NATIONAL TRANSPORTATION CENTER

RESEARCH REPORT

SECOND PARENTHOODS:

The Influence of Custodial Care of Children Among African-American Elderly on Their Travel Behaviors and Transportation Needs

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16. Abstract

The present study was an investigation of the relationship between household lifecycle and travel behaviors and concerns of African-American elderly who are involved in "second parenthoods." This report defines a second parenthood as an arrangement in which an elderly person has custodial care of a minor who is usually a grandchild or other relative. In these second parenthoods, the elderly are confronted with a host of social-psychological issues that are reflective of an earlier lifecycle stage wherein the transportation behaviors, concerns, and needs are quite different. The results of the current investigation indicate that this cohort of individuals most often resides in urban areas, has low income, has low educational attainment, and has a host of health-related problems that may affect the travel behaviors necessary for the custodial care of children. While the results often varied, one rather consistent pattern was that households with children, particularly those headed by single females, were quite different from other types of households along a variety of measures related to travel behavior, health, travel concerns, and transportation needs. Female heads of household were more likely than male heads of household to be of low income, have less education, have custody of younger children, have more chronic medical problems, have a greater variety of travel concerns, travel fewer miles, have shorter trip times, and have a medical condition that makes travel difficult and requires special transport. The findings are discussed in terms of the need for special transportation programs that address the special needs of the African-Americans in second parenthoods as well as the need for additional research to elucidate the complexity of this continually expanding cohort.

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They also thank Mrs. Anita Jones for being their advocate and ensuring that they had the tools necessary to complete this project.

EXECUTIVE SUMMARY

Over the past twenty years, there have been substantial changes in a variety of socio-demographic characteristics that describe the elderly population in the United States. One major and continuingly expanding change has been the number of households headed by elderly women. This demographic change has been more pronounced among African Americans than any other racial or ethnic group.

Of particular interest for the current investigation was the households headed by African-American elderly who have custodial care of children (who are most often grandchildren or other relatives). This report proposes that these elderly individuals are engaged in second parenthoods wherein they are confronted with a host of social and psychological issues that are reflective of an earlier lifecycle stage. Relative to transportation issues, the implications for this cohort of individuals are particularly important as they represent a cohort of African-American elderly who are frequently of low income and low educational attainment, and have a host of health-related problems that can ultimately affect their travel behaviors, travel concerns, and transportation needs. Transportation issues increase as they attempt to carry out their custodial responsibilities and meet their own medical and social needs.

Using data from the 2001-2002 National Household Travel Survey (NHTS), the present investigation provides a demographic overview of this expanding segment of the American population; examines the relationship between household lifecycle and travel behaviors and concerns; and explores the relationship between gender of the head of household, household structure, and various indices of travel behaviors and transportation concerns.

While many of these relationships are often complex, results from the present investigation indicate an emerging and consistent pattern. Overall, both the gender of the head of household and the household structure of African-American elderly were found to be related to travel behaviors and transportation concerns. More specifically, the results confirmed that those individuals who are involved in second parenthoods are most likely to be low-income women with low educational attainment, long-term medical conditions, and homes in urban areas. In many instances, this was especially true of female-headed, one-adult households when compared to other household structures. These one-adult, female-headed households were also found to have children of the youngest age range, travel fewer annual miles, and have long-term medical conditions that affect their travel and transportation needs. Not surprisingly, they traveled most often for medical reasons. However, their travel times were also the shortest.

In addition, the results indicated that African-American elderly in female-headed households were more likely than those in male-headed households to worry about such things as traffic tie-ups/road congestion, drunk drivers, large trucks on the highway, and the price of gasoline. Many of these gender-related concerns were particularly pronounced in the female-headed, one-adult households than other types of households.

Concerning medical conditions that impact travel behaviors, the medical conditions of female heads of household affected them for a longer period of time, made transportation difficult, and required special transport.

Collectively, these results indicate that the lifecycle concept is not linear and that elderly African Americans who are engaged in second parenthoods, especially women, are confronted with a host of social and contextual factors that affect their travel behaviors and transportation needs. As this cohort of individuals continues to expand, additional research needs to be conducted to further elucidate the intersection of a complex array of factors that have implications for current and future transportation policies and funding at the city, state, and federal levels. This report makes suggestions for additional research on this group in terms of how their travel behaviors are both similar to and different from those who have children in an earlier lifecycle stage. In addition, this report recommends the further study of the travel behaviors and special transportation needs of those who are residents of multigenerational housing, which is a new phenomenon presently being developed and funded in various states in order to keep these multigenerational families together and meet their housing and transportation needs.

INTRODUCTION

There has been a major shift in the demographic characteristics of an increasingly older U.S. population in terms of household structure. As the population has aged, there has been a corresponding increase in the number of elderly households headed by single women. Accompanying this dramatic increase in single-female-headed elderly households has been an increase in the number of elderly who have custodial care of children under the age of eighteen. Among the major factors leading to this increase have been the longer life expectancies of women and widowhood.

Most of the children in these custodial arrangements are grandchildren or other relatives. This increasing phenomenon is most prevalent among African Americans and other minorities who, most often, have low incomes, less education, the least mobility, and residences in urban areas (Jendrek, 1994; Minkler and Driver, 1997; George and Dickerson, 1995; Ruiz and Carlton-LaNey, 1999; Fuller-Thompson and Minkler, 2000; Bryson, 2001; Cox, 2002; Minkler and Fuller-Thompson, 2005; Mutchler and Baker, 2006). Recent Census data indicates that there are approximately 4.5 million children under 18 living in a grandparent's home, with 46 percent being exclusively cared for by grandmothers, and this trend is expected to increase substantially over the next ten years.

Where elderly have primary custody of children who are 18 and younger, this report will refer to these arrangements as second parenthoods, because these are individuals who have gone through the normal lifecycle of having and raising their own children as young adults, but are now confronted with custodial responsibilities that are reminiscent of an earlier stage of the expected lifecycle.

Objectives

The main purpose of the present study was to examine the travel patterns of African American elderly who are involved in second parenthoods. The implications are particularly important for this expanding cohort of individuals for several reasons. First, African Americans are often different from their white counterparts in terms of life expectancy, health, income, licensing rates, and household structures—all of which ultimately affect travel behaviors and transportation needs. A second important factor is the differential patterns of second parenthoods between African Americans and whites. These patterns suggest that there are not only racial differences between these two groups, but within-group differences that are affected by a variety of social variables (such as income, education, gender) and lifecycle variables (such as the number of adults in the household and the presence of children in the household). Rather than living in a social context of the expected lifecycle structure for this group, African-American elderly are in all respects engaging in a variety of social behaviors that are reflective of when they were young adults just beginning their families (Angel and Tienda, 1982; Rosenbloom, 1990; Hill, 1994; Rosenbloom, 1993; Rosenbloom, 1995).

This re-emergence of an earlier lifecycle, the factors related to the natural aging process, and the complex issues surrounding the care of grandchildren are likely to affect this group's travel

behaviors and transportation needs (Angel and Tienda, 1982). Previous research has found that demographic variables such as age, gender, and income directly impact travel behaviors (Hill, 1994; Rosenbloom, 1990; Rosenbloom, 1995). However, these variables are compounded by the presence of children in a household (Smith and Ahmed, 1999; Hargett and Smith, 2002), which often means the additional need for transportation to school, social events, and medical appointments.

For example, as a part of the rationale for the development of "grandfamily" housing, one report (Carlini-Marlatt, 2005) found that approximately 27 percent of children in homes maintained by grandparents were in poverty in contrast to 19 percent of those who live in homes maintained by parents. Moreover, approximately 75 percent of children in grandmother-headed homes (in which no custodial parents are present) are living in a low-income household. While no study has directly examined the influence of a second parenthood as a nontraditional lifecycle stage in transportation research, the implications are clear that there is the possibility of a large impact on travel behaviors (e.g., miles traveled, day trip purposes, use of public and specialized transportation, vehicle trips and person trips) and transportation needs (e.g., the use of public transportation for different purposes for both grandparents and grandchildren). Thus, the present study is a preliminary investigation of how second parenthoods affect the travel and transportation needs of African-American elderly.

LITERATURE REVIEW

Household Lifecycle and Travel Behavior

An important dimension of transportation research related to explaining travel behavior has been commonly referred to as household lifecycle (Cichone and Boyle, 1984; Kostyniuk and Kitamura, 1982; Zimmerman, 1982). The concept of lifecycle is most often used to refer to household structures or composition (e.g., number of adults, marital status, employment status, and number and ages of children). The household lifecycle approach assumes that different household structures are reflected in lifecycle stages and that a household passes through these different stages as it evolves.

With the emerging trend of second parenthoods, it is clear that the household lifecycle concept is not static but very fluid. Raising and caring for children are no longer the exclusive tasks of young and middle-aged adults, but now affect the lives and transportation needs of the elderly in complex ways. Although not all households take the same path through these various lifecycle stages, the concept takes into account the structural changes that occur in families and households more accurately than traditional variables do. Previous research utilizing the household lifecycle concept has indicated both the importance and complexity of household structure's effect on travel behavior. Chicone and Boyle (1984) found that vehicle availability, household size, and the presence and ages of children were important factors in the number of household trips. Zimmerman (1982) also found that household structure played an important role in affecting travel behavior. The changes in the household structures of African Americans and their potential impact on travel behavior are particularly important given the overall changes in the composition of American households.

Household Structure and Travel Behavior

Previous research by Hill (1994) indicated that household structure is related to travel behavior among African Americans. In analyzing data from the 1983 and 1990 National Personal Transportation Survey databases, Hill found that the percentage of African Americans with children as well as those who were considered single, retired, and without any children increased during this period. African-American households with two or more adults and the youngest child between ages 6-15 increased 40 percent during this period. Relative to travel behaviors, the results indicated that person trips, person miles of travel, vehicle trips, and vehicle miles of travel increased for households with children. Person miles of travel and vehicle miles of travel, in particular, showed significant increases during this period for these types of households.

While Census data since 1960 has indicated that African-American and white household sizes are becoming more similar, major differences remain. In fact, African-American no spouse or single, female-headed households have become more common, and the number of female, no-spouse households is four times higher than number of male, no-spouse households. In addition, while African Americans have fewer elderly-headed households than whites per capita, these households have more children under custodial care of the elderly. One particular difference between white and African-American households is that African-American households, on

average, are approximately 10 percent larger than white households (Minkler and Fuller-Thompson, 2005).

A major difference between the household structures of African Americans and whites has been the number of children, and these differences continue among the elderly (Hill, 1994; Smith and Ahmed, 1999; Fuller-Thompson, Minkler and Driver, 1997; Ruiz and Carlton-LaNey, 1999; Mutchler and Baker, 2004; Minkler and Fuller-Thompson, 2005). According to some of the most recent statistics, second parenthoods are an ever-growing phenomenon. Between the U.S. Census of 1990 and 2000, the number of children under the ages of 18 increased by 14.3 percent. During that same period, the number of children in grandparent-headed households increased by 30 percent. This phenomenon has become so pervasive that, for the first time, the 2000 U.S. Census tailored specific questions for households. Thirty-six percent have neither of the children's parents living in the home, resulting in the grandparent(s) having sole responsibility for the custodial care of the child (U.S. House of Representatives Report, 1992; Minkler, 1998; Gibson, 2002; Mutchler and Baker, 2006b; Mutchler and Baker, 2006d). In 1990, there were 58 million grandparents in the U.S. According to the 2000 Census, there are now over 70 million grandparents in the U.S. and that number is expected to increase to 98 million by the year 2020. Between 75 and 80 percent of all people 65 and older are grandparents. Currently, 46 percent of households that are headed by grandparents 65 and over are maintained exclusively by women; six percent of these households are maintained exclusively by men (Bryson, 2001; Minkler and Fuller-Thompson, 2005; Mutchler and Baker, 2006).

In the United States, approximately 6.3 percent of all children under the age of 18 are growing up in grandparent-headed household. This represents an increase of 30 percent since 1990 and a 105 percent increase since 1970. While the majority of grandparents raising grandchildren are between the ages of 55 and 64, approximately 20 to 25 percent are 65 and older (Bryson, 2001; Mutchler and Baker 2004; Minkler and Fuller-Thompson, 2005). Thirteen percent of African-American children are living in a grandparent-headed household compared to 5.7 percent of Hispanics and 3.9 percent of non-Hispanic white children. Sixty-four percent of grandparent-headed households provide for both a grandchild and one or both of the child's parents. In addition, most of the children being cared for by grandparents are of pre-school age. According to several studies, 52 percent are under 6 years old, 30 percent are between 6 and 11 years old, and 18 percent are between 12 and 17 years old (U.S. Senate Report, 1992; Fuller-Thompson, Minkler and Driver, 1997; Cox, 2002; Mutchler and Baker, 2004).

A variety of social factors has contributed to the increase in grandparent-headed households. Prominent among these are drug abuse, the rise in households headed by single parents, teenage pregnancy, youth unemployment (Burnette,1997; Harden et al.,1997), HIV/AIDS (Joslin and Harrison, 1998), and a six-fold increase in the rate of female incarceration from 1980 to 1995 (U.S. Department of Justice, 1997). In addition, factors such as mental illness, child abuse, and neglect have also contributed to the steady increase in grandparent-headed households (Minkler, Roe and Price 1992; Casper and Bryson, 1998; Minkler, 1998; Ruiz and Carlton-LaNey, 1999; Nyesigomwe, 2006). Consequently, there has been increased attention focused on the social, financial, and mental health issues resulting from the new roles and responsibilities that many grandparents are now forced to assume. This growing trend has important policy issues that have been explored by the U.S. House of Representatives and the U.S. Senate Special Committee

on Aging (U.S. Senate, Special Committee on Aging, 1992: U.S. House of Representative, Select Committee on Aging, 1992).

While there has been greater acknowledgement of this growing trend, most research has focused on the medical and social-psychological needs or characteristics of these elderly, rather than how these characteristics affect travel behavior and transportation needs (Burton, 1992; Joslin and Bouard, 1995; Bryson and Casper, 1998; Dannison and Smith, 1998; Fuller-Thompson and Minkler, 2000; Hayslip and Kaminski, 2002; Mutchler, Lee and Baker, 2006b). In general, it has been found that grandparents who are involved in the custodial care of their grandchildren are often confronted by a multitude of problems. Some studies have found, for example, higher rates of health and health-related problems among the grandchildren, including physical disabilities, asthma, poor eating patterns, hyperactivity, and weakened immune systems (Shore and Payslip, 1994; Minkler and Roe, 1993; Minkler, Fuller-Thompson and Driver, 1997; Dowdell, 1995; Fuller-Thompson and Minkler, 2000; Hayslip and Kaminski, 2002).

Concomitant with the health problems of the grandchildren has been an increase in the health-related problems of the caregiving grandparents. For example, grandparents raising grandchildren have often been found to have a multiplicity of chronic health problems (e.g., Type 2 diabetes, high blood pressure, heart disease, arthritis, etc.) as well as high rates of depression. The rates of depression among custodial grandparents are often twice as high as the rates among noncustodial grandparents. In general, custodial grandparents are more likely to be women, African Americans who are disproportionately low income, receiving public assistance, and have less than a high school education (Minkler and Roe, 1993; Chalfie, 1994; Morrow-Kondos, Weber, Cooper and Hesser, 1997; Casper and Bryson, 1998; Rutrough and Ofstedal, 1997; Fuller-Thompson and Minkler, 2000; Robinson-Dooley and Kropf, 2006).

As a result of the multiplicity of health, psychological, and economic problems, a variety of social programs have been developed to help meet this group's special needs. More recently, several municipalities have developed grandparent-housing programs designed to integrate and simultaneously assist in meeting the needs of both the grandparents and the children they are caring for across a wide social-psychological and economic spectrum (Davis, 2000; Dannison and Smith, 2003). For example, Boston; Dorchester, Mass.; the Bronx, NY; Hartford, Conn.; and Baton Rouge, La., have created grandfamily housing units that are specially designed for intergenerational families. The Gerontology Institute of the University of Massachusetts at Boston conducted a four-year follow-up and evaluation of the grandfamily housing in Boston and found that children who live in a grandparent's home are often at economic disadvantage when compared to children who live in their parent's home. Because many of the problems they have are due to poverty, they are less likely to have many of their social, medical, and educational needs met. As a result, there has been a growing emphasis on developing programs and initiating public policies to provide them with the assistance they need.

Collectively, the studies that have been done on the travel behaviors of the elderly have shown an increasingly diverse population whose travel patterns are affected differently by a variety of socio-demographic variables. However, very little attention has been paid to the elderly who, because of a variety of societal and social-psychological factors, are responsible for the custodial care and surrogate parenting of children (Hargett and Smith, 2002). While the number of

African Americans living outside Metropolitan Statistical Areas has increased dramatically, the largest percentage of the African-American population continues to age in place in large urban areas or in closely associated central cities. Second parenthoods have broad implications for travel planners and policymakers who will need to understand the impact of intergenerational relationships, family traditions, and the larger social-cultural context in which the urban elderly are assuming custodial roles. With this growing trend of second parenthoods among African Americans, transportation planners must explore niche marketing, expand, and develop new approaches to best serve the market. Developing research data and models that examine the similarities and differences between the effects of parenting and custodial care across the lifecycle will ultimately enable policymakers to make informed decisions about the transportation needs of an emerging but much neglected segment of the U.S. population.

METHODOLOGY

The Data

Data from the 2001-2002 National Household Travel Survey (NHTS) was used to examine African-American elderly transportation patterns and behaviors. The NHTS is considered the nation's authoritative source of statistical data on the travel of the American public. The 2001-2002 NHTS was conducted from March 2001 to May 2002 as a representative sample of households in the United States. The data was collected via telephone interviews with over 60,000 individuals from about 26,000 households. Of the over 60,000 individuals interviewed, approximately 9,452 were 65 years of age and older. Attempts were made to include the travel behaviors of all segments of the U.S. population. (For a full discussion of the data and data collection procedures, see the NHTS 2001 User Guide at http://nhts.ornl.gov/.)

The Sample

In the NHTS sample, African-American elderly represented approximately 5.2 percent (487) of the approximately 9,452 respondents who were 65 years of age or older at the time of the survey. While not included in the analysis, whites represented approximately 88 percent of the elderly in the sample. According to 2000 U.S. Census, African Americans represent 8.3 percent of those 65 and over; thus, African-Americans are somewhat underrepresented in the sample. The NHTS data can be weighted to produce national estimates of the population. However, because this study focuses on the actual travel behaviors and concerns of African Americans in second parenthoods, the research team chose to use the sample (unweighted) data for this investigation. Thus, the present study makes no claims of generalization but instead reports the findings from those African-American elderly who participated in the 2001-2002 NHTS survey.

The Variables

Key Variables: Household Lifecycle and Indicators of Second Parenthood

Household lifecycle refers to household structures or stages (e.g., children in household, retirement, etc). As indicated previously, the expected lifecycle stage of those 65 years old and older is retirement. This is not the case in approximately 10 percent of elderly African-American households where children are present. This variable becomes the basis of the bivariate analyses of the differences among African-American elderly in terms of demographics, travel concerns, medical dispositions, and travel/transportation behavior variables. For the purposes of this analysis, the household lifecycle variable was recoded from its original eight categories into the following four categories:

- One Adult, No Children
- One Adult with Children
- 2+ Adults with Children
- 2+ Adults, No Children

Second parenthoods in African-American elderly is operationalized as African-American elderly households in which children reside. Two indicators were examined, and they formed the bases of the trivariate analysis.

Indicator 1: **Gender of Head of Household** (Three Categories)

- Female-Headed Household (one adult)
- Female-Headed Household (2+ Adults)
- Male-Headed Household (2+Adults)

Indicator 2: **Household Structure** (Two Categories)

- One Adult with Children and
- 2+ Adults with Children

Other Variables in the Analysis

The following variables were examined at each phase of the analysis:

- demographics: age, gender, educational attainment, and household income.
- household: retirement status, number of persons, home ownership, and residential location.
- travel: driver status, number of drivers in household, number of vehicles in household, annual miles driven, daily trip distance, primary mode of transportation, number of daily trips, and non-work trip purposes.
- traffic concerns: traffic accidents, highway congestion, aggressive drivers, distracted drivers, drunk drivers, speeding, price of gasoline, unknown traffic tie-ups or road construction, and rough pavement or potholes.
- affect of medical condition(s): causes one to give up driving, limits driving to daytime, limits use of public transportation, causes one to ask for rides, causes one to need special transport, results in less travel, and makes travel difficult.

Data Analysis

All data analyses were carried out using Version 16 of SPSS, a standard statistical package frequently used in the social sciences for data analysis. Three levels of data analyses are reported: univariate, bivariate, and trivariate. For the univariate analysis, frequency distributions reported as percentages are given and discussed. Using cross tabulations, findings expressed in percentages are given and discussed for both the bivariate and trivariate analyses. Because of the small sample size, all comparisons are based on percentages, not actual numbers.

RESULTS

Phase I: Socio-Demographic Characteristics of African-American Elderly

Age Grouping

Figure 1 shows that 33.1 percent of the African-American elderly in NHTS sample were 65-69 years of age at the time of the survey, and this represents the modal category for the entire sample. This, however, is a relatively older elderly sample: almost 67 percent of these African-American elderly are 70 years of age and older. Those 75 and older account for the highest percentage (40 percent) of African-American elderly in the sample. Almost 20 percent of the African-American elderly were 80 years of age or older at the time of the survey.

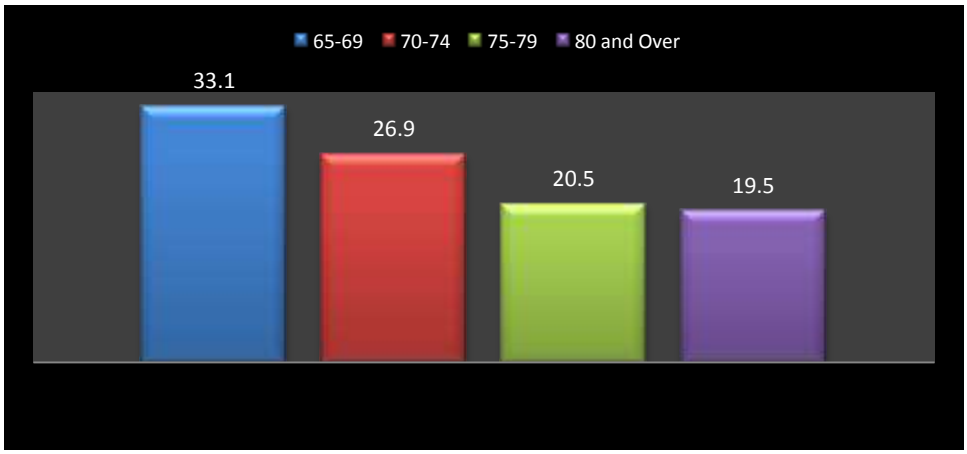

Figure 1: Age Distribution of African-American Elderly

Gender

Figure 2 shows that approximately 67 percent of the NHTS sample was female and 33 percent was male.

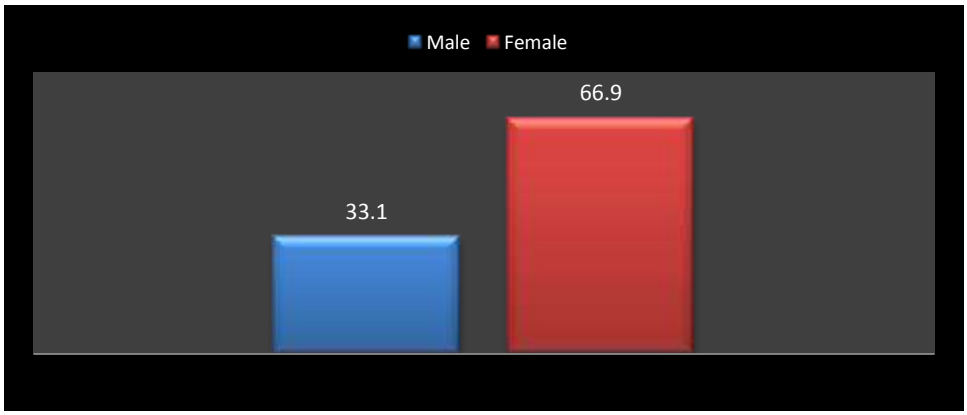

Figure 2: Gender of African-American Elderly

Educational Attainment

Figure 3 shows the reported educational attainment of African-American elderly in the NHTS sample. By far, these individuals are mostly near the lower end of educational attainment: 71 percent had a high school degree or less. In fact, the modal category is "less than a high school diploma/GED" and accounts for almost 43 percent of the sample. About 29 percent of the sample report educational attainment beyond a high school diploma or a GED.

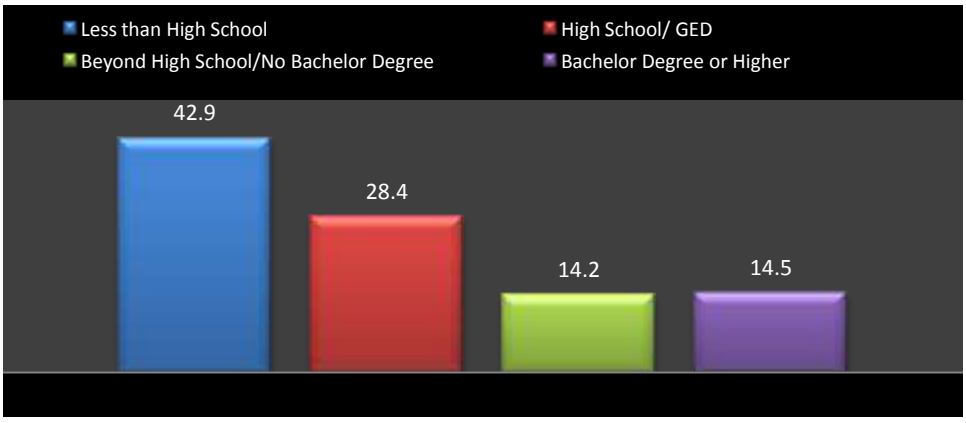

Figure 3: Educational Attainment of African-American Elderly

Household Income

Many of these African-American elderly live in relatively low-income households. Almost 57 percent of African-American elderly in the NHTS sample live in households with incomes of less than $20,000, including approximately 14 percent who live in households with annual incomes of less than $5,000. Only about 14 percent of African-American elderly in the sample live in households with annual incomes of $50,000 or more.

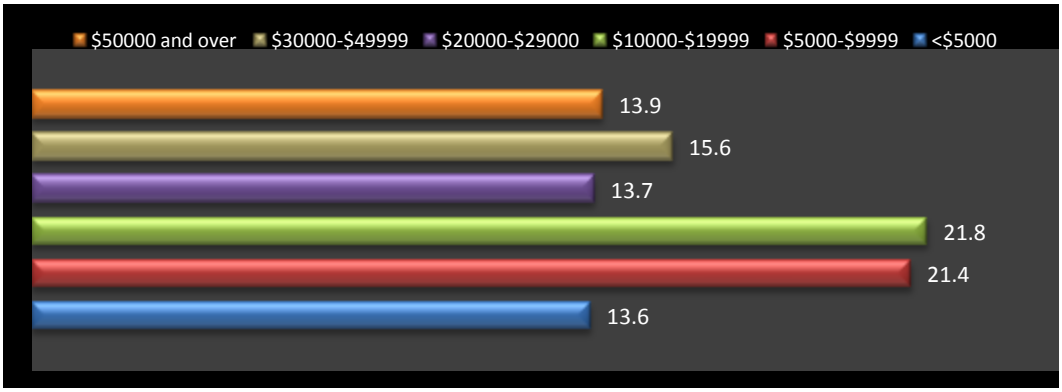

Figure 4: African-American Elderly Household Income

Household Lifecycle: Retirement Status

Figure 5 shows that over 75 percent of African-American elderly were in this age group's expected lifecycle at the time of the survey. Of those who are retired, about 52 percent reside in households with two or more adults, and 24 percent reside in one-adult households.

While the normal retirement age is 65, 24 percent of African-American elderly 65 and over are not retired. Of those not retired, about 14 percent live in adults-only households. Over 10 percent of non-retired, African-American elderly households include children.

