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Choice of Transportation Mode Among Older Drivers and Former Drivers

Lidia P. Kostyniuk
Jean T. Shope

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16. Abstract

Data from 16 focus groups and a telephone survey of 1,053 Michigan drivers and former drivers over age 65 were examined for information on transportation mode choices of older drivers and former drivers, their experience with alternatives to driving, and whether they had given any thought to or made plans for the time when they can no longer drive themselves.

The results show that most older households owned at least one automobile and that the automobile was the primary mode of transportation for older drivers and former drivers. Most former drivers relied on getting rides from adult children, spouses, and friends. Use of public transportation systems was quite low, and some older drivers and former drivers were not aware of the public transportation services available in their neighborhoods. Most of those who used public transportation services were satisfied with the service, although there was some dissatisfaction with the routes, inconvenience, and long wait and travel times. Older drivers did not seem to make preparations for the time they could no longer drive. Over half the drivers who perceived that they would have problems driving within five years, still expected to keep driving beyond five years.

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This work was sponsored by the Great Lakes Center for Truck and Transit Research (GLCTTR) and by the General Motors Corporation (GMC) pursuant to an agreement between the General Motors Corporation and the United States Department of Transportation. The data for this project came from a three-year research program sponsored by GMC. Additional funds from GLCTTR allowed us to review the data focusing on transportation mode choice among older drivers and former drivers.

The opinions expressed here are our own and not necessarily those of the sponsors.

Lidia P. Kostyniuk, Ph.D.
Jean T. Shope, Ph.D.

TABLE OF CONTENTS

LIST OF TABLES

1. INTRODUCTION

Mobility is recognized as an important element in the maintenance of a good quality of life (1). In present American society, that mobility often involves driving one's own automobile. The dispersed land-use patterns in the United States, the growth of suburbs, and the present transportation system have made Americans extremely dependent on the automobile, which provides not only transportation, but is also important in maintaining one's independence, autonomy, and in some cases, self-esteem. As people age, driving an automobile safely becomes more difficult. Physical changes associated with aging and diseases take their toll on a person's ability to see, hear, process information, and react in a timely manner, all very important to safe driving.

In the United States the total driver population is undergoing an aging process. In 1977,10 percent of all drivers were over age 65 (2). By 1997, this portion increased to 14 percent and almost 6 percent were over 75 years of age (3). Greater percentages of older drivers are expected when the baby boomer cohort reaches these ages. Earlier cohorts of older drivers were much smaller and the land-use patterns and transportation systems were not as automobile-oriented as they are now. Many older persons of previous generations never held driving licenses, lived in areas served by transit, used transit, and continued to do so as they aged. Because transit and paratransit have served the elderly of the past, it is sometimes assumed that these systems will continue to serve the elderly of the future. However, the present cohort of older drivers in the United States matured with the automobile, became dependent on it, and may be very reluctant to give it up in favor of public transit and paratransit.

Since 1970, the proportion of older suburban dwellers has been steadily increasing, while the proportion of those living in central cities has been decreasing (4). Today, approximately 75 percent of people over age 65 live in suburban or rural locations. Residents of suburban areas have few transportation options other than the automobile. When older residents of suburbs cannot drive, they rely on others with cars, or they walk, and only rarely use public transit (5). In 1990, only 1 to 3 percent of trips taken by people over age 65 in the United States were made on public transit and 6 to 10 percent of trips were made by walking (6). In contrast, the vast majority of trips were by private vehicle with

the older person as the driver or the passenger (6).

Because very few public transit options provide the same mobility, convenience, and security that a car provides, older individuals do not take advantage of public transit and other special services, such as door-to-door paratransit, which may be offered in their communities. Rosenbloom (7) asserts that, contrary to popular belief, older people do not use public transit, not because they cannot afford it or cannot physically get on it, but rather because it is not responsive to their travel needs; that is, it does not go where and when they want to go in the manner in which they wish to travel. Traditional public transit is inadequate to serve the travel patterns of a suburban population. Because older persons are more likely to live in areas with low population densities, and to make extensive suburban-to-suburban trips, public transit has not proven to be a suitable alternative for them. Rosenbloom (5) notes that it is often assumed that older people who stop driving and cannot use fixed-route buses will use special transit services or paratransit. However, such services are usually limited to restricted areas, are for certain types of trips, require advance reservations, and do not replace the mobility lost by driving cessation.

Many older people who have stopped driving themselves depend on family and friends to provide transportation. While accepting rides as a passenger has benefits such as personal contact to combat loneliness, this option can exact a psychological price on the older passenger. In a study of over 700 community-dwelling older nondrivers, Carp (8) found that older passengers identified negative aspects of the acceptance of rides, such as feelings of indebtedness which became burdensome and demeaning when reciprocation was impossible; schedules or routes of drivers that did not meet their needs as passengers; and nervousness about the driving skills of the people who gave them rides.

Relocation is an adaptation made by some older people who are seeking places to live that are consistent with their lifestyles, personal resources, and physical limitations (9, 10). Moving to a setting where driving is less essential for meeting the basic necessities of life is another way of addressing mobility problems. The reasons why older people relocate are varied, but it appears that moves in later life correspond to changes in levels of assistance required from others, which are inversely related to changes in driving ability

(11).

As plans are made for transportation systems and services for the elderly of the future, basic questions that should be answered include: Do older drivers give any thought to the time when they will be unable to drive and how they will plan to meet their mobility needs? What can we learn that might help older adults plan? Knowledge about older people's preferences, acceptability of alternatives, and expectations are important for the planning and marketing of transportation alternatives that will be used by older people and that will help them meet their needs. Minimizing resource expenditures on systems and services that will not be viable is essential.

A multiyear research project on the reduction and cessation of driving among older drivers was conducted at the University of Michigan Transportation Research Institute (UMTRI) (12 - 15). As part of the research, a focus-group study of older current and former drivers and their adult children was carried out, and a telephone survey of 1053 older drivers and former drivers from Michigan was completed. As a result, a wealth of information about perceptions, attitudes, and behaviors of people whose driving abilities may be changing or who have stopped driving was accumulated. The objectives of the present effort are to examine this information for findings on the mobility choices of people who have matured with the automobile, used it for most of their lives, and have either stopped driving or are facing that prospect. Specific questions explored are:

Do older drivers have experience with other transportation modes beside the automobile?
Do they give any thought to the when time they are unable to drive or plan for their future mobility needs?

