level government so elected officials would increase subsidies (MHA 1970’s). Involving riders in struggles for local subsidies is a trend that arose consistently in Union Leader articles between 1989 and 2008. In the summer of 2008, just before the executive director retired, bus drivers asked riders to sign petitions asking that service levels be maintained. The fare increased from $1.00 to $1.25 but all fixed routes were retained because revenue was higher than expected. Increased ridership and revenue thus worked in a timely manner to avoid the service cuts
responding to financial hardship and challenges to the necessity of a local public transportation system.

Ridership on the various public transportation systems has fluctuated since the mid-19th century. The horse carriages likely had a clientele of middle-upper class people born in the area or immigrating with some skill or knowledge. By the time the Horse Railroad began operating in 1877, the mills supported a greater population, but also provided housing close to work. Homes of former middle-managers sit on small plots quite a distance from the millyard, such that these employees would have required some form of non-human powered transportation. As people settled more densely West of the river, lower-level workers living there used public transportation to get to work, as evidenced also by the informal jitney services that shuttled people back and forth. Ridership greatly increased during World War II, transporting all segments of the population, but by 1952 had sharply decreased by a third (Lawrence 1973). Thereafter, ridership has steadily decreased overall, with some increases, most notably in the 1970’s. Higher than expected ridership in 2008 enabled the Transit Authority to maintain service levels with a $0.25 fare increase, despite a decrease in subsidy.

In the Model City planning exercises in the 1970’s, the transportation focus turned to the elderly, and even today the MTA runs a ‘shopper shuttle’ service subsidized by grocery stores to

Figure 4.1. Transit Riders from Carless Households. Source: Wilbur Smith Associates
bring older people to the stores, both for shopping and socializing. Today, buses primarily carry a transit dependent population (Wilbur Smith 2005), as evidenced by the percentage of riders from households without a car (shown in Figure 4.1), which has generally increased, from 28% in 1965, peaking in the 1990’s, and lowering slightly to 57% in 2005 (SNHPC 2003; Wilbur Smith 2005). Thus, public transportation run by investors served the middle and upper segments of society, and as the system became less profitable, it became a social service, overseen by local government and serving transit dependent residents.

**Relevance of Service for Potential Riders Today**

Today, the Manchester Transit Authority (MTA) operates thirteen lines in the city, and approximately 97% of residences are within a quarter mile of a bus line. The majority of route mileage is within the city of Manchester. One extends into the neighboring town of Bedford, which pays for the service, one into Goffstown, which does not compensate the MTA, and another line extends into Londonderry to service the Manchester Airport, most of which is in that town. Fares increased in the summer of 2008 from $1.00 to $1.25 per adult.

The maps on the following pages show demographic categories in Manchester, according to the 2000 census, under the bus lines, which converge in the downtown area. Figure 4.2 shows that the highest percentage of occupied households without a car (by census tract) concentrate in two places – in the downtown near Elm Street and on the West Side. The darkest downtown areas represent about 45% carless rates. The darkest areas on the West Side signify about 24% carless rates. This area is not as well served by the bus lines, as it is farther from the transfer center, and one of the two accessible lines is
a loop route. The remaining figures show census data by block group. Income distribution is in Figure 4.3, with the lowest levels and thus highest likelihood of transit dependence concentrating in the downtown. Figure 4.4 shows percentages of residents that are not citizens. This demographic is more scattered, with significant concentrations in the northwestern part of the city, but also in the downtown area. The distribution of people who walk or bike to work is in Figure 4.5. Again, the highest rates cluster in the downtown area, but in a more pocketed pattern. Workers who walk or bike to work are more dispersed than those who use the bus. Figure 4.6 compares the bus lines to existing (year 2000) ridership. Existing bus riders generally live in the center of the city, where the service is most viable. Overall, the figures show that the bus lines are well-poised to provide services to its most likely customers, who are also most likely to rely on public transportation. Indeed, this is part of the Manchester Transit Authority’s responsibilities since it receives public funding.
Figure 4.2: Housing Units with No Vehicle Available by Census Tract, Manchester, NH

Source: Census 2000, Summary File 3; Southern NH Planning Commission
Figure 4.3: Income Distribution by Block Group, 2000
Manchester, NH

Source: Census 2000, Summary File 3; Southern NH Planning Commission
Figure 4.4: Non Citizens by Block Group, Manchester, NH

Source: Census 2000, Summary File 3; Southern NH Planning Commission
Figure 4.5: Non Motorized Travel to Work by Block Group, Manchester, NH

Source: Census 2000, Summary File 3; Southern NH Planning Commission
Figure 4.6: Bus Travel to Work by Block Group, Manchester, NH

Source: Census 2000, Summary File 3; Southern NH Planning Commission
Since Manchester was first called ‘Manchester,’ it has been the destination of immigrant groups. Most recently, refugees from central Africa, Bhutan/Nepal, Iraq, and nations part of the former Soviet Union have resettled in the city. To identify barriers to transit use by refugees and people with limited English proficiency, I conducted focus groups during English classes at three institutions: the International Institute of New Hampshire, English for New Americans at the First Congregational Church, and the Adult Learning Center at the Manchester School of Technology. Participants included people from the countries listed above as well as Albania, Columbia, Congo, Haiti, Japan, Mexico, Niger, Peru, the Philippines, Russia, Somalia, Sudan, Thailand, the Ukraine, Venezuela, and Vietnam. The number of participants in a focus group ranged between nine and sixteen, with a total of sixty-six participants. Sessions lasted between forty-five minutes and an hour. A list of questions that guided the focus groups is in Appendix A.