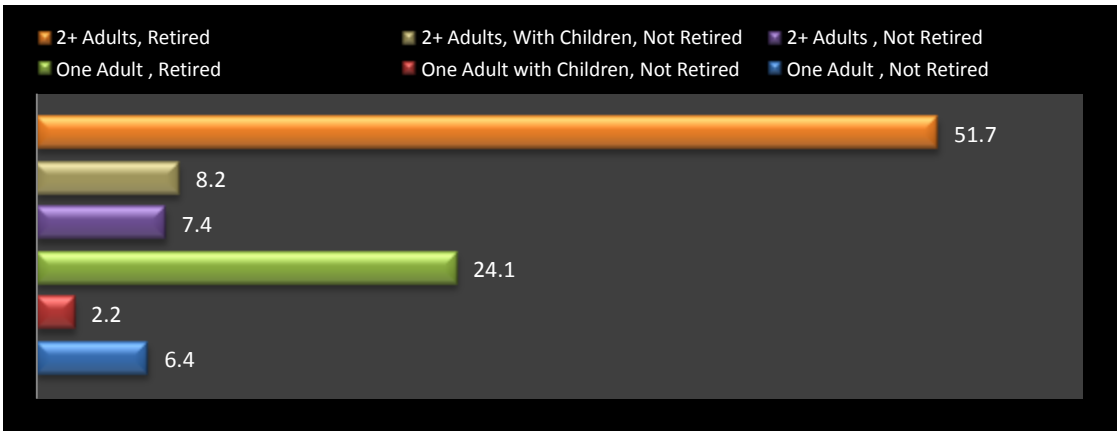

Figure 5: Household Lifecycle: Retirement Status of African-American Elderly

Household Lifecycle: Household Structure

As can be seen in Figure 6, almost 90 percent of these African-American elderly live in a childless household. The majority (59.1 percent) of these elderly are in childless 2+ adults households. Just over 10 percent of African-American elderly live in households with children.

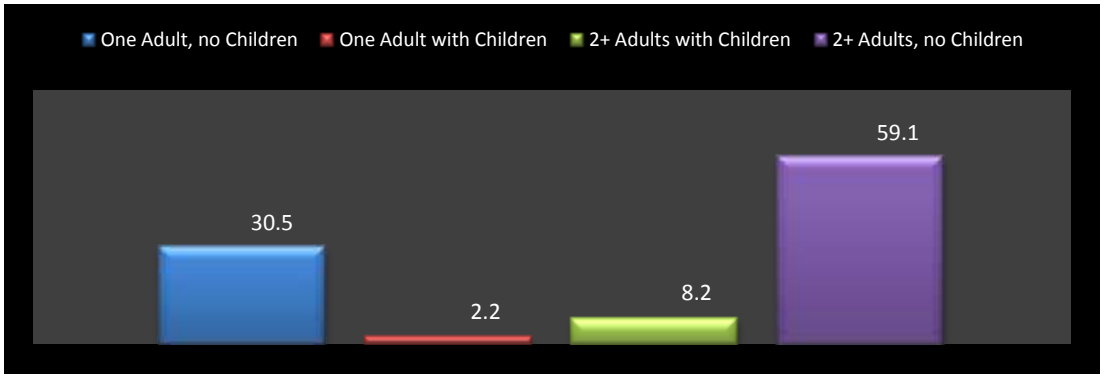

Figure 6: Household Lifecycle of African-American Households

Household Structure: Number of Persons in Households

The sample's African-American elderly live in households ranging in size from one to four or more persons. Forty-seven percent live in two-person households. About 31 percent of the sample lives in one-person households. A little over 12 percent are in households with three people. About 10 percent of African-American elderly reside in households with four or more people (see Figure 7).

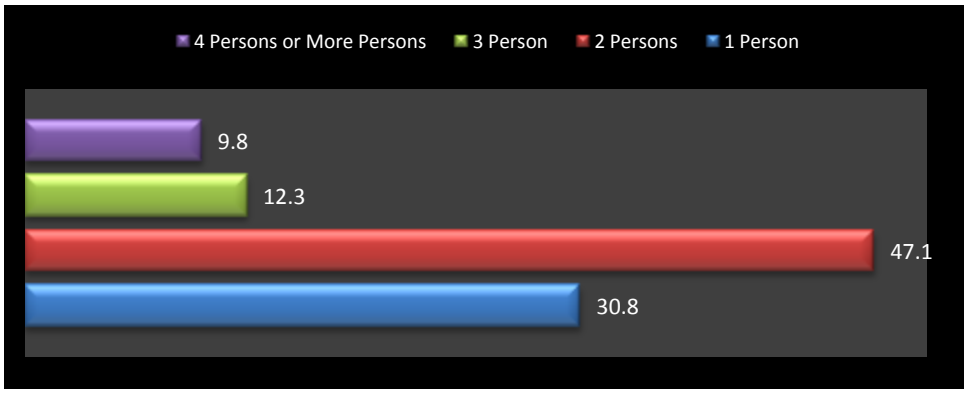

Figure 7: Household Structure: Number of Persons in African-American Households

Household Structure: Home Ownership

Figure 8 shows that almost 73 percent of the sample's African-American elderly own their home, while about 27 percent do not.

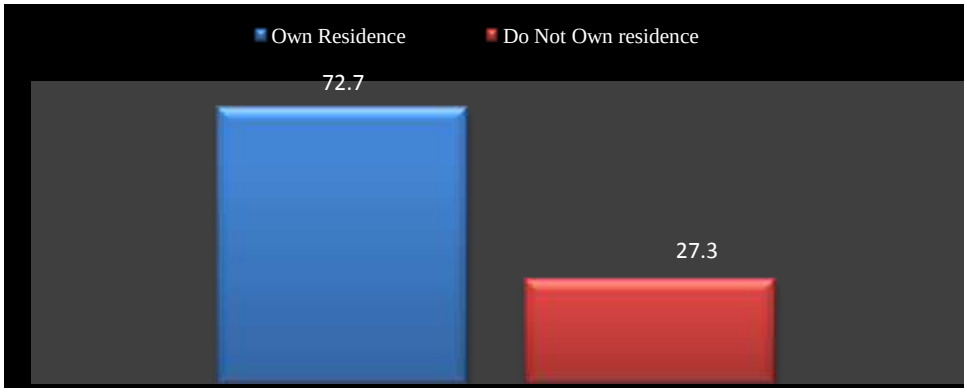

Figure 8: Household Structure: Home Ownership of African-American Elderly

Household Location

This is primarily an urban sample. Just over 88 percent of the African-American elderly live in an urban area. Only about 12 percent reside in non-urban areas.

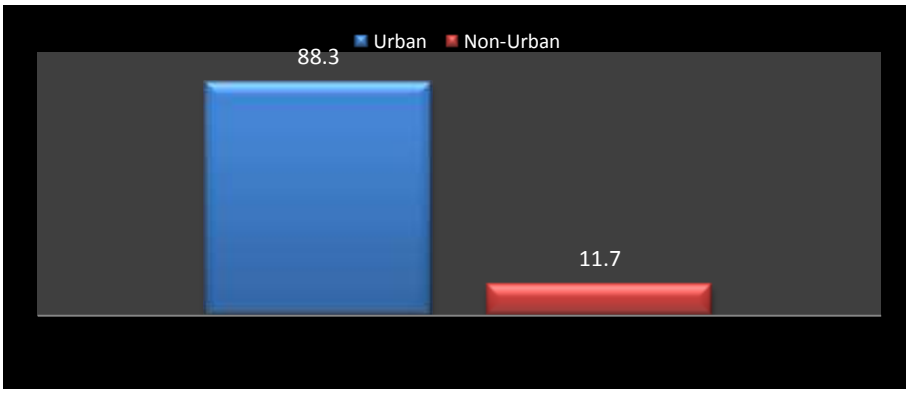

Figure 9: Residential Location (Urban/Non-Urban) of African-American Elderly

Driver Status

As expected, a large percentage of African-American elderly in the NHTS sample are drivers. As indicated by Figure 10, 69 percent of African-American elderly are drivers. Thirty-one percent of African-American elderly in the sample do not drive.

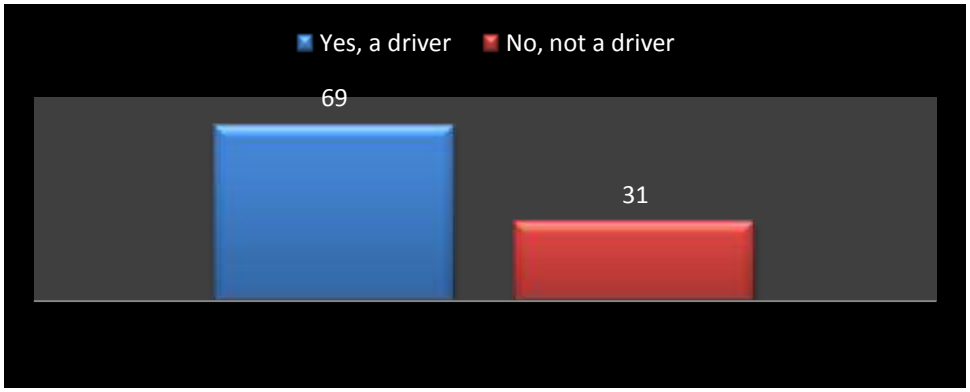

Figure 10: Driver Status of African-American Elderly

Number of Drivers in the Household

While nearly 80 percent of African-American elderly households have at least one driver, 20 percent of these households are without any driver. Figure 11 shows that the modal category is one driver (40.5 percent). Just over 39 percent of African-American elderly households have two or more drivers.

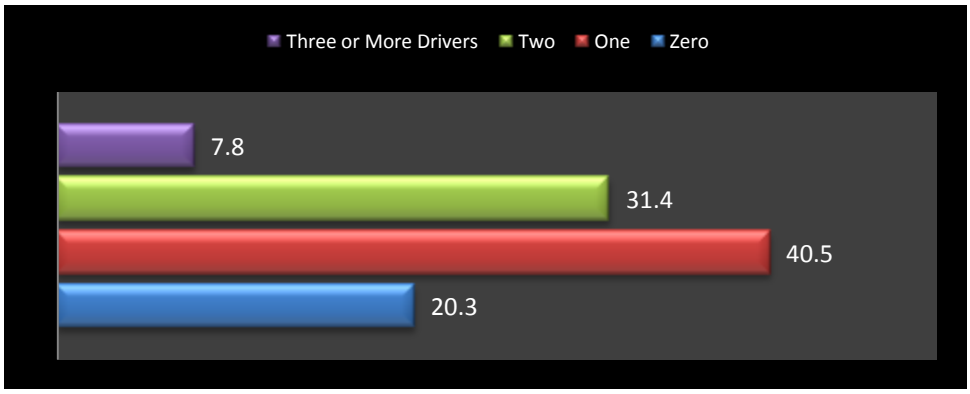

Figure 11: Number of Drivers in African-American Elderly Households

Number of Vehicles in Household

According to Figure 12, almost 27 percent of African-American elderly households are without a vehicle for transportation. This is consistent with the percentage of households without drivers shown in Figure 11. About 35 percent of African-American elderly households have at least one vehicle available for transportation. Many of these elderly households (38.4 percent) have two or more vehicles available for transportation.

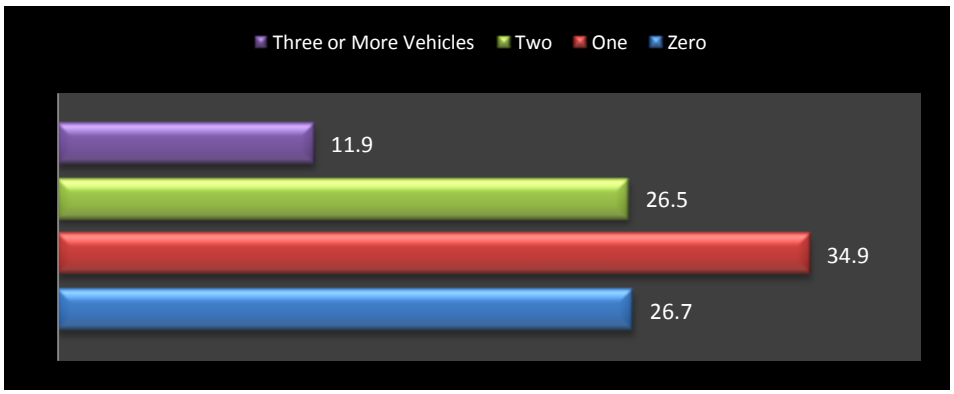

Figure 12: Number of Vehicles in African-American Elderly Households

Annual Miles Driven

The African-American elderly in this sample do not drive many miles annually. Eight-four percent drive less than 5,000 miles annually. As indicated in Figure 13, only five percent of these drivers exceed 10,000 miles annually.

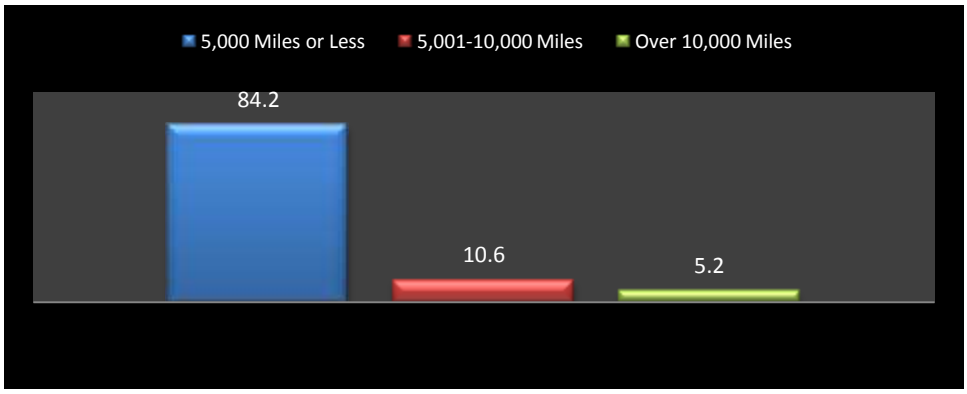

Figure 13: Annual Miles Driven by African-American Elderly

Daily Trip Distance (in Miles)

On a daily basis, these African-American elderly do not travel very far from their residences. Figure 14 shows that approximately 41 percent report daily trips of 3-6 miles. Forty-one percent report daily trips of less than three miles from their residences. Only 18 percent traveled seven miles or more for any day trip.

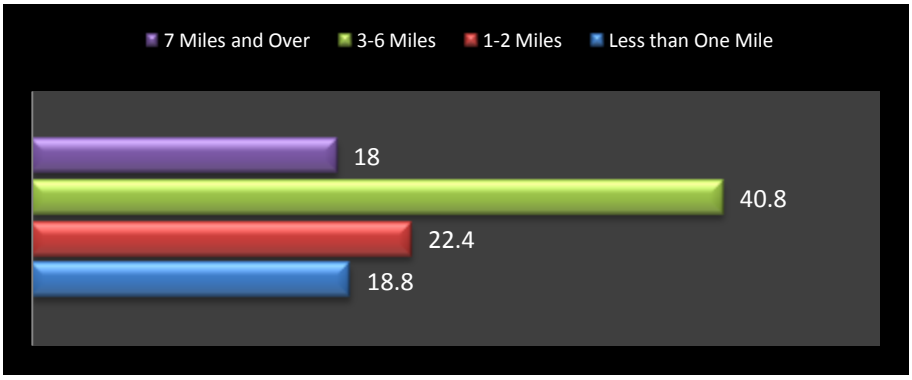

Figure 14: Daily Trip Distance (in Miles) of African-American Elderly

Primary Transportation Mode

The private vehicle (car, SUV, van, truck, etc.) is the primary means of transportation for 84 percent of African-American elderly. Local public transportation was reported as the primary transportation mode by about 6 percent. According to Figure 15, a little over 10 percent of African-American elderly are primarily pedestrians.

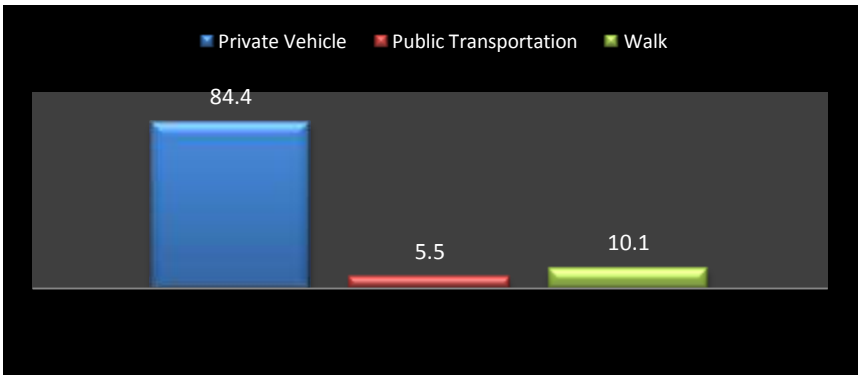

Figure 15: Primary Transportation Mode of African-American Elderly

Number of Daily Trips

Almost 31 percent of African-American elderly made four or more trips per day (see Figure 16). About 26.6 percent made one trip per day. Another 25.6 percent made two trips per day. Three daily trips were made by 17 percent of African-American elderly.

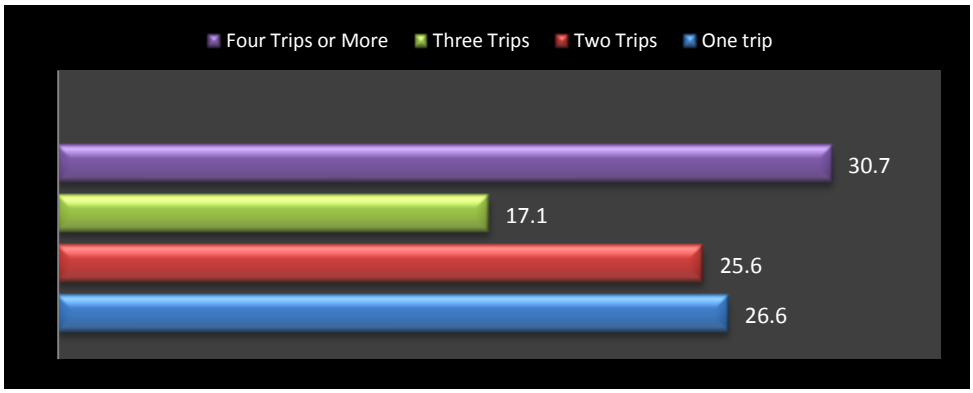

Figure 16: Number of Daily Trips of African-American Elderly

Major Non-Work Trip Purposes

As can be seen in Figure 17, the modal non-work trip purpose for African-American elderly is shopping (32.4 percent). Almost 30 percent travel for social, recreational, or dining purposes. Despite the age of the group, only about 10 percent report traveling for medical or dental reasons.

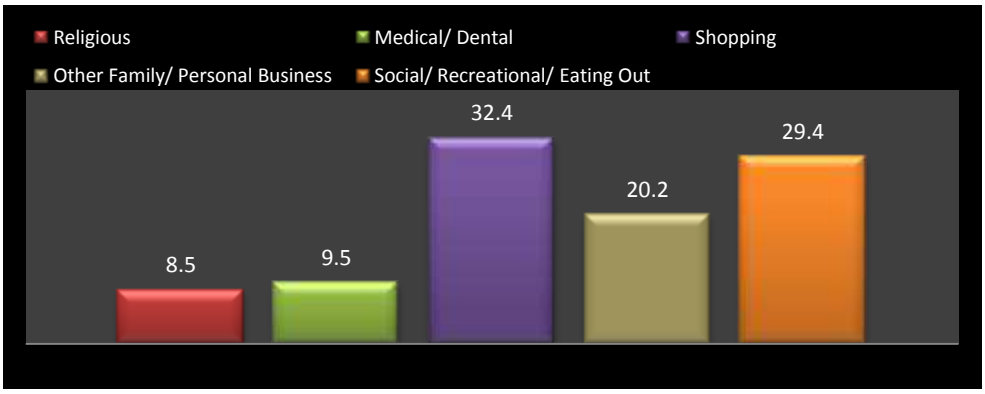

Figure 17: Non-Work Trip Purposes of African-American Elderly

Traffic Concerns of African-American Elderly

Approximately 69 percent of these African-American elderly are licensed drivers, and about 73 percent have at least one vehicle in their household. In the NHTS survey, these drivers were asked to indicate their level of concern regarding traffic issues that they perceived to be a problem that could potentially affect their driving.

Traffic Issue: Traffic Accidents

The majority (54.2 percent) of African-American elderly drivers feel traffic accidents warrant some concern. As indicated by Figure 18, about 25 percent consider traffic accidents a severe/very much a problem. Twenty-nine percent thought that traffic accidents were somewhat/a little problem. Almost 46 percent did not consider traffic accidents a problem at all.

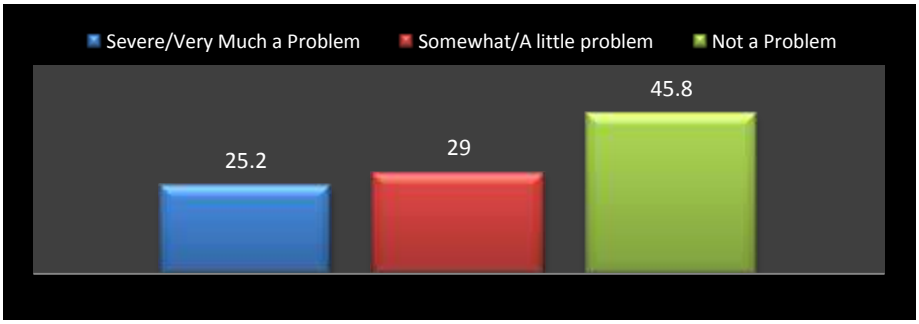

Figure 18: Percentage of African-American Elderly Who Worry about Traffic Accidents

Traffic Issue: Highway Congestion

Many consider highway congestion a major problem and an obstacle to driving. About 52 percent of African-American elderly who drive consider highway congestion a problem of

concern, including 23 percent who view it as a severe/very much a problem (Figure 19). For 48.1 percent of African-American elderly, highway congestion is not a problem.

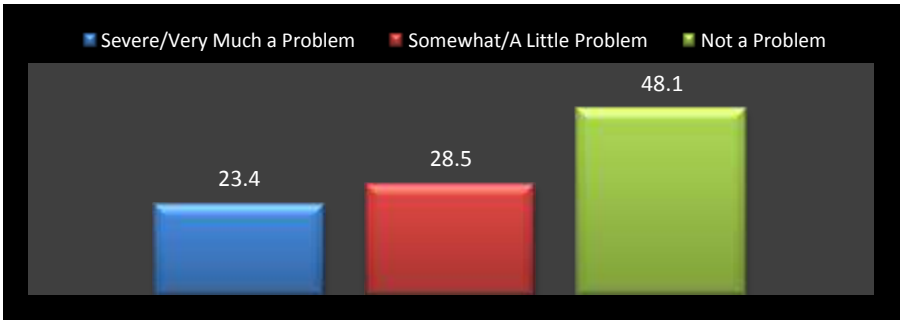

Figure 19: Percentage of African-American Elderly Who Worry about Highway Congestion

Traffic Issue: Distracted Drivers

As indicated in Figure 20, a little over 70 percent of African-American elderly consider distracted drivers a problem. In fact, 39 percent view distracted drivers as a severe/very much a problem. About 30 percent do not consider distracted drivers a problem of concern.

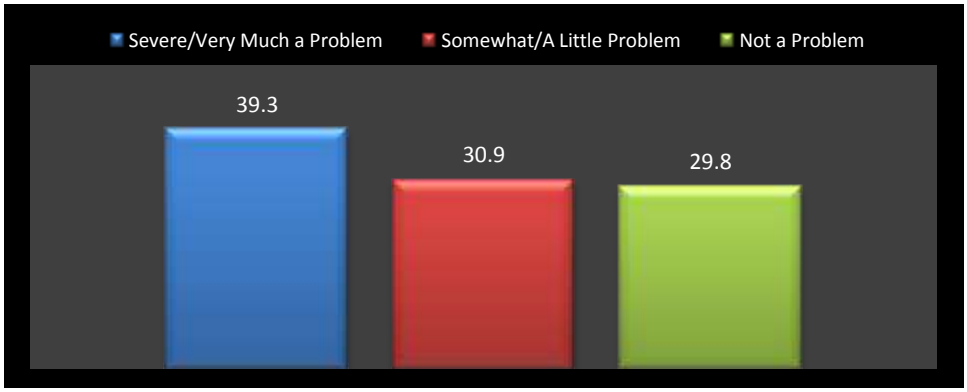

Figure 20: Percentage of African-American Elderly Who Worry about Distracted Drivers on the Road

Traffic Issue: Aggressive Drivers

Many consider aggressive drivers a major problem on today's highways. Approximately 65.6 percent of African-American elderly who drive have concerns about aggressive drivers (Figure 21). For 43.3 percent of these respondents, aggressive drivers on the road are a severe/very much a problem of concern. Twenty-two percent view aggressive drivers as somewhat/a little problem of concern. Slightly more than 34 percent of African-American elderly do not consider aggressive drivers a problem of concern.

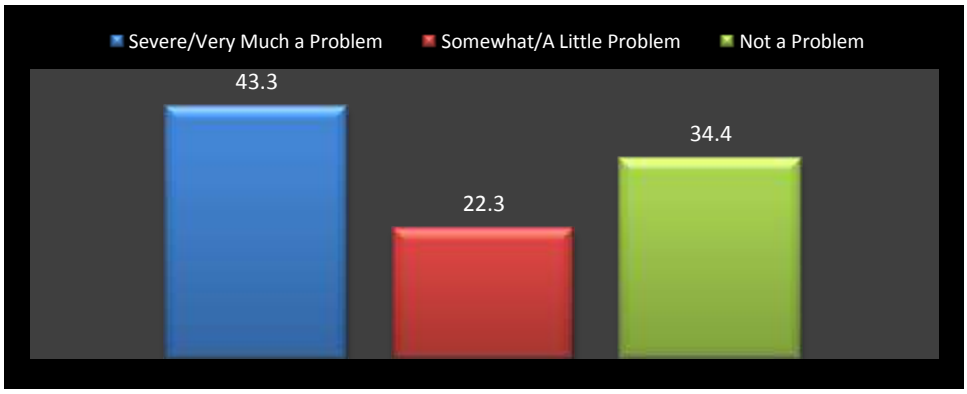

Figure 21: Percentage of African-American Elderly Who Worry about Aggressive Drivers on the Road

Traffic Issue: Drunk Drivers

Fifty-one percent of these African-American elderly have concerns about drunk drivers. Of those concerned, about 32 percent consider drunk drivers a severe/very much a problem. Nineteen percent consider drunk drivers somewhat/a little problem of concern. Almost 49 percent do not consider drunk drivers a problem of concern.

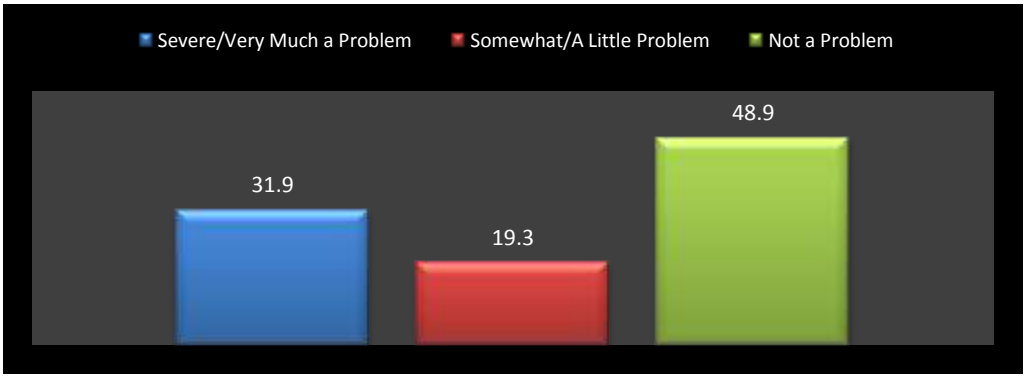

Figure 22: Percentage of African-American Elderly Who Worry about Drunk Drivers on the Road

Traffic Issue: Speeding

Drivers speeding on the highway is often a major problem of concern for today's drivers. As is shown in Figure 23, for 65.6 percent of African-American elderly, other drivers speeding on the road is a problem of concern. Forty-four percent of African-American elderly consider other drivers speeding on the road a severe/very much of a problem. For 21 percent, other drivers' speeding is somewhat/a little problem of concern.

