Travel Behavior by Blacks in the United States: Analysis of The Nationwide Personal Transportation Study

Testimony
before the
Second Congressional Black Caucus Transportation Braintrust
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Mr. Hill received both his Bachelor of Science and Master of Public Policy degrees from Rutgers University. He has been employed in the transportation industry since 1984. Mr. Hill has been a research associate at CUTR since 1991. Prior to joining CUTR, Mr. Hill worked for a transit agency and transportation authority in New Jersey. He has extensive transit operation and service planning, public policy, and research experience. Mr. Hill’s primary research at CUTR expands on his knowledge of transportation and includes Intelligent Transportation System applications for transit, developing transit alternatives to traffic congestion, privatization of transit services, analysis of transit service efficiency, and statistical analysis of travel behavior data.

\*The term "Black" in this writing is used instead of its politically correct synonym "African-American." Black is descriptive, but also it is a political and cultural term that identifies people of African descent at a world level. Additionally, it is used to identify a minority population in this country and to describe and analyze travel behavior by that group. As such, it encompasses the entire population of American society that has African culture as part of their heritage, and do not wish to be counted as a nonminority, Asian, Hispanic, Indian, or as a member of another minority population of color.
The Nationwide Personal Transportation Study (NPTS) compiles national data on the nature and characteristics of travel. It addresses a broad range of travel in the United States, providing data on all personal trips by all purposes and all modes of transportation. When the 1990 study is used in conjunction with previous NPTS studies, it is possible to track, over time, both the level of travel and the characteristics that contribute to that travel for the entire nation.

NPTS data may be used to describe current travel patterns and, given projections of demographic change, it is a valuable trend analysis tool to forecast future travel demand. In this regard, NPTS data can be used to research certain ethnic groups in our society, including Blacks, Hispanics, and Asians.

The analysis of travel characteristics of Blacks in the U.S. revealed that the four indicators of travel (vehicle trip, vehicle miles of travel, person trip, and person miles of travel) increased between 1983 and 1990. The following indicators are included in this analysis.

**Person Trip (PT):** A trip by one person in any mode of transportation.

**Person Miles of Travel (PMT):** The number of miles traveled by one person on a trip. When a person travels one mile, one person mile of travel results.

**Vehicle Trip (VT):** A trip by a single vehicle regardless of the number of persons in the vehicle.

**Vehicle Miles of Travel (VMT):** A unit to measure travel distance by a private vehicle, such as an automobile, van, pickup truck, or motorcycle.

Before this analysis was conducted, several assumptions that have been developed by planners, policy-makers, and decision-makers in the transportation industry concerning the travel behavior shown by Blacks were reviewed. Some of these assumptions included:

- Societal and demographic changes have caused travel behavior for Blacks to become more like trip-making by middle-class Whites (Non-Blacks).

- Since Blacks are over-represented in urban areas (approximately 79 percent of Blacks in America live in urban areas), they use transit at higher rates than Non-Blacks.

- Major trip attractors, i.e., jobs, activity centers, health services, etc. are typically located outside most Black communities in the suburbs, requiring longer trip lengths.

- As Blacks enter the job market, increase their income, and obtain driver licenses, they drive more and use the car for more of their trips, a pattern similar to that exhibited by Whites in the workforce.
Because Blacks are the dominant users of public transit, their trips are expected to take longer than trips by Non-Blacks.

Because they often cannot afford to own and operate automobiles, low-income households (comprised disproportionately of Blacks) travel much less than the general population.

The increasing Black population, growth in travel, the notion that many Blacks are dependent upon transit for transportation, and the other assumptions about the travel behavior of Blacks merit an analysis of this group's travel behavior and patterns. A study on this topic also provides valuable information on a growing segment of the population that is dependent on this public service.

### Trends in Black Travel

The four indicators of travel show that total travel for Blacks has increased during the past decade. These changes are depicted in Figures 1 thru 4 for PT, PMT, VT, and VMT. The data show that between 1983 and 1990 vehicle trips increased 56.9 percent, vehicle miles of travel increased 75.1 percent, person trips increased 27 percent, and person miles of travel increased 37 percent. These changes show significant increases in a short time. NPTS data reveal that trip rates for Blacks also have increased faster than for Non-Blacks. These changes are also presented in Figure 5.

It is generally inferred that having a driver's license increases trip-making. There was also significant growth in the number of Black licensed drivers during the past decade. The results of this analysis are presented in Figure 6. This analysis shows that the number of Blacks becoming licensed to drive increased by 27.9 percent from 1983 to 1990, supporting an increasing demand for travel using privately owned vehicles. The rate at which Blacks become licensed to drive surpassed that of Non-Blacks for the same period, but the growth rate of vehicles in Black households lagged behind that for Non-Blacks.