The purpose of the focus groups was to learn characteristics of other transportation systems that could be useful in Manchester, and also to learn what participants think of Manchester’s system. In general, groups with an overall lower English proficiency answered my questions about their previous transportation experience and common destinations in Manchester, and also talked about hours of service and route and schedule information, but cited not having enough money for tickets as the biggest reason they didn’t use the buses. In the higher proficiency groups, I
talked less. Participants took control of the conversation and were more verbally analytical of available transportation options. They focused on information needs, and also discussed frequency of service and waiting, transfers, and benefits of the buses. Focus group results are not necessarily grouped by questions I had asked, but rather by topics that repeatedly arose during the discussions.

I also interviewed staff at the Manchester Transit Authority, received written responses from the International Institute of New Hampshire, and had informal conversations with staff at Intown Manchester and the MTA. Question guides for the interviews are located in Appendix B. All communications were anonymous. The purpose was to ascertain different organizations’ perceived role of the local transit system and learn of any changes they would like to see to the system. Because I did not complete as many interviews as planned, I did not compare or compile the responses. However, I contacted people for interviews after completing most of the focus groups, and was therefore able to tailor follow-up questions to mirror discussions in the focus groups. I have integrated information from the interviews into the topics that arose during the focus groups, presented below.

I use the terms ‘student’ and ‘participant’ interchangeably, to mean the student participants of the focus groups; to maintain privacy no names are used. Capital letters denote different people in discussions involving more than one person. Participant ‘A’ in one conversation is not necessarily participant ‘A’ in any other conversation.

**Participants’ Previous Transportation Experience**

Participants had experience with a wide range of transportation modes and systems. Overall, they had either non-motorized or motorized transportation experiences
before getting to Manchester. Non-motorized modes included walking, biking, and animals, and motorized modes included motorcycles, personal automobiles, taxis, buses, streetcars, and subway systems. Only a minority of participants had owned a car before moving to Manchester.

Their conversations were wide-ranging, including what they thought were more well-developed public transportation systems in New York, New Jersey, Germany, Mogadishu, Columbia, Tokyo, Brooklyn, the Philippines, Kiev, Russia, and Mexico as well as a lack of parking.

“You know, I coming from New York, and, you know, that’s my culture, that you use it [public transportation].”

“When I coming here, I surprised because you know big difference in my country…you will go outside your house and then you want to go somewhere, you can take a tricycle, tricycle with a sidecar, motorcycle with a sidecar, and then you pay like [six cents]…and then sometimes when you go far, not only in your town, when you go outside your town, you take a jeep…like the seat is face to face…sometimes the jeep model eight people, four here, four on the side, and two here, and two next to the driver, and you know it’s different…when you go, like, [major city], it’s too far to our town, you take a bus, and it’s different you have air conditioning or regular with no air conditioning.”

“Travel in my country depends on the situation, and depends what I want to get. I use underground to work, walk for the shopping, and we use taxi driver for the party.”

“For me, I feel comfortable for Manchester life because if we want to go somewhere, we can go by car, anywhere because we have, this town is countryside, so anywhere have a parking lot, but our country is very different…don’t have so much parking lot, but we have a lot of trains, than New York, for example, the one station have many different company trains.”

Other systems they discussed include vacation programs in the summer when children are out of school, and informal taxi services, the legality of which was uncertain in Brooklyn, although other participants were familiar with similar systems elsewhere.
“You know, in Long Island, New York, in summer they got a special program, like go to the park, you know, yeah, because people they want to walk and get the ride in the bus they take to any park.”

A: “You just stand, and just like [wave] and they stop for you, and you go inside, just pay a dollar if you go into, I don’t know if you know Brooklyn well… It’s just like taxi, but it’s not taxi. It’s just like you have your car, you know, it’s a small car, some women can do that, I don’t know if they’re still doing that.”

B: “I know that, when you have a car, and you need some money, and some people are waiting for you, and you pick up her or him.”

Moderator: “Is that like hitchhiking?”

A: “No, no, not that one [sign for hitchhiking], this one [waving], because if you go like that [sign for hitchhiking], it’s free for ride, but go like that [waving], it’s a dollar.”

Groups with participants that had, on average, arrived in Manchester more recently and had lower English proficiency tended to talk about walking and using animals and bikes, for example in Albania, Bhutan/Nepal, Iraq, Somalia, and Vietnam. Participants from Bhutan/Nepal generally talked about walking and bicycling – many had been living in refugee camps for more than fifteen years. Participants from Albania said walking was much nicer there, because the streets are not as large and busy. Animal transportation was mostly by camel and horse, but also ox-cart and sheep. In addition, at least half of the participants in these groups had used a motorbike before they came to the United States, and spoke excitedly about their experiences riding, noting that motorbikes are less visible in Manchester.

**Benefits of the Bus**

In the focus groups involving participants with higher English proficiency, the conversation turned to the benefits of having public transportation in Manchester. Most of the MTA’s riders are transit-dependent, usually because they have no driver’s license, cannot afford a car, or have one car for more than one person (Wilbur Smith 2005).
According to staff at the MTA, most of the choice riders are seniors, many of whom ride the bus as a kind of social outing with their friends. Some students said that the bus company should provide service as efficiently as possible to save the city money, and noted that increasing ridership would also increase revenue. They pointed out that the high cost of driving or using taxis decreases the accessibility of these modes, and noted that the bus can help people save enough money to afford other transportation. Staff at the MTA also said the bus system could help to “get people to move up the ladder,” and that transit “shouldn’t try to compete with the car,” which was a sentiment also echoed in the focus groups, as shown below.