The overall intent is to add to the understanding of the transportation mode choices of older drivers and former drivers. It should be noted that there is no precise age at which a driver becomes an older driver because of the wide variability of the aging process and health conditions that affect driving abilities. While most studies define older drivers as over age 65, other studies categorize drivers as older at age 55, and some at age 70. This research follows the most widely accepted convention of considering drivers as older

starting at age 65.

The remainder of this report is organized into three sections. The second section reports on the focus-group study with subsections on methodology, participants and findings related to transportation mode choices. This is followed by the third section on the telephone survey with subsections on methodology, respondents, and findings. Relevant conclusions related to transportation mode choices from both studies are presented in the last section.

2. Focus-group study

A qualitative focus group approach was used in the early stages of the research effort to develop an understanding of the issues faced by older drivers, to frame the issues from their viewpoints, to define the concepts, and to identify dimensions for further quantitative studies.

Methodology

Because people in different stages of their lives may have different perceptions of the driving reduction and cessation process, four distinct groups of subjects were selected for the focus-group study. These were current drivers 65 years of age or older, couples with both partners age 65 or older who shared some driving responsibilities, former drivers 65 years of age or older, and adult children who were concerned about the driving abilities of their 65-year-old and over parents and other relatives. Because traffic volumes, road systems, distances between homes and activity centers and available transportation options differ between densely and sparsely populated areas, and because these factors may influence driving and transportation decisions, an urban/suburban and a rural/small-town setting were selected for the study.

The general issues explored in the focus groups were factors associated with the decision to stop driving, coping behaviors that compensate for reduced driving capabilities, crucial experiences and events preceding the decision to stop driving, and attitudes and emotions surrounding the decision to stop driving. A moderator's guide was developed

and included specific questions on the importance of driving; plans for stopping driving; knowledge, use of and perceptions about public transportation; and other means of traveling. Adult children were asked about their concerns regarding their parents' driving, and about their participation in the driving decisions of their parents.

A total of 16 focus groups was conducted. Two urban/suburban and two rural/small-town focus groups were conducted for each the of four categories of subjects. The urban/suburban groups were drawn from one of several densely populated suburbs of Detroit that was linked to other suburbs and the city by major freeways. Rural/small-town groups were drawn from a small town in mid-Michigan that was surrounded by farmland and open countryside. Transit service in the urban/suburban area was provided by the regional transit agency and consisted of scheduled fixed-route, line-haul service and dial-a-ride paratransit service for seniors and the disabled. Various social-service vans were also available for seniors in the urban/suburban area. The rural/small town had a dial-a-ride paratransit service, available to all regardless of age, but with lower fares for seniors and the disabled. A private nonprofit agency also provided paratransit van service for seniors in the rural/small-town area.

The focus groups were conducted during April 1998. Focus-group participants were recruited by professional firms and were paid a small honorarium for their time. A professional moderator conducted the focus groups and followed the moderator's guide in asking questions of the groups. The focus groups were audiotaped and videotaped. The tapes were then reviewed and analyzed using standard focus group analysis techniques (16).

Participants

Table 1 shows the summary demographic information for the 144 subjects who participated in the focus groups.

Table 1. Demographic summary of focus-group participants			
Group		Urban/Suburban	Rural/Small-Town
Current drivers	Total	19	20
	No. of males	11	6
	No. of females	8	14
	Average age (sd)	73.2 (6.8)	74.0 (5.5)
	Average annual household income range	$45,000 - $55,000	$15,000 - $25,000
Couple drivers	Total	24	20
	No. of males	12	9
	No. of females	12	11
	Average age (sd)	71.2 (4.3)	74.2 (6.0)
	Average annual household income range	$45,000 - $55,000	$45,000 - $55,000
Former drivers	Total	11	13
	No. of males	5	1
	No. of females	6	12
	Average age (sd)	75.8 (7.6)	83.0 (7.5)
	Average annual household income range	$20,000 - $30,000	$20,000 - $30,000
Adult children	Total	19	18
	No. of males	6	2
	No. of females	13	16
	Average age (sd)	45.5 (12.5)	46.6 (11.8)
	Average annual household income range	$45,000 - $55,000	over $75,000

Findings

Findings reported below are limited to the transportation modes used by older drivers and former drivers, their experience with alternatives to driving, and what plans they had made for their future mobility needs. These are reported separately for drivers, former drivers, and adult children of drivers and former drivers.

Drivers

Older drivers in this study could be classified into one of two groups. Those in the first group felt healthy, remained active, and essentially had not changed their driving style from the way they drove 10 or 20 years before. Most of these drivers reported driving fewer hours per week on average than they did while working. There were some younger members of this group who were driving more because they were taking more long-distance driving trips than they did when they worked. The drivers in the second group were feeling the effects of aging and reported driving more slowly or cautiously, avoiding particular driving situations, such as night driving or driving in inclement weather, and restricting their driving to local or short-distance driving.

Many healthy-driver households had at least one vehicle for each older driver. Among the older driving couples, the male partner was generally the principal driver. Only a few of the couples actively and equally shared or traded off driving responsibilities, and then mostly on long trips. For local trips taken together, nearly all of the wives were passengers. On long trips most women acted as navigators. Only those women whose husbands were in poor health were the principal drivers on long trips.

Respondents were consistent in their belief that driving is of central importance to their lives. Nearly all respondents had strong emotional feelings about the importance of driving. The need for the independence and the convenience of driving were equally important. Healthy older drivers in particular, described busy, active lives that required the use of a car on almost a daily basis. They identified driving as a necessity for shopping, errands, appointments, volunteer work, and social activities.

"Driving enables me to live life. Not driving would be crippling."

"I couldn't conceive of not being able to drive. I've never thought about it and yet I know logically that's a ridiculous way to look at it since I'm very nearly that age now."

"We couldn't exist [without driving]. There is no [other] transportation where we live. Unless you drive you'd starve to death. It's just impossible. We'll have to move when we can no longer drive."

Very few older drivers were aware of transportation alternatives. When asked if there would be other forms of transportation available to them if they could not drive, about half the respondents were aware of alternatives in the form of public, charitable, or private/personal options. Small-town/rural residents knew more about driving alternatives than did urban/suburban residents. Most of them knew about a special transit service for seniors in their community, and noted that their rural area was not served by taxis. They were open to the possibility of using the special transit service, although some complained that it would be inconvenient. One woman, who chose not to drive in winter, used this service in winter and stated that she would have no problems using it when she stopped driving altogether.