As previously mentioned, it is generally assumed that Blacks use transit at higher rates than Non-Blacks. For example, a 1992 survey of transit ridership showed that nationally Blacks represent the largest share of transit riders (30.8%). Data presented on distribution of person trips by mode, however, confirm Blacks' increased use of privately owned vehicles for travel. These data are shown in Figure 7. For Blacks, the data show that private vehicles are the principal mode of travel. In 1983, approximately 68 percent of Black person trips were made using this mode. This increased to approximately 74 percent in 1990.

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Figure 1: Person Trips

<table>
<thead>
<tr>
<th></th>
<th>1983</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily PT (000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>224,459</td>
<td>249,562</td>
</tr>
<tr>
<td>Blacks</td>
<td>18,781</td>
<td>23,852</td>
</tr>
<tr>
<td>Non-Blacks</td>
<td>205,678</td>
<td>225,710</td>
</tr>
</tbody>
</table>

Percent Change in Person Trips
1983 - 1990

- Total: 27%
- Blacks: 11.2%
- Non-Blacks: 9.7%
**Figure 2**

Person Miles of Travel

<table>
<thead>
<tr>
<th>Daily PMT (000)</th>
<th>1983</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1,947,481</td>
<td>2,315,273</td>
</tr>
<tr>
<td>Blacks</td>
<td>127,324</td>
<td>174,417</td>
</tr>
<tr>
<td>Non-Blacks</td>
<td>1,820,158</td>
<td>2,140,856</td>
</tr>
</tbody>
</table>

Percent Change in Person Miles of Travel
1983 - 1990

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>18.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blacks</td>
<td></td>
<td>37%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Blacks</td>
<td></td>
<td></td>
<td>17.6%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Figure 3

**Vehicle Trips**

<table>
<thead>
<tr>
<th>VT (000)</th>
<th>1983</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>126,910</td>
<td>158,927</td>
</tr>
<tr>
<td>Blacks</td>
<td>7,799</td>
<td>12,233</td>
</tr>
<tr>
<td>Non-Blacks</td>
<td>119,111</td>
<td>146,694</td>
</tr>
</tbody>
</table>

#### Percent Change in Vehicle Trips

1983 - 1990

- **Total:** 25.2%
- **Blacks:** 56.9%
- **Non-Blacks:** 23.2%
Figure 4

Vehicle Miles of Travel

<table>
<thead>
<tr>
<th>VMT (000)</th>
<th>1983</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1,002,518</td>
<td>1,409,576</td>
</tr>
<tr>
<td>Blacks</td>
<td>53,535</td>
<td>93,751</td>
</tr>
<tr>
<td>Non-Blacks</td>
<td>948,984</td>
<td>1,315,825</td>
</tr>
</tbody>
</table>

Percent Change in Vehicle Miles of Travel
1983 - 1990

Total: 40.6%
Blacks: 75.1%
Non-Blacks: 38.7%
Figure 5 · Comparison of Blacks and Non-Blacks
Trip Rates for Selected Variables

Person Trip Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Blacks</th>
<th>Non-Blacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>2.2</td>
<td>2.7</td>
</tr>
<tr>
<td>1990</td>
<td>3.0</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Person Miles of Travel Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Blacks</th>
<th>Non-Blacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>15.1</td>
<td>19.5</td>
</tr>
<tr>
<td>1990</td>
<td>26.2</td>
<td>29.7</td>
</tr>
</tbody>
</table>

Vehicle Trip Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Blacks</th>
<th>Non-Blacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>0.9</td>
<td>1.4</td>
</tr>
<tr>
<td>1990</td>
<td>1.7</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Vehicle Miles of Travel

<table>
<thead>
<tr>
<th>Year</th>
<th>Blacks</th>
<th>Non-Blacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>6.4</td>
<td>10.5</td>
</tr>
<tr>
<td>1990</td>
<td>13.7</td>
<td>18.2</td>
</tr>
</tbody>
</table>
**Figure 6**

Number of Blacks Licensed to Drive and Household Vehicles

- **Blacks >16 Yrs.**
  - 1983: 11,117
  - 1990: 19,334
  - % of Eligible Blacks: 73.6%

- **Licensed Drivers**
  - 1983: 11,117
  - 1990: 19,334
  - Vehicle Availability:
    - 1983: 1.03
    - 1990: 5.19

- **Household Vehicles**
  - 1983: 23,719
  - 1990: 37,690

**Figure 7**

Distribution of Person Trips for Blacks by Mode

- **POV**
  - 1983: 74%
  - 1990: 67.24%

- **Public Tran**
  - 1983: 11%
  - 1990: 14.49%

- **Walk**
  - 1983: 15.1%
  - 1990: 13.5%

- **Bicycle**
  - 1983: 0.63%
  - 1990: 0.03%

- **Other**
  - 1983: 0.07%
  - 1990: 0.0%
Other findings in this research effort include:

- Blacks in the 30-39 age category had the highest average daily travel indicators in 1990, except for person miles of travel. Average travel for Blacks in this age cohort also exceeds the aggregate for Non-Blacks except for person miles of travel.