A: “Some people no have money to pay taxes.”
B: “Yeah, that’s true.”
C: “Or no license.”
A: “Or no license, or no have some person bring them or pick them up.”

“Not just money, a lot of people they don’t like to have insurance, a lot of people they don’t want to, they have only one car, they want to use it at home,”

A: “I remember when I came United States here, so, I came Manchester, all the time I was use the bus, wherever I go, whether I shopping or the hospital, I use the bus, there was some people from immigrant, they use bus at that time, someone he don’t has license at the time, he lose license, he use the bus, so people from, they come United States, like in the first three four months, they use a bus.”
B: “After that, they afford a car.”
A: “After that they get license, car, work.”
C: “Well, firstly they need a transportation.”
A: “Yes, that one in particular, transportation, it has to stay like that, some people they need, some not, some people they don’t.”

Participants thought bus access to higher education and employment were highly important, though few participants said they were using the bus system to reach these destinations. Instead, they either 1) said they thought that other people might need a bus to get to these places, or 2) when asked, said that if they went to college, or especially got
a job, they would use the bus. When asked where they would go if they had motorized transportation available, students using primarily non-motorized transportation suggested they might get a job or go to higher education. An older woman said:

“because I know a lot of kids, they need go to New Hampshire University, or Manchester Community College, or for the town, for the job, and me, we need bus.”

One young woman who had recently arrived in Manchester said:

“Maybe we’d go to college also.”

When asked which college, she replied Manchester Community College (MCC). It should be noted that students of MCC and the University of New Hampshire at Manchester can currently ride the bus for free with their student identification cards. The colleges pay a fixed amount each semester. This can benefit students, as evidenced by the 900 monthly rides now provided to MCC students each month, but it also benefits the bus system. Having students on buses gets the bus system more exposure and may also motivate their family and friends to take the bus, increasing revenue and diversifying transportation habits.

In addition, someone thought the bus is a better way to travel when drinking, and another participant said her children like to take the bus because it’s fun.

“And on the weekend, if you want to go to visit a friend, and you want to drink and take a bus, you don’t have to drive.”

“And you know, when it’s vacation, the people use more the buses…I have a car, but the kids enjoy when you take the bus, my kids love that, I use take the bus in vacation, because they want to go to the library, to the parks, to different places, and the kids say, ‘mom, no take the car, we can take the bus,’ and they enjoy that, but it’s too hard, with the kids wait one hour, you know the kids they tired, you can wait, but the kids no…in vacation they can have a more, maybe a special program because the people can bring the kids to the cinema, to the library, you know…it’s not
safe that the people walk on the streets with the kids, you know”  
[motioning fast-moving cars].

“I No Have Ticket”

Whereas some students talked about the relative inexpensiveness of bus transportation, the $1.25 for a bus ride was too expensive for many of the participants who were refugees, especially those without family members already in the city. Most of these students had walked to class on the day of the focus group, and said they walked to the hospital and the grocery store, as well. They refrained from taking the bus because they had too little money to buy a ticket. A staff member at the Manchester Transit Authority, when asked for suggestions on changes to the system, expressed a personal opinion that the local transit system should be free, which was the first suggestion for improvement in a focus group with refugees.

**Destinations In Manchester**

In general, destinations in the city, whether participants actually travel to them or just think they should be on bus lines, are indeed already served by the bus system. The great majority of residences lie within a quarter mile of a bus line. Figure 5.1 shows some common destinations, as well as the locations of the focus groups. Focus group participants who own a car and do not intend to take the bus seem to focus more on destinations; people who do take the bus or say they would like to take the bus talk more about residential locations. Destinations that students most often reach by bus are the Mall of New Hampshire, Stop&Shop and Hannaford grocery stores. One participant said she had taken the bus to a retail store on the bus line connecting downtown with the Mall of New Hampshire. Macy’s and Wal-Mart were both mentioned often; both of these stores are on bus lines to Bedford and to the Mall of New Hampshire.
Figure 5.1: Points of Interest, Manchester, NH

Source: Census 2000, Summary File 3; Southern NH Planning Commission
Every group included at least one participant who had taken the bus to a hospital. Although a less frequent destination than shopping destinations, students more emphatically stated that the hospitals are important destinations to locate on a bus line. Many participants living on the West Side walk thirty or forty minutes to get to Catholic Medical Center. Participants doing this had been in the U.S. for about six months on average and did not have cars. One student said she took Easter Seals Special Transportation Services to get to doctor’s appointments.

The only participants who walk to school were in the focus groups with lower English proficiency. Both of the higher level groups were held at the Manchester School of Technology, which is further from the center of the city than the other two locations. In addition, students in these classes generally have been in the city longer than people in English classes at the other locations. The graph (Figure 5.2) shows how participants got to class on the day of the focus group.

Destinations mentioned only once when discussing where the bus should go include laundromats, churches (buses lie idle on Sundays), Asian markets, the Manchester Community Resource Center, and a residential area on Wellington Road.

![Figure 5.2: Transportation to Class](image-url)
Destinations Outside Manchester

In general, the Manchester Transit Authority only operates in Manchester. Neighboring towns do not have public transportation, and a number of participants said their workplaces, family and friends, and other destinations were in towns only accessible by personal automobile or taxi. The only form of mass transportation out of the city is provided by Boston Express, a new company created to connect Boston with high-volume commuter parking lots alongside highways. However, the creation of this company resulted in a reduction of service between Manchester and Boston. One group in particular suggested bus service to area towns and cities, including Weare, Derry, Windham, and Londonderry for purposes of commuting. They thought providing a couple of trips using smaller vehicles at the morning rush hour and a couple in the evening would be sufficient, recognizing that there would be few people to take advantage of such a service. As part of one conversation, students discussed:

A: “And like, my idea to go to around towns, like my town, because it’s so difficult to get to the city.”
B: “For students, many students come to the city.”