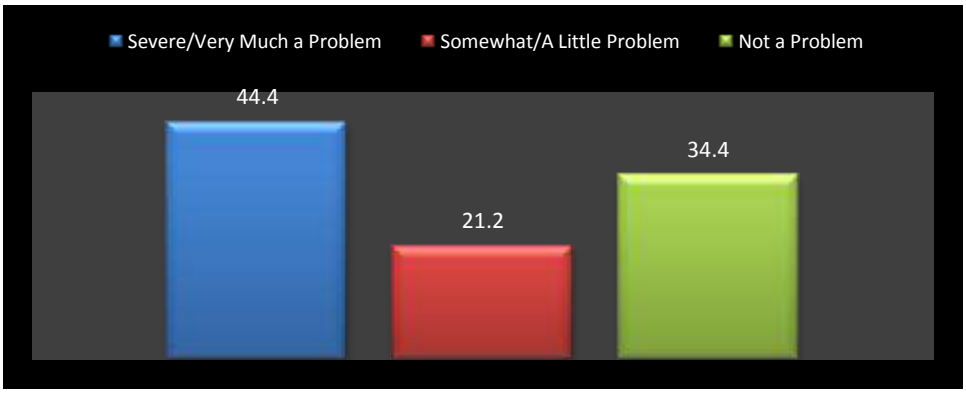

Figure 23: Percentage of African-American Elderly Who Worry about Drivers Speeding

Traffic Issue: Price of Gasoline

The majority of African-American elderly (61 percent) consider the price of gasoline a problem (see Figure 24). About 38 percent of African-American elderly consider the price of gasoline a severe problem/very much a problem of concern. Just over 23 percent consider the price of gasoline somewhat/a little problem of concern. For 39 percent, the price of gasoline is not a problem.

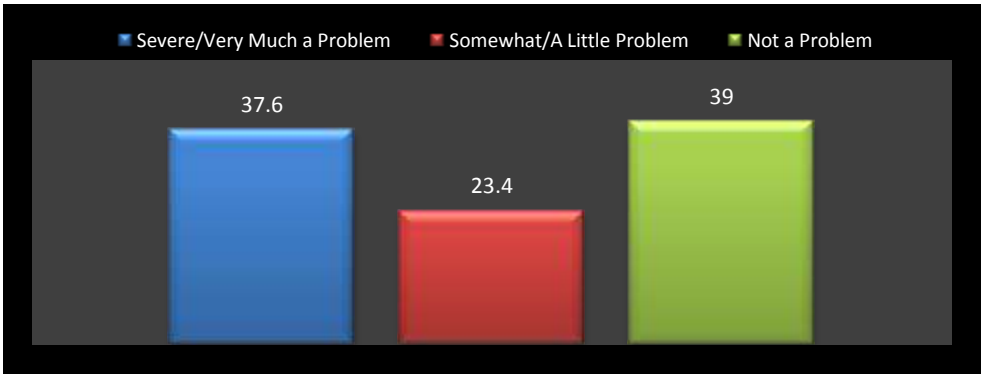

Figure 24: Percentage of African-American Elderly Who Worry about the Price of Gasoline

Traffic Issue: Traffic Tie-ups or Road Construction

Traffic tie-ups or road construction can be a major annoyance for many drivers. Approximately 60 percent of African-American elderly consider traffic tie-ups or road construction a problem of concern (Figure 25). Twenty-six percent consider traffic tie-ups or road construction a severe problem/very much a problem. For about 34 percent, traffic tie-ups or road construction is somewhat/a little problem. Approximately 40 percent do not consider traffic tie-ups or road construction a problem of concern.

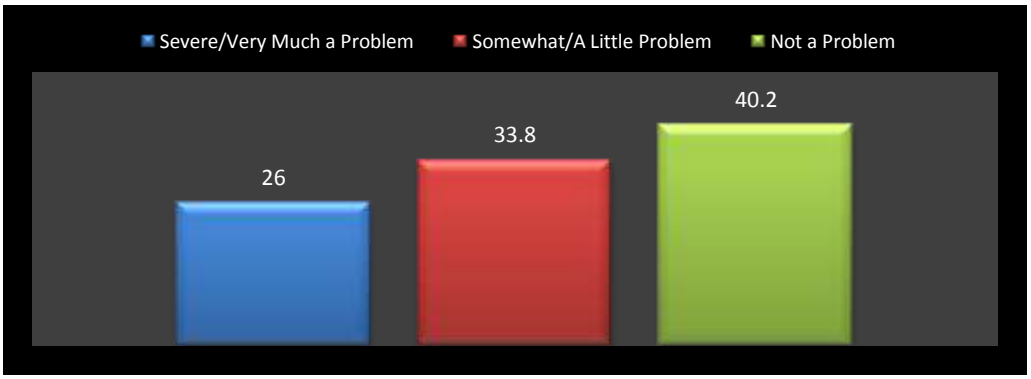

Figure 25: African-American Elderly Who Worry about Traffic Tie-ups or Road Construction

Traffic Issue: Rough Pavement or Potholes

Rough pavement on highways and potholes can do major damage to vehicles. Over 70 percent of African-American elderly drivers consider rough pavement or potholes a problem of concern, including about 35 percent who consider it severe/very much of a problem of concern. A little over 30 percent do not consider the road conditions a problem.

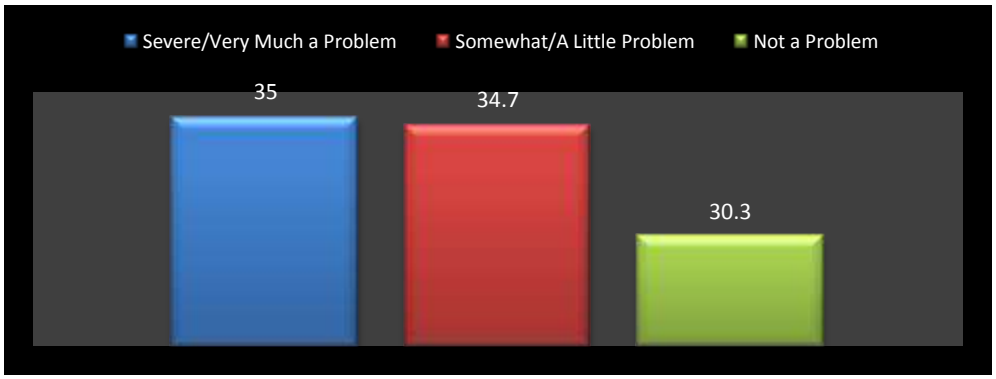

Figure 26: Percentage of African-American Elderly Who Worry about Rough Pavement or Potholes

Medical Conditions of African-American Elderly

As people age, they are often confronted with a host of medical conditions (e.g., cancer, Type II diabetes, heart disease, high blood pressure, arthritis) that are often unexpected and unusual in earlier household lifecycles, but can ultimately affect their transportation needs and travel behaviors.

Medical Condition Results in Less Travel

Overwhelmingly, these African-American elderly have a medical condition that results in less travel. As indicated in Figure 27, approximately 86 percent have a medical condition that results

in less travel. A little over 14 percent of respondents do not have a medical condition that results in less travel.

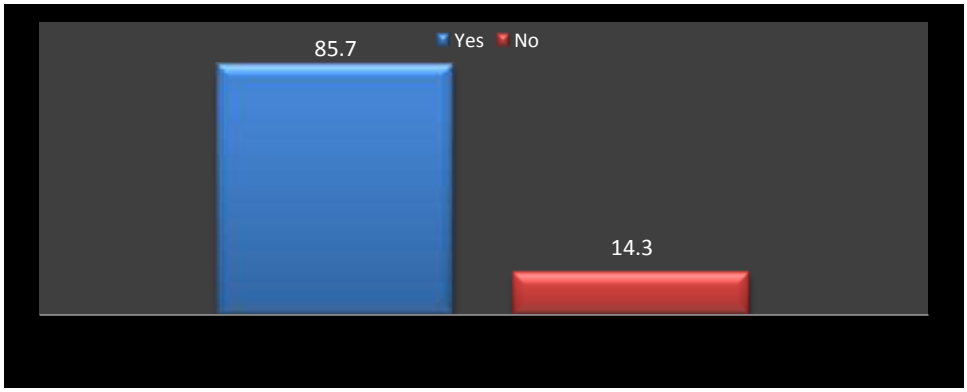

Figure 27: Percentage of African-American Elderly Who Have a Medical Condition That Results in Less Travel

Medical Condition Makes Travel Difficult

Despite the large percentage of African-American elderly that have a medical condition that results in less travel, only 33 percent have a medical condition that makes travel difficult.

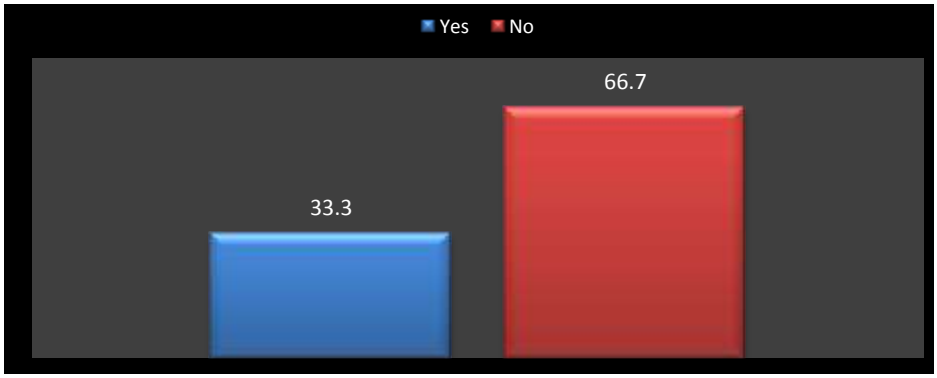

Figure 28: Percentage of African-American Elderly Who Have a Medical Condition That Makes Travel Difficult

Medical Condition Requires Special Transport

Few of these African-American elderly (19.2 percent) have a medical condition that requires special transport (Figure 29). The vast majority (80.8 percent) need no special transport because of their medical condition.

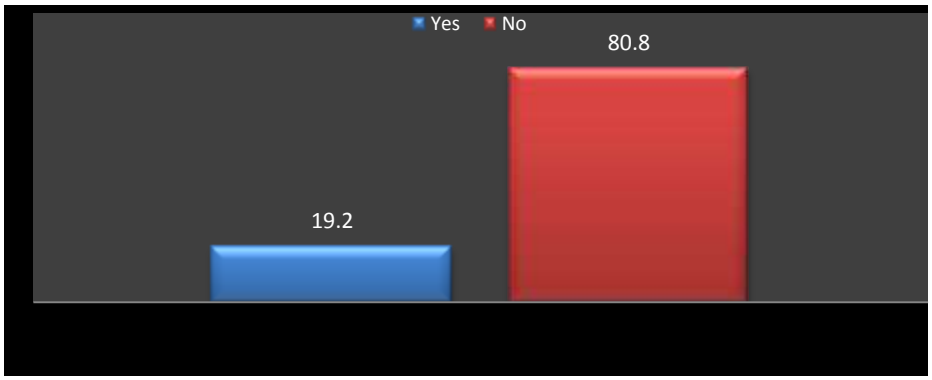

Figure 29: Percentage of African-American Elderly Who Have a Medical Condition That Requires Special Transport

Medical Condition Limits Use of Public Transportation

One-fourth of African-American elderly report medical conditions that limit their use of public transportation. Nearly three-fourths do not have a medical condition that limits their use of public transportation.

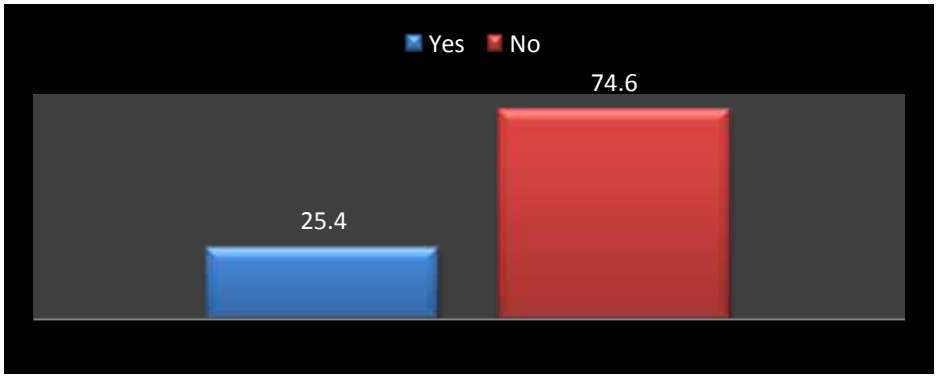

Figure 30: African-American Elderly Who Have a Medical Condition That Limits Use of Public Transportation

Medical Condition Results in Asking for Rides

Figure 31 shows that 55.9 percent of these African-American elderly report having a medical condition that results in their asking others for rides. Forty-four percent do not have medical conditions that result in asking for rides.

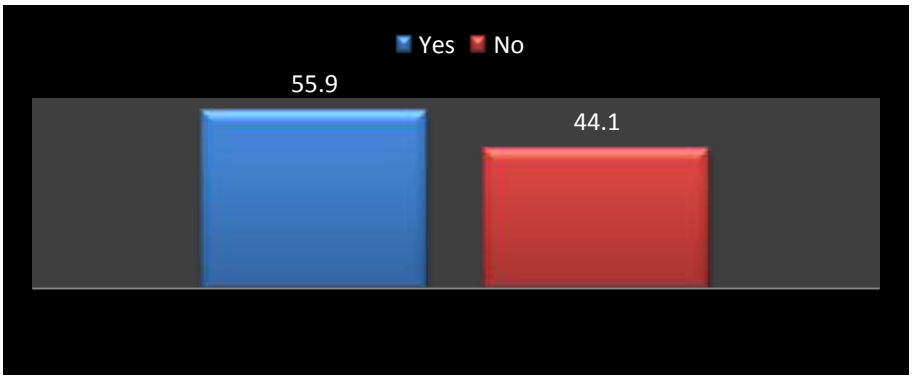

Figure 31: African-American Elderly Who Have a Medical Condition That Results in Asking For Rides

Medical Condition Limits Driving to Daytime

Figure 32 shows that 40 percent of these African-American elderly have a medical condition that limits their driving to daytime, while about 60 percent do not.

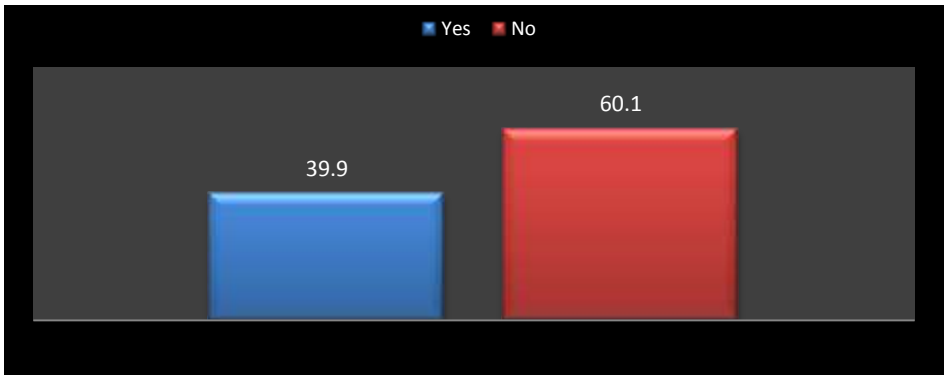

Figure 32: African-American Elderly Who Have a Medical Condition That Limits Driving to Daytime

Medical Condition Requires Giving Up Driving

Forty percent of these African-American elderly report having a medical condition that requires them to give up driving (see Figure 33); nearly 60 percent do not.

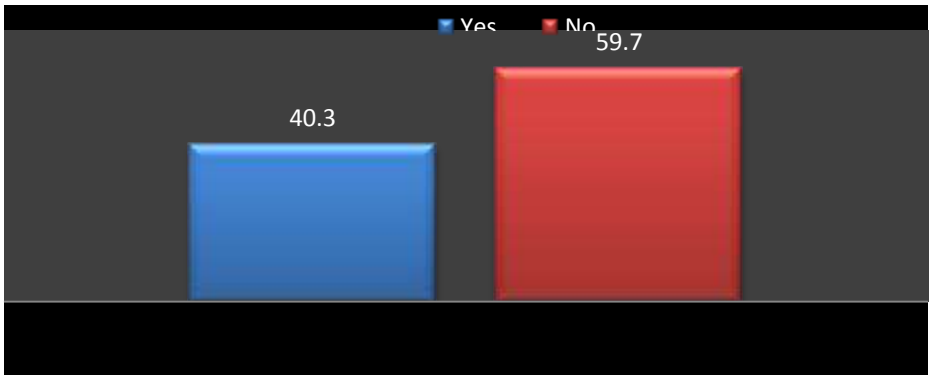

Figure 33: Percentage of African-American Elderly Who Have a Medical Condition That Requires Giving Up Driving

Length of Time with Medical Condition That Makes Travel Difficult

The length of time with a medical condition that makes travel difficult is examined in Figure 34. Nearly 58 percent of these African-American elderly report that they have had a medical condition that makes travel outside of the home difficult for five or more years. Approximately 32 percent of African-American elderly have been living with this medical for ten years or more. About eight percent have been living with the medical condition for less than one year.

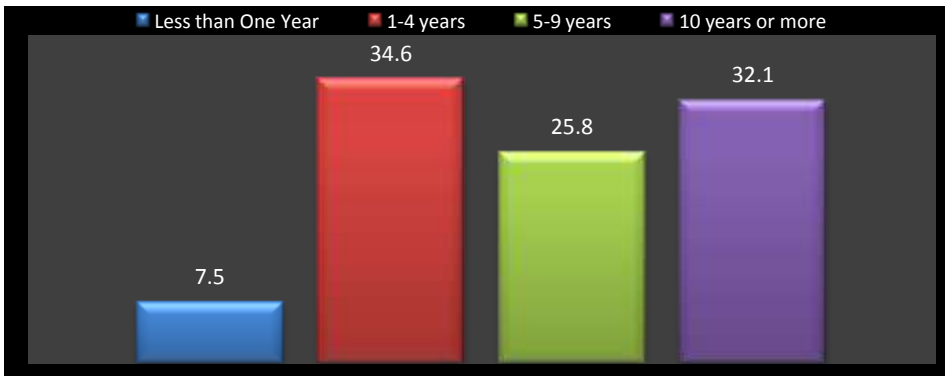

Figure 34: Length of Time African-American Elderly Have Had a Medical Condition That Makes Travel Difficult

Phase II: The Intersection of Household Structure and Travel Behaviors, Medical Conditions, and Travel Concerns

The previous section examined this cohort of African-American elderly in terms of age, gender, income, education, residential location, housing status, household lifecycle, driver status, and various indices of travel behavior. While those distributions provide a summary analysis of major socio-demographic variables and travel behaviors, this section highlights the complexity

of the socio-demographic factors when they interact or intersect with the lifecycle variable of household lifecycle.

Age Distribution and Household Lifecycle

Figure 35 shows the age distribution of African-American elderly in the various household lifecycles. While the modal category for African-American elderly in all household lifecycles is 65-69, the variations are pronounced for individual lifecycles. Both the youngest (65-69) and oldest African-American elderly (75 and over) reside in households with children. The youngest elderly (63.6 percent) are in 2+ adult households with children, while the oldest elderly (48 percent) are in one-adult households with children. Households with 2+ adults and no children have a more even distribution across age groups.

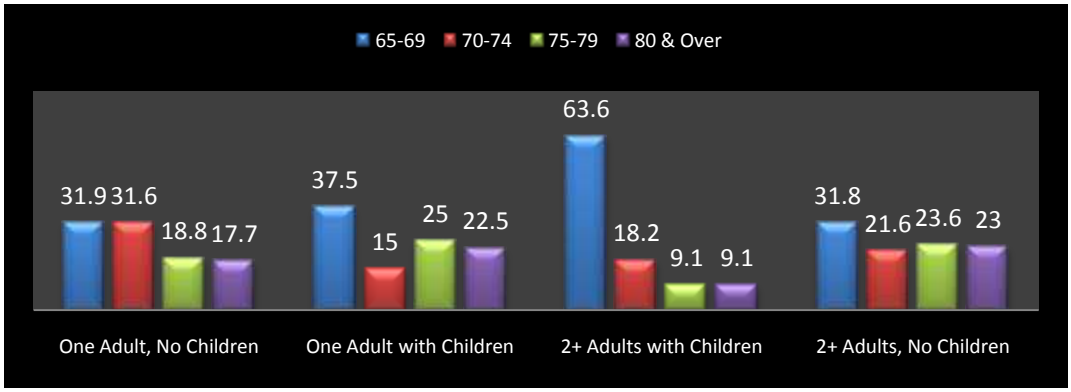

Figure 35: Age Distribution and Household Lifecycle of African-American Elderly

Gender and Household Lifecycle

While there are more female-headed households than male-headed households in every type of household lifecycle, this is particularly pronounced in one-adult households with children. Approximately 91 percent of these households are headed by African-American elderly women. Even in households with 2+ adults and children, 58 percent are female-headed (see Figure 36).

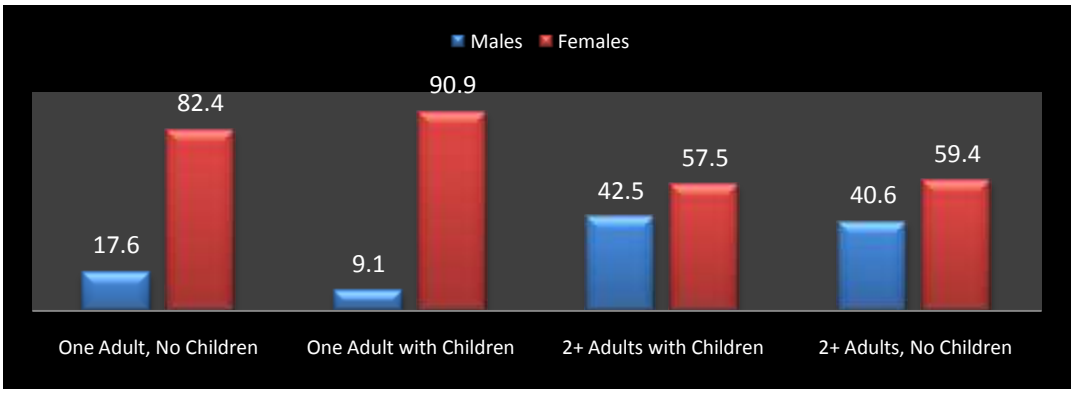

Figure 36: Gender and Household Lifecycle of African-American Elderly

Educational Attainment and Household Lifecycle

Overall, nearly half of this cohort of African-American elderly has less than a high school education (see Figure 37). However, there are some interesting differences in education across household lifecycle. African-American elderly in one-adult households with children have the lowest educational attainment of any household lifecycle: approximately 64 percent of these households are headed by individuals with less than a high school education. Among 2+ adults households with children, 53 percent have less than a high school education.

There is very little difference in the level of educational attainment of childless one-adult and 2+ adults households. African-American elderly in both of these households are equally likely to have less than a high school education or to have attained education beyond high school (29.7 percent and 31.7 percent respectively). African-American in elderly households without children have the highest educational attainment.

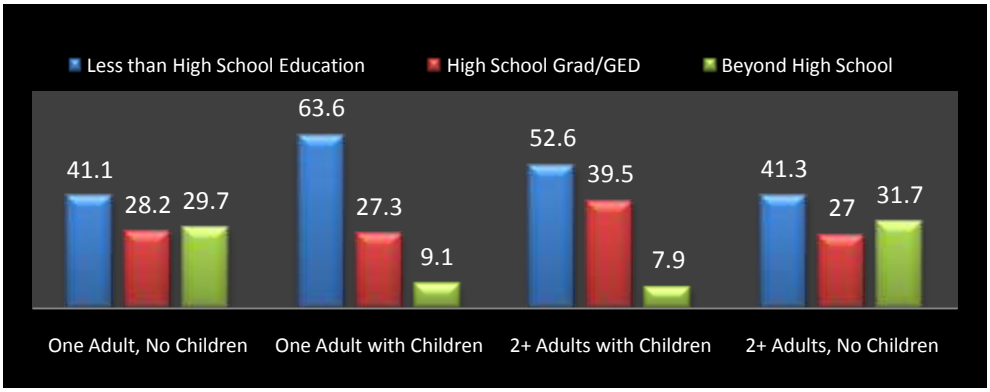

Figure 37: Educational Attainment and Household Lifecycle of African-American Elderly

Household Income Distribution and Household Lifecycle

Regardless of the household structure, over 50 percent of these African-American elderly live in households with annual incomes of less than $20,000. Regardless of the number of adults present, households with children have the lowest annual incomes, with over 60 percent reporting incomes under $20,000. In fact, almost 30 percent of African-American elderly in 2+ adult households with children report annual household incomes of less than $5,000. Childless one-adult households tend to have the highest levels of income ($30,000 and up).

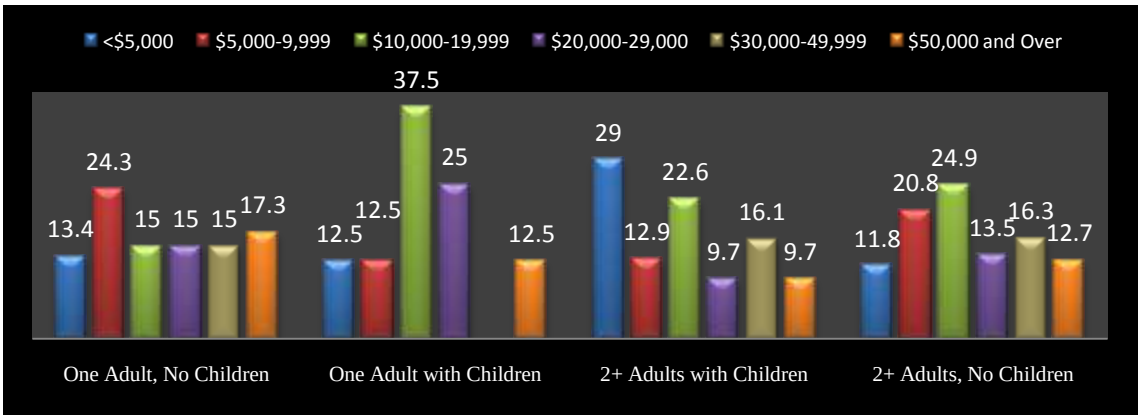

Figure 38: Household Lifecycle and Income Distribution

Household Lifecycle and Number of Persons in Household

There is only one child in approximately 64 percent of one-adult households with children. Two+ adults households with children are the largest, with approximately 38 percent consisting of five or more persons (Figure 38). The overwhelming majority of 2+ adult households consist of only two adults (77 percent).

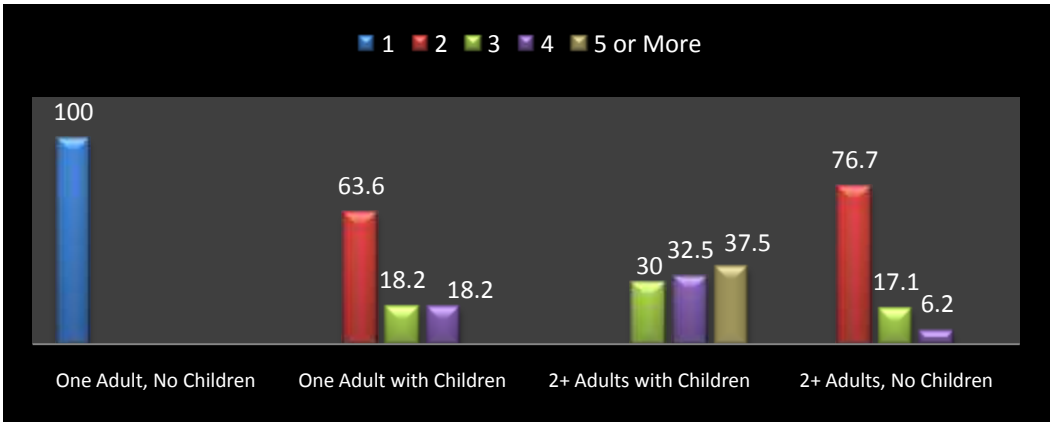

Figure 39: Household Lifecycle and Size of Household

Household Lifecycle and Driver Status

The majority of these African-American elderly are drivers in every household lifecycle. However, those in one-adult households are less likely to be drivers (see Figure 40). African-American elderly in 2+ adult households, regardless of the presence of children, are most likely to be drivers.