The urban/suburban residents seemed less familiar with transportation services. They were vaguely aware that there were some transportation services for seniors but felt that those services were not what they could use. Only two urban residents stated that they would be willing to use any form of public transportation.

When asked about planning for the future and for the time they might not be able to drive, older drivers with spouses or partners felt that as long as one of them could drive, they would be able to meet their mobility needs. Only a few older drivers said that they would make adjustments in their housing situation to accommodate their eventual inability to drive. Women were more likely than men to have considered other options, such as moving to another location or to a living situation where transportation would be provided. Women were also more likely to consider other transportation options such as using public and senior transportation, and getting rides from friends and family. Many, including nearly all of the male participants, had not even thought about the time when they would not be able to drive.

"Thinking about not driving means having a negative outlook on life. I'll just deal with it when it happens."

"How I'll make the decision whether to drive or not is something I've never really addressed. I don't even want to face it."

Most respondents wanted to meet their mobility needs by driving for as long as possible, but admitted that their physical health would be a determinant of their driving ability.

"I have a driver's license that expires [when I am] 90. I'll keep driving as long as I can get a license."

Very few urban residents stated that they would use any form of public transportation if they could no longer drive. Most respondents said that they would probably have to rely on relatives and friends to drive them although they would be reluctant to do so.

" It makes you uncomfortable to impose on people."

"You're not alive when you have to depend on someone else all the time."

Former Drivers

Most former drivers had stopped driving abruptly, after some triggering event, with little or no warning or transition period. Although the respondents stopped driving for several different reasons, a change in physical abilities played prominently in their reasons for stopping. Illness and moving to a new city (often linked to moving to senior housing with transportation) were among the reasons for stopping driving. Several respondents stopped driving after having one or more crashes.

Most former drivers said that driving was very important to them. It represented both psychological independence and freedom, as well as convenience.

"Driving was very important. It was part of my livelihood."

"I bought my own car at age 75 after my husband died so I wouldn't have to depend on my sons."

"I didn't realize how important it was until I had to stop driving."

When asked to remember back to what it felt like when they stopped driving, many former drivers expressed strong emotional feelings.

"I felt like a bag of laundry—cleaned, delivered and returned. It was awful. I have to depend on others."

"You feel like nothing. It's terrible when you have to depend on others. I was depressed."

"It feels like you're sitting in a box all the time."

Given the advantage of hindsight, a few former drivers realized they did not miss driving as much as they thought they would, particularly if they could obtain rides when needed.

"Driving was not important to me. I've always preferred to be a passenger because I didn't like driving. The only real problem with quitting driving is the inconvenience."

One participant noted that he might have to drive again if his wife had to stop driving.

"Driving is not important. I will only drive again if my wife becomes incapacitated. I would move to a place with less traffic and start driving again."

Former urban/suburban drivers did use public transit and other transportation services. They were, however, reluctant to use public forms of transportation, including taxis, buses and, for those that had them available, senior transportation services. Although all

respondents in this group were offered taxi rides to and from the focus-group session, none accepted and all made their own transportation arrangements with friends. They said they were not comfortable depending on strangers for rides.

Urban/suburban respondents were far more likely to depend on friends and family members for rides. One respondent, who said he had no family living nearby, paid people to drive him places.

"Public transportation is terrible. Senior transportation service is available only a couple of times a week from the apartment. I have a lot of family and friends [with whom I ride]."

" I don't go as much as I used to. I can't really take the bus since its too far and I have to use a walker."

"My daughter lives with me and my son lives nearby. I take a cab to the doctors."

The former drivers from the small town/rural area, were not as reluctant to use special transit services for seniors as those from the urban/suburban area. However, there were mixed reactions among the group toward these services. The major complaints were that the wait for the service was long; reservations needed to be made several days in advance; and the services were only available for doctors' appointments. Former drivers in the small town/rural area also depended on family and friends to get around and also expressed regret at having to depend on someone else

"It's hard getting around since you have to wait for the ride. They're not always prompt."

"It's hard to find someone to take me for shopping and groceries. The senior services are for doctor's appointments. There are no taxis or buses in town and only one limousine."

Adult Children

Most of the discussions in the focus groups of adult children of older drivers were centered on the children's concerns about their parents' declining driving abilities, reluctance to stopping driving, and the difficulties of communicating with their parents about these issues. Alternatives to driving were also discussed in these focus groups because most of the adult children were involved in finding or providing transportation for their parents.

Most of the adult children did not view public transit as a real alternative for their parent. One participant noted that,

> "It's particularly hard in Detroit, compared to New York or Chicago, because public transportation is not reliable or safe. Lack of public transportation forces older people to drive longer than they should."

Another doubted that her mother would be able to use special transit.

> " We've talked about whether she would be able to take dial-a-ride, given her health problems (i.e., parent has difficulty walking)."

Most participants felt that relocation and obtaining rides from others was the way that their parents' needs would be met. Moving the parent to a senior living facility or to the children's home was mentioned, as was providing rides for the parent.

> "They (parents) moved to assisted living where their needs are taken care of. They stopped [driving] shortly after they moved."

> "We've talked about what changes she would have to make. She'd have to move in with us."

> "I would be happy to drive my parents. My father drives too much for his abilities. He has had accidents."

"I'm a stay-at-home mom so I could pick him up and take him places."

Some families were able to help the parent make the transition to a more dependent lifestyle. Most of the successful transitions from driving reported in the focus groups were about female relatives.

"My mother plans to move in with us, and she'd be happy to have me drive. She wouldn't have an issue with independence."

"Mother never liked driving. She is a terrible driver. She lives in a community that will take care of her needs. She is happy to have one of us drive. My sister lives nearby and can drive her."

"She'd enjoy having other people come get her. She's starved for company."

"My mother is relying on friends more now."

While many families were willing to provide assistance to their parents, a few adult children attempted to ignore the problem because of the impact that it would have on their own lives. This reaction may represent resistance to taking on the responsibility for driving the dependent parent or running errands for them. Others may be reluctant to open up their homes and have a parent or in-law move in with them. One daughter-in-law reported that she and her husband were trying to ignore the problem by finding out as little as possible about the situation, because this difficult parent would probably come live with them when he gave up driving.

"My mother doesn't want my grandmother to stop driving since neither of us wants her to be dependent on us."

"She makes you feel bad; like she's going to die if you don't drop everything and get her what she needs immediately."

