Poverty and Mobility in America

The tragedy in New Orleans after Hurricane Katrina showed how people in poverty are metaphorically and literally immobilized—stuck in place because of lack of resources. Although an emergency planner can tell you that there are always people who stay behind during an evacuation—because they “didn’t hear” the evacuation warning, or had weathered storms before and thought they could do it again, or even for the fact that most shelters don’t accept pets, in New Orleans the number of people who didn’t evacuate was multiplied dramatically by the city’s high number of people without cars. Over 125,000 people in the City of New Orleans lived in families where no one had access to a vehicle. Of course, many of those families were poor, and many poor families are poorest right before the first of the month when government assistance checks typically arrive (Katrina hit on the 29th of September).

People in poverty, those without cars, the elderly who live alone, and people with language or transportation disabilities have special daily travel patterns and may have special mobility issues. Understanding the needs of the most vulnerable in our population goes to the heart of the ideal of mobility, and tests the heart of our nation. Equity in transportation and security binds the nation together, while inequity divides us.

This brief uses the 2000 Census Public Use Micro Sample (PUMS) and data from the NHTS/NPTS data series (the National Household Travel Survey conducted by the US DOT) to attempt to describe the mobility issues of people in poverty in America. Important findings include:

- Poverty is concentrated geographically. Over a third of the neighborhoods (census tracts) in the U.S. have poverty rates at or above the national average.
- Although the vast majority of people living in poverty are white, African-Americans and Hispanics have poverty rates over twice the national average.
- Over 60 percent of people in poverty work, and most work full-time, but higher proportions work part-time or have multiple jobs than non-poor workers.
- A large proportion of the poor are children or elderly, have mobility impairments (medical conditions that impede their ability to travel), and have no vehicle available at home.
- Poverty alone does not inhibit mobility—it is the fact that many of the poor do not have access to a vehicle. During the 90s vehicle ownership increased dramatically among the poor, and especially among single-parent poor families.
Where is Poverty?

Poverty thresholds are defined by the Office of Management and Budget using income before taxes, excluding benefits such as public housing, Medicaid, and food stamps. The income thresholds vary by family size and composition, but do not vary geographically. In 2003, the weighted average poverty threshold was $14,680 for a family of three and $18,810 for a family of four. In 2003, 35.9 million people, 12.5 percent of the U.S. population, were classified as living in poverty. Thirty-six percent of the people in poverty, 12.9 million, were children under 18 years old.

Poverty rates are higher in the South and West (14 and 13 percent, respectively), where rural areas show higher poverty rates. However, poverty is highly concentrated in the U.S. The concentration of poverty—the Census tracts where poverty is above the national level or twice the national level, is shown in Exhibit 1. While the 1990s showed a decline in the concentration of poverty in central cities, many older, inner-ring suburbs around major metropolitan areas showed increases in poverty (Brookings Institution, The Living Cities Census Series, November 9, 2005). The poor tend to live in areas (census tracts) where a high percentage of people are also poor. Geographically concentrated poverty may be confounded by the artifacts of racial segregation.

Exhibit 1 – Census Tracts by Proportion of Households in Poverty

Yellow = 0-13%
Blue = 14-25%
Red = 26% or more
Who Lives in Poverty?

Over twice as many whites are in poverty as African-Americans (20 million whites compared to 9 million African-Americans), but a higher proportion of African-American and Hispanics live in poverty (25 percent each compared to just 10 percent of white households). Poverty rates are also markedly higher in single-parent households and retired (especially elderly women).

The people who live in poverty are less likely than other households to live in a home they own (Exhibit 2), typically have less education, and are more likely to be without a vehicle. Households in poverty have a nearly twice the rate of taxi trips than non-poverty households, often for basic trip needs such as to cart groceries home from the store.

More than twice as many people in poverty have transportation disabilities (a medical condition that impairs their ability to travel). Many of the mobility-impaired are elderly, but the proportion of older Americans who are poor and transport disabled is 36.9 percent compared to 21.4 percent of the non-poor. Almost 30 percent of the older mobility-impaired people are poor and have no vehicle available for their use. These people travel just over 6 miles total in an average day.