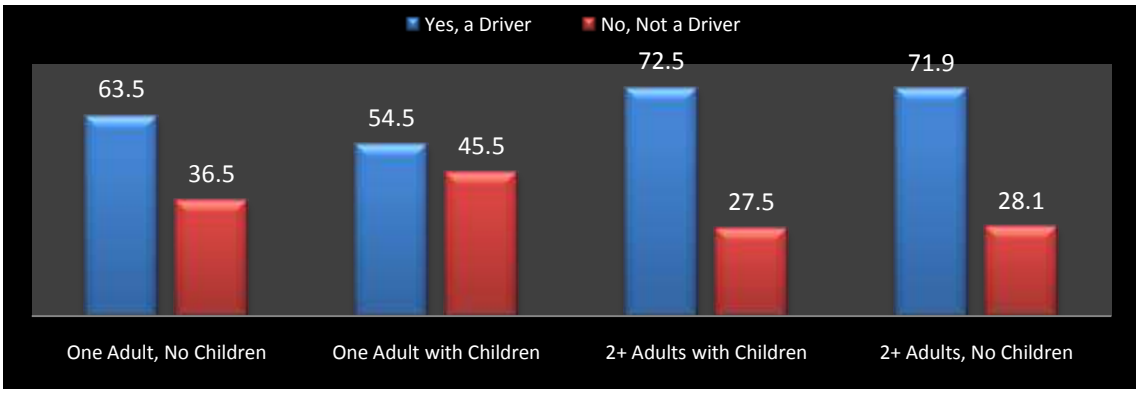

Figure 40: Household Lifecycle and Driver Status

Household Lifecycle and Number of Vehicles in Household

African-American elderly in one-adult households are more likely to report not having a car than those in 2+ adults households (Figure 41). Of particular interest are African-American elderly in households with children: 36 percent in one-adult households with children have no vehicle compared to 10 percent in 2+ adult households with children. The largest number of vehicles is found in households with children and 2+ adults.

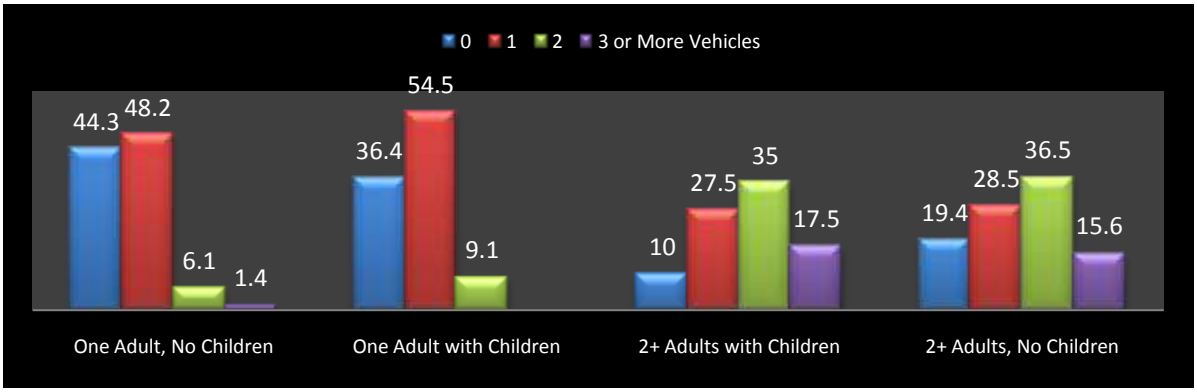

Figure 41: Household Lifecycle and Number of Vehicles in the Household

Household Lifecycle and Number of Drivers in Household

As is shown in Figure 42, there are fewer drivers in African-American elderly households with one adult than in households with 2+ adults. However, this pattern is affected by the presence of children. One-adult households with children are more likely to not have a driver (45.5 percent), while households with 2+ adults and no children are more likely to have a driver (78 percent).

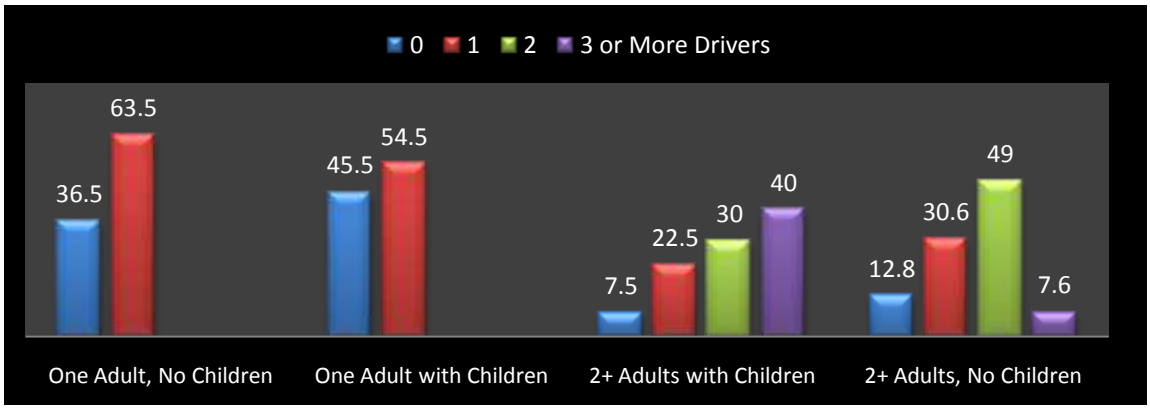

Figure 42: Household Lifecycle and Number of Drivers in Household

Household Lifecycle and Home Ownership

Phase I showed that there is a relatively high level of home ownership among this group of African-American elderly. There are, however, some interesting patterns of home ownership when household lifecycle is considered. Regardless of the presence of children, African-American elderly in households with 2+ adults have higher rates of home ownership than their one-adult household counterparts do. Of households with children, those in one-adult households are far less likely (64 percent) to own their residence than those in 2+ adult households (83 percent).

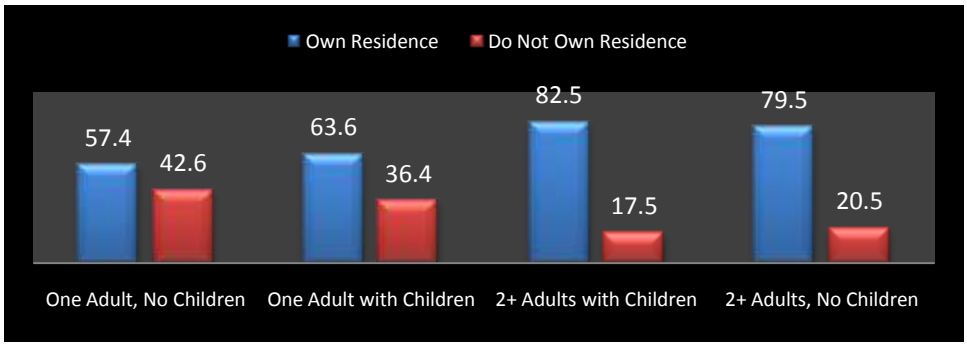

Figure 43: Household Lifecycle and Home Ownership

Household Lifecycle and Residential Location

As is evident in Figure 44, the majority of African-American elderly households are located in urban areas. With the exception of 2+ adults households with children (77.5 percent), over 88 percent of these African-American elderly reside in urban areas. Compared to other households, households with 2+adults and children are more likely to be located in non-urban areas.

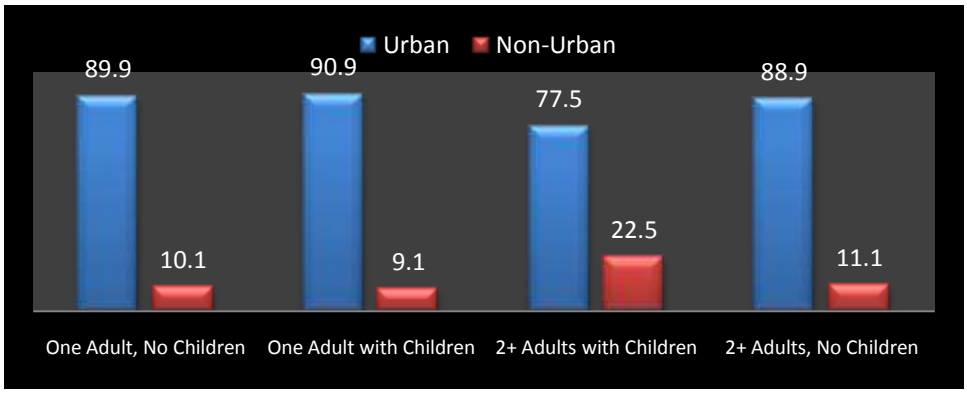

Figure 44: Household Lifecycle and Residential Location

The Influence of Household Lifecycle on Social Perceptions of Travel Concerns

Travel behaviors are often affected by or related to travel-related concerns such as traffic accidents, driving conditions, gasoline prices, other drivers' behaviors, road conditions, and congestion. This section reports on the kinds of concerns African-American elderly have regarding factors that can affect their travel behaviors as related to the lifecycle stage of their households.

Household Lifecycle and Traffic Accidents as a Problem of Concern

Overall, African-American elderly in households with children are more likely to worry about traffic accidents than those in households without children. All of these African-American elderly consider traffic accidents a problem of concern. However, 50 percent of elderly in one-adult households with children and approximately 67 percent of those in 2+ adult households with children indicate that worrying about getting in traffic accidents is a severe/very much a problem. African-American elderly in one-adult household without children are the least likely to worry about traffic accidents (54.8 percent).

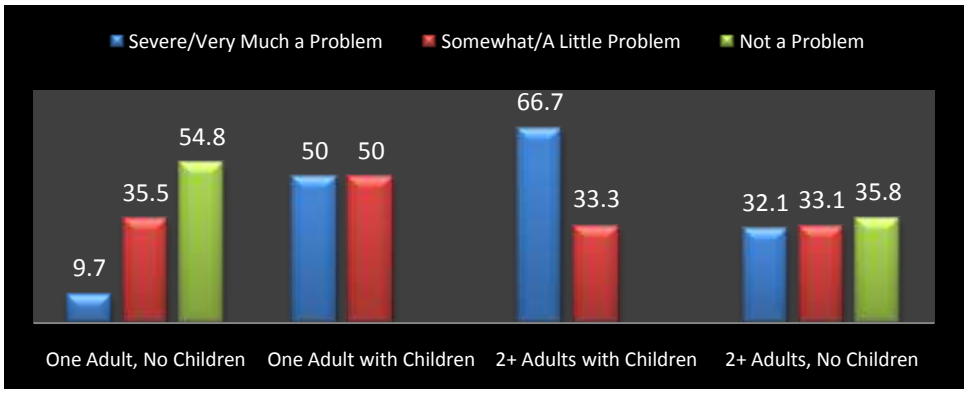

Figure 45: Household Lifecycle and Worrying about Getting in Traffic Accidents as a Problem

Household Lifecycle and Highway Congestion as a Problem of Concern

Overall, few African-American elderly perceive highway congestion as a severe/very much a problem. However, highway congestion is more likely to be perceived as a problem among those in households without children. On the other hand, it is more likely to not be seen as a problem by African-American elderly in one-adult households with children (72.7 percent).

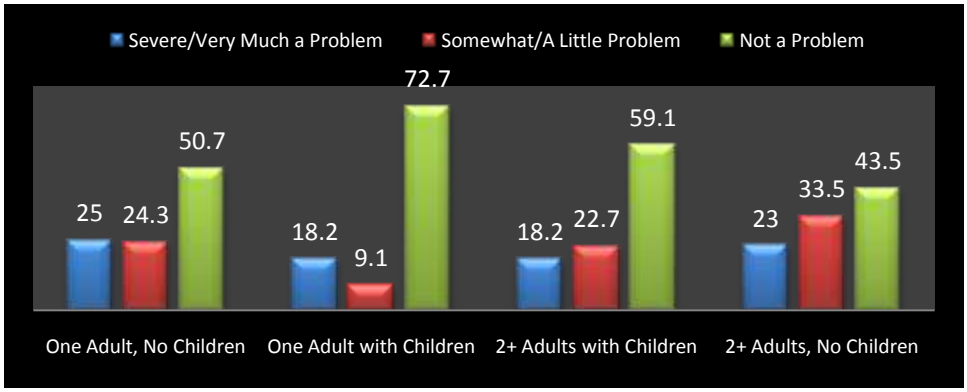

Figure 46: Household Lifecycle and Highway Congestion as a Problem

Household Lifecycle and Distracted Drivers as a Problem of Concern

Of all household types, African-American elderly in one-adult households with children are the least likely to see distracted drivers as a problem of concern. At least 40 percent of those in other households see distracted drivers on the road as a severe/very much a problem.

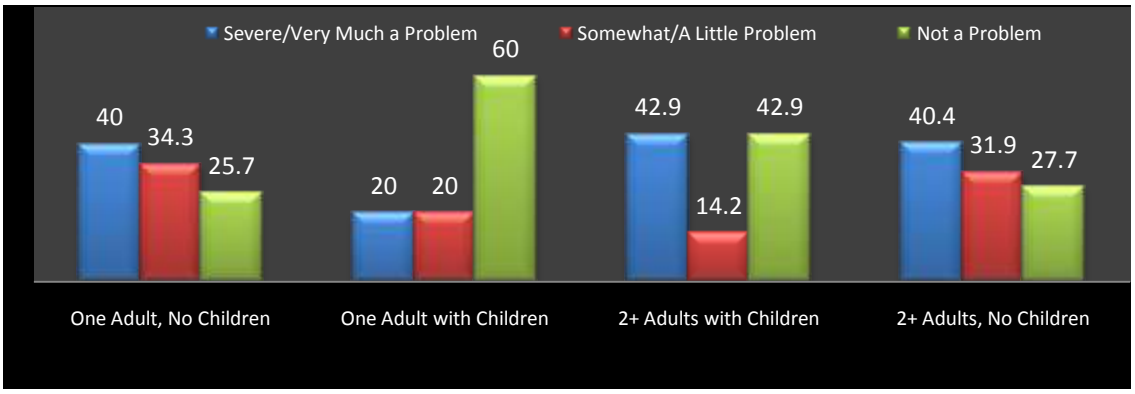

Figure 47: Household Lifecycle and Worry about Distracted Drivers on the Road as a Problem

Household Lifecycle and the Price of Gasoline as a Problem of Concern

Figure 48 shows that approximately 33-41 percent of African-American elderly in each household lifecycle view the price of gasoline as severe/very much a problem. However, there are only slight variations in perception of it as somewhat/a little problem across household lifecycle. Thus, the number of adults in a household and the presence of children do not greatly affect the extent to which the price of gasoline is perceived as a problem.

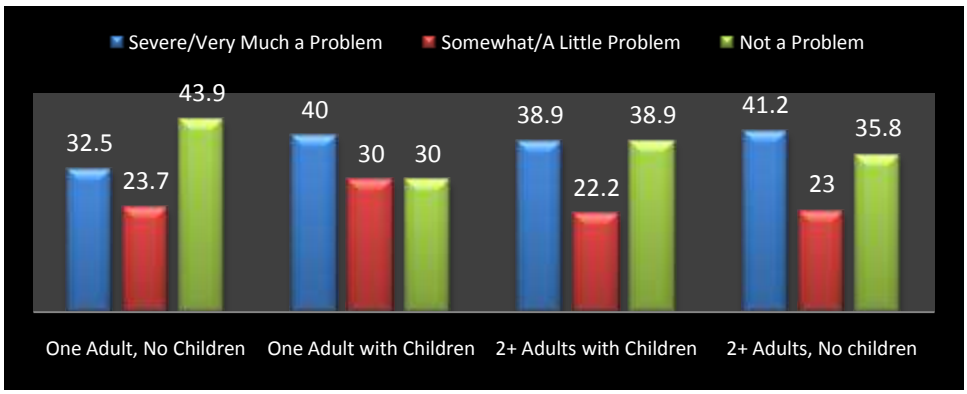

Figure 48: Household Lifecycle and Worry about the Price of Gasoline

Household Lifecycle and Aggressive Drivers as a Problem of Concern

Figure 49 shows that aggressive drivers on the road are considered a problem of concern by African-American elderly in all households. However, it is more likely to be perceived as a severe/very much a problem by those in one-adult households with children (50 percent) and 2+ adult households with no children (51.2 percent). Fifty percent of African-American elderly in one-adult households with children do not view aggressive drivers on the road as a problem.

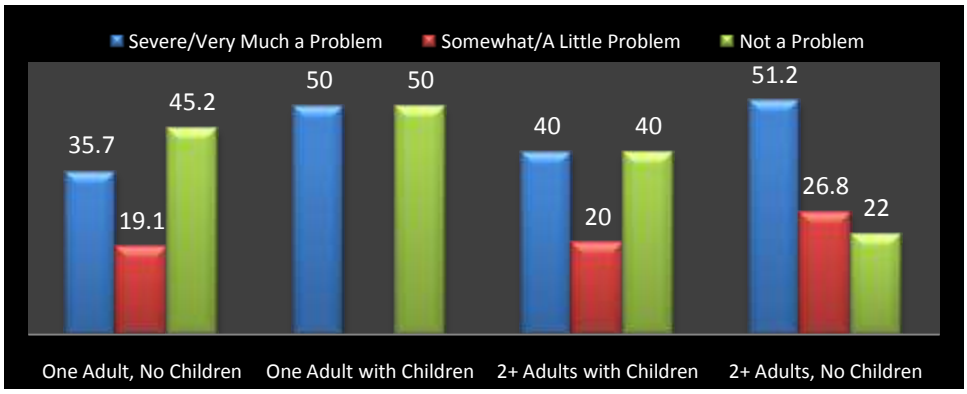

Figure 49: Household Lifecycle and Worry about Aggressive Drivers on the Road as a Problem

Household Lifecycle and Speeding Drivers as a Problem of Concern

Figure 50 below shows that at least 50 percent of African-American elderly in each type of household lifecycle view speeding drivers as a problem of concern. It is most likely to be seen as a problem in one-adult households with children and 2+ adults households without children. One hundred percent of African-American elderly in one-adult households with children view speeding drivers as severe/very much a problem. Fifty-seven percent of 2+ adults households without children view speeding drivers as severe problem/very much a problem. Those in one-adult households without children and 2+adults households with children are least likely to view speeding drivers as a problem (48.4 percent and 50 percent respectively).

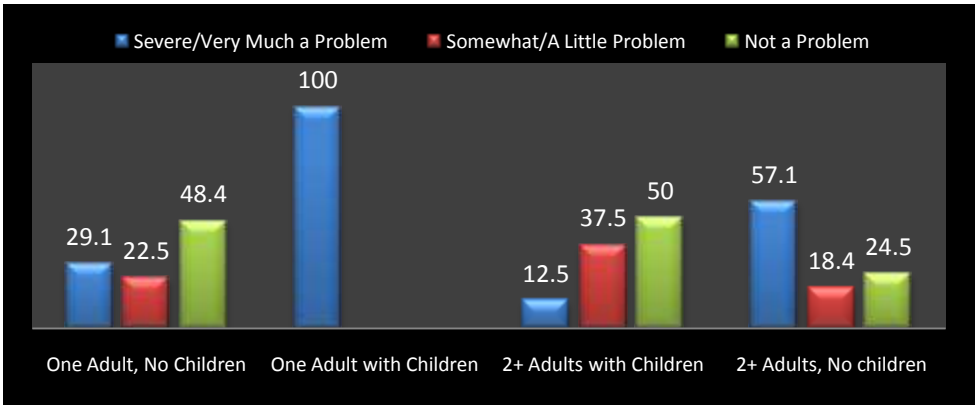

Figure 50: Household Lifecycle and Speeding Drivers on the Road as a Problem

Household Lifecycle and Worry about Road Tie-ups or Road Construction as a Problem of Concern

With the exception of those in one-adult households without children (55.7 percent), the majority of African-American elderly view traffic tie-ups or road construction as a problem of concern.

For approximately 67 percent of African-American elderly in one-adult households with children, traffic tie-ups or road construction is severe/very much a problem.

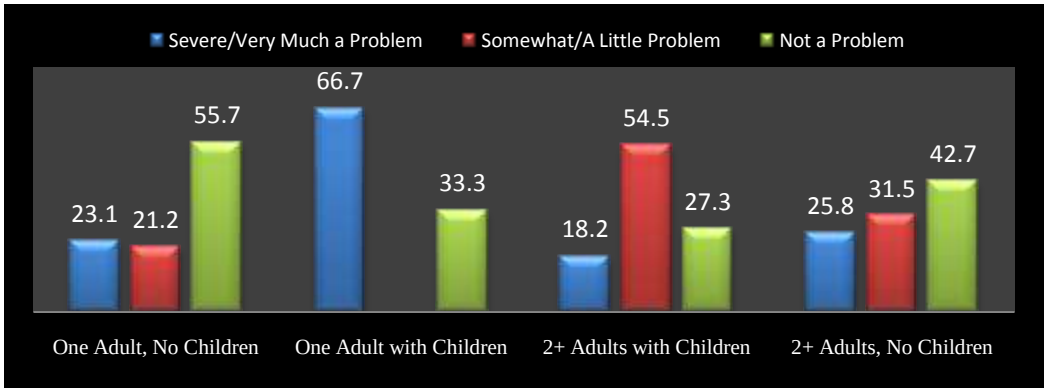

Figure 51: Household Lifecycle and Worry about Traffic Tie-ups or Road Construction as a Problem

Household Lifecycle of African-American Elderly and Medical Conditions Impacting Their Travel Behaviors

This cohort of African-American elderly is at a lifecycle stage in which they are more likely to encounter a variety of health problems. These problems can include high blood pressure, heart attacks, diabetes, heart disease, and cancer. Some, if not most, of these problems and concerns can affect travel behaviors and transportation needs, and they are likely to become more serious as this population ages. This section examines the relationship between household lifecycle and medical conditions that affect the travel behaviors of the elderly sample.

Household Lifecycle and Medical Condition Results in Less Travel

Eighty percent of African-American elderly in households with children and 84 percent of those in childless households report a medical condition that results in less travel (Figure 52).

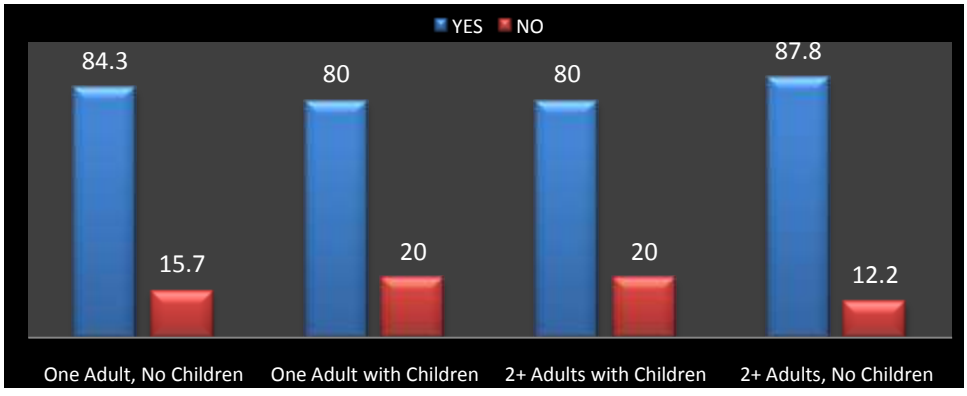

Figure 52: Household Lifecycle and Medical Condition Results in Less Travel

Household Lifecycle and Medical Condition Makes Travel Difficult

As shown in Figure 53, the majority of African-American elderly, regardless of household lifecycle, do not have a medical condition that makes travel difficult. The African-American elderly who do have a medical condition that makes travel difficult are most likely to be in one-adult households with children (46 percent).

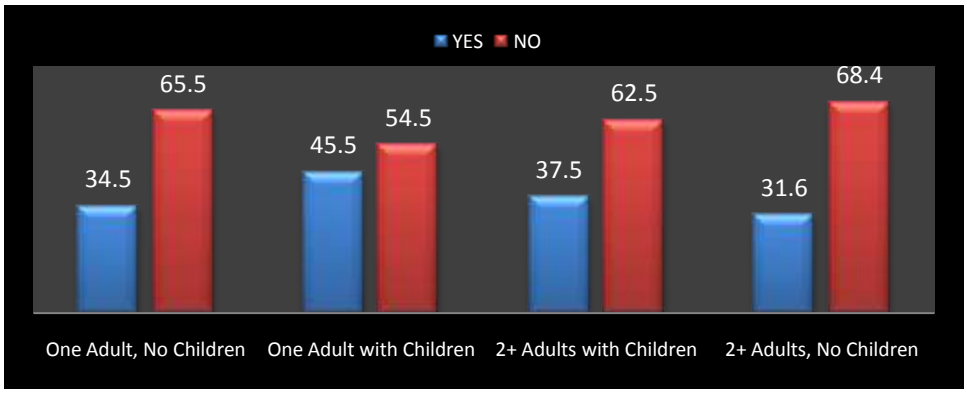

Figure 53: Household Lifecycle and Medical Condition Makes Travel Difficult

Household Lifecycle and Medical Condition Causes One to Give Up Driving

With the exception of one-adult households without children, at least 40 percent of African-American elderly in every other type of household indicated that they had a medical condition that required them to give up driving. This was most pronounced in 2+ adults households (Figure 54).

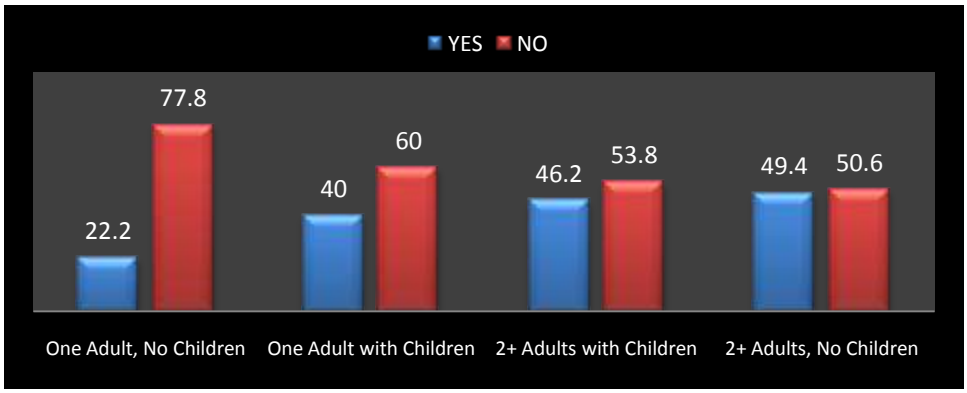

Figure 54: Household Lifecycle and Medical Condition Causes One to Give Up Driving

Household Lifecycle and Medical Condition That Limits Driving to Daytime

As shown in Figure 55, between 35 and 47 percent of African-American elderly from all households report that they have a medical condition that limits their driving to daytime. However, this was less likely to be a problem for African-American elderly in 2+ adults households without children (65.1 percent).

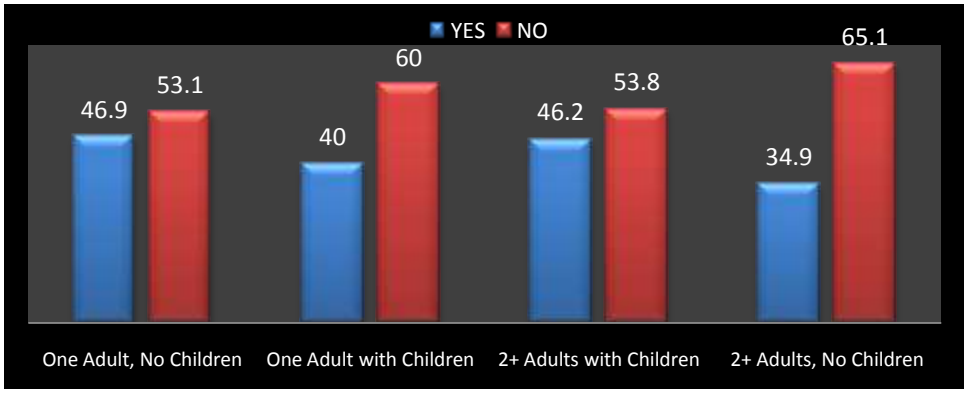

Figure 55: Household Lifecycle and Medical Condition That Limits Driving to Daytime

Household Lifecycle and Medical Condition Limits Use of Public Transportation

Over 70 percent of African-American elderly report that they do not have a medical condition that limits their use of public transportation, including 100 percent of those in one-adult households with children. An equal percentage (28.6 percent) of respondents from one-adult households without children and 2+ adults households with children reported a medical condition that limits their use of public transportation. About 24 percent of African-American elderly in 2+ adults households without children report a medical condition that limits their use of public transportation.

