

**OREGON'S MOBILITY NEEDS:
General Population Survey
and
Transportation Provider Survey

FINAL REPORT**

SPR 395

by

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16. Abstract In 1998 the Oregon Department of Transportation conducted a statewide survey to assess the size and geographic distribution of Oregonians who are "mobility impaired," i.e. dependent on others for meeting their transportation needs. The study collected data on the functional abilities and travel habits of the mobility impaired and assessed the effectiveness of current transportation services in meeting their needs. A survey of publicly funded transportation service providers collected information on current services, service improvements and perceptions of latent demand. The major findings and conclusions of the research were as follows: Mobility impairment is a significant problem in the state of Oregon. Improvements to transportation systems should be targeted across the state and in areas of varying population density. The mobility impaired have a wide variety of needs that require complex solutions. Regular fixed route service can help meet the needs of mobility impaired individuals. There are opportunities to meet the needs of mobility impaired individuals by offering regularly scheduled public transportation to key locations in the community. Latent demand for transportation is significant, both for trips within communities as well as for trips between communities. There is significant need for additional fixed route trips and/or Dial-A-Ride trips, both in communities that currently have these services, as well as in communities that do not. The mobility impaired population with access to service report three areas where their needs are not being met: ease of access of service, employees knowledgeable about people with special needs and printed schedules that are easy to understand. Further study is recommended to better understand the needs of social service agency clients, the needs of other transportation disadvantaged individuals, and the costs of meeting the needs of mobility impaired persons.					
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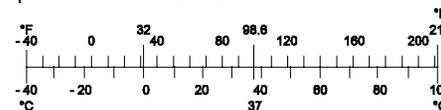
SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol	Symbol	When You Know	Multiply By	To Find	Symbol
<u>LENGTH</u>					<u>LENGTH</u>				
in	inches	25.4	millimeters	mm	mm	millimeters	0.039	inches	in
ft	feet	0.305	meters	m	m	meters	3.28	feet	ft
yd	yards	0.914	meters	m	m	meters	1.09	yards	yd
mi	miles	1.61	kilometers	km	km	kilometers	0.621	miles	mi
<u>AREA</u>					<u>AREA</u>				
in ²	square inches	645.2	millimeters squared	mm ²	mm ²	millimeters squared	0.0016	square inches	in ²
ft ²	square feet	0.093	meters squared	m ²	m ²	meters squared	10.764	square feet	ft ²
yd ²	square yards	0.836	meters squared	m ²	ha	hectares	2.47	acres	ac
ac	acres	0.405	hectares	ha	km ²	kilometers squared	0.386	square miles	mi ²
mi ²	square miles	2.59	kilometers squared	km ²	<u>VOLUME</u>				
fl oz	fluid ounces	29.57	milliliters	mL	mL	milliliters	0.034	fluid ounces	fl oz
gal	gallons	3.785	liters	L	L	liters	0.264	gallons	gal
ft ³	cubic feet	0.028	meters cubed	m ³	m ³	meters cubed	35.315	cubic feet	ft ³
yd ³	cubic yards	0.765	meters cubed	m ³	m ³	meters cubed	1.308	cubic yards	yd ³
<u>MASS</u>					<u>MASS</u>				
oz	ounces	28.35	grams	g	g	grams	0.035	ounces	oz
lb	pounds	0.454	kilograms	kg	kg	kilograms	2.205	pounds	lb
T	short tons (2000 lb)	0.907	megagrams	Mg	Mg	megagrams	1.102	short tons (2000 lb)	T
<u>TEMPERATURE (exact)</u>					<u>TEMPERATURE (exact)</u>				
°F	Fahrenheit temperature	5(F-32)/9	Celsius temperature	°C	°C	Celsius temperature	1.8 + 32	Fahrenheit	°F

NOTE: Volumes greater than 1000 L shall be shown in m³.



* SI is the symbol for the International System of Measurement

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EXECUTIVE SUMMARY

As Oregon's population grows, so does the number of citizens with disabilities and their transportation needs. If solutions are not addressed now, problems for those with impeded mobility will escalate. However, there is no clear understanding of the extent and nature of the transportation needs of persons with mobility impairments. The Oregon Department of Transportation conducted the Mobility Needs Study to investigate these needs and to assess the unmet demand for transportation services among the mobility impaired population in the state of Oregon. The objectives of the research were to:

- 1) Determine the size and geographic distribution of the mobility impaired population within the state of Oregon.
- 2) Characterize the transportation needs and functional abilities of this population.
- 3) Describe the travel habits of this population.
- 4) Assess the effectiveness of current transportation systems in serving the needs of this population.