Summary

From these focus groups it appears that older drivers had not given much thought to the time when they might be unable to drive, or to how they would meet their mobility needs. Men, in particular, were reluctant to face the possibility of not being able to drive. Women were more likely than men to have considered the possibility of not driving and some already had made plans. Couples felt secure that as long as one of them could drive, they could continue to use their car to get around.

There were regional differences in knowledge about public transportation services. Most older drivers in this study from the urban/suburban area were not familiar with the public transit system, had not used it, feared it, and were only vaguely aware of the special transit services for seniors. Rural/small-town residents were somewhat more familiar with what public transportation was available and most knew about the special transit service for seniors. Although most of them had not used this service, a few had tried when they did not want to drive.

Getting rides from others was the preferred mode of travel for former drivers. Former drivers did use public transit and special transportation services, when available, but found them restrictive and uncomfortable. Most former drivers relied on family and friends for rides and some had set up for-pay arrangements for rides. Taxis were not favored by the former drivers.

Adult children, concerned about their parents' driving, tried to help the parents reach reasonable decisions about driving. Most of the adult children in the focus groups did not consider public transit or special transit service for seniors as real options for their parents, but looked to relocating the parents either into their homes or into senior living facilities with transportation or providing rides as solutions to their parents' mobility needs.

The subjects in the focus groups were mostly people of middle incomes who relied on the automobile for transportation most of their lives and who did not perceive viable alternatives to driving themselves. Although the results from this qualitative focus-group study cannot be directly generalized to the population, these subjects may well represent many in the future elderly cohort.

3. TELEPHONE SURVEY

The focus-group study identified issues faced by older drivers, defined concepts, and identified dimensions of the driving reduction and cessation process among older drivers. These results were then used to develop a telephone survey, quantitative findings from which could be generalized to the population of older drivers and former drivers in Michigan.

The telephone survey methodology and respondents are briefly described in the following subsections of the report, followed by the findings from the survey. The survey findings reported here are limited to the transportation mode choices of older drivers and former drivers, their experience with alternatives to driving, and whether they had given any thought to or made plans for their future mobility needs.

Methodology

The findings from the focus groups were used to develop a telephone survey instrument. In all there were 101 questions on the instrument and they covered the following topics:

- Demographics
- Health
- Driving - amount, changes, comfort levels, comparisons
- Driving - when stopped, why, how (former drivers)
- Availability, knowledge, use and satisfaction with modes
- Activity outside home (frequencies, modes of transportation used)
- Thinking about stopping driving
- Planning for stopping driving
- Behavior dealing with stopping driving
- Emotions dealing with stopping driving
- Talking to adult children and others about driving

Psychosocial measures, a cognitive screen, social desirability measures, and contact information for adult children for potential future study were also included in the instrument.

Driving license records from the Michigan Department of State were used to obtain a sample of subjects for the survey. Names and addresses of people age 65 and older who were currently licensed to drive or whose driver's license had expired in the last 2.5 years were obtained, and a random sample stratified by the current or expired status of the license was drawn. The selected sample was proportional by the area of residence (i.e., urban, suburban, or rural), and by five-year age increments. Because telephone numbers were not included on the driver license records, they were obtained from a telephone matching service, by checking with directory assistance on the Internet, and with mail-back postcards.

Letters were sent to potential subjects, explaining the purpose of the survey and asking for their cooperation. Included with the letter was a return postcard, which was to be mailed with the best time to call and a telephone number.

Subjects were interviewed in May and June 1999. In all, 3,235 households were contacted. In 391 cases it was learned that the potential respondent was not eligible to participate because he/she had died, moved out of state, had been institutionalized in a hospital or nursing home, or was unable to complete an interview due to a physical or mental condition. A portion (1,777) of potential respondents or their gatekeepers refused to participate and 1,067 agreed to the interview. The interviews were conducted by professional interviewers from a marketing research company using a computer assisted telephone interview (CATI) system. In all, 1053 telephone interviews were completed. (Fourteen interviews were not completed for various reasons.) The final response rate was 37.5%. An average interview lasted 30 minutes. Upon completion of an interview, a token payment of $10 was sent to the respondent.

Data from the CATI system were checked for consistency and prepared for analysis. Weights were developed to account for nonresponse to the survey and to expand the results to represent the total population of Michiganians, age 65 and over, currently

licensed to drive or whose drivers' licenses had expired in the last 2.5 years. The responses from the telephone survey were weighted to represent this population.

Respondents

Overall, the average age of the respondents was 74.2 years with a standard deviation of 5.9 years. The age of the oldest respondent was 96. Of all respondents, 58% were female, 60% were married, 55% had not gone beyond high school, 71% had annual household incomes below $50,000, 95% lived in their own homes, 43% did volunteer work, and 12% worked for pay. By race, 92% of the respondents were Caucasian, 5% were African American, 2% were of other races, and 1% refused to answer. Table 2 shows the distribution of the survey respondents by age and sex. Distribution of other demographic characteristics of the sample are in appendix A.

Table 2. Respondents by sex and age

Age	Male N=444	Female N=609
65-74	52.3%	47.9%
75-84	40.8%	43.3%
84+	6.9%	8.8%

The driver license status and the frequency of driving of the sample is shown in table 3. The driver license status was not self-reported but taken from respondents' Michigan driver license record. It is interesting to note that 25% of the respondents, not licensed to drive, reported driving at least occasionally. Of the respondents currently licensed to drive, 85% reported driving regularly and 3% did not drive at all.

Table 3. Driver license status by frequency of driving

How often do you drive a car?	Licensed to drive N=1001	Not licensed to drive N=52
Regularly	84%	19%
Occasionally	13%	6%
Do not drive	3%	75%

People who reported driving at least occasionally were classified as drivers in this analysis, and people who did not drive were classified as former drivers, regardless of their driver license status. Table 4 shows the distribution of drivers and former drivers by age and sex.

Table 4. Drivers and former drivers by age and sex

Age	Drivers		Former Drivers	
	Males N=402	Females N=554	Males N=12	Females N=55
65-74	53.3%	51.1%	20.5%	21.1%
75-84	40.8%	43.2%	41.1%	44.2%
84+	5.8%	5.7%	38.4%	34.7%

Results

The automobile

Table 5 shows the distribution of cars per household for both drivers and former drivers. The table shows that the private automobile can be found in the households of most drivers and former drivers over 65 years of age. Almost all the drivers had at least one car in their household, and almost 10 percent had three or more cars. However, one-third of the former drivers did not have a car in their household.