One student described her experience getting to class every day:

“In my town there is no bus, that is my complaint, if there were like half a bus close my house or close the 114 road, I don’t have to come 4 o’clock in the morning, because that’s my point, I come in the morning because there are no buses.”

Students in three groups specified Concord as one place they would go if they could, to go to a Buddhist temple, lawyer and court, and to visit relatives and friends. Another student, in one of the groups at the MST, had only ever taken a bus to travel between Concord and Manchester. Salem came up in two groups. One student works in Salem and was concerned about his options if his car broke. In the other group, a student
brought up Salem because it has a big outside market (like a flea market) that he and a few of his classmates like to visit. Other destinations where participants would go if they had better transportation were the Atlantic Ocean to swim at the beach, Derry to go to a farmer training program, and Lewiston, Maine to visit friends and go shopping.

Lastly, students in the two groups with higher English proficiency were especially disappointed with the recent change of bus service to Boston. A new station has been built in Londonderry, and at least initially, the regional bus service provider significantly decreased the number of trips out of Manchester. In one group, a student commented (referring to Londonderry as Derry):

“So why they changed from Manchester? Because Manchester is big. Why they changed? Is, from Boston, go to the main station? No, because I think this is bad judgment, you know what I mean? Because to go from Manchester to Derry, why they…Concord is okay, you know, it’s far from me, and just, another story; especially for Manchester, a lot of people live in Manchester, Manchester is bigger, so why they change it to Derry? What’s the…why?”

Students in the other group echoed this sentiment:

A: “Yes, it’s not good for the people live in Manchester. From here to Londonderry is not fair, why they move it Manchester to Londonderry?”

B: “Because they make a new building. They spend a lot of money for that, I don’t know why…Make the big building, big parking lot.”

Participants then commented that it is difficult for people to get to the Londonderry station without a car, and then commented that the bus should connect Manchester to the Londonderry station:

“Only people who have a car can go to Londonderry, or pay a taxi.”

“That is another point. That’s true. And people who work in Boston, take the buses, and they have sometimes they have to take taxis to go to Londonderry.”
A: “What happened with exit 5, with the Londonderry, buses go over there, or no?”
B: “Londonderry – No, no. That’s another point.”
C: “They supposed to, they supposed to…”

“It [Manchester buses] should go there…they move to exit 5, so city supposed to put buses to there. Because a lot of people don’t have cars.”

One student did note:

“No, no, yeah, they have it in Elm Street, at transportation center, but like two in the morning, two in the afternoon, not like before, you have now to go to Londonderry.”

**Route and Schedule Information**

Lack of information about locations of bus stops, destinations of buses, and scheduling was a large perceived barrier to ridership for participants of three groups. A few participants said they had never seen a bus, except school buses. The groups with smaller percentages of students driving to class tended to be unfamiliar with the bus system; many of these participants had recently arrived in Manchester and could not afford a bus ticket. Participants who had cars discussed information needs the most, perhaps because people without cars will be more motivated to search out information. They pointed out that people with automobile transportation habits might unexpectedly need to use the bus if their car breaks down, and therefore disseminating information to a wider audience than current bus riders could be advantageous.

“You know what? I do really, really want to take the bus. I come here two years, but I don’t know how to take the bus, ‘cause when I go to the bus station, I mean like the mall there, I don’t know what the number of the bus, I don’t know where they are going, I want to take but I don’t know where they are going, no have the sign,”

“And I think a lot of people doesn’t know how the public transportation works, and I don’t know, I have been living in Manchester for twelve years, and I don’t know how the public transportation works.”
Some students thought that the lack of information not only is inconvenient for people who might ride the bus, but also reduces ridership and is a detriment to the finances of the system:

A: “You’re right. We don’t know the city.”
B: “A lot of new immigrants here, and they, and because of lack of knowledge, how to take the bus, or which streets it takes, the city losing money.”

“If everybody know where the routes, the routes of the public transportation, I think more people are going to use it, once in a while…”

Bus stop locations are a particular issue. There was some discussion about what constituted a bus stop, because some people thought buses only stopped at the shelters. Sometimes participants said they had seen the bus, and noted that buses do show their destinations on the front, but thought that not knowing where the bus will stop is a barrier to riding it. According to staff at the MTA, bus drivers will pull over and pick up people standing on the side of the road if they wave at the bus. After embarking, the driver is supposed to explain to the rider which stop they should use, so that they wait at the stop in the future. Focus group participants also said that they see bus stops, but are unsure what bus will stop there, or where it will go. Another issue may be the size of the signs.

A: “Is, um, see where is the bus stop signs? I mean, I been living here a couple of years, about nine years, and I almost don’t see any, you know, most of the time, I drive my car, but you know, sometimes you have to use the buses.”
B: “So it’s not really, you never, you don’t really see, where is the bus stop??”
A: “No.”

A: “You don’t know, like let’s say, I living by Mammoth Road, where is the bus stop?”
B: “But they have a sign – just a little one.”
Most of the students had never seen the map of the bus routes. In two groups, one with higher and one with lower English proficiency, a participant produced the pamphlet with the bus schedule and route map, which then became a subject of great interest. In both of these situations, other participants asked where the pamphlet was found:

A: “You know, I saw, I know they got pamphlets and things like that, but where we going to get it?”
B: “Inside the bus.”
A: “Yeah, but how you going to take the bus?”

“In my country, we have schedule on the bus stop. In U.S.A., in Manchester, I have never saw, I haven’t.”