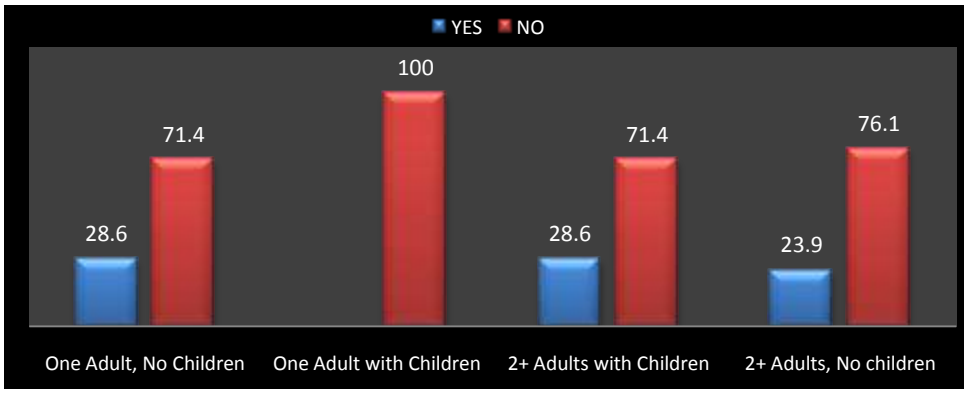

Figure 56: Household Lifecycle and Medical Condition Limits Use of Public Transportation

Household Lifecycle and Medical Condition Causes One to Asks for Rides

Slightly more than half of African-American elderly indicate having a medical condition that causes them to ask for a ride from others. However, this is least likely to occur in one-adult households with children (40 percent). African-American elderly in 2+adults households with children (60 percent) are most likely to ask for rides because of medical conditions, followed by one-adult households without children (58 percent).

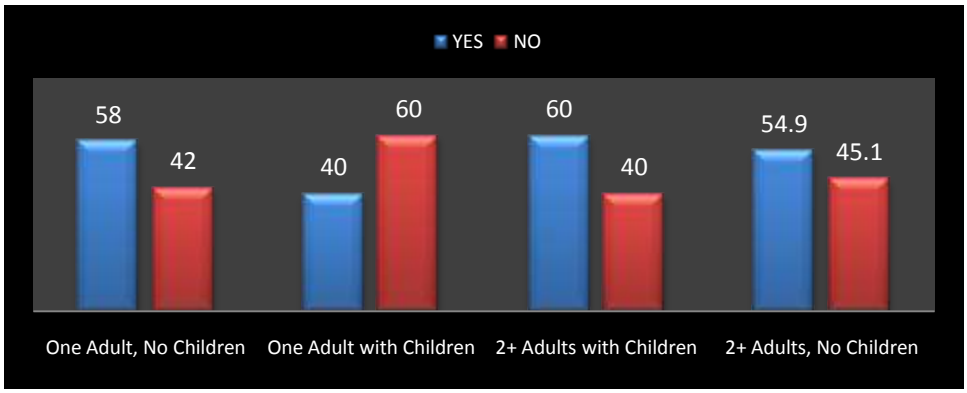

Figure 57: Household Lifecycle and Medical Condition Causes One to Ask for Rides

Household Lifecycle and Medical Condition Causes One to Need Special Transport

Figure 58 shows that African-American elderly in childless households are less likely to report having a medical condition that requires a special transport. African-American elderly in households with children have a greater need for special transport because of medical conditions. Forty percent of one-adult households with children and 50 percent of 2+adults households have a medical condition that requires special transport.

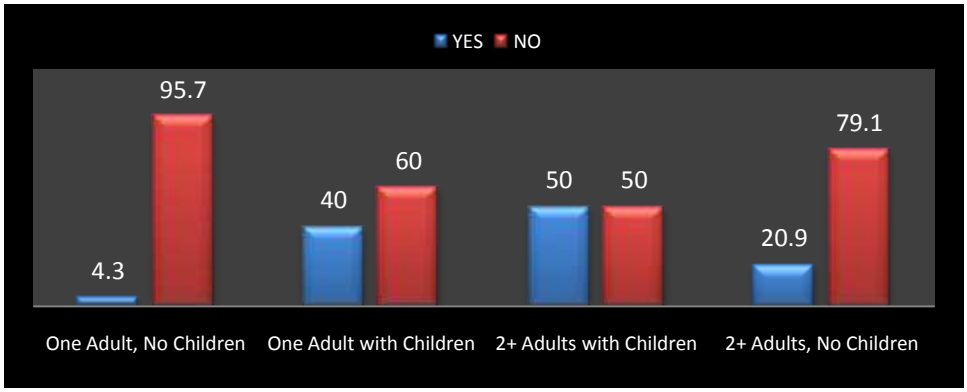

Figure 58: Household Lifecycle and Medical Condition Causes One to Need Special Transport

Household Lifecycle and Length of Time with Medical Condition That Makes Travel Difficult

Most African-American elderly have lived with a medical condition that makes travel difficult for 1-4 years or 10 years or more (Figure 59). Those with a medical condition for at least 10 years are more likely to be in one-adult households with children (40 percent) than all other types of households. This suggests that African-American elderly in one-adult households with children are more likely to have had a chronic medical condition for the longest period.

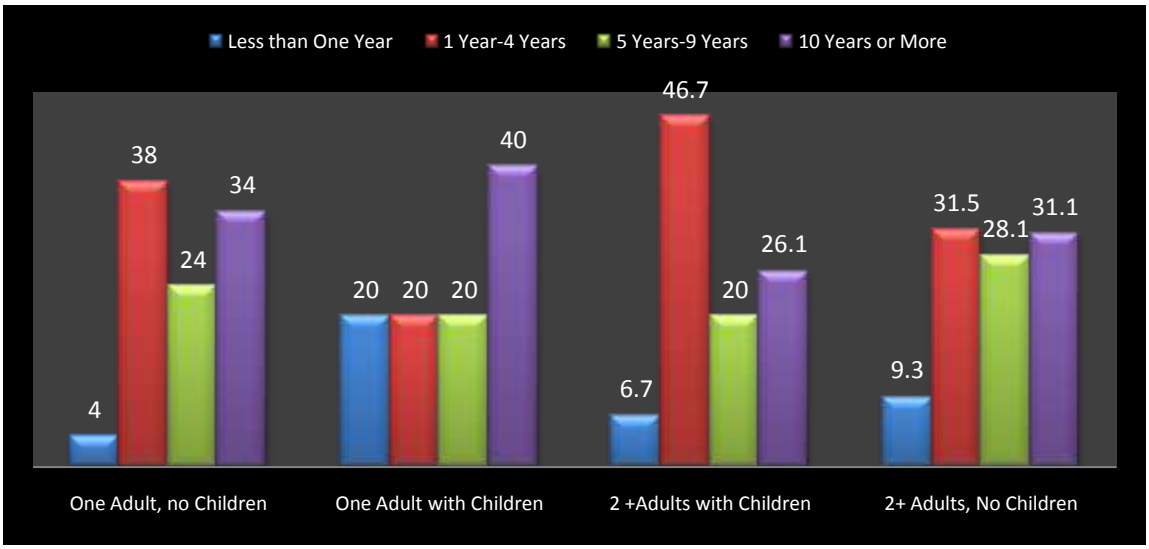

Figure 59: Household Lifecycle and Length of Time with Medical Condition That Makes Travel Difficult

Household Lifecycle and Travel Behaviors of African-American Elderly

This section examines how the household lifecycle of African-American elderly affects key travel patterns and behaviors. Specifically, household lifecycle is compared by travel mode, annual miles driven, trip purpose, trip distance, number of trips per day, and the time to complete a trip. These variables allow examination of how household lifecycle affects African-American elderly in their daily travel pursuits.

Travel Mode

Regardless of the household lifecycle, the private vehicle (car, van, SUV, truck, etc.) is the primary mode of transportation for African-American elderly. Private vehicle use is highest among childless households (93 percent of one-adult households and 85.5 percent of 2+ adults households). African-American elderly in one-adult households with children use private vehicles less (72.7 percent) and walk more (27.3 percent) than any other household. African-American elderly in households with 2+ adults and children are the most frequent users of public transportations (21.1 percent).

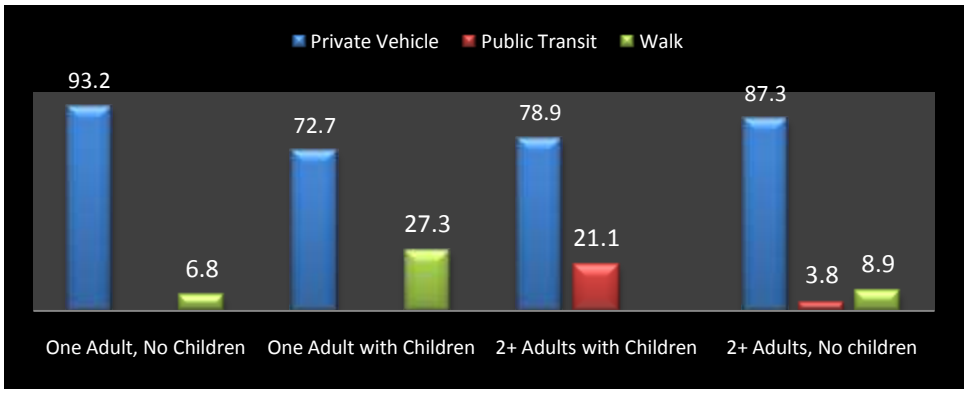

Figure 60: Household Lifecycle and Primary Mode of Transportation

Household Lifecycle and Annual Miles Driven

As indicated in Figure 61, over 75 percent of African-American elderly in all household lifecycles report driving 5,000 miles or less annually. One hundred percent of those in one-adult households with children report driving 5,000 miles or less annually. Only two types of households report driving 10,000 miles or more annually: one-adult household without children (2.2 percent) and 2+ adults households without children (8.5 percent).

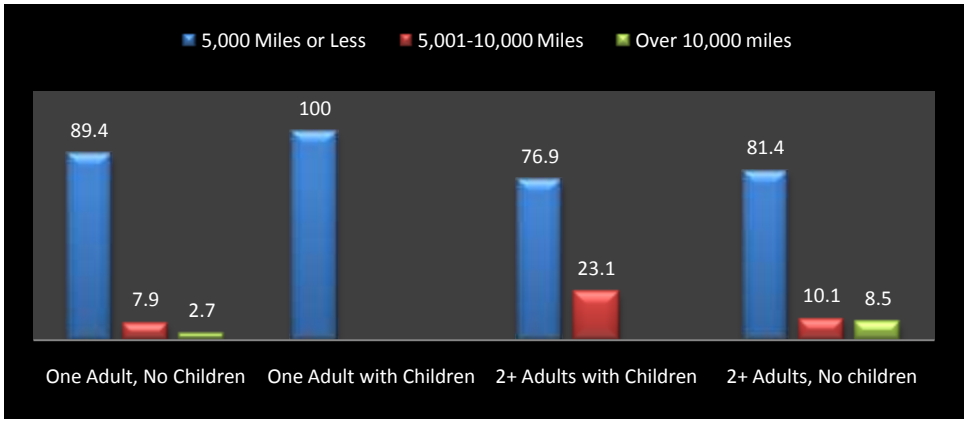

Figure 61: Household Lifecycle and Annual Miles Driven

Household Lifecycle and Non-Work Trip Purposes

By far, the most common purposes of non-work day trips for African-American elderly are shopping and social, recreational, or dining activities. This is generally consistent across all households except for one-adult households with children. Shopping is more likely to be a non-work trip purpose for households without children, regardless of the number of adults. Trips for social or recreational reasons are more likely to be the non-work trip purpose for one-adult households without children and 2+adults household with children. For African-American

elderly in one-adult households with children, the highest percentage of non-work trips are for medical or dental purposes (50.1 percent).

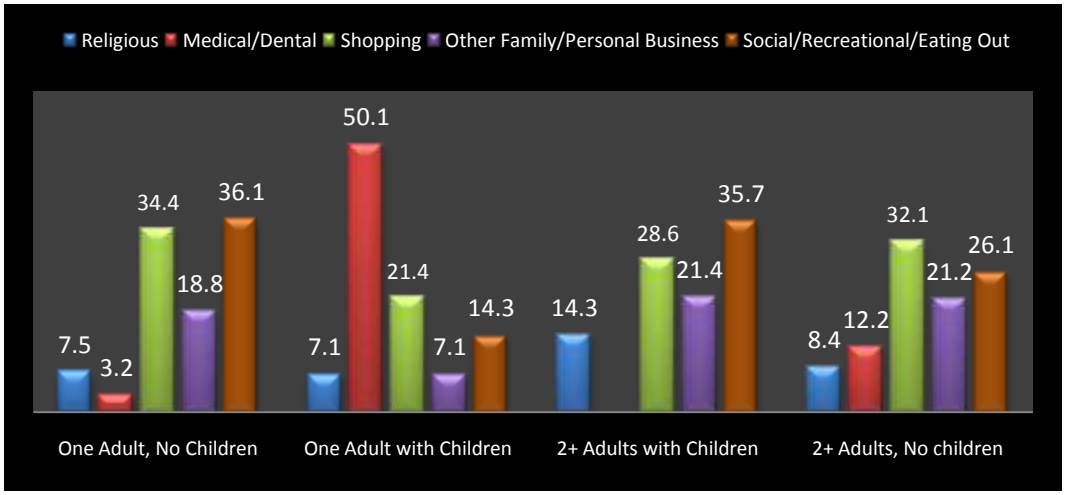

Figure 62: Household Lifecycle and Trip Purposes of African-American Elderly

Household Lifecycle and Trip Distance

African-American elderly most often report traveling less than seven miles per day. With the exception of one-adult households with children, the modal category for day trip distance is 3-6 miles (see Figure 63). For one-adult households with children, however, the modal distance is 1-2 miles. The longest day trip distances are found in households with 2+ adults and no children (68.8 percent).

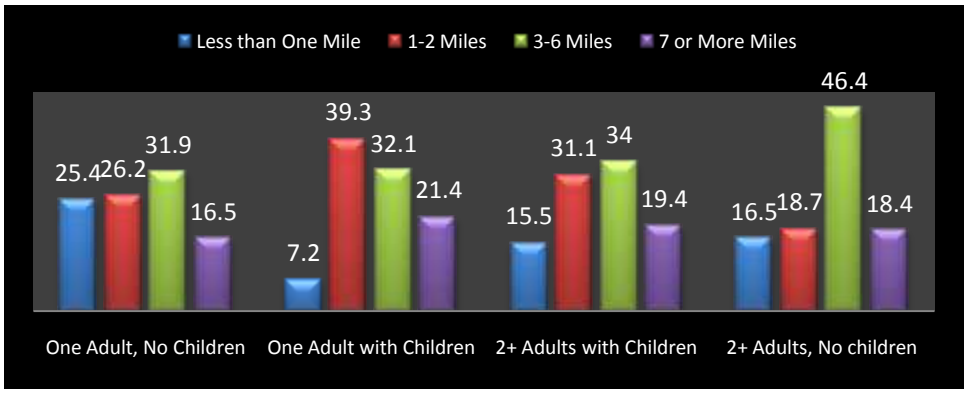

Figure 63: Household Lifecycle and Trip Distance

Household Lifecycle and Number of Trips per Day

The relationship between household lifecycle and the number of trips made per day by African-American elderly is illustrated in Figure 64. African-American elderly in 2+ adults households with children (68.5 percent) make the most day trips, three or more. Those in one-adult households with children (63.7 percent) make the least number of daily trips, less than three.

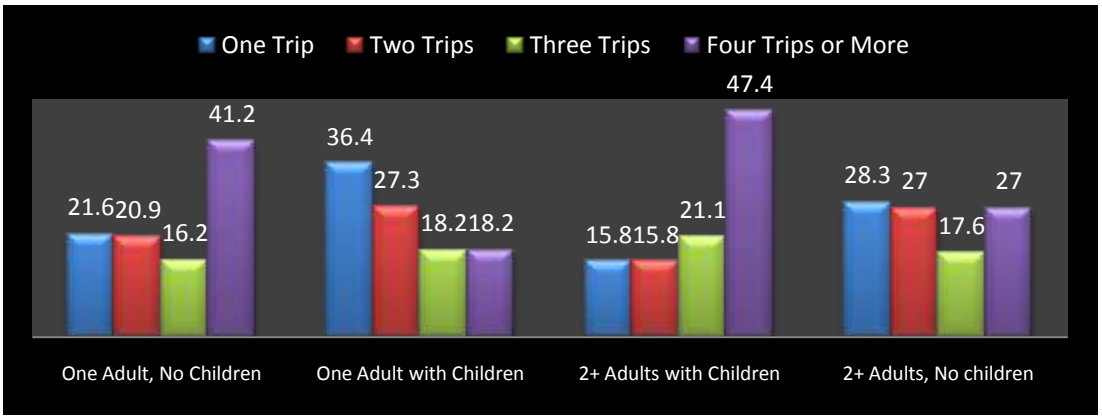

Figure 64: Household Lifecycle and Number of Daily Trips

Household Lifecycle and Trip Time

The figure below shows the relationship between household lifecycle and trip times (i.e., the length of time it takes to complete a trip). Regardless of the household lifecycle, the majority of African-American elderly report that it takes them one to fifteen minutes to complete a day trip. Figure 65 shows that 52 percent of 2+adults households report trip times of 1-15 minutes, as do 64-68 percent of one-adult households. On average, 34-37 percent of 2+ adults households report trip times of 16-30 minutes. Trip times of 31 minutes or more are more likely to occur in households without children.

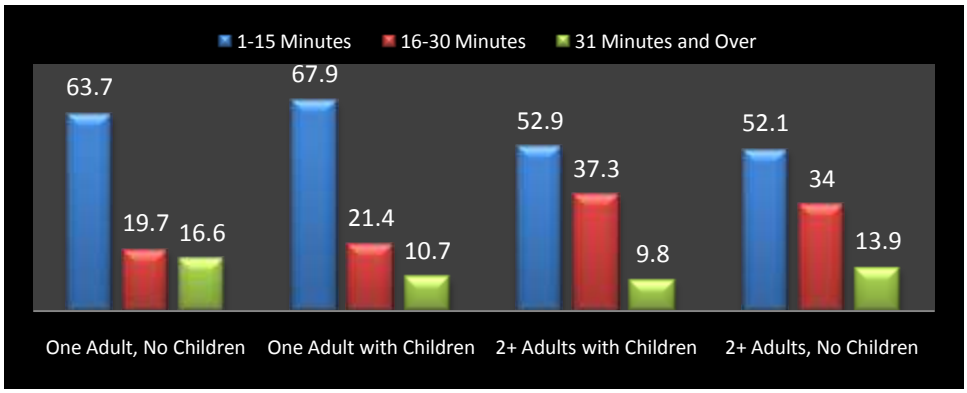

Figure 65: Household Lifecycle and Time to Complete a Trip

Phase III: Second Parenthoods—Gender of Head of Household and Household Structure

In this section, we examine the within group differences of those who are in second parenthoods. For analytic purposes, those in second parenthoods have been divided into three distinct groups based on gender and household structure: female-headed (gender), one-adult households (structure); female-headed (gender), 2+adults households (structure); and male-headed (gender), 2+adults households (structure).

Gender of Head of Household, Household Structure, and Age Distribution of African Americans in Second Parenthoods

Figure 66 illustrates the age distribution of the African Americans in second parenthoods. Overall, the age distribution differs by both the gender of the head of household and the type of household structure. The oldest African-American elderly are found in female-headed, 2+ adults households. Almost 57 percent of the women leading these households are 75 years old or older. Male-headed households have the highest percentage of African-American elderly in both the 70-74 and 80 and over age groups.

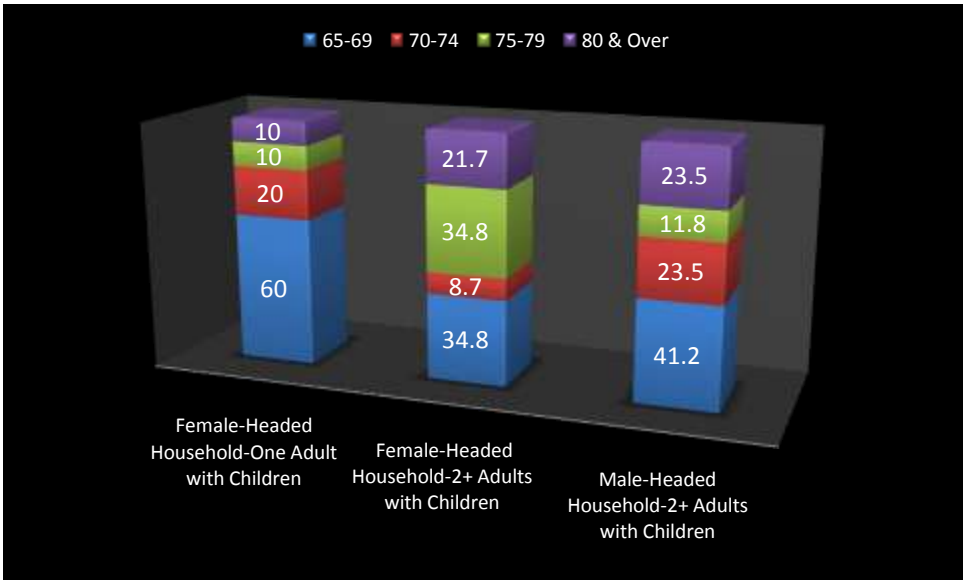

Figure 66: Gender of Head of Household, Household Structure, and Age Distribution of African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Educational Attainment of African Americans in Second Parenthoods

The educational attainment of African Americans in second parenthoods is shown in Figure 67. As can be seen, the least educated heads of households are female heads of one-adult households. Sixty percent of these households are headed by females with less than a high school education. On the other hand, 60 percent of female-headed households with 2+ adults are

headed by females with at least a high school education. Male-headed households with 2+ adults are similar to female-headed households with one adult: over 56 percent of these men have less than a high school education.

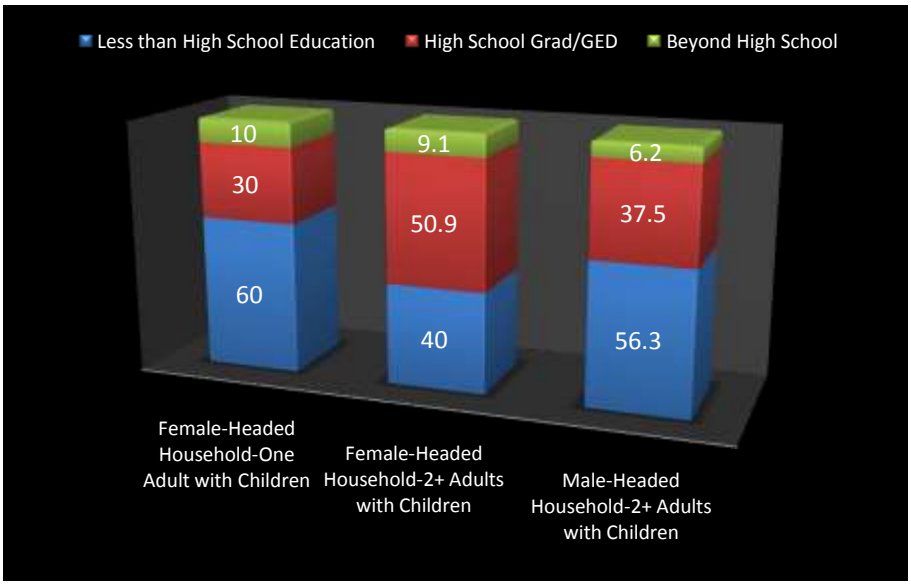

Figure 67: Gender of Head of Household, Household Structure, and Educational Attainment of African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Household Income of African-American Elderly in Second Parenthoods

Figure 68 illustrates the relationship between the gender of the head of household, household structure, and household income. As can be seen, more female than male heads of household have annual household incomes of $5,000 or less. Female heads of one-adult households with children are almost twice as likely to have incomes of $5,000 or less as male heads of 2+ adults households with children. However, when 2+ adults households with children are compared by the head of household's gender, female-headed households are almost seven times as likely to have annual incomes of $5,000 or less. Overall, female heads of 2+ adults households are more likely to be in poverty than any other household, with 62 percent having household incomes of less than $10,000 annually. Male-headed households are the least likely to be in poverty, with 46 percent having household incomes of $30,000 or more.

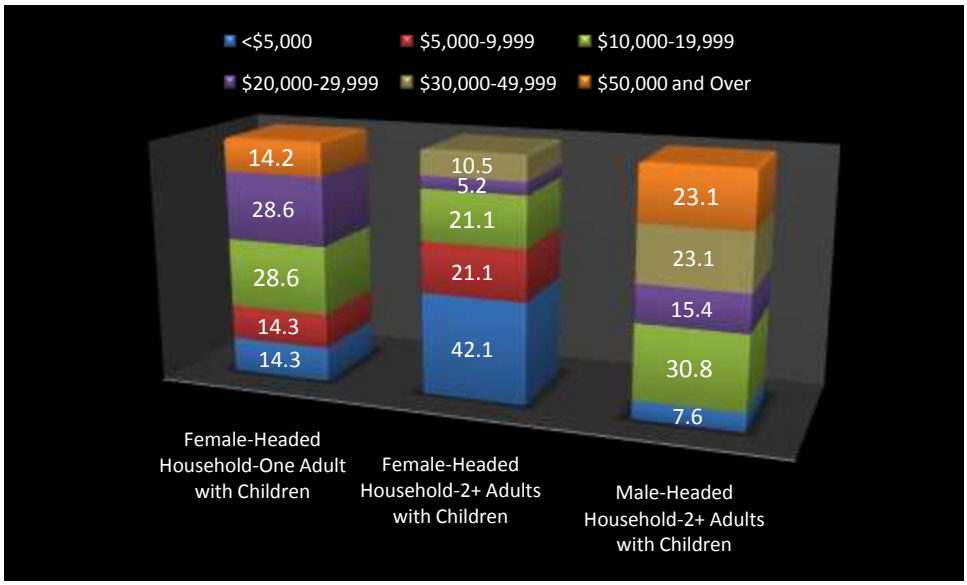

Figure 68: Gender of Head of Household, Household Structure, and Household Income of African American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Household Size of African-American Elderly in Second Parenthoods

Figure 69 shows that the gender of the head of household and the household structure are related to the size of the household. There were only two people residing in 60 percent of female-headed, one-adult households with children. On the other hand, there were at least three and as many as five individuals in 26 to 35 percent of female-headed households with two or more adults and children. Three to four individuals live in 29 to 35 percent of male-headed households.

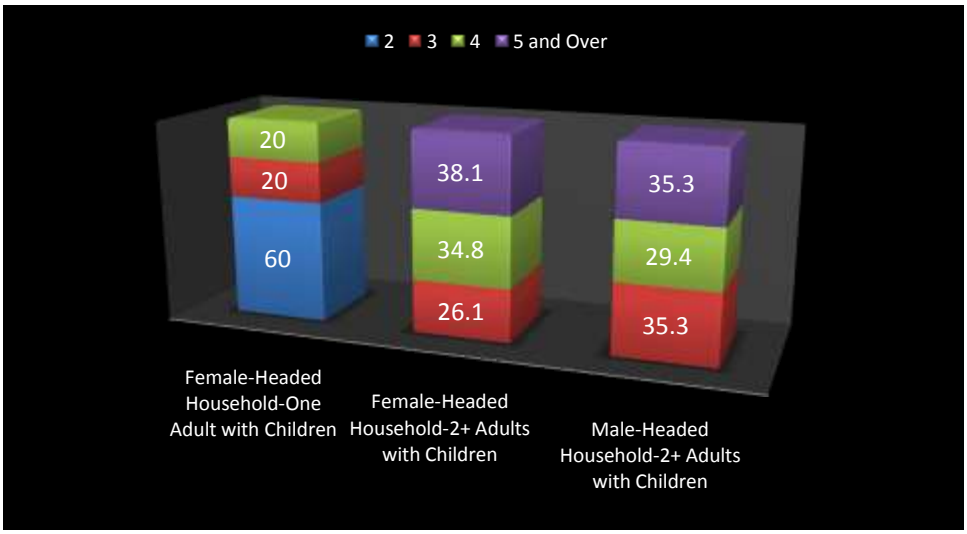

Figure 69: Gender of Head of Household, Household Structure, and Household Size of African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Number of Adults in the Households of African-American Elderly in Second Parenthoods

According to Figure 70, both the gender of the head of household and household structure are related to the number of adults in second parenthood households. With the exception of female-headed, one-adult households, the smallest number of adults is found in female-headed households with 2+adults (approximately 70 percent). The largest number of adults is found in male-headed households with 2+adults. Over a third (35.3 percent) of these male-headed households have four adults compared to 26.1 percent of similar female-headed households.