Table 5. Number of cars owned or leased

Cars/Household	Drivers N=986	Former Drivers N=67
0	0.8%	34.3%
1	47.3%	42.1%
2	42.0%	22.2%
3+	9.9%	1.4%

Respondents were asked what two types or modes of transportation they relied on most often. Their responses indicated that the private automobile was the primary means of transportation for both drivers and former drivers in Michigan. Approximately 90% of the drivers drove their own cars as their principal mode of transportation. Nine percent of the drivers and almost 95% of the former drivers reported that they were passengers in cars for most of their trips. Only 5% of the former drivers relied on special transit services such as dial-a-ride or senior van services, and none reported relying on a regular transit bus. Transportation relied on most often by drivers and former drivers is shown in Table 6.

Table 6. Transportation mode relied on most often

What transportation do you rely on most often?	Drivers N=986	Former drivers N=67
Drive own car	89.7%	0%
Passenger in car	9.4%	94.8%
Dial-a-ride	0%	5.2%
Regular bus	0.3%	0%
Walk	0.3%	0%

The second mode of transportation that respondents relied on was also examined. Of those drivers who primarily drove themselves, 80% stated that riding as a passenger and 10% stated that walking was their second mode of transportation. Another 5% reported that they did not have a second mode on which they relied. Of people who could drive themselves, but who were usually passengers, 83% reported driving and 10% reported walking as their second mode. Very few drivers relied on any type of public transportation even as a second means of transportation. Of former drivers who relied primarily on getting rides, two-thirds had no second mode of transportation. The second mode for 18% of former drivers was walking, and 12% relied on public transportation, such as taxis, dial-a-ride, or senior van service for their second mode. Tables 7A and 7B show the distribution of the second mode for drivers and former drivers respectively.

Table 7A. Second mode by first mode - Drivers						
Mode relied on most often	*Second mode of transportation*					
	Drive own car	Car passenger	Regular bus	Walk	Taxi	None
Drive own car N=886	-	80.5%	0.9%	9.8%	0.6%	5.1%
Car passenger N=92	82.6%	-	-	10.4%	-	3.5%

Table 7B. Second mode by first mode - Former drivers					
Mode relied on most often	*Second mode of transportation*				
	Car passenger	None	Walk	Taxi	Dial-a-ride
Car passenger N=62	-	67.2%	17.8%	6.6%	5.6%
Special Transit N=4	100%	-	-	-	-

Table 8 shows the frequency of riding as a passenger in a car by sex. Among people who drove, women were three to four times more likely to be passengers than men. Furthermore, there appeared to be no difference in the frequency of being a passenger for women who drove and those who no longer drove.

Table 8. Frequency of riding as a passenger				
How often do you ride as a passenger?	Drivers		Former Drivers	
	Males N=432	Females N=552	Males N=12	Females N=54
Often	13.4%	47.3%	43.1%	49.3%
Occasionally	51.4%	39.8%	28.5%	42.9%
Rarely	32.2%	11.8%	19.8%	7.8%
Never	3.0%	1.2%	8.6%	0.0%

The question of who was driving when the respondent was a passenger was examined. Table 9 shows that when the respondent was a passenger in a car, mostly family members and friends drove. When people who can drive were passengers, the driver was their spouse about 42% of the time, their adult child about 25% of the time, and a friend about 24% of the time. For former drivers, who were twice as likely to be widowed than the drivers, the driver was their adult child about 50% of the time, their spouse 32% of the time, and a friend about 15% of the time. When asked if anyone else provided rides, close to one- third of both drivers and former drivers reported that they did not get rides from anyone other than the primary person.

Table 9. Drivers relationship to passenger

When you are a passenger, who drives?	Drivers N=956	Former Drivers N=65
Spouse	42.0%	31.6%
Adult child	25.4%	49.4%
Friend	23.8%	14.5%
Other relative	7.6%	3.4%
Volunteer	0.8%	0
Caretaker/ hired help	0	1.4%

Public transportation

The respondents were asked if they had ever used public transportation regularly. Table 10 shows that 60% of the older drivers and former drivers in Michigan had never used public transportation regularly. There was no difference between drivers and former drivers.

Table 10. Experience with regular use of public transportation

At any time in your life, have you used public transportation such as a bus, taxi, subway, train, on a regular basis?	Current Driver N=986	Former Driver N=67
Yes	40.4%	40.3%
No	59.6%	59.7%

Those who had experience with regular use of public transportation were asked when they used public transportation regularly. It can be seen from table 11 that the experience with public transportation for most of the respondents was acquired long ago. However, for about one-fourth of the former drivers in this group, the experience was recent or current.

Table 11. Time when public transportation was used regularly

When did you use public transportation regularly?	Current Driver N=397	Former Driver N=26
Now/currently	2.4%	13.7%
In recent past	6.2%	11.5%
Long ago	91.3%	74.8%

The findings from the focus groups had suggested that many older drivers and former drivers were not aware of the public transportation options available to them. The telephone survey respondents were asked a series of questions about the availability in their neighborhood of the following four public transportation services:

- Regular transit bus service with bus stops within one-half mile from their home
- Special transit service, such as dial-a-ride or senior van services that picks people up at their homes
- Volunteer drivers who give rides to seniors
- Taxi service

Tables 12A thorugh 12D show the responses to the questions about the availability of these public transportation services.

Table 12A. Availability of regular transit bus service			
Is there a regular bus service with bus stops within ½ mile of your home?	Current Driver N=979	Former Driver N=66	Total N=1045
Yes	34.2%	20.9%	33.2%
No	60.0%	68.8%	60.7%
Don't know	5.8%	10.3%	6.1%

Table 12B. Availability of special transit service			
Is there a senior van service or dial-a-ride in your neighborhood that picks people up at their homes?	Current Driver N=974	Former Driver N=66	Total N=1040
Yes	66.5%	62.2%	66.1%
No	20.7%	23.4%	20.9%
Don't know	12.8%	14.4%	13.0%

Table 12C. Availability of volunteer drivers			
Are there volunteer drivers in your neighborhood who give rides to seniors?	Current Driver N=954	Former Driver N=65	Total N=1019
Yes	26.0%	15.4%	25.2%
No	50.6%	64.5%	51.7%
Don't know	23.4%	20.1%	23.1%

Table 12D. Availability of taxi service			
Is taxi service available in your neighborhood?	Current Driver N=977	Former Driver N=67	Total N=1044
Yes	55.9%	45.6%	55.2%
No	36.3%	45.8%	37.0%
Don't know	7.8%	8.6%	7.8%

Sixty-six percent of the respondents reported that special transit services such as dial-a-ride or senior vans were available in their neighborhoods. Regular transit bus service was available in the neighborhoods of 33% of the respondents, taxis in 55%, and volunteer drivers in 25%. Uncertainty about the existence of a service varied with the service. Over 23% of the respondents did not know if there was a volunteer driver program in their area, and 13% did not know if they had special transit service. Only 8% were uncertain about taxi service, and 6% were uncertain about regular transit bus service.