For the purposes of this study, a "mobility impaired" person was defined as:

Someone who, because of a physical, cognitive or psychiatric impairment, is unable to transport themselves without the use of special equipment or outside assistance and is, therefore, dependent on others to obtain access to health care, employment, education, shopping, social activities, or other life sustaining activities; OR

Someone aged 60 years or older who is unable to purchase transportation and is, therefore, dependent on others to obtain access to health care, employment, education, shopping, social activities, or other life sustaining activities.

Thus a mobility impaired person is someone who is dependent on others for meeting their transportation needs, due to a **disability** or due to a combination of **age and low income**.

The research was conducted in two parts:

- 1) The first part consisted of 578 telephone interviews with mobility impaired individuals, focusing on their needs and abilities. In this survey 8,574 households from throughout the state were screened as to the presence of any condition which might affect their ability to travel outside their home or to access transportation. The survey was stratified by community population:
 - Large City – Portland.
 - Medium City – population greater than 50,000 (excluding Portland).
 - Small City / Town – population between 2,500 and 50,000.

- Rural – all other areas.
- 2) The second part consisted of 129 self-administered, mailed surveys conducted with transportation service providers. The provider survey was mailed to 187 public and private service providers throughout the state.

HIGHLIGHTS OF THE FINDINGS – General Population Survey

Incidence of Mobility Impairment

Eleven percent (11%) of all households in the state of Oregon have one or more individuals who are currently suffering from transportation difficulties. Eight percent (8%) of all households have one or more individuals who are mobility impaired as defined in this study – i.e. dependent on others due to a disability or due to a combination of age and low income (Figure ES.1).

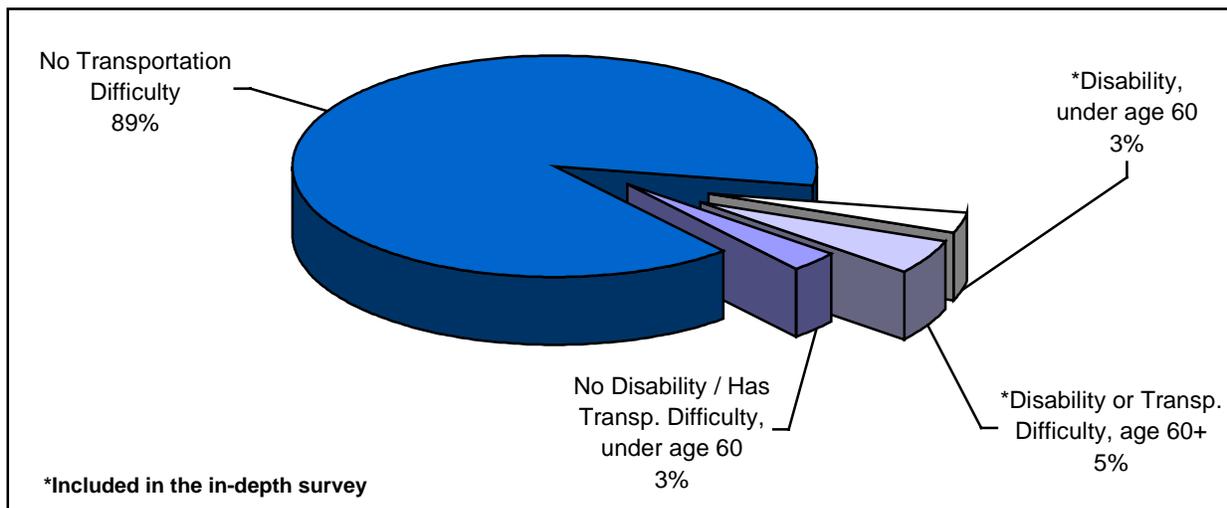


Figure ES.1: Incidence of Transportation Difficulty (Base = All Respondents)

- The incidence of mobility impairment (8%) is more than three times greater than figures reported by similar studies in the past. The higher number reported here is most likely a reflection of a broader definition of mobility impairment. The definition used for this study is consistent with that used for determining eligibility for state Special Transportation Funds.
- The incidence of mobility impairment stays level across the state, regardless of the population of the area. This suggests that transportation services for the mobility impaired should be allocated to all areas of the state.

Based on the survey results the mobility impaired individual is...

- More likely to be female (63%) than male (37%).
- Older – half are 65 and older.
- Less affluent than the average citizen – median household income is \$20,540. Furthermore, one out of five (22%) report an annual household income of less than \$10,000.
- Not currently employed – half are retired and 28 percent are unemployed due to their disability.
- More likely (55%) than not (45%) to use a mobility aid.

The primary disability of more than one out of three (37%) mobility impaired persons is ambulatory in nature; fewer report heart / respiratory (13%), cognitive (11%), or sensory (9%) disabilities, (see Figure ES.2).

The importance of addressing special needs beyond those that are ambulatory is underscored by the findings: 30