- Black females showed a significant increase in travel. Except for average vehicle miles of travel, Black females outpaced Black males in travel changes for the remaining average travel indicators. The greatest change in travel behavior for Black females is in average vehicle trips, which increased by approximately 58 percent between 1983 and 1990.

- Except for person miles of travel, in 1990, Blacks in households with incomes of $70,000-79,000 had the highest average daily travel indicators. Average travel for Blacks in this category was greater than the aggregate for Non-Blacks.

- Average daily travel indicators increased between 1983 and 1990 for Blacks living in all geographic locations, i.e., outside central city, within central city, and not within Metropolitan Statistical Area. There was a consistent increase in all average daily travel indicators for Blacks living in the central city.

- Interestingly, from 1983 to 1990, for non-working Blacks, average person trips, vehicle trips, and vehicle miles of travel increased by 10, 65, and 81 percent, respectively.

- Blacks traveled at higher rates as household vehicles became more available. Except for average vehicle miles of travel, in 1990, Blacks in households with five or more vehicles showed decreasing travel for the remaining average travel indicators.

- Average person miles of travel and average vehicle miles of travel for Blacks in the lifecycle category "two adults with children in the 16-21 age category" showed significant increases for 1983 to 1990.

- In 1983 and 1990, trips to/from work represented the largest percentage of trips for Blacks. Trips involving family or personal business increased approximately 57 percent during this period.

- In 1983, approximately 64 percent of Black person trips were less than 20 minutes. The percent share of Black person trips less than 20 minutes in 1990 was approximately 66 percent. This suggests that travel times for Blacks are becoming shorter.

**Implications**

This analysis provides some answers to questions about travel behavior by Blacks, but raises other questions. For example, what truly has caused the dramatic increase in travel by Blacks? Does
the increase in the Black population, employment, and wealth provide accurate answers? Can suburbanization and changing land-use patterns, urban decay, and the increase of Black females in the workforce provide some insights? Can changes in the amount of travel and mode choice for Blacks be explained by changes in factors such as household income and labor force participation?

While it is easy for one to suggest further research into the reasons for increased travel by Blacks, the implications for society as a whole, and specifically the Black community, should be considered. For example, increased dependence on the automobile and declining public transportation patronage are the by-products of dispersed metropolitan development which, in turn, is partly a result of federal transportation policies. The analysis of travel by Blacks corroborates the effects of this type of policy-making. If the Black population growth rate and the travel behavior trends continue, then continued broad effects on mode choice, single occupancy vehicle use, and land use can be expected.

Will the changes in travel behavior by Blacks translate into a need for more transportation capacity and resources to Black communities? What effect will the changes in Black travel behavior have on transit, which relies on Blacks for 30 percent of total ridership? What affects will the proposed National Highway System (NHS), which was approved by the House of Representatives by an overwhelming margin and is now before the Senate, have on Black communities?

As the data reveal, the increasing growth in demand for travel by Blacks suggests needed funding for transit, roadway, and infrastructure improvements serving Black communities. Greater access to employment opportunities and services within the Black community, or from these communities to suburban locations, is needed in order for this community to prosper economically and socially.

Can, should, or will the increased mobility of Blacks translate into Blacks having a larger role in transportation planning and decision-making?

Based on rapid growth and changes in Black travel behavior, Blacks should receive greater consideration in the transportation planning process. A requirement of the Intermodal Transportation Efficiency Act of 1991 (ISTEA) mandates increased community participation in developing transportation systems. Thus, policy-makers and planners at the state and local levels and in Metropolitan Planning Organizations need to give greater attention to travel demands of Blacks, since they represent a changing and increasing market. This growing market also supports the desire for increased diversity in the composition of decision-makers in the transportation arena.

Data from the 1983 and 1990 NPTS databases suggest that travel by Blacks has changed rapidly over the recent past and is increasingly similarly to travel behavior by Non-Blacks. The implications are significant in many areas ranging from economic impacts to quality of life issues. The causes at least partially are explained by economic and demographic changes in the Black
community. Therefore, transportation officials at the federal, state, and local levels should consider the implications of future policies and plans on Blacks and include this population when developing transportation systems. The changes merit continued close observation of Black travel behavior and needs.