Those respondents who reported that a public transportation service was available in their neighborhood were asked, in an open-ended question, how they knew that it was available. Table 13 shows the distribution of the ways by which the respondents became aware of each of the public transportation services.

Table 13. Ways of learning about public transportation services

How did you become aware of this transportation service?	Regular Transit Bus N= 331	Special Transit N=688	Volunteer Drivers N=258	Taxi N=560
Saw vehicles and/or stops	75.5 %	36.3%	-	65.4%
Friends/family	2.4%	14.8%	36.0%	6.1%
Newsletter, newspaper	9.5%	26.8%	15.3%	6.7%
Advertising/phone book	6.6%	8.0%	4.3%	13.3%
Senior club, church	0.9	12.3%	31.6%	1.6%
Work(ed) or volunteer(ed) there	0.3%	0.4%	11.6%	0.5%
Don't know	3.7%	0.3%	0.4%	6.3%

Most respondents who knew about the existence of regular transit bus service and taxi service in their neighborhoods knew of it because they saw the vehicles and bus stops. Just over one-third of those aware of special transit service knew about its existence because they saw the vehicles. Another one-fourth learned about special transit from newspapers and newsletters, and about 15% learned about it from their family and friends. About 12% got information about special transit services from senior clubs or church social groups. Awareness of volunteer driver programs came mostly from family and friends and

from senior, church and social groups. About 15% of those who knew about such programs got the information from newsletters or newspapers. Close to 12% of those who knew about a volunteer driver program were themselves volunteer drivers.

Respondents who knew about a particular service in their neighborhood were asked if they had ever used that service. Table 14 shows that about one-fourth of the respondents had used a taxi, about one-third had used a regular transit bus, 10% had used the special transit; and 8% had used the volunteer driver service.

Table 14. Use of public transportation services

Have you ever used this service?	Regular Transit Bus N= 331	Special Transit N=688	Volunteer Drivers N=258	Taxi N=560
Yes	34.5%	10.1%	7.6%	24.3%
No	65.5%	89.9%	92.4%	75.7%

Respondents who had a public transportation service in their neighborhood but had never used it, were asked in an open-ended question why they had not used it. Table 15 shows the reasons given for not using each public transportation service. Multiple responses were possible. N is the number of people responding, and C is the number of comments. The percentages in the table are the percentages of total comments.

The overwhelming reason for not using each of the public transportation services was that the respondents did not need to use them. The regular transit bus service received the greatest variety of negative comments including comments about long waits, inconvenience, and the inability to go where the respondents wanted to go.

Table 15. Reasons for not using public transportation services				
Why haven't you used this service	Regular Transit Bus N=220 C=236	Special Transit N=621 C=646	Volunteer Drivers N=240 C=244	Taxi N=430 C=453
Don't need to	82.9%	92.9%	95.9%	92.2%
Don't know enough about it	0.5%	0.5%	-	-
Can't take me where I want to go	3.8%	1.2%	-	-
Unpleasant	2.1%	-	-	--
Too long to wait	5.7%	1.2%	1.4%	1.3%
Inconvenient	4.1%	2.1%	1.0%	0.4%
Not available when needed	0.4%	0.8%	0.3%	-
Don't feel safe	0.4%	-	0.5%	-
Costs too much	-	-	-	3.1%

Respondents who used a public transportation service were asked how often they used the service. Table 16 shows that most of those who used the public transportation service did so rarely.

Table 16. Frequency of public transportation use by service				
How often do you use this service?	Regular Bus N=109	Dial-a-ride N=66	Volunteer Drivers N=18	Taxi N=130
Often	7.3%	10.2%	14.8%	2.2%
Occasionally	16.0%	12.1%	22.9%	12.3%
Rarely	76.7%	77.7%	62.3%	85.5%

The level of satisfaction with each of the public transportation services was asked of those who reported using the service. Table 17 shows the distribution of the responses for each public transportation service.

Table 17. Satisfaction with public transportation services				
How satisfied are you with this service?	Regular Transit Bus N=93	Special Transit N=60	Volunteer Drivers N=18	Taxi N=130
Very satisfied	45.7%	63.9%	89.0%	55.9%
Somewhat satisfied	29.7%	28.7%	11.0%	30.8%
Somewhat dissatisfied	15.4%	4.8%	0%	8.1%
Very dissatisfied	9.2%	2.5%	0%	5.2%

The majority of those who used a public transportation service stated that they were at least somewhat satisfied. All of the respondents who used the volunteer driver service were at least somewhat satisfied and 89% were very satisfied. Of those who used the special transit services, 64% reported being very satisfied. Of those who used taxi services, 56% were very satisfied as were 46% of those who used the regular transit bus service.

The respondents who were at least somewhat satisfied were asked in an open-ended question why they were satisfied. Their reasons are shown in table 18. Again multiple responses were possible. N is the number of respondents, C is the number of comments, and the percentages given are the percentages of comments.

The most frequent reason for satisfaction with the public transportation mode was that it took the person where he/she wanted to go, i.e., it provided mobility. Convenience and reliability/punctuality were also frequently noted for all the services.

There were some users who were not satisfied with the public transportation services. About one-quarter of the regular transit bus users and 13% of those who used taxis were at least somewhat dissatisfied. Very few users of special transit and no users of the volunteer driver program reported being dissatisfied. These respondents were asked in an open-ended question why they were dissatisfied. Their responses are given in Table 19.