A number of students in one group pointed to another barrier with the schedules in the bus:

A: “…It’s never, never, when I use the bus, never see the schedule in the bus, and when I ask the driver, ‘oh, I’m done’”
B: “I don’t have it.”
A: “I don’t have it, it’s almost coming, they are printing,’ and never have, you know.”

Three groups determined that using the buses as the primary means of distributing the pamphlets is a barrier, and discussed alternative ways to provide information about the system, including posting the schedule at the bus stops, on (perhaps a small) part of bus stop shelters, in places such as grocery and department stores, and in free publications in the exit lobbies of grocery stores.

“…when I was lost too, I don’t know anything, and I take taxis for nothing, instead to take a bus, because I was ignorant because I don’t have the knowledge, so you know what, because you have the schedule on the, inside the buses, and nobody, some people doesn’t have the Internet, they cannot print, or don’t have the printer…”

A: “It’s a good point, you can’t find, you know the people wait the bus, usually the city only use the cover [bus shelter] for commercial, like cell phones, mall or some store, they can take out and put this information in that, and people know, in the cabin, go there and see…”
B: “I respect her opinion, but I think it’s going to be difficult to accept your opinion in the city, because those signs you see the companies pay for that, so the city’s revenue for the city, you know AT&T you see the sign for AT&T, AT&T pay for those advertisements, so they can’t take it out.”

C: “But that don’t have to be a huge, like that one, a small one.”

A: “Okay, but they can put just a schedule in a small space.”

A: “But where you going to find that [route schedule and map]?”

B: “That is the point. But not on the bus, on the outside, places like the grocery store.”

“I think it’s the same thing, like you have the newspaper for free, like you have free newspaper, you can have like in the some street, Dunkin Donut, or the Wal-Mart, big store like that…”

Of other media, students in one group thought TV would be much more useful than either Internet or radio. In any case, one participant thought the information should come to people even if they are not looking for it, insinuating that this could increase ridership:

“On the TV, something like you try to make publicity, like you want everybody to know how to, doesn’t matter if you need it or not, you know where is it, and where you can get a bus.”

It should be noted that language issues were not mentioned once during the focus groups. This runs counter to some expectations at the MTA that language may be a barrier to refugee and LEP population use of the bus system.

**Headways and Waiting**

Long headways were cited as a barrier to increased patronage of the system, and also as a barrier to finding employment or attending institutions of higher education. Long headways were especially perceived as a barrier to riding the bus for participants who had driven to class, even if they prefer bus transportation to driving. However, in three focus groups with a higher percentage of students who had walked, biked, or taken the bus to class, the hourly headways were only brought up as a barrier once. In these
groups, the largest barrier was the lack of money, although they also generally were unfamiliar with the map and schedule. In one group, students stated that twenty minutes would be a reasonable time to wait; in another group they said ten minutes. One participant who lives on one of the busier bus routes said:

“If you talk to anybody from Manchester, and you tell them, oh, I’m going to start taking the bus, they told you all the time, you going to wait forever.”

Participants pointed to the current headway of one hour on all routes and at all times as a barrier to bus patronage for people who have cars, and as a barrier to employment or education for those without cars.

“If you have a good schedule, I never use my car to work, but I’m scared to be late every day.”

“I think it’s not enough, public transportation, if his car is broke, he can’t go to work, can’t come to school, can’t go to grocery store, because no – it’s not enough, like buses, something like that, he going to get like rental car, and that’s going to be costly, not enough money.”

Students also noted that the buses are often near empty, which could be a reason for the long headways.

A: “I see sometimes the bus have only one people.”
B: “If they have more people that take the bus, the schedule will be more, more soon.”

Participants suggested that low ridership was a reason for the long headways, again bringing up the issue of financing the bus system.

“So, improve the public transportation means try to save money to the city, because sometimes the bus going, and they don’t have too many customers.”

A: “One question, what about the, last year, the mayor, Frank, he want to take out the whole routes, the buses, and I remember when I take the bus, the driver give me a, some paper, and we sign up, every time we going, one day we sign up we sign up, because they want to collect
many signatures. What happened with that? He refused to take out, or he limited the routes, or what happened with that? I only see the routes stay, but they only increase they money.”
B: “Yeah, the routes stay, but they increase the fare, that’s what happened.”
C: “Twenty-five cents”
Moderator: “Did you want to add something?”
D: “Yeah, I have some, time like that. I think that what happened was they saw a lot of bus empty, between..”
C: “Ah, that is what you said before.”
D: “And they lose a lot of money.”

A solution that arose repeatedly in one group was to use smaller buses.

Participants thought this would be appropriate specifically for route number 7. Staff at the MTA noted that lower ridership means the system has a higher cost of service provision. Since three routes extending to the northern part of the city have low ridership, including number 7, one idea at the MTA is to merge these three fixed routes into one deviated route. Then, people near these three existing routes could call the transit authority and ask that the new bus come to pick them up on one of its prescheduled runs. Numerous focus group participants noted that the buses are sometimes full at rush hours, and thought the smaller buses could run more often then, and less often at times of lower volume.

A: “It comes every hour.”
B: “That’s what I’m talking about, because we got rush hours, so we can have more city buses in that time, maybe like a minivan, because I never see like more than ten people.”
C: “That’s a good idea, because I think the city don’t need big buses.”

However, a student who rode the bus often pointed out that the combination of a full bus and riders in wheelchairs tends to delay the bus further because of the extra time needed to board wheelchairs and the additional space constraints within the bus. She therefore
thought that smaller buses would be counterproductive. In discussing how long it currently takes, she explained:

“No, more, sometimes ten minutes because some people, like another wheelchair and you cannot fit there because there’s no space, and you are late for that.”