On the other hand, nearly 63 percent of people of working age (18-64) who are in poverty work, and the majority work full-time (60.8 percent), however higher proportions work part-time and have multiple jobs than workers who are not poor.

How do Poor People Travel?

Poor people make fewer trips and travel fewer miles than non-poor, and are more likely to walk and to take transit (Figure 2). Vehicle availability, more so than poverty, determines mobility. The range of access to goods and services, as well as the average speed of travel is highly dependent on whether or not a vehicle is available, as shown in Exhibit 3. On average, the poor have older vehicles.
Over 27 percent of the poor have no vehicle in the home, and people without a vehicle account for nearly half (48 percent) of all transit trips. Areas (census tracts) with large proportions of households with no vehicles are scattered across the South, and concentrated in some urban areas, as shown in Exhibit 5.

Transit and walking are less expensive than owning and operating a vehicle, but require longer travel times. A recent finding by the Bureau of Transportation Statistics shows that the working poor who drove their own vehicles spent 21 percent of their annual income on commuting expenses compared to 5 percent for the total population. (Issue Brief, March 2003)

Exhibit 5 – Census Tract by Percent of Households without Vehicles

The added cost of owning a vehicle may be worth the time savings. The working poor who have no vehicle available spend more than 64 minutes a day to travel just over 12 miles—an average speed of 11.5 miles per hour (Exhibit 6). The working poor who have a vehicle travel almost three times farther in less than 15 more minutes—an average speed of 27.6 miles per hour.

Exhibit 6 – Miles, Minutes, and Speed of Travel for Working Poor with and Without a Vehicle

<table>
<thead>
<tr>
<th>Working Poor</th>
<th>Miles</th>
<th>Minutes</th>
<th>Speed (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Vehicle Available</td>
<td>12.3</td>
<td>64.3</td>
<td>11.5</td>
</tr>
<tr>
<td>One or More Vehicles</td>
<td>36.4</td>
<td>79.0</td>
<td>27.6</td>
</tr>
</tbody>
</table>
In the decade between 1990 and 2000 the percent of poor households that have a vehicle grew from 63 percent to 69 percent. The greatest growth came from poor, single parent households; in 1990 about the same number of poor, single parent households had a vehicle as did not, but by 2000 twice as many of those households had a vehicle as those that did not.

Policy Implications

Mobility allows access to jobs, goods, and services. Since vehicle ownership is such an equalizer for mobility needs, policies related to adding to the cost of owning and operating a vehicle should be analyzed for equity impacts across population groups.

In addition, emergency planners should incorporate into evacuation planning detailed information on households without vehicles, and understand the mobility limitations of households with elderly or disabled family members.

For more information, visit our website: http://nhts.ornl.gov

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Real Life is Messy

A thirty-year old, single mother of three leaves home at 7:30 am and walks her two oldest sons, ages 7 and 6, to the before-school program at their elementary school. After dropping them off, she and her youngest, the 3-year old, take the bus 30 minutes to the Head Start Program. After dropping the youngest, she takes another bus 21 minutes to work, where she arrives at 8:50 am. Although she has some college education, she works in a clerical job while the kids are in school.

After work, she takes the bus ride to Lexington Market to pick up a few things, then picks up her two boys when school gets out at 2:30, then they all walk 15 minutes to the next bus to take them to pick up the youngest at day care, a 28 minute ride. Then they all take a 45-minute ride back home, arriving at 4:00pm.

Altogether, of the 8 and ½ hours out of the house this mother in poverty spends 2 hours and 47 minutes traveling on five different bus rides. Four of her seven trips are to drop-off or pick-up her children, one to shop, and one to work and one to return home.

About the National Personal Travel Survey

Conducted periodically by the USDOT since 1969, the survey collects travel data from a sample of U.S. households. The information has been used to understand trends in the nation’s trip making and miles of travel by mode, purpose, and time-of-day for use in policy, planning, and safety.

Data is collected for all household members and for each day of the year, yielding a rich demographic profile linked to daily travel and vehicle characteristics.