Table 18. Reasons for satisfaction with public transportation services				
Why are you satisfied?	Regular Transit Bus N=49 C=76	Special Transit N=12 C=19	Volunteer Drivers N=17 C=21	Taxi N=101 C=141
Takes me where I want to go	27.9%	36.3%	33.0%	25.8%
Convenient	11.3%	19.3%	13.6%	16.0%
Reliable/punctual	20.6%	14.8%	13.7%	5.4%
Inexpensive (relatively)	4.9%	4.8%	-	7.8%
Pleasant	11.1%	4.6%	10.7%	5.1%
Safe	5.0%	-	13.4%	0.8%
Don't have to ask others for a ride	1.2%	5.9%	3.6%	7.3%
Good drivers	5.6%	1.1%	10.8%	4.4%
Clean/good equipment	1.2%	4.6%	4.8%	0.9%

Table 19. Reasons for dissatisfaction with public transportation services				
Why are you dissatisfied?	Regular Transit Bus N=23 C=33	Special Transit N=4 C=5	Volunteer Drivers N=0 C=0	Taxi N=16 C=22
Takes too long	15.9%	19.4%	-	8.4%
Inconvenient	18.1%	52.8%	-	
Unreliable/not punctual	29.9%	27.8%	-	22.8%
Unpleasant	15.2%	-	-	28.8%
Unsafe	2.6%	-	-	10.4%
Other passengers	6.7%	-	-	-
Bus stop too far away	6.1%	-	-	-
Expensive (relatively)	-	-	-	22.5%

The most frequent reason given by users for dissatisfaction with public transportation services was that the service was unreliable/unpunctual and that it took too long. Several respondents commented that the regular transit bus and special transit were inconvenient, that the regular bus and taxi were unpleasant, and that the taxi was expensive.

Planning for the future

The focus group results suggested that many older drivers did not plan or prepare for the time when they would not be able to drive themselves. This issue was examined in the telephone survey using a classification of drivers based on responses to the question "Is there a real chance that your driving ability could become a problem within the next five years?" The responses to this question were strongly related to self-reported driving behavior and physical condition. The question proved to be a good discriminator for behaviors associated with driving reduction such as decreases in miles driven, and avoidance of and discomfort with driving in bad weather, heavy traffic, unfamiliar areas and on freeways. It also correlated well with self-reported overall health, vision, and functionality (see 14). Thus, it seemed that if anyone was thinking about a future without driving, it should be the drivers who felt that they might have problems with their driving ability in the near future. Table 20 shows the distribution of drivers by responses to this question.

Table 20. Is there a real chance that your driving ability could become a problem within the next five years? N=966

No	Do not know	Yes
56%	13%	31%

Drivers were asked how much thought they had given to what they might do if they had to stop driving. Table 21 shows the distribution of responses by the perceived chance of problems with driving ability within five years. Drivers who thought that there was a real chance of a problem with their driving ability within five years appeared to be five times more likely to have thought a lot about the situation than those who did not perceive a potential problem.

Table 21. Amount of thought about stopping driving by perceived chance of driving ability problem within five years			
How much have you thought about what you might do if you had to stop driving?	*Is there a real chance that your driving ability could become a problem within the next five years?*		
	No N=544	Do not know N=118	Yes N=299
A lot	2.6%	3.8%	13.8%
Some	21.1%	28.0%	38.9%
A little	31.3%	24.1%	29.1%
Not at all	45.1%	44.1%	18.3%

The drivers who had thought at least a little about what they might do if they had to stop driving were asked if they thought about anything specific that they might do. Approximately half of the drivers stated that they had thought about specific actions and half reported that they had not. There was no significant difference by the perceived chance of a problem in driving ability in the next five years.

Table 22. Thoughts of specific actions by perceived chance of driving ability problem within five years			
Have you thought of anything specific you might do if you had to stop driving?	*Is there a real chance that your driving ability could become a problem within the next five years?*		
	No N=299	Do not know N=65	Yes N=242
Yes	51.6%	48.0%	53.7%
No	48.0%	52.0%	46.3%

Those respondents who said that they had thought about specific things they might do if they had to stop driving were queried if they had thought about the following:

- Moving somewhere with better public transportation services
- Moving to senior housing with transportation
- Moving closer to children

- Making arrangements for rides
- Learning more about public transportation

The distribution of their responses is shown in table 23, classified by their response to the question about the perceived chance of a problem in their driving ability within the next 5 years. An example helps to interpret the table. The first cell of table 23 shows that 32.9% of those respondents who said that there is no real chance that their driving ability could become a problem within five years, had thought about moving somewhere with better public transportation services.

Table 23. Percent who thought about specific action by perceived chance of problem in driving ability within five years

Yes, have thought about the following	*Is there a real chance that your driving ability could become a problem within the next five years?*		
	No	Do not know	Yes
Moving somewhere with better public transportation services	32.9% N=155	31.4% N=31	35.7% N=130
Moving to senior housing with transportation	33.5 % N=155	37.7% N=30	32.5% N=129
Moving closer to children	19.8% N=153	17.7% N=29	20.9% N=128
Making arrangements for rides	23.1% N=156	39.1% N=31	45.2% N=130
Hiring someone to drive	8.6% N=156	26.1% N=31	17.8% N=130
Learning more about public transportation	30.1% N=153	28.0% N=31	27.4% N=130

The table shows that about one-third of those who had thought specifically about what they might do if they have to stop driving thought about moving someplace with better public transportation or to senior housing with transportation. About 20% thought about moving closer to their children. About 30% thought about learning more about public transportation.

There was no difference among the respondents by their perceived chance of a problem in their driving ability within the next five years for these specific actions. There were differences, however, by this classification when thinking about arranging for rides and/or hiring someone to drive. Drivers who felt that there was a real chance that they might have a problem with their driving ability within the next five years were more likely to have thought about ways of arranging for rides than those who did not perceive a real chance of a problem.

Former drivers were asked if they had made any preparations for the time that they would have to stop driving. All of them responded that they had not made any arrangements prior to stopping driving.

Drivers were asked how long they expected to keep driving. Their responses are shown in table 24, classified by their perception of a real chance of driving ability problems within five years. Current drivers who thought that there might be a problem with their driving ability in five years expected to keep driving for shorter periods than the other drivers. However, about one-third expected to continue driving from 5 to 10 years and 18% expected to keep driving for 10 years or more. This indicates that about half of the drivers over 65 who felt that their driving ability will be impaired in some way within the next five years, still expected to keep driving for more than five years.

Table 24. Expected years of driving by real chance of driving problem within 5 years

How long do you expect to keep driving?	*Is there a real chance that your driving ability could become a problem within the next five years?*		
	No N=502	Do not know N=83	Yes N=256
Less than 1 year	0.0	0.0	1.34
Between 1 and 3 years	1.5	8.0	15.7
Between 3 and 5 years	12.2	24.4	30.8
Between 5 and 10 years	29.9	28.9	33.6
10 years or more	56.4	38.6	18.4

Summary

The results of the telephone survey of Michigan drivers over 65 and former drivers over 65 who had recently (within the past 2.5 years) been without a driver license showed that the automobile was the primary mode of transportation for older drivers and former drivers. Almost all households of older drivers and two-thirds of households of former drivers had at least one car. About 19% of people whose Michigan driver license had expired in the past 2.5 years continued to drive regularly, and 6% drove occasionally. Of people holding current driving licenses, about 3% did not drive at all.