One student spoke of an issue arising from long headways and high ridership at the Mall of New Hampshire:

“…Saturday is very busy, I saw the people waiting an hour because the bus is full, there’s only one bus every hour, and the people need to walk or wait again, go back with the children and spend another hour in the mall.”

**Hours of Service**

In three groups, students talked about the lack of service at night and on Sundays and holidays. Officials at the MTA thought later service would be the most beneficial service improvement. Last runs start now at six o’clock at night, so by seven o’clock there are no buses running. In some targeted areas, such as the mall and Bedford routes, there are more people riding there than back again, signifying demand being met by modes other than the bus. Staff at the International Institute said working night shifts is challenging for their clients. Focus group participants also thought night service would be useful for working, especially because taxis are the only available mode at night for people without cars, and are much more expensive. Participants in one group specified that additional service from six to nine would be useful for people who work part-time in the evenings. Students in a group that had mostly walked to class discussed getting a job:

“If we get a job at night, then there is no bus.”

“It is very difficult, as you know, to wait for a time. Time factors a lot, after seven o’clock there’s no bus.”
Students mentioned that it would be useful to have a bus on Sundays so people could go
to church that day, as well as visit friends. On three separate occasions, participants in
one group said they thought holidays and weekends were important times to go to
someplace other than school or work. One student also noted that these are the only
occasions when people without cars have enough time to go somewhere on the bus. In
the quote below, participant ‘C’ replies indignantly about holidays:

A: “The Sunday no bus.”  
B: “Holiday, big holiday, neither.”  
C: “That’s an important time! Everybody need the bus.”

Transfers

Both of the groups with higher English proficiency, held at the Manchester
School of Technology, spoke about an inability to transfer buses, either all of the time or
for some routes. Students were confused about the policy and practice of transfers. One
participant who often rides the bus thought this may depend on the chain of routes that
each particular bus takes.

“But they don’t have a transfer when you get in the bus, you pay, and then
you take the bus, the driver give you the fare for the other bus, you don’t
have that here. They don’t have that here.”

“…when they are returning to the route, back to the bus station, you know,
they change the route, because the same driver, the same bus, go to
another way, they don’t repeat the same route, that means if I driving the
bus number 10, I not driving the same route for hours, no, every time I
make one hour, I change for route number 8 or route number 7, and if you
know what’s the next route, you can stay on the bus without paying.”

Transfers are in fact allowed from one route to any other route, and are free.

When boarding, riders can ask the driver for a transfer slip, which is a strip of paper with
all the routes on it, and the driver punches a hole on the current route to prevent people
from using the transfer slip for the commute home.
Weather

Participants in three groups talked about weather as a determining factor in their mode choice. They sometimes said cold or inclement weather detracts from transit use, and sometimes said that it encourages transit use. A student who bicycles most of the time said in the winter he usually walks instead, but sometimes takes the bus. A few participants said they refrain from driving in the snow, and one said she feels safer taking the bus in the snow because she is a bad driver. Their classmates pointed out:

A: “It can be stressful to drive in the bad weather.”
B: “And it is better, when it’s heavy snow, in the bus you know, it’s easy, but when you have the car, when you go to work or somewhere, you just clean it [car]” [motioning heavy exertion].

However, other students thought that winter weather discourages bus use because people prefer not to wait outside in the cold.

Safety and Drivers

Safety and driver courtesy did not arise naturally out of the conversation, but I asked all groups about them, and participants generally thought both were very good. The only safety concern came from participants who thought waiting at bus stops in the dark might not be safe, although there currently is no service after six in the evening. It should also be noted that many refugees come from places with some kind of issue with security. These participants looked surprised that anyone might think riding the bus in Manchester could be dangerous.

Focus group participants said drivers drive very well, and are nice and help people who ask questions. Most of these responses were not verbal, but rather consisted of many smiles and much nodding. One student who drives a car said she has trouble
driving with buses on the road, and another participant who often rides the bus expressed one minor complaint.

“No, I don’t like, sometimes they drive, not very good. Yes, because they big, and I drive small car, make a problem.”

“I think they are very, very good. Sometimes they are more, some of them are more patient than the other ones, because some of them wait until you sit to run, sometimes some of them don’t wait until you sit and then going and [imitating getting jostled and losing balance]. But I think they are educated, and that part is the only part I think they have to have the same line or the same direction, wait until the passenger gets sit to move the bus, you know, so for me, that’s the only one…they have good service.”
CHAPTER VI
RECOMMENDATIONS

The major goal of this research was to determine barriers to increased bus ridership by refugee and limited English proficiency groups in Manchester, New Hampshire. This chapter outlines some important barriers to ridership, and provides suggestions for overcoming them. Most of the barriers discussed here came out of the focus groups, and relate to an unawareness of the system or a financial inability to use it. Historical research and local interviews show a persistent lack of common vision between the Manchester Transit Authority and the city. I do not recommend providing more service because although this would increase the system’s viability in relation to the automobile, it would be much more expensive. Recommendations and barriers discussed here are more feasible.

**Free Bus Passes**

Many refugees arrive without personal transportation and make do with a very small budget, which limits their ability to pay for transportation to work, education, and other activities such as shopping and health care. Tickets could be provided to all new arrivals. Those receiving transitional assistance receive monthly bus passes and ride the bus, but those receiving other forms of financial assistance do not receive bus passes and walk long distances to get to work and English class because they cannot afford bus tickets. These participants said they would work or go to community college if they could take the bus.
For general in-migrants this may be difficult because many people move to the city on their own. However, new refugees arrive within a bureaucratic framework, so providing bus passes to them is administratively much easier. The major drawback is cost, but some people do already receive free passes from the welfare system, and the cost could be written into social service agencies’ grant applications.