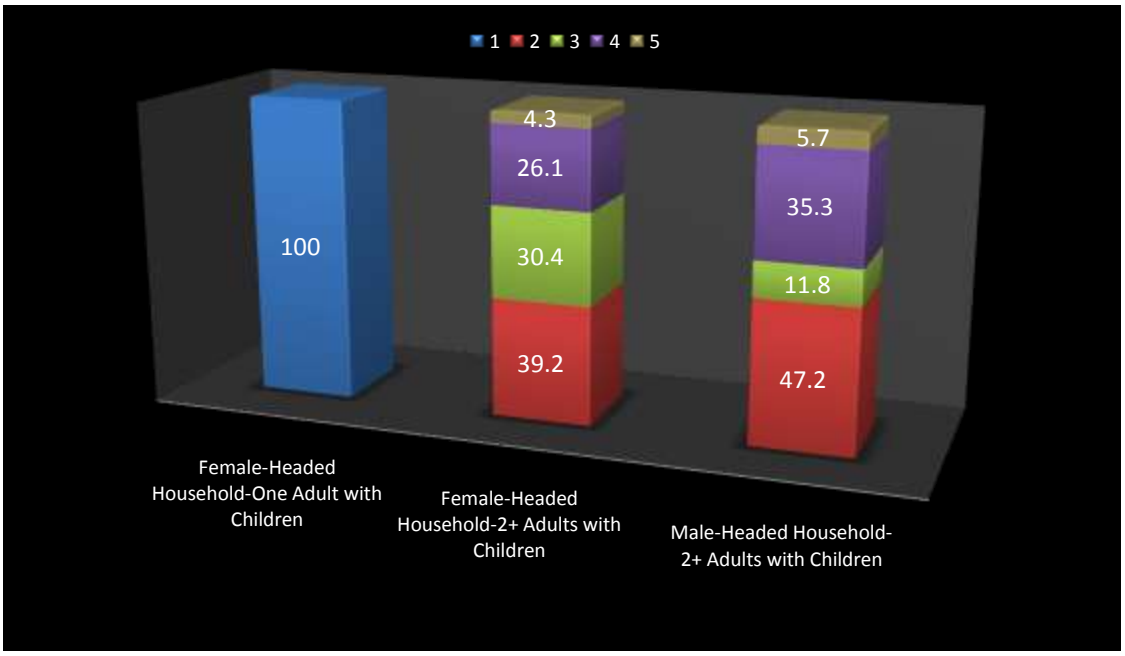

Figure 70: Gender of Head of Household, Household Structure, and Number of Adults in the Households of African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and the Age of Children in the Households of African-American Elderly in Second Parenthoods

Figure 71 shows that the gender of the household and the household structure are related to the ages of the children in the household. The modal category for all households is children 6 to 15 years old, and 80 percent of the children in female-headed, one-adult households are within this age range (which is the traditional school age for children). The youngest children (under 5 years old) are found in female-headed households with 2+adults (39.1 percent). The largest percentage of 16- to 21-year-old children is found in male-headed households.

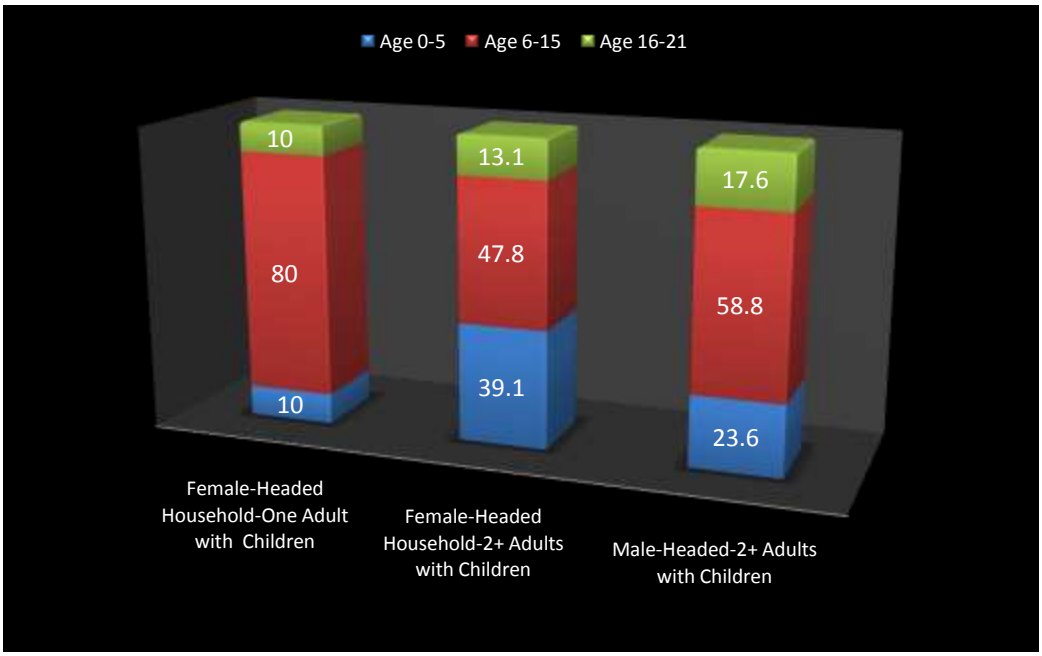

Figure 71: Gender of Head of Household, Household Structure, and Age of Children in the Households of African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Home Ownership of African-American Elderly in Second Parenthoods

Home ownership is a particularly important factor for those engaged in second parenthoods because it provides a stable environment in which to raise children. The high rates of home ownership among African-American elderly continue among those involved in second parenthoods. The rates are quite high and consistently above 50 percent regardless of the head of household's gender or the number of adults present. Home ownership is lowest among female-headed, one-adult households, and highest among households with two or more adults.

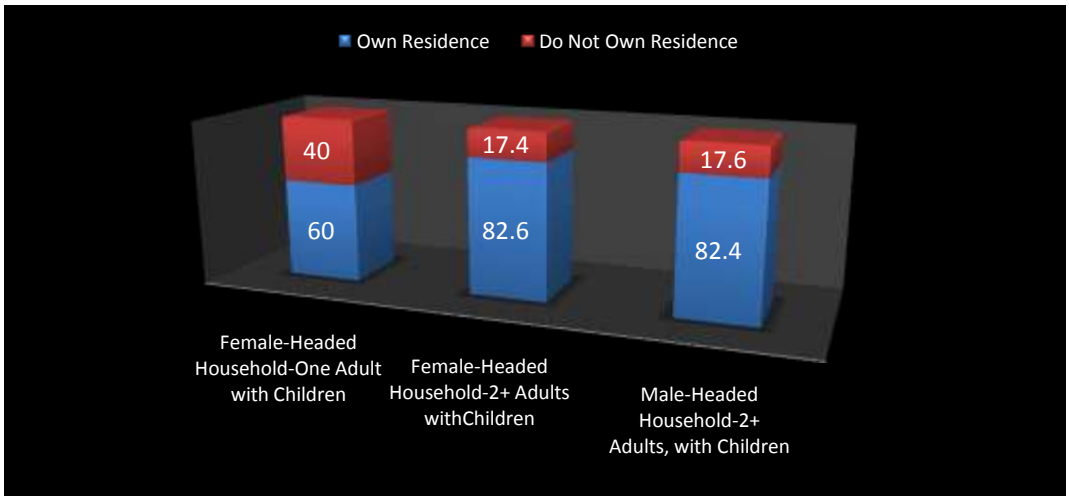

Figure 72: Gender of Head of Household, Household Structure, and Home Ownership of African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Residential Location of African-American Elderly in Second Parenthoods

As Figure 73 indicates, the overwhelming majority of the residences of African-American elderly in second parenthoods are located in urban areas. About 76 to 90 percent of these residences are located in urban areas. Female-headed, one-adult households (90 percent) are more likely than any other type of household to be located in an urban area. While over 20 percent of 2+adult households, regardless of gender, are located in non-urban areas, only 10 percent of one-adult, female-headed households are located in non-urban areas.

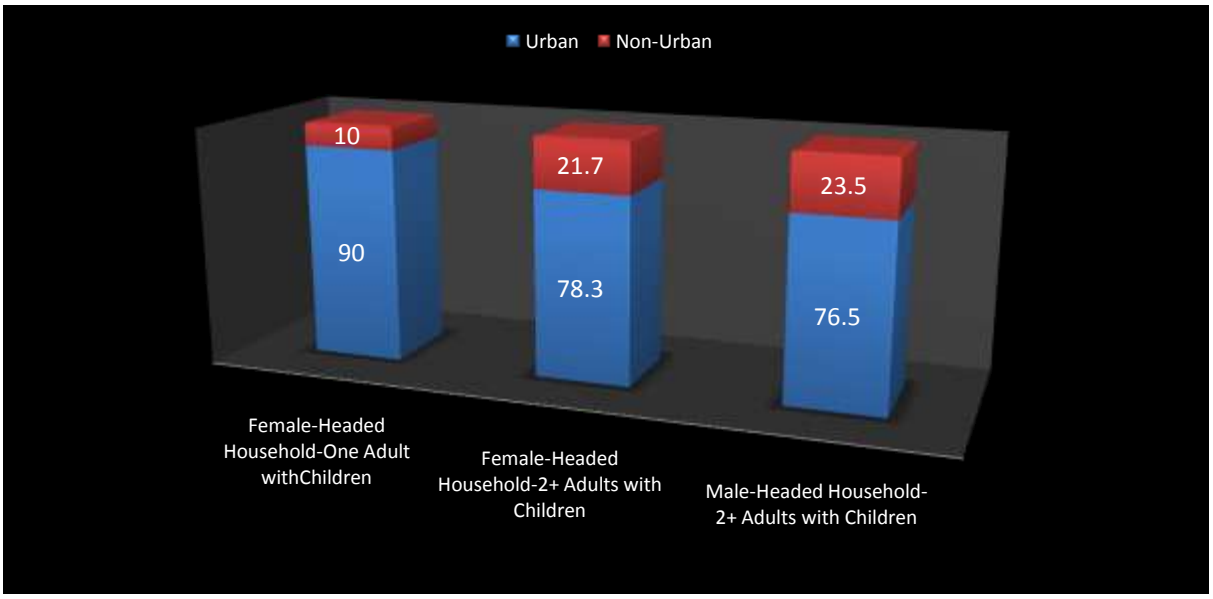

Figure 73: Gender of Head of Household, Household Structure, and Residential Location of African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Driver Status of African-American Elderly in Second Parenthoods

Figure 74 shows that fewer female than male heads of household are drivers. Among these women, the most non-drivers are found in one-adult households. Only 23.5 percent of male heads of household do not drive.

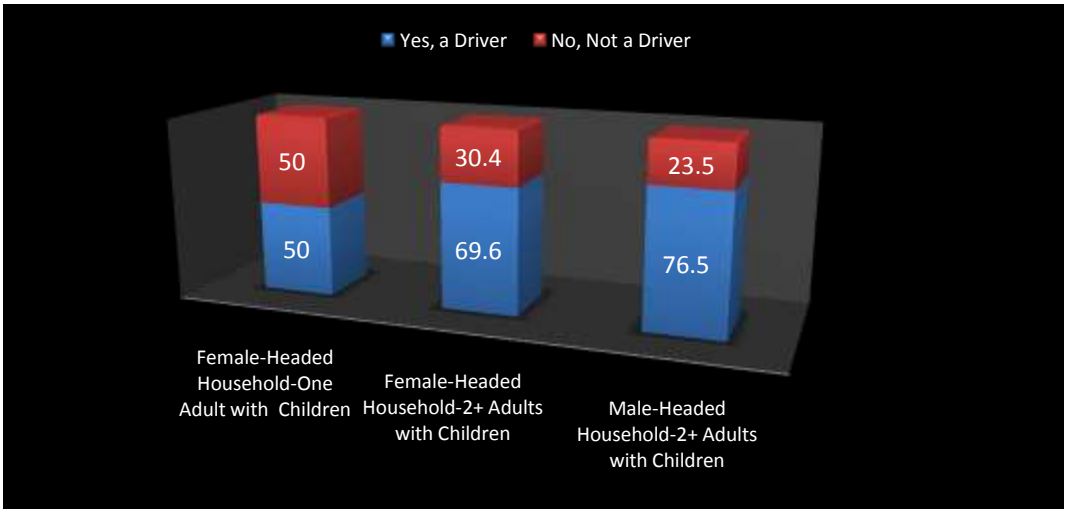

Figure 74: Gender of Head of Household, Household Structure, and Driver Status of African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Number of Drivers in the Household of African-American Elderly in Second Parenthoods

Relative to the number of drivers in second parenthoods households, Figure 75 shows that while 50 percent of female-headed, one-adult households have no driver, less than 9 percent of 2+ adult households have no driver present regardless of the gender of head of household. The majority of 2+ adult households have two or more drivers. Almost 74 percent of female-headed, 2+adults households have two or more drivers, and almost 64 percent of male-headed households have two or more drivers, including 39 percent of these households that have three or more drivers.

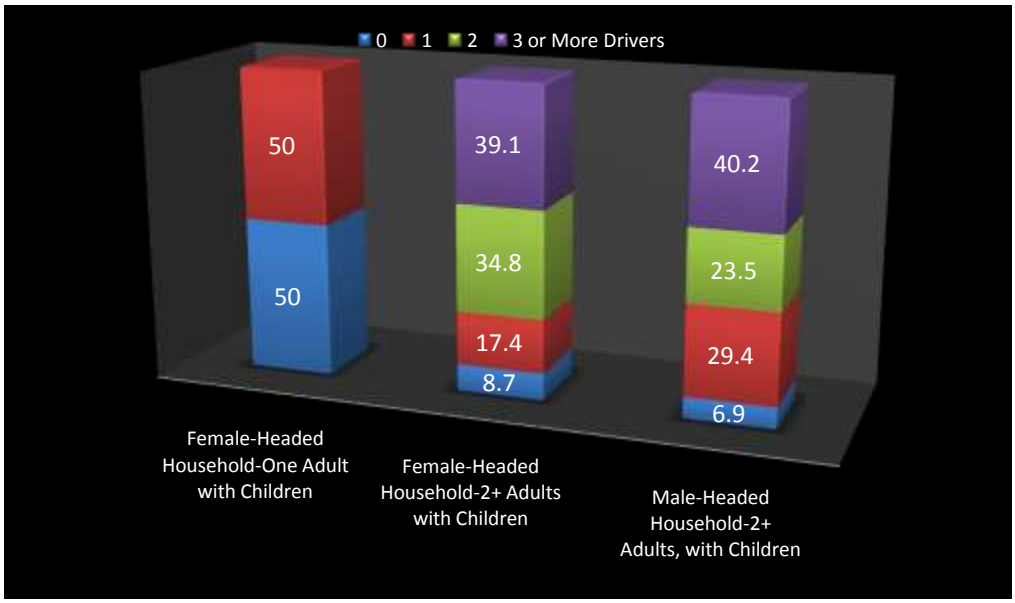

Figure 75: Gender of Head of Household, Household Structure, and Number of Drivers in the Households of African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Number of Vehicles in the Households of African-American Elderly in Second Parenthoods

An analysis of Figure 76 indicates that the gender of the head of household and the household structure are related to the number of vehicles in a household. For example, 60 percent of female-headed, one-adult households with children have one vehicle. However, approximately 44 percent of female-headed households with 2+ adults have two vehicles, while 35 percent of male-headed households have three or more vehicles.

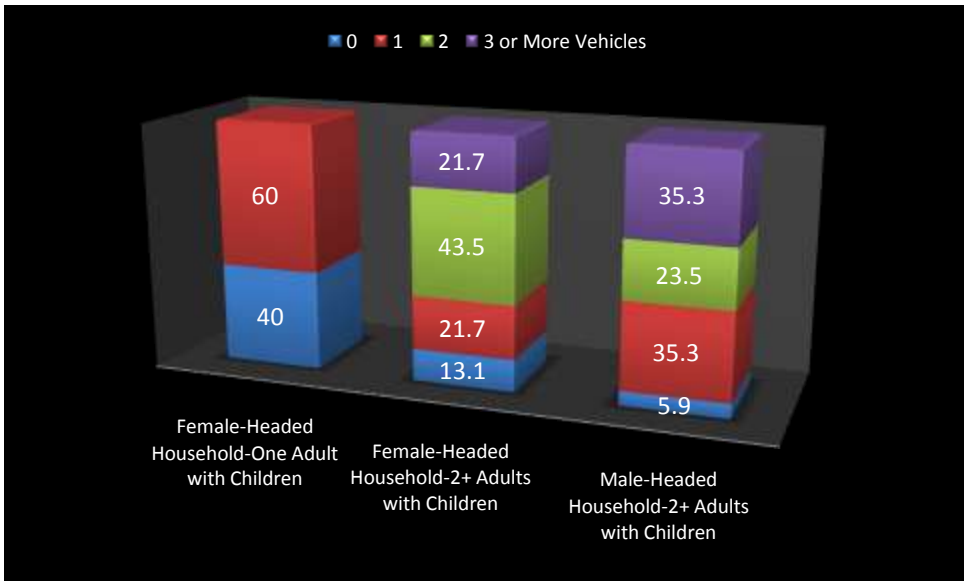

Figure 76: Gender of Head of Household, Household Structure, and Number of Vehicles in the Households of African-American Elderly in Second Parenthoods

Travel Behaviors and Concerns

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Traffic Accidents

As shown in Figure 77, both the gender of head of household and household structure influence the level of concern for traffic accidents. Almost 67 percent of those in female-headed, one-adult households consider traffic accidents a severe/very much a problem. The majority of all other households view traffic accidents as somewhat/a little problem. Equal percentages (33.3 percent) of African-American elderly in female-headed, one-adult households and in male-headed, 2+ adult households do not view traffic accidents as a problem of concern.

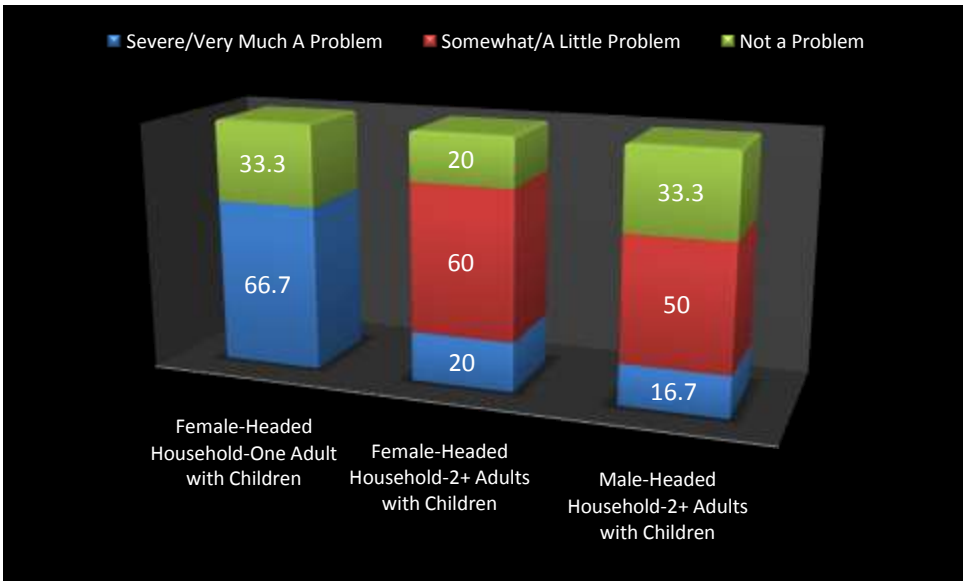

Figure 77: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Traffic Accidents

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Highway Congestion

The level of concern for highway congestion is shown in Figure 78. As can be seen, there are only slight variations in concern across gender of the head of household and household structure. The vast majority of those in second parenthoods do not worry about highway congestion. About 57 to 70 percent of African-American elderly do not report highway congestion as being a problem and this is most pronounced in female-headed households regardless of the household structure. In these types of households, 70 percent do not report highway congestion as a concern or problem. When compared to female-headed households, however, African-American elderly in male-headed households are more likely to view highway congestion as a problem (almost 43 percent).

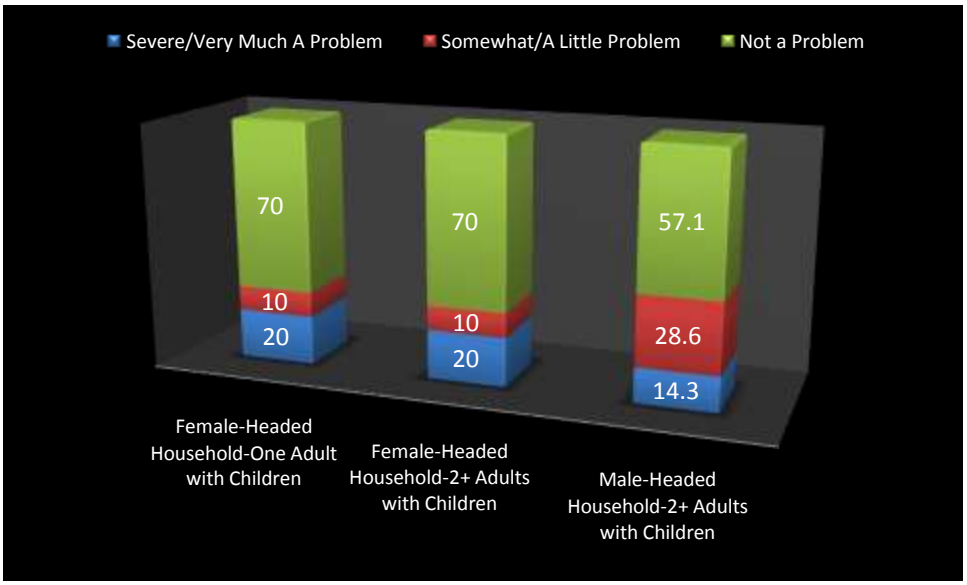

Figure 78: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Highway Congestion

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods Worries' about Distracted Drivers

The extent to which respondents report concern about distracted driver is illustrated in Figure 79. Among female-headed households, 60 percent of those in one-adult households do not see distracted drivers as a problem, compared to 42 percent of those households with 2+ adults. Distracted drivers are not viewed as a problem by 43.5 percent of male-headed households. More than any other household structure, African-American elderly in female-headed households with 2+adults view distracted drivers as a severe/very much a problem.

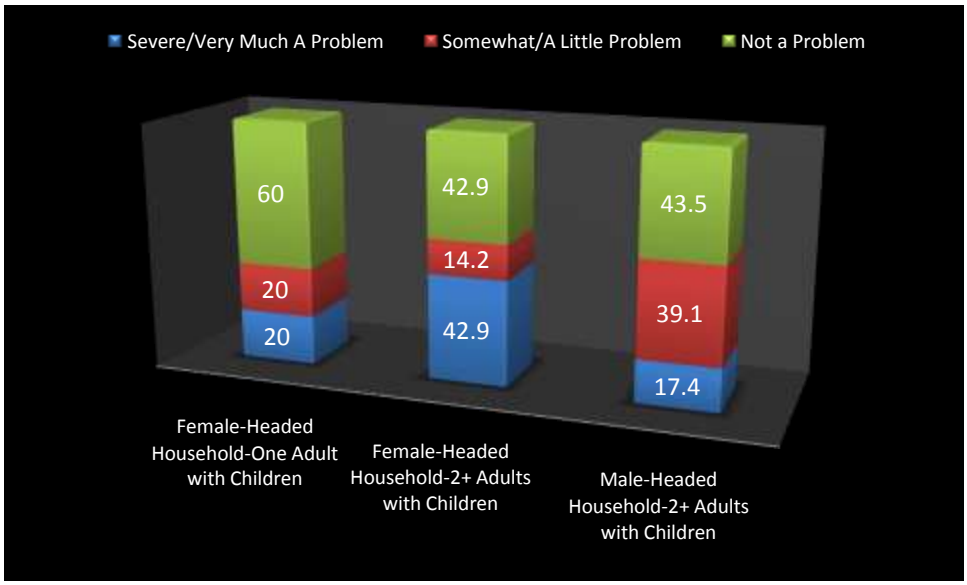

Figure 79: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Distracted Drivers

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Speeding Drivers

Figure 80 illustrates the degree to which respondents report concern about speeding drivers. The results indicate that both gender of head of household and the structure of the household affect worry about speeding drivers. One hundred percent of those African-American elderly in one-adult, female-headed households view speeding drivers as being a severe/very much a problem. While only 33.3 percent of African-American elderly in female-headed households with 2+ adults do not perceive speeding drivers as a concern, 60 percent of African-American elderly in male-headed households with 2+ adults report that speeding drivers are not a problem of concern.

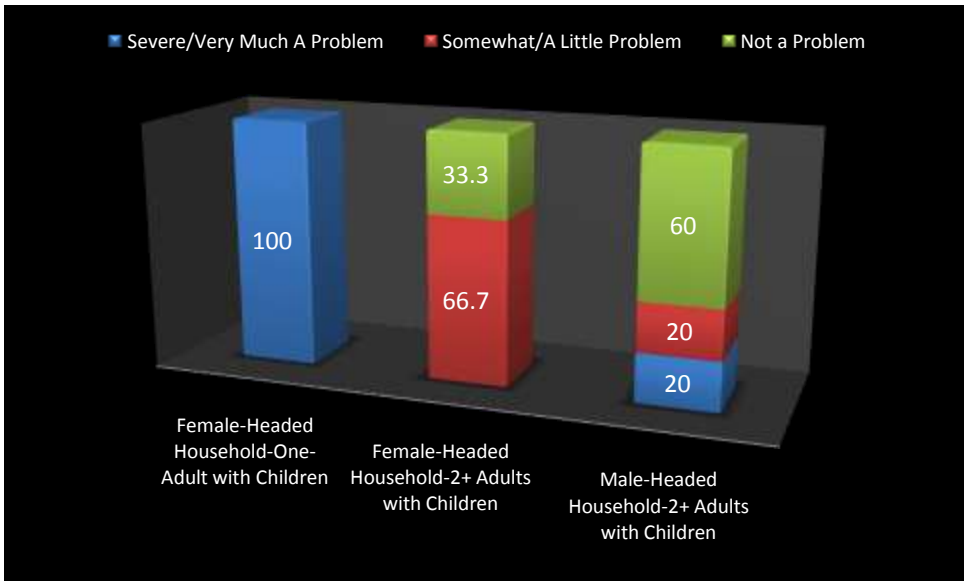

Figure 80: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Speeding Drivers

Gender of Head of Household, Household Structure and African-American Elderly in Second Parenthoods' Worries about Aggressive Drivers on the Road

Figure 81 highlights the relationship between the gender of the head of household, household structure, and concern about aggressive drivers. As can be seen, the extent to which this traffic issue is perceived as a problem is almost evenly split across both the gender of the head of household and household structure. Approximately 50 to 60 percent do not worry about aggressive drivers on the road. On average, 58.8 percent of female-headed households do not see it as an issue of concern, regardless of the number of adults in the household. In fact, female-headed households with 2+ adults are more likely to not see it as a problem than male-headed households with 2+adults.

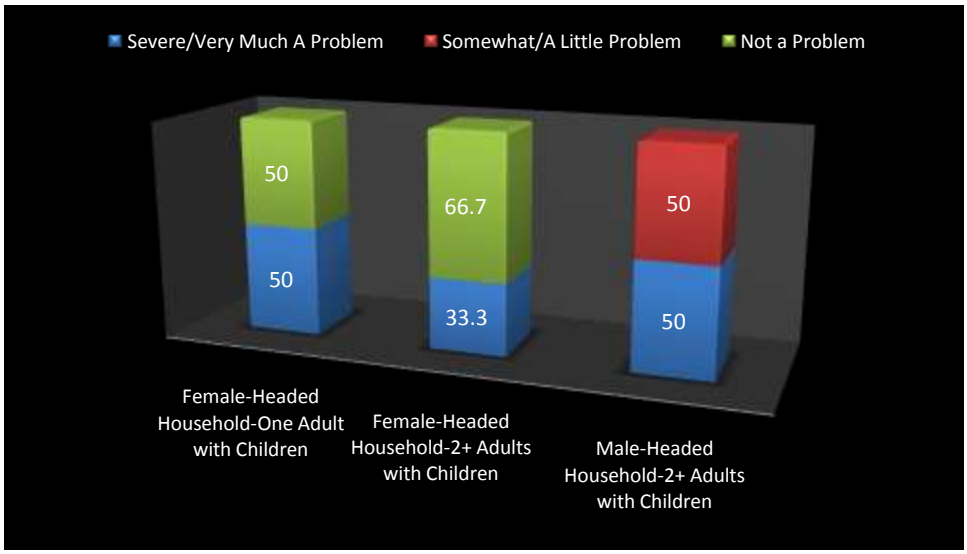

Figure 81: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Aggressive Drivers on the Road

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about the Number of Large Trucks on the Road

Figure 82 shows the extent to which respondents report concern about the number of large trucks on the road. This figure indicates that perception of this issue is affected by the gender of the head of household and the structure of the household. Seventy-five percent of female-headed, one-adult households view large trucks as somewhat/a little problem. Female-headed households with 2+ adults are least likely to see large trucks as a problem. Thirty-four percent of male-headed households view trucks as a severe/very much a problem.

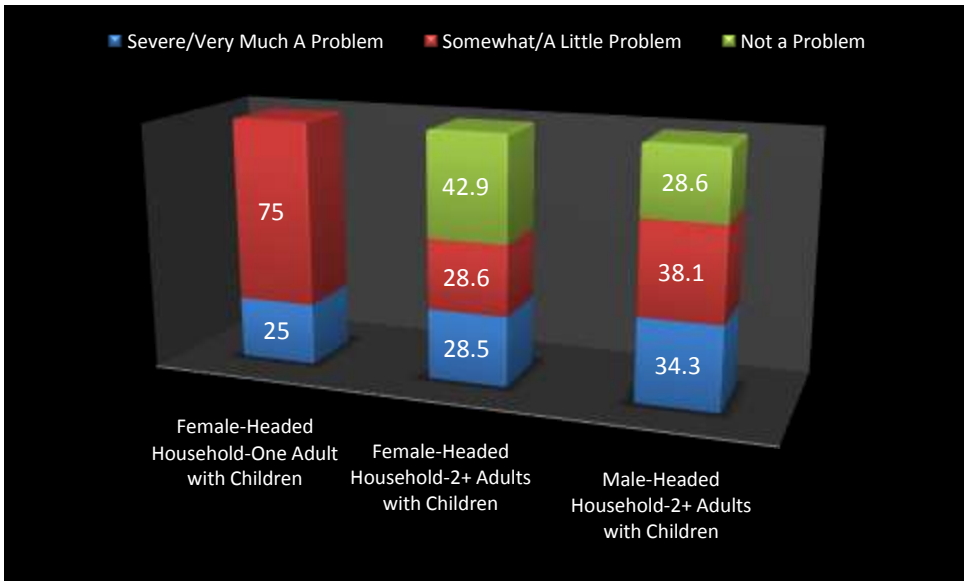

Figure 82: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Large Trucks on the Road

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Traffic or Road Congestion

The level of concern among African Americans in second parenthoods for traffic or road congestion is shown in Figure 83. Overall, those in female-headed households view traffic or road congestion as a problem. For 100 percent of the female heads of one-adult households, traffic or road congestion is a severe/very much a problem. Almost 67 percent of female heads of households with 2+ adults view traffic or road congestion a severe/very much a problem. Male heads of household are least likely to view traffic or road congestion a problem.

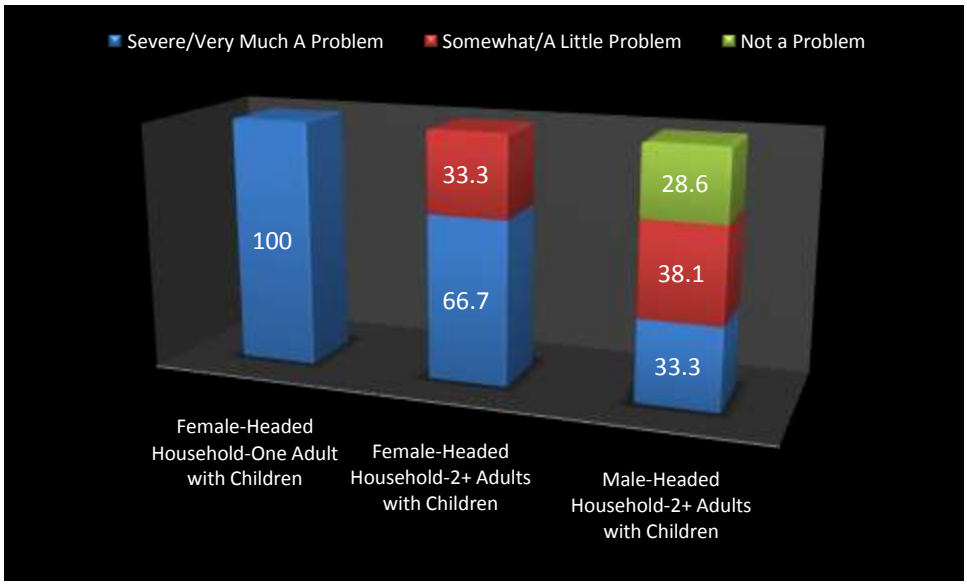

Figure 83: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Traffic or Road Congestion

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about the Price of Gasoline

The extent to which African Americans in second parenthoods are worried about the price of gasoline is presented in Figure 84. The results indicate that approximately 34 to 44 percent view the price gasoline as a severe/very much a problem. Among female heads of household, this concern is slightly more pronounced in households with one adult than in households with 2+ adults. Male heads of households are least likely to view the price of gasoline as a problem.

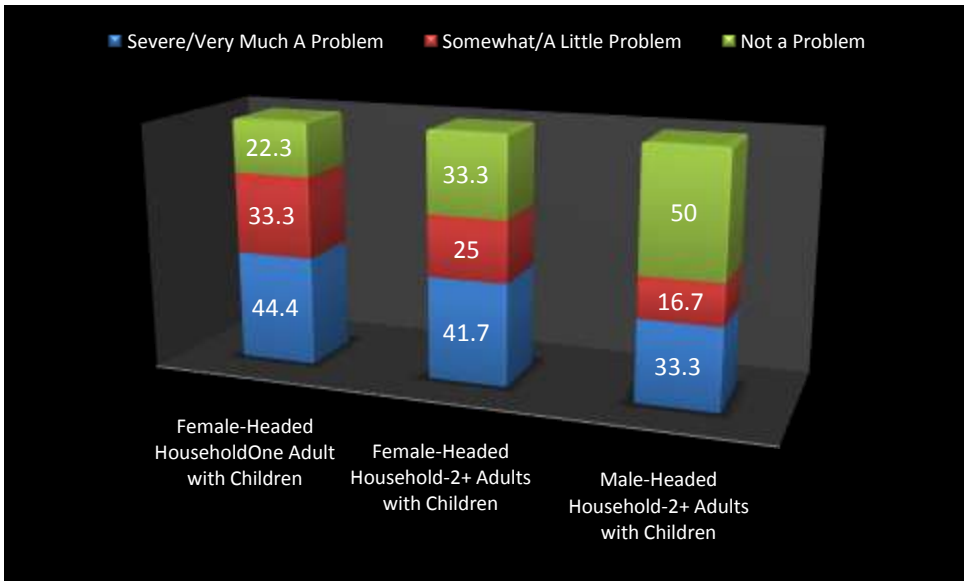

Figure 84: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about the Price of Gasoline

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Drunk Drivers

As presented in Figure 85, drunk drivers are more likely to be seen as a severe/very much a problem by those in female-headed households with 2+ adults than by those in female-headed households with one adult or male-headed households. Eighty percent of those in female-headed, one-adult households consider drunk drivers on the road somewhat/a little problem.

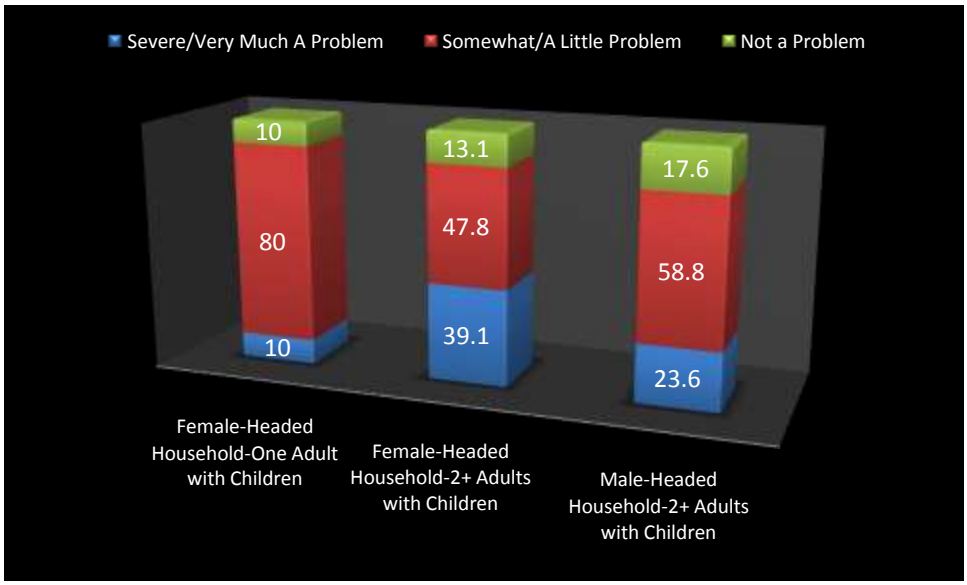

Figure 85: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods' Worries about Drunk Drivers

Medical Conditions

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods Who Have a Medical Condition That Results in Giving Up Driving

The elderly often have medical conditions that affect their driving. Figure 86 shows that both the gender of the head of household and household structure are related to the presence of a medical condition. Approximately 63 percent of African-American elderly in female-headed, 2+adults households report having a medical condition that requires them to give up driving compared to 40 percent of those in female-headed, one-adult households and 20 percent of those in male-headed, 2+adults households. Regardless of household structure, African-American elderly in female-headed households are more likely to have a medical condition that requires them to give up driving than their male counterparts.

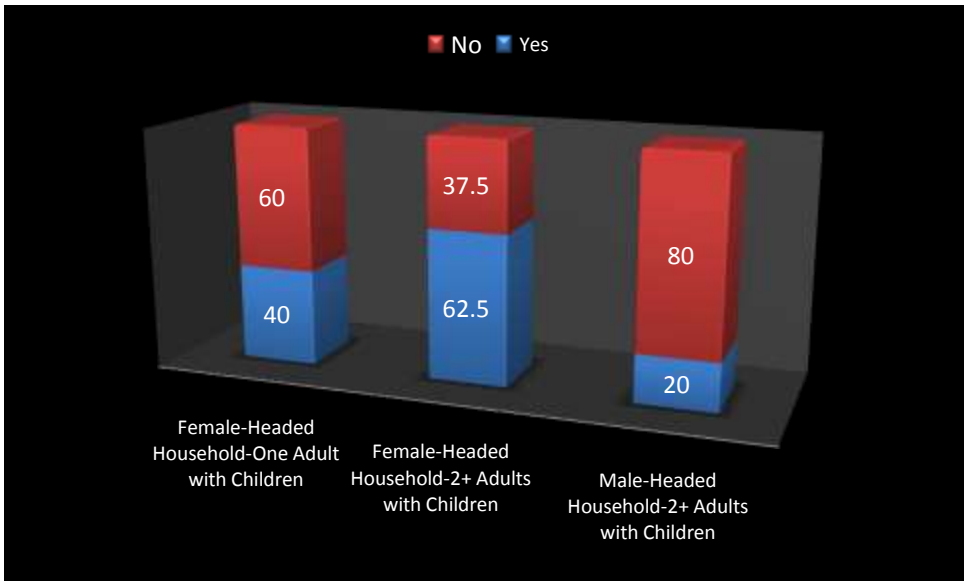

Figure 86: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods Who Have a Medical Condition That Results in Giving Up Driving

Gender of Head of Household, Household Structure and African-American Elderly in Second Parenthoods Who Have a Medical Condition That Limits Their Driving to Daytime

Among African-American elderly involved in second parenthoods, those in one-adult and 2+ adults, female-headed households are almost equally affected by medical conditions that limit their driving to the daytime (Figure 87). When compared to female-headed households, African-American elderly in male-headed, 2+adults households were more likely to have a medical condition that limits their driving to daytime.

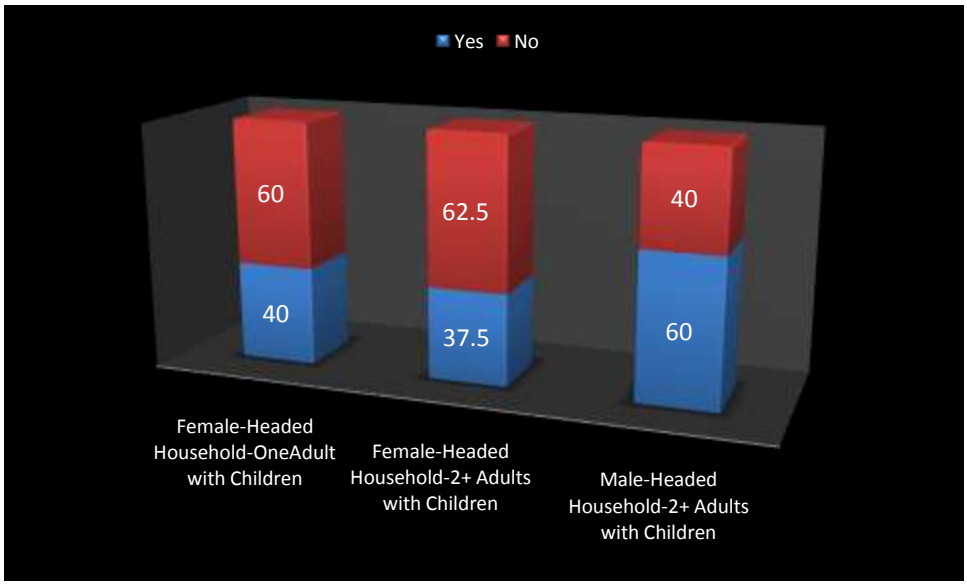

Figure 87: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods Who Have a Medical Condition That Limits Their Driving to Daytime

Gender of Head of Household, Household Structure and African-American Elderly in Second Parenthoods with a Medical Condition That Limits Use of Public Transportation

None of the African-American elderly in second parenthoods who reported a medical condition that limited their use of public transportation were in female-headed, one-adult households or male-headed households (Figure 88). The 44.4 percent of female heads of 2+adults households were the only group to report having a medical condition that limits their use of public transportation.

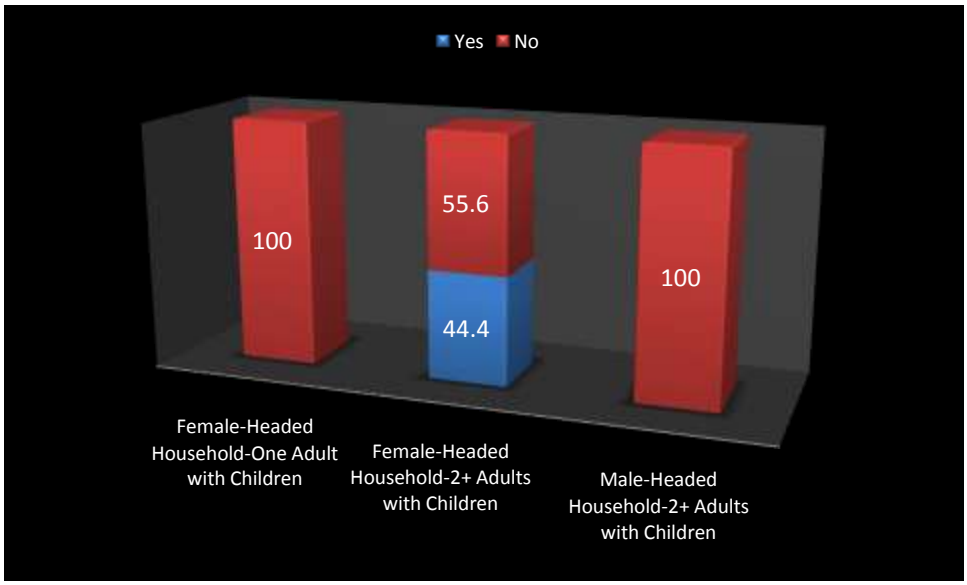

Figure 88: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods with a Medical Condition That Limits Use of Public Transportation

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods with a Medical Condition That Results in Their Asking for Rides

Figure 89 shows that African-American elderly in female-headed households, regardless of household structure, were more likely than those in male-headed households with 2+adults to have a medical condition that results in their asking for a ride from others. Seventy percent of those in female-headed households with 2+ adults and 60 percent of those in female-headed households with one adult report having a medical condition that results in their asking for a ride. Only 40 percent of those in male-headed households report having a medical condition that results in their asking for a ride.

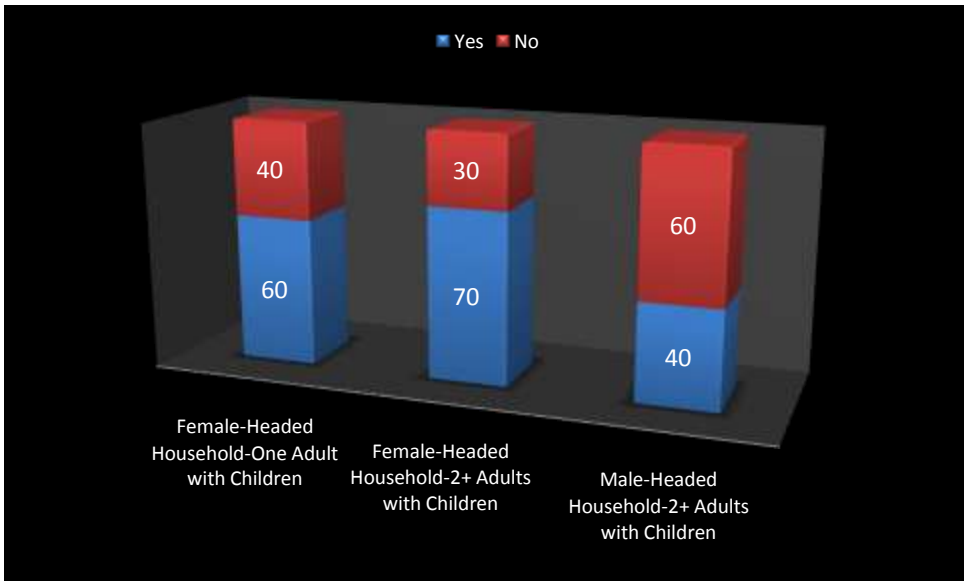

Figure 89: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods with a Medical Condition That Results in Asking for Rides

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods with a Medical Condition That Requires Use of Special Transport

Figure 90 illustrates how the gender of the head of household and the household structure are related to a medical condition that requires the use of special transport. Regardless of the number of adults present, female heads of household are more likely than male heads of household to have a medical condition that requires the use of special transportation services. Those most likely to need special transport are in female-headed, 2+ adult households (66.7 percent).

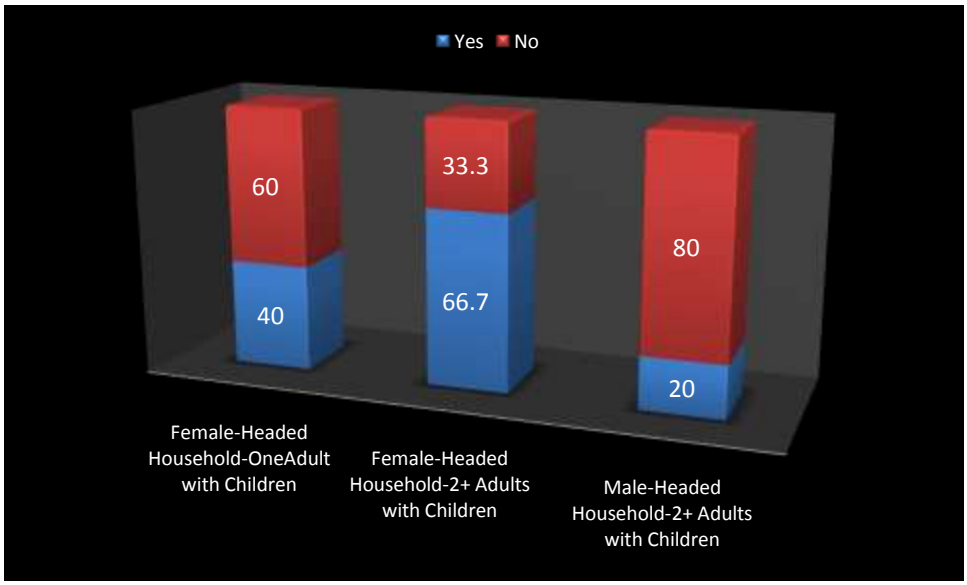

Figure 90: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods with a Medical Condition That Requires Use of Special Transport

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods with a Medical Condition That Results in Less Travel

The percentages of African-American elderly in second parenthoods who have a medical condition that results in less travel are shown in Figure 91. Overall, there is no variation on this measure in terms of the gender of the head of household or the structure of the household. On average, 80 percent of African-American elderly have a medical condition that results in less travel.

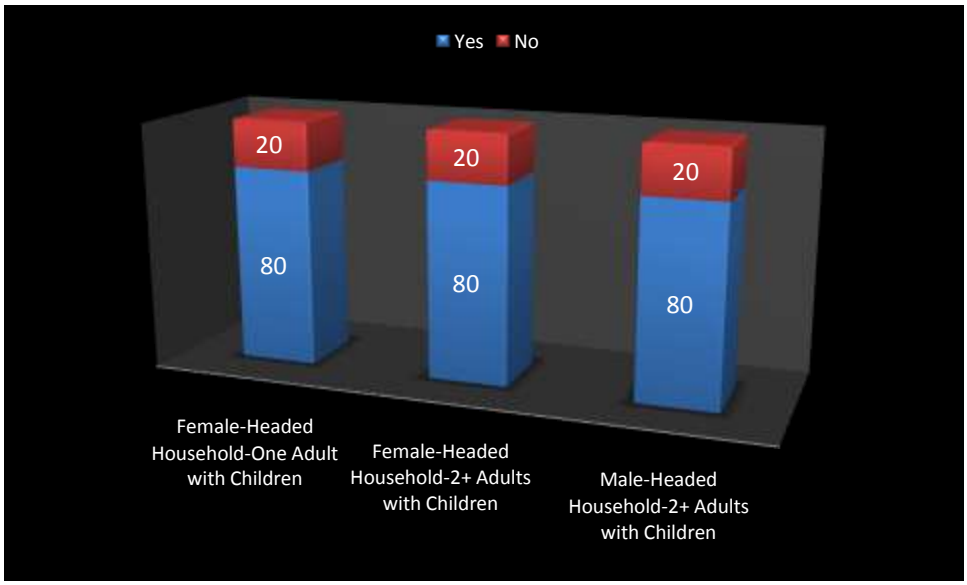

Figure 91: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods with a Medical Condition That Results in Less Travel

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods with a Medical Condition That Makes Travel Difficult

African-American elderly in female-headed households are more likely to indicate that they have a medical condition that makes travel difficult. Fifty percent of those in one-adult households and 43.5 percent of those in 2+ adult households reported such a condition. African-American elderly in male-headed households are the least likely to report having a medical condition that makes travel difficult.

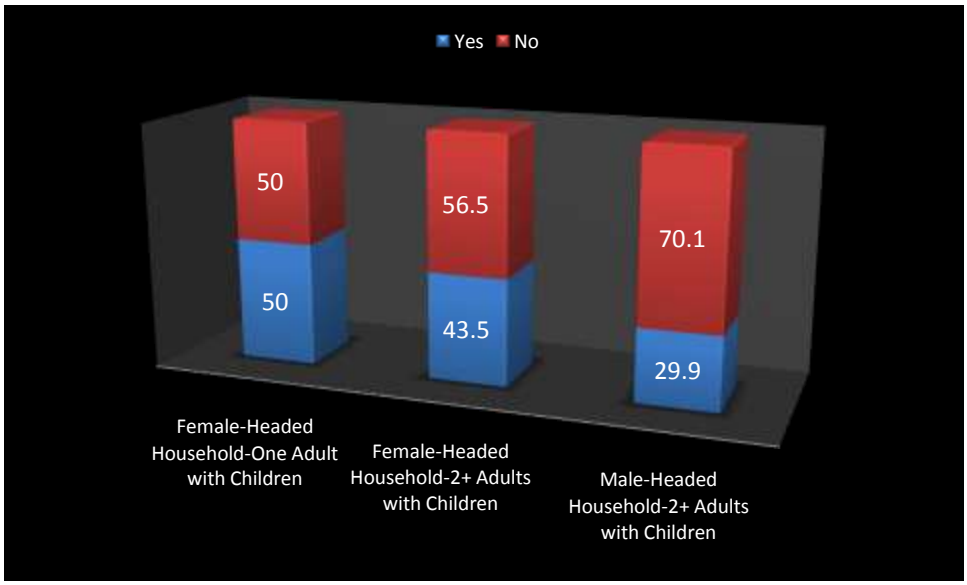

Figure 92: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods with a Medical Condition That Makes Travel Difficult

Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods and Length of Time with a Medical Condition That Makes Travel Difficult

The length of time with a medical condition that makes travel difficult is reported in Figure 93. Both the gender of head of household and the house structure are related to the length of time with a medical condition. Those in female-headed households with one adult and children (40 percent) are the most likely to have had a medical condition for 10 years or more, followed by those in female-headed households with 2+ adults and children (30 percent). Those in male-headed households (20 percent) are least likely to report having a medical condition for 10 years or more. In fact, 80 percent of those in male-headed households report having a medical condition for less than five years compared to 40 percent of those in female-headed households.

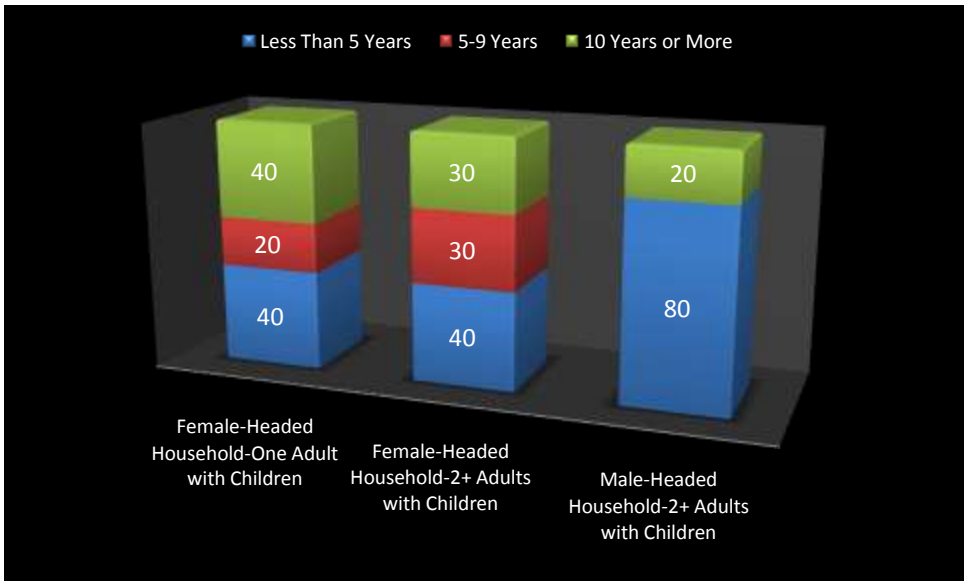

Figure 93: Gender of Head of Household, Household Structure, and African-American Elderly in Second Parenthoods and Length of Time with a Medical Condition

Travel Behaviors

Gender of Head of Household, Household Structure, and Number of Annual Miles Driven by African-American Elderly in Second Parenthoods

The number of annual miles driven by African Americans in second parenthoods and its relationship to the gender of the head of household and the household structure is presented in Figure 94. As can be seen, African-American elderly in female-headed households report traveling fewer miles annually than those in male-headed households. Eighty to 100 percent of those in female-headed household travel 5,000 miles or less compared to 75 percent of those in male-headed households.