The transportation needs of most older drivers were met first by driving themselves and second by getting rides from their spouse, children, and friends, or by walking. Most former drivers relied on getting rides from adult children, spouses, and friends. Two thirds of former drivers did not have a second mode of transportation upon which they relied. The rest of the former drivers either walked or used public transportation for their backup transportation.

Use of public transportation systems was quite low among the older drivers and former drivers. Sixty percent of older drivers and former drivers had never used public transportation regularly. Most of those who had experience with regular use of public transportation had used it long ago.

Less than 1% of drivers and about 6% of former drivers over 65 years of age, used any form of public transportation regularly. Most of those who used public transportation services were satisfied with the service, although there was some dissatisfaction with the routes, inconvenience, and long wait and travel times on regular transit buses, and with the expense of taxis. When nonusers of public transit were asked why they did not use public transportation, they responded that they did not need to.

Some older drivers and former drivers were not aware of what public transportation services were available in their neighborhoods. About 13% did not know if there was a special transit service, and 23% did not know if there was a volunteer driver program in their neighborhood. Although most respondents knew whether or not they had regular transit

bus service and taxis, 10% did not know. It appears that awareness of a public transportation service is related to the visibility of its vehicles. Information about services specific for older people appears to be disseminated at senior clubs, church organizations, and through newspapers and newsletters. Also family and friends appeared to be a source of information about transportation services for seniors.

Older drivers did not seem to make preparations for the time when they can no longer drive. None of the former drivers in the study had made any specific preparations for their mobility prior to stopping driving. However, some older drivers did consider the possibility that they might not be able to drive themselves and did think about what they might do to meet their mobility needs. Drivers who thought that there was a real chance of problems with their driving ability within the next five years were five times more likely to have started considering what they might do if they could no longer drive themselves. However, most older drivers who started thinking about what could be done were equally likely to have thought about learning about public transportation or moving someplace where transportation may be easier. This included moving to places with better public transportation, to senior communities that provide transportation, or closer to their children. People who perceived a real chance of problems in their driving abilities in the near future were more likely to have started thinking about arranging for rides. Even though older drivers thought about alternatives to driving, the majority expected to drive even with driving ability concerns. Over half the drivers who perceived that they would have problems driving within five years, expected to keep driving beyond five years.

4. CONCLUSIONS

The findings from the focus group and telephone survey show that the automobile is by far the preferred mode of transportation for older drivers and former drivers in Michigan. The majority of older drivers expected to keep driving as long as they could even if they had concerns about their driving ability. When they could not drive themselves, they relied on their spouse, if they had one who still drove, or their family and friends. Most made no other preparations for the time when they could no longer drive. This group had little experience with public transportation and used it only when there were no other options.

These findings have several implications for the planning of safe and acceptable mobility for older people. The first is that it is desirable to help older drivers keep driving as long as it is safe, and to help them stop when it is no longer safe. For example, driving evaluations can be of value in determining if it is safe or to set limitations on when it is safe to drive. Driving refresher courses may help to keep up the older person's driving skills. New intelligent transportation system (ITS) technology may provide some help with systems for vision enhancement and wayfinding, but care must be taken that such systems truly help the older person and do not make the task of driving more difficult.

It appears that alternative transportation for older people would be more acceptable if it had some of the characteristics of the private automobile. Volunteer driver programs are an example of such an alternative. Although there were not many people in this study who got rides from volunteer drivers, all those that did were satisfied. However, other combinations of vehicles and drivers could be developed. Group ownership of a fleet of automobiles, which are driven by volunteers or by hired drivers is a possibility. Some programs of this type already exist (17). These could be adapted to other communities. Simplifying the processes by which older people hire drivers for their own automobiles is another way of helping to provide mobility for older people. At the present time, insurance issues and social security payments make this a difficult option.

This study suggests that innovative ideas are needed when designing and planning systems, options, and services concerned with the mobility needs of the elderly in the near future.

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APPENDIX A
Demographics of Telephone Survey Respondents

Table A-1. Distribution of Driving Status by Sex		
	Drivers N= 986	Former Drivers N= 67
Male	43.7 %	18.2 %
Female	56.3 %	81.4 %

Table A-2. Distribution of Driving Status by Age Category		
Age	Drivers N= 986	Former Drivers N= 67
65 - 74	52.0%	21.0%
75 - 84	42.2%	43.6%
85+	5.8%	35.4%

Table A-3. Distribution of Marital Status		
	Drivers N= 986	Former Drivers N= 67
Married	62.6%	37.7%
Widowed	27.4%	55.6%
Single	10.0%	6.7%

Table A-4. Distribution of Race		
	Drivers N= 986	Former Drivers N= 67
White/Caucasian	92.7%	95.5%
Black/African American	4.8%	1.5%
Other	1.8%	3.0%
Refused	0.7%	0.0%

Table A-5. Distribution of Education		
	Drivers N= 986	Former Drivers N= 67
<High school	18.9%	26.9%
High School	%35.1	49.2%
Some college/tech	25.8%	11.9%
College graduate	9.3%	6.0%
Graduate school	10.7%	4.5%
Do not know/refused	0.2%	1.5%

Table A-6. Distribution of Income		
	Drivers N= 986	Former Drivers N= 67
<$25,000	33.8%	62.7%
$25,000 - 49,999	37.0%	19.4%
$50,000-75,000	10.6%	3.0%
>$75,000	7.6%	1.5%
Do not know	3.8%	10.4%
Refused	7.2%	3.0%

Table A-7. Years at present address		
How long have you lived at this location?	Drivers N= 986	Former Drivers N= 67
Less than 1 year	2.1%	1.4%
1 to 5 years	12.5%	14.2%
5 years or more	85.4%	84.4%

Table A-8. Employment		
Do you work for pay outside home?	Drivers N= 986	Former Drivers N= 67
Yes	12.5%	0.0%
No	87.5%	100%

Table A-9. Volunteer work		
Do you do volunteer work outside the home?	Drivers N= 986	Former Drivers N= 67
Yes	45.0%	19.0%
No	55.0%	81.0%