**Publicize Existing Programs**

The Manchester Transit Authority already has programs in place that could address some barriers discussed in the focus groups. These programs and policies should be publicized better. Students talked about local colleges, and one newer arrival said they might attend Manchester Community College (MCC) if they had transportation to get there. The MTA currently has an arrangement to provide free bus transportation to students at MCC and the University of New Hampshire Manchester. Social service agencies could convey this fact to people thinking about attending college.

Confusion arose in discussions about the bus service between Manchester and Boston, which underwent major changes at the end of 2008. Some focus group participants said this service no longer exists, or there are a couple trips each in the morning and evening. While service may have decreased dramatically for a time, and tickets are not sold in Manchester, the current Boston Express schedule lists eight daily weekday trips from Manchester to Boston (Boston Express 2009). Once people thought there were no buses between Manchester and Boston, they stopped considering it an option. Some publicity about its apparent reinstatement could be useful for the overall transportation system.
It seems that there is some confusion about the MTA’s transfer policy. A couple of focus groups debated the circumstances when transfers are and are not possible. In fact, free transfers are available from any route to the next bus on any other route, by asking the driver for a transfer ticket when boarding the bus. One possible reason for the confusion could be that people are unaware they should ask for the transfer when they board, the driver later denies them, and they conclude that they cannot transfer for free. If this is the case, drivers may provide some insight into the confusion. To clarify, the MTA could post signs in the bus that say transfers are free for the next bus and should be requested when boarding. The website and “Bus Schedule & Route Map” pamphlet do say transfers should be requested when boarding, but do not say they are free. In addition, focus group participants said these pamphlets are difficult to find, as discussed below.

**Wider Map and Schedule Dissemination**

To increase ridership, information about the bus service must be readily available. In three of the focus groups, numerous students pointed out they had never seen a bus schedule or map, and said this information should be more widely available. Focus group participants thought the MTA could contact free newspapers to ask if they might be willing to provide the route map and schedules in their publications, to be provided at grocery and large department stores. This could be inexpensive for the MTA, and is a good way to reach people without Internet access.

Providing maps and schedules at the bus stops could increase ridership, and is another recommendation that came out of the focus groups. Some participants said they have wanted to take the bus and been at a stop, but avoided doing so because they didn’t know when the bus would be there or where it would go. Posting a map and schedule
would be most useful at common or important destinations, like the mall and the hospitals. In addition, students said that people who want or need to take the bus will figure out how to use it, even if information is difficult to find. They stressed the importance of providing information to people who don’t plan to use the bus, which could help to diversify people’s transportation habits.

**Clearer Bus Stop Signs**

In addition to availability of the schedule and map, bus stop signs should be apparent. Numerous focus group participants who had lived in Manchester for a number of years said they did not know of any bus stops, which was an obstacle to transit use. There are in fact many bus stop signs in the city. Bus stop signs might be more effective if they were larger and the MTA’s logo and the red ‘No Parking’ directive were less prominently displayed (Figure 6.1). Signs do currently show a large vehicle resembling a bus, but it could be more clear, perhaps with windshield wipers. Signs also may be too small, since they seem not to gain recognition by focus group participants passing in cars.

**Language: Not a Barrier**

Interviews with professionals suggested language may be a main barrier to LEP ridership. However, language barriers were not discussed in any focus group. While it may be useful for the MTA to partner with social service agencies with interpreters to
help resolve language difficulties, findings from this study show that efforts may be better spent elsewhere.

**Closer MTA-City Relationship**

Historically, organizations providing public transportation had little connection with the city. The creation of the public Manchester Transit Authority in 1973 strengthened the city’s relationship with the transit system since the city approves each year’s budget and provides local subsidies. Discussions with staff at the MTA showed that they are curious about the city planning department’s perception of the bus system. However, that department has little input into transportation planning for the city, and thus is not encouraged to incorporate the transportation system into its visions. A closer relationship would be beneficial because transportation is the conduit among other realms of planning, such as housing and economic development, and a greater degree of communication would ensure their integration with transportation.

This research resulted in recommendations that can simultaneously increase ridership for the MTA and increase mobility for refugees and people with limited English proficiency. The MTA and the city could foster a more communicative and cooperative relationship, better recognize their interdependencies, and ensure efficient future provision of their services. The focus groups showed that a common barrier to ridership is the lack of knowledge about schedules, as well as route and bus stop locations, although this is not due to language barriers. In addition, if existing programs and policies were publicized better, more people might utilize them. Finally, providing free bus passes to newly arrived refugees could greatly increase their mobility and increase their ability to find employment, after which they could pay for their transportation costs.
CHAPTER VII
SUMMARY, LESSONS LEARNED, AND CONCLUSION

Summary

This thesis describes efforts to provide public transportation in Manchester, New Hampshire and explores the relevance of the current service for people with limited English proficiency (LEP) in order to determine barriers to this population’s transit ridership in the city. The literature review outlined reasons to support public transportation – sustainability and equity, as well as pervasive deterrents to its use – existing land use patterns and habitual auto use. This study applied three research methods. Background research provided a history of transit’s role in Manchester; focus groups provided views of the general LEP population and refugees as a specific user group; and interviews with the transit authority, a social service agency, and a business organization provided an institutional viewpoint on transit’s current and desired role in the city.