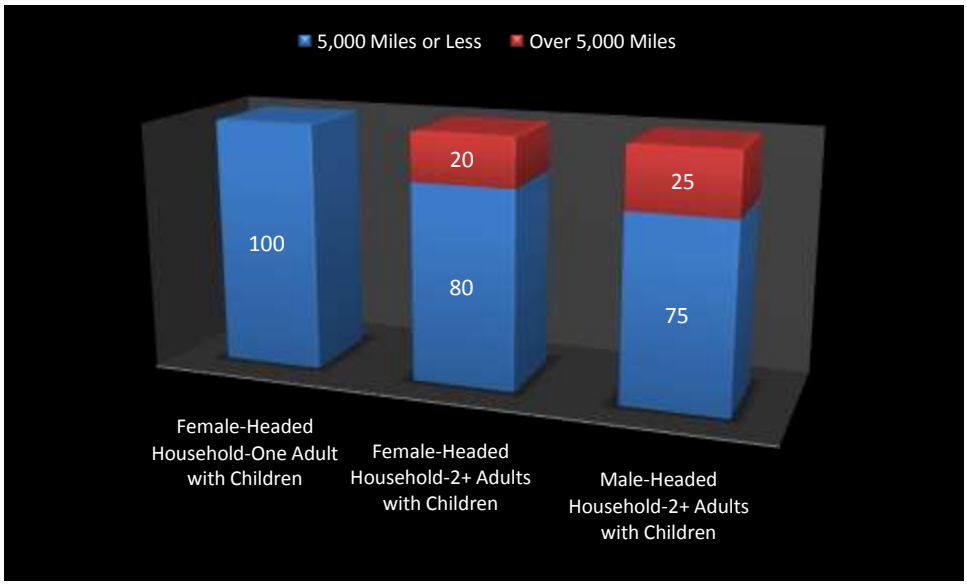

Figure 94: Gender of Head of Household, Household Structure, and Number of Annual Miles Driven by African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Primary Mode of Transportation of African-American Elderly in Second Parenthoods

The private vehicle is overwhelmingly the primary mode of transportation for 84.6 to 92 percent of African Americans in second parenthoods. Female heads of one-adult households with children report the highest use of private vehicles and public transportation. The second highest rate of private vehicle use was among African-American elderly in male-headed, 2+adults households. No female heads of one-adult households named walking as their means of transportation. However, walking was most often named as a means of transportation by female heads of 2+ adult households.

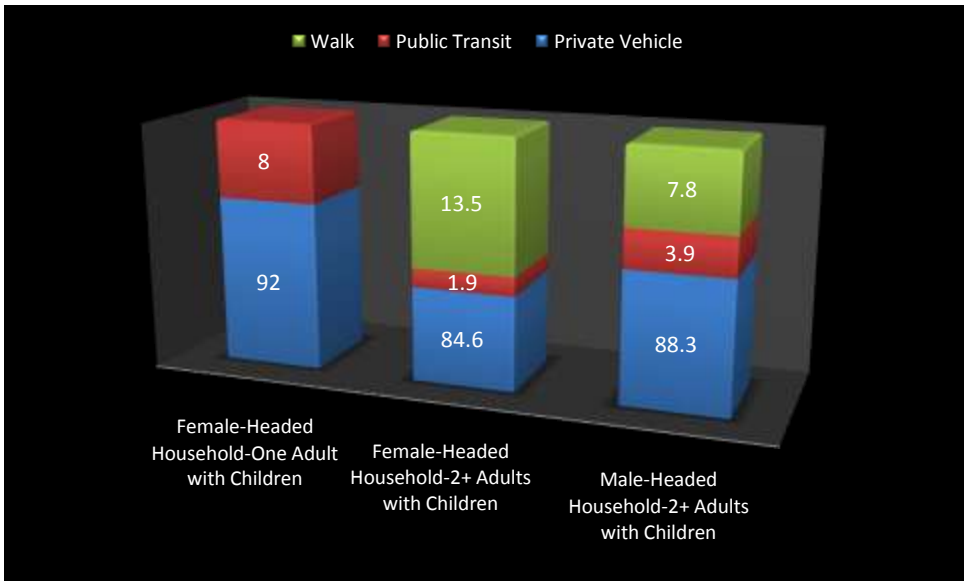

Figure 95: Gender of Head of Household, Household Structure, and Primary Mode of Transportation of African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Number of Day Trips of African-American Elderly in Second Parenthoods

The number of day trips that African-American elderly in second parenthoods report making is shown in Figure 96. Household structure affects the number of day trips made by African-American elderly in second parenthoods. The largest number of day trips is made by African-American elderly in female-headed, one-adult households. Forty-eight percent make four or more trips daily. The fewest trips are made in 2+adult households, with 50 percent making fewer than three trips daily. Little overall variation exists between male-headed and female-headed, 2+adults households compared to female-headed, one-adult households.

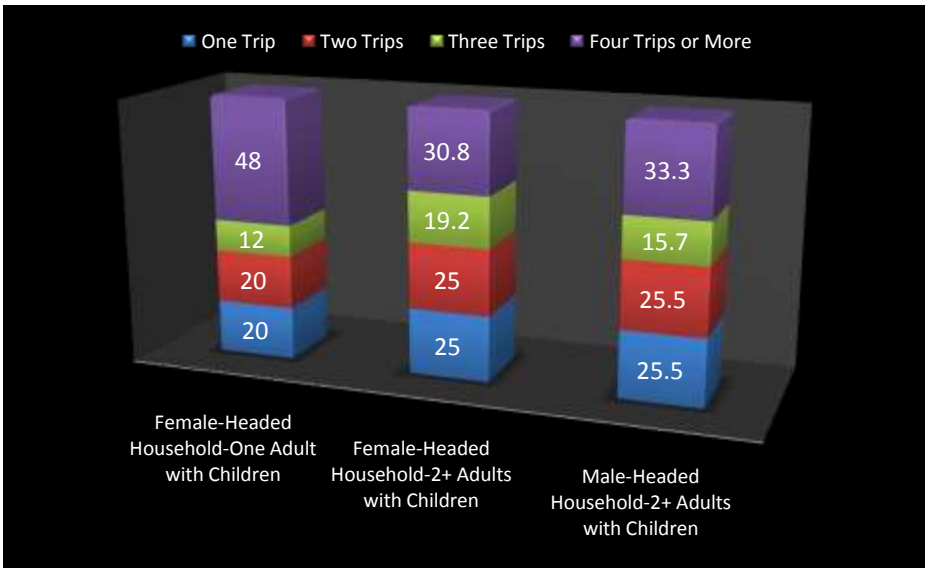

Figure 96: Gender of Head of Household, Household Structure, and Number of Day Trips Taken by African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Number of Daytrip Miles Traveled by African-American Elderly in Second Parenthoods

As shown in Figure 96, at least 80 percent of all African Americans who are involved in second parenthoods travel less than seven miles for a day trip. One-adult, female-headed households travel the fewest number of miles, with 52 percent traveling less than three miles for a day trip. Less than 20 percent of African-American elderly in any household structure travel seven or more miles for any day trip.

Figure 97: Gender of Head of Household, Household Structure, and Number of Daytrip Miles Traveled by African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Purpose of Non-Work Day Trips of African-American Elderly in Second Parenthoods

The purpose of non-work day trips for African Americans in second parenthoods is presented in Figure 98. Both the gender of the head of household and the structure of the household are related to the purpose of non-work day trips. Of those in female-headed, one-adult households, 63.6 percent of their time is spent traveling for medical or dental services. All other trip purposes (9.1 percent) were evenly distributed for this group. For those in female-headed, 2+ adults households, 38.1 percent of their trips were related to shopping and 28.6 percent were related to social/recreational/eating out purposes. For those in male-headed, 2+ adults households, 45 percent of their trips were for social/recreational/eating out purposes and 25 percent were for other family/personal business. Those in female-headed, 2+adults households were almost twice (19 percent) as likely to travel for religious purposes as those in any other household structure.

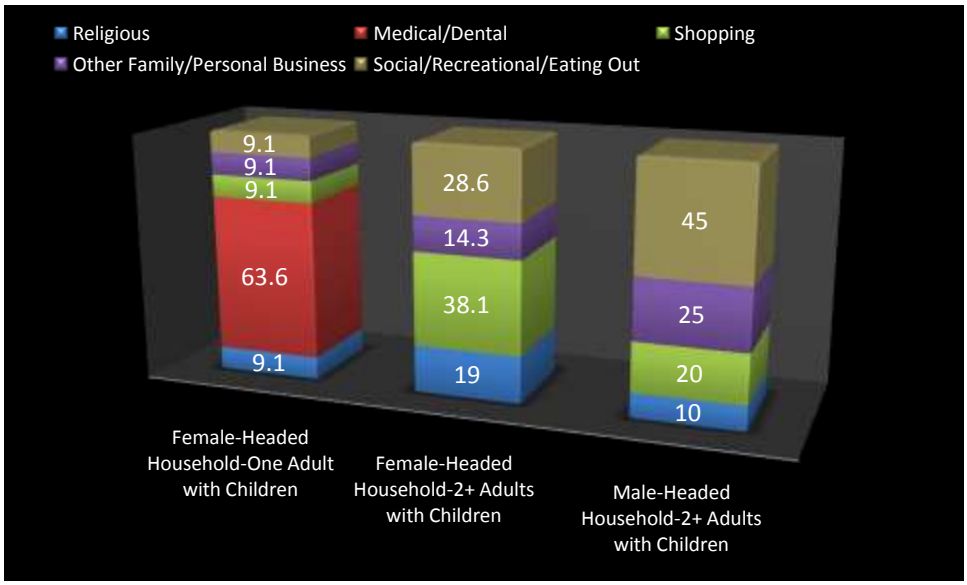

Figure 98: Gender of Head of Household, Household Structure, and Purpose of Non-Work Daytrips of African-American Elderly in Second Parenthoods

Gender of Head of Household, Household Structure, and Amount of Time Needed to Complete Day Trips of African-American Elderly in Second Parenthoods

Both the gender of the head of household and the structure of the household are related to the length of time needed by African Americans in second parenthoods to complete their day trips. While the majority of those in female-headed households took the shortest amount of time to complete a trip (1 to 15 minutes), just over half of those in male-headed households with 2+adults took 16 minutes or more to complete a trip.

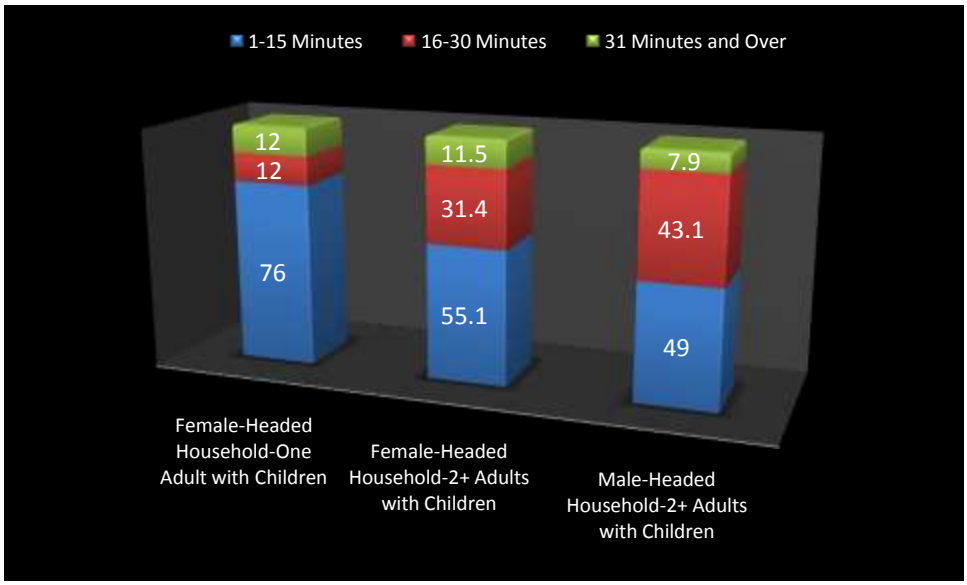

Figure 99: Gender of Head of Household, Household Structure, and Amount of Time Needed to Complete Daytrips of African-American Elderly in Second Parenthoods

DISCUSSION

The purpose of the present study was to examine how household lifecycle affects the travel behavior and concerns of African-American elderly, and explain how household structure and the gender of the head of household affect various indices of travel perceptions and behaviors. Previous studies have proposed that an individual's normal lifecycle moves from early adulthood, with its attendant roles of producing and caring for children, through middle age and preparations for retirement to the golden years, at which primary parenting roles (especially for young children) are expected to have ceased (Zimmerman, 1982; Kostyniuk and Kitamura, 1982; Cichone and Boyle, 1984). However, more recent theorizing—by investigators such as Gibson (20002), Cox (2002), Minkler (1998), and Casper and Berger (1998)—indicates that lifecycle is not always a straight trajectory. As a household passes through lifecycles, expected roles may end or change depending on the larger social-psychological context. Thus, rather than being considered a static concept, the lifecycle of a household should be more broadly conceptualized as fluid.

The idea of fluidity and change is particularly relevant to the current investigation given the increasing number of elderly who are caring for children. These changes are most likely to occur in households where females traditionally have the role of mother and caregiver than do men (Rosenbloom,1995; 1988; Gordon, Kumar, and Richardson, 1989; Hasell and Peatross, 1990; and Michelson, 1983). Not only do these changes affect the natural course of the lifecycle, but also they can dramatically change the accompanying roles associated with each stage. While these changes have been documented by other researchers, no studies have specifically examined their impact on the travel behaviors and transportation needs of African-American elderly.

This investigation was divided into three separate and distant phases. The purpose of the first phase was to provide a general socio-demographic overview of African-American elderly. The second phase examined, in a bivariate analysis, the relationship between household lifecycle and a number of variables. The third and final phase of this investigation was conducted to more specifically examine in a trivariate manner the relationship between the gender of the head of the household, household structure, and travel behaviors and concerns of African Americans in second parenthoods.

Phase I: A Demographic Overview of the African-American Elderly

The results of the present study reveal that African-American elderly are not a monolithic, homogenous group. On the contrary, they are quite diverse with a great deal of within-age-group variability. In this NHTS sample, it was found that, from a demographic perspective, the vast majority of African-American elderly were 70 years and older and female. They were of low educational attainment (43 percent did not have a high school diploma or GED) and low income (over 56 percent had annual incomes of less than $20,000). Most (76 percent) were retired and lived in two-adult households (67 percent). Children resided in a little over 10 percent of African-American elderly households. Home ownership was quite high; approximately 73 percent owned their home. Most (88 percent) resided in urban areas.

While a little over two-thirds of African-American elderly were drivers, about a third of these African-American elderly do not drive. Eighty percent of African-American elderly households had at least one driver but 20 percent of these household had no drivers at all. Where they did report driving, they did not drive far distances. Eighty-four percent reported driving 5,000 miles or less annually, and most traveled less than seven miles a day from their home. A private vehicle (car, SUV, etc.) was the primary mode of travel, and most, on average, made less than four day trips. When they did travel, it was most often for shopping and social activities. Despite the age of the sample, only 10 percent reported traveling for medical reasons.

African-American elderly have variety of social perceptions and concerns regarding issues that could potentially impact their travel behaviors. These issues include traffic accidents, highway congestion, the price of gasoline, rough pavement, and highway maintenance. In this NHTS sample, about 70 percent saw aggressive and distracted drivers as a problem. Nearly 60 percent of African-American elderly viewed traffic tie-ups, gasoline prices, speeding, rough pavement on highways, and potholes as problems. While this data does not allow for a more systematic analysis of how these concerns impact travel behaviors, it does suggest that the issues are perceived as important.

As African Americans age, they are often confronted with a host of medical conditions (including Type 2 diabetes, heart disease, high blood pressure, and arthritis) that are often unexpected and unusual in earlier lifecycle household stages but can ultimately affect their transportation needs and travel behaviors in later years. Eighty-five percent of African-American elderly in the sample had a medical condition that resulted in less travel. The majority of them (56 percent) had a medical condition that resulted in asking for rides. Forty percent of African-American elderly had a medical condition that caused them to give up driving. Approximately 33 percent reported not having a medical condition that made travel difficult. Nearly 19 percent had a medical condition that required them to use special transport services, and about 25 percent had a medical condition that limited their use of public transportation.

Overall, over half (57 percent) of African-American elderly reported having a medical condition for five years or more that impacted their driving; however, this dataset does not allow for a more in-depth analysis of how the length of time with a medical condition affects specific travel behaviors. The present dataset also did not ask the respondents to list and describe the severity of their specific medical conditions. Future research should examine this because such an analysis has the potential to provide a clearer and more complete picture of the health and travel of elderly African Americans.

Phase II: The Intersection of Household Lifecycle and Travel Behavior

In order to better elucidate the influence of household lifecycle on travel behaviors, bivariate analyses were conducted. The bivariate analyses revealed that the presence of children and the number of adults in a household greatly affect a variety of travel behaviors and concerns in often complex ways. While African-American elderly reported little-to-definite concerns about traveling, their concerns were most often affected by the presence of children and the type of household lifecycle in which they resided.

The variable of household lifecycle depended upon both the number of adults in the household and the presence of children. Traffic accidents were reported as severe/very much of a problem of concern in 50 percent of one-adult households with children and in 67 percent of 2+ adult households with children. The level of concern for distracted drivers revealed a different pattern. One-adult households with children were least likely to see distracted drivers as a problem, with 60 percent of these households describing the issues as not a problem. All African-American elderly in one-adult households with children viewed speeding drivers as a major problem of concern. Concern for traffic tie-ups or road was also most pronounced in one-adult households with children. Concerns regarding the price of gasoline and aggressive drivers were not very related to the lifecycle of a household. Nearly 31 to 50 percent reported both of the issues as severe/very much a problem of concern.

In summary, African-American elderly travel concerns were sometimes more pronounced in one-adult households with children. With the exception of concern about distracted drivers and aggressive drivers, it appears that those in one-adult households with children were more concerned about travel behavior.

Approximately 80 to 88 percent of African-American elderly across all lifecycle holds reported having a medical condition that resulted in less travel. Furthermore, with the exception of those in one-adult households without children, 40 to 49 percent of African American elderly reported having a medical condition that required them to give up driving. Thirty-five to 46 percent of all African-American elderly reported that they had a medical condition that limited their driving to daytime. Nearly one-third reported having a medical condition that limited their use of public transportation. The only exception was one-adult households with children, 100 percent of which reported not having a medical condition that resulted in less travel.

Despite the relative consistency in the aforementioned measures across household lifecycle, the data revealed rather consistent patterns in which one-adult households with children were consistently different from other household lifecycles. For example, most households with children reported that they had a medical condition that made travel difficult. Moreover, households with children, regardless of the numbers of adults, were more likely to report the need for special transport. One-adult households with children reported the highest incidence of medical conditions that lasted for ten years or more. These findings suggest that one-adult households with children, more than other lifecycles, are at a particular disadvantage when caring for children because they are living with factors (medical conditions, low income, and single marital status) that affect their travel concerns, travel behaviors, and transportation needs.

The results of this study indicate that second parenthood households are different from other types of elderly households. While African-American elderly in one-adult households with children use private vehicles as their primary means of transportation more than any other household, they also drive the least number of miles annually (100 percent travel 5,000 miles or less annually).

The number of adults and the presence of children affect trip time. For example, for almost 70 percent of those in one-adult households with children, trip time is 1-15 minutes compared to 52 percent in 2+adult households with children. Collectively, these findings indicated that the

concept of household lifecycle is important and useful for explaining the travel concerns and behaviors of African-American elderly who are involved in second parenthoods. These individuals who are involved in second parenthoods are mostly single women who have low educational status, low income, and reside in an urban area.

Those in one-adult households with children were often different along a number of dimensions that deal with travel concerns, travel behaviors, and medical conditions. These findings suggest that individuals in these lifecycle households are confronted with a host of problems that affect their travel behaviors and transportation needs. Thus, it is not surprising that a number of states have begun to address the needs of mutigenerational families with financial assistance for transportation.

Phase III: Second Parenthoods—Gender of the Head of Household and Household Structure

The third and final phase of this report was designed to examine how the gender of the head of household and the household structure affect the travel behaviors and concerns of African Americans in second parenthoods. This was done because most previous studies have indicated that specific characteristics of household structure (marital status, number of adults, and presence of children) are important variables that can affect a variety of travel behaviors, travel concerns, and transportation needs (Al-Kazily et. al., 1990; Chicone, 2000; Cooney and Shin, 2006; Smith and Ahmed, 1999; Hargett and Smith, 2002). Given the importance of the gender of the head of household and household structure as variables, it is surprising that so little research has been conducted on how these variables are related to travel behavior (e.g., person miles, vehicle trips, and person trips) within the growing and diverse population of African-American elderly with custodial care of children. Such information is crucial to providing a more comprehensive understanding of the travel behaviors, concerns, and needs of the individuals who are in involved in second parenthoods.

With regard to gender and household structure, female heads of one-adult households are most likely to be affected by second parenthoods. These women have the sole care and responsibility for transporting (or arranging transportation for) the children under their custodial care. Ninety percent of the children in the custodial care of these elderly women are school-aged children (6 to 21 years old), and 80 percent of these children in the primary and secondary school age group (6 to15 years old) require transportation arrangements. These women compared to their counterparts in other household structures, however, tend to be less educated (60 percent did not complete high school), less likely to own their homes (40 percent), and most likely to live in an urban area (90 percent).

In the present analysis, an assessment of driver status, vehicle availability, and travel concerns revealed that both the gender of the head of household and the household structure played important roles in both travel concerns and travel behaviors. Most elderly (70 to 77 percent) indicated that they were drivers, but this was less true for female heads of one-adult households (50 percent). The number of drivers in a household was greatly affected by the head of household or the structure of the household. For example, 50 percent of one-adult households

had one driver and 50 percent did not have any driver compared to households with 2+ adults where over 80 percent have one or more drivers (about 40 percent of these households have three or more drivers). While 50 percent of female-headed, one-adult households had at least one driver, 40 percent of these household did not have a vehicle available. This pattern is very different in 2+ adults household, where over 80 percent of these households had at least one vehicle available and many having as many as three of more vehicles (35 percent in male-headed, 2+ adults households).

African-American elderly in second parenthood households were asked about their level of concern for several traffic issues. While there was worry or concern about traffic or road congestion in both types of households headed by females (i.e., one-adult, female-headed and 2+ adults, female-headed), the concerns were greatest in female-headed, one-adult households (100 percent). Concern about drunk drivers was found in the majority all types of households. Thirty-nine percent of African-American elderly in female-headed, 2+adults households, however, reported drunk driving as a severe/very much a problem.

Travel concerns, particularly about speeding, aggressive drivers, large trucks on the highway, road congestion, and the price of gasoline were reported more often in female-headed households than in male-headed households. However, some of these concerns (including large trucks on the highway and traffic congestion) were more pronounced in one-adult, female-headed households. Given the consistent pattern of traffic concerns, it is not clear how and why large trucks on the highway and traffic or road congestion are concerns for one-adult, female-headed households. Perhaps these specific types of concerns reflect both the need to meet timely appointments for themselves and the children in their custodial care.

As individual age, they are more likely to confront a host of physical and health problems that often affect their travel behaviors and transportation needs. While this is more likely to affect this cohort of individuals, the trivariate analysis revealed that, overall, African-American elderly in female-headed households were almost three times as likely as those in male-headed households to have a medical condition that affected their travel behaviors and transportation needs.

While the results are often mixed, they do not indicate that both the gender of the head of household and the household structure differentially affect travel behaviors of African Americans in second parenthoods. For example, none of those in one-adult, female-headed households had a medical condition that limited their use of public transportation. Both male and female heads of households with two or more adults and children were more likely to be affected by medical conditions that limited their use of public transportation, but female heads of household were more likely to report having a medical condition for which they needed special transportation services.

This analysis further revealed that those in female-headed households were more likely than those in male-headed households to report that they had a medical condition that made travel. Female heads of household also reported having their medical conditions for a longer period. For example, 30-40 percent of female heads of household report having their medical condition for ten years or more while only 20 percent of male heads of households reported such.

Additionally, female heads of household were more likely to report having a medical condition that made travel difficult.

The analysis of actual travel behaviors indicates that both the gender of the head of household and the household structure invariably affect travel behavior in complex and sometimes inconsistent ways. For example, female heads of household travel fewer annual miles than male heads of households. This is particularly true for female heads of one-adult households with children: 100 percent of females in these households reported traveling 5,000 miles or less annually. Although females travel fewer annual miles than males, female heads of one-adult households with children make the largest number of day trips. However, they also travel fewer day trip miles (44 percent travel less than 3 miles).

Annual miles driven and the number of day trips may be a function of the trip purpose. There were household structure and gender differences in non-work trip purposes. Most of the non-work trips (68 percent) taken by African-American elderly in female-headed, one-adult households were taken for medical or dental services. For those in female-headed, 2+ adults households, 38.1 percent of their trips were shopping related. For those in male-headed, 2+adults households, 45 percent of their trips were for recreation/eating out purposes. Those in female-headed, 2+adults households were almost twice (19 percent) as likely to travel for religious purposes as those in any other household structure.

When those in second parenthoods were asked to report the length of time it took to complete their non-work travel activities, those in female-headed, one-adult households reported the shortest trip times. Seventy-six percent of these females completed their trips in 1 to 15 minutes compared to female-headed, 2+adults households (55.1 percent) and male-headed, 2+adults households (49 percent). Interestingly, those in female-headed, one-adult households also took more daily trips than those in any other household: 48 percent took four or more trips daily compared to less than 34 percent in any other household.

In summary, the findings in this trivariate analysis indicate that both the gender of the head of household and household structure affect the availability of access to transportation, the travel concerns, and medical conditions that can affect the travel behavior of African Americans in second parenthoods. The results reveal a rather consistent finding that female-headed, one-adult households are often the most disadvantaged in terms of education, residential location, and medical conditions that affect both travel behaviors and transportation needs. In short, African-American elderly women with custodial care of children are confronted with a host of economic, social-psychological, and medical factors that affect a variety of transportation issues. Given the growing demographics of this group and their resultant needs, more research needs to be conducted to carefully explain and understand the potential economic, social, and policy implications for this group of individuals.

CONCLUSIONS

Over the last several decades, Census data and a variety of empirical studies have begun to focus more attention on the changing demographics of African-American elderly households and the factors affecting their travel patterns and transportation needs. Several studies indicate that at a stage of life when they are expected to be retired and enjoying their golden years, African-American elderly, particularly females, more than any other group, are being confronted with the task of caring for children (often grandchildren or other relatives) after they have raised their own children. The results from the present study revealed a rather consistent finding that these female-headed (particularly one-adult) households are often the most disadvantaged in terms of education, residential location, and medical conditions that affect both travel behaviors and transportation needs. In short, African-American elderly women with custodial care of children are confronted with a host of socio-economic, social-psychological, and medical factors that affect a variety of transportation issues that can potentially impact the custodial care of the children in their households.

The results of the NHTS data analysis raise more questions than answers:

- Given the increase in elderly households with custodial care of children, what are the implications for special transportation services that may be necessary for those in this population? This question has particular implications for households that are headed by females as they are disproportionately affected by second parenthoods.
- As the development of grandfamily housing and other centers expand, what specific transportation services are needed for those who are housed in these multigenerational centers?
- To what extent should city, state, and federal transportation agencies become involved in developing funding, assessing, and evaluating the needs of this special and expanding population?

Additional research is needed to address these complex issues. The analysis of this data suggests that the lifecycle of a household is rather fluid and multidimensional in construct and can occur in complex and often unexpected ways at different stages of the normal, expected lifecycles. Moreover, it manifests itself in a variety of ways depending on the larger social context and the relevant variables impacting that context. Many African Americans have found themselves in a second parenthood due to larger social contextual factors such as drug abuse of their children, teenage pregnancy, youth unemployment, female incarceration, and HIV/AIDS. How these contextual factors affect and continue to affect African-American elderly as well as segments of the larger population is not known. This continues to be an important issue.

Policy Implications

The current analyses provide the opportunity for several policy suggestions.

First, as second parenthoods continue to develop in a society that is currently undergoing a dramatic demographic shift in its age distribution (with the expectation of an increasing percentage of elderly Americans, especially single, elderly African-American women who are head of a household and have custodial care of children), more research needs to be conducted

regarding the specific changes in travel behaviors and transportation needs of this group at local, state, and federal levels.

Second, the transportation services for special groups of elderly Americans need to be considered. As greater numbers of elderly Americans, particularly African Americans, are confronted with complex custodial roles reminiscent of an earlier period of their household lifecycle, there will be a greater need for the aforementioned specialized housing. Thus, there will also be a need for transportation programs that address the transportation needs of both elderly adults and the children in their custodial care. Ultimately, the questions for now and in the future are, what will such services cost and what are the most cost effective ways of delivering them?

Further Research Needs

This study's findings indicate that household lifecycle is not always a linear concept that goes from birth to death, with an ordered movement through the expected household structures and accompanying social roles in between. Since the lifecycle of a household can be affected by a host of external social-psychological factors, larger studies on household lifecycle, custodial care of children, travel behaviors, and transportation needs should be developed. For example, how does custody of children of different ages affect travel behavior? How do gender, educational attainment, and household income affect the travel attitudes and behaviors of African-American elderly with custodial care of children? This is especially important because the results of the present investigation indicate that, of all households, female-headed, one-adult households with children have distinct patterns in medical conditions, travel concerns, and travel behaviors that differ significantly from other types of household structures. How do the travel behaviors of African-American elderly who live in grandparent housing differ from those who do not live in these special types of housing? Primary research is needed to address these questions.

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