Focus group participants had a wide variety of previous transportation experiences and habits. They pointed out that a helpful bus system greatly benefits people without a car or driver’s license, making it possible to go to work and school, although they thought finding work would be much easier if the system’s hours extended later into the evening. Most of the desired destinations in Manchester are already served by the existing routes, but participants wanted to be able to take public transportation to regional centers outside of Manchester. One of the largest and most economically resolvable barriers to ridership was a lack of familiarity with the bus system’s map and
schedule, and difficulty accessing this information. Finally, focus group participants thought headways are too long to motivate auto drivers to take the bus. To increase ridership, it may be more advantageous to focus on the needs of people who are not driving an automobile.

**Lessons Learned Conducting Focus Groups and Interviews**

Students who had been in Manchester and the United States tended to speak English better and be more able to discuss barriers and possible solutions to riding the bus. These people generally thought the bus was important in the event of a car breaking down or some other unforeseen circumstance. While participants newer to Manchester may not have been as able to voice concerns, they were less influenced by things like lack of information or long headways. These participants, in general, were more likely to have walked or biked to class on the day of the focus group and less likely to have a personal automobile. A bigger challenge for newer arrivals was the cost of the ticket.

In groups with lower English proficiency, participants talked less about ways to improve the transportation system. Part of this is because many travel little, due to lack of familiarity with the area and lack of work and money. If the bus were free, participants may have had more to say. However, I also had difficulty asking if-questions in these groups because students were unfamiliar with conditional verbs in English. Describing different scenarios and asking what participants do in that scenario could work, but I did not arrive prepared with scenarios to describe, and this would have taken some control away from the participants.

Requesting interviews proved more difficult due in part to an unexpected sense of apathy or powerlessness from social service and planning agencies alike. Quite
understandably, the Manchester Transit Authority did not echo this sentiment since they control day-to-day operations. Social service agencies have many more immediately pressing tasks, such as housing and work arrangements, which override the need to consider the connections among these arrangements. Planners at the city level may also feel powerless in the realm of transportation because the regional planning agency is in charge of the transportation planning for the city. It should be noted that a lack of city planners’ involvement in transportation planning and policy could lessen the integration of the transportation system and other areas of planning such as housing and economic development.

**Conclusion**

A transportation network is the conduit that binds people to jobs, schools, friends and family, places of worship, recreation, health care, store merchandise, etc... Public transportation affords two great benefits: sustainability and equity. Automobiles contribute substantially to air pollution. In addition, transit advances social sustainability because automobiles are not accessible to all members of society. Indeed, equity may be more substantially correlated with public transportation, such that transit improvements will more quickly result in a visible increase in equity than in sustainability. This is reflected in focus group results of this research. Participants did not discuss transit’s benefits to the environment. They did say the existing transit system greatly benefits people without a car or driver’s license, even though some participants couldn’t afford tickets and some thought the existing system could be more effective with better publicity. Discussions similar to those held as part of this research should occur in the early stages
of project and policy development. They can help effectively frame project goals (Liu and Schachter 2005) and promote locally applicable services.

Existing land use patterns and habitual auto use are two major challenges to effective public transportation systems. The dominance of suburbs, sprawl, and low-density development in the United States favors automobile travel over other modes. This and a discourse of freedom and individuality embodied in the automobile promote habitual auto use. People familiar with viable transit systems are more likely to use public transportation when they move, signifying the potential for habitual transit use (Weinberger and Goetzke 2009; Heisz and Schellenberg 2004). The focus group participants in this study had diverse travel experience and habits, and present a mutually beneficial opportunity for public transportation. However, for a city or region to increase, or maintain, sustainability and equity, policy makers and service providers need to foster communicative and cooperative relationships.
APPENDIX A

FOCUS GROUP GUIDE

1. How did you get here today? How long did it take?

2. Where do you walk to?
   a. What about biking?
   b. By car?
   c. By bus?

3. What are some places you want to go, but have difficulty?
   a. Why is it difficult?

4. What about before you came to Manchester? Where did you go, and how?

5. How do you compare the transportation in your home country to Manchester?

6. What do you think would encourage you to ride the bus more?

7. What do you think of the bus drivers?

8. Do you feel safe on the bus and at the stops?
APPENDIX B
INTERVIEW GUIDES

Interview Guide for Social Service Agencies and Organizations

1. Could you describe your position and how long you have been working here?

2. Tell me a little bit about your background. How did you get into this field?

3. Describe your agency’s primary responsibilities.

4. How would you describe the population that your agency serves?

5. If at all, how have changes to the bus system affected your organization? Has your agency responded in any way?

6. Do the buses in the city serve your agency and its clients in any way? How or why not?

7. What function do the local buses have for your agency?

8. How would your agency like to see the role of Manchester’s public transportation in the near future? (5-10 yrs) In other words…If your agency could change the bus system in any way, what changes would it make?

9. From your own view, what is the purpose of public transportation?

10. Do you have anything else you would like to add?
Interview Guide for Government and Planners

1. Could you describe your position, and how long you have been working here?

2. Tell me a little bit about your background. How did you get into this field?

3. Describe your agency’s primary responsibilities.

4. How would you describe the population that your agency serves?

5. How much work does your agency do in transportation, and what is the nature of that work?

6. How does your agency influence policy and practices of local bus transportation?

7. How would your organization like to see the role of public transportation in the near future? (5-10 yrs) (ie for everyone or as a social service provide for people without cars) In other words…If your agency could change the bus system in any way, what changes would it make?

8. From your own view, what is the purpose of public transportation?

9. Do you see any need or potential for transportation services for refugees or immigrants?

10. Do you have anything else you would like to add?
BIBLIOGRAPHY


(MHA) Manchester Historic Association, 1970’s. Unprocessed box donated by former general manager, Manchester Transit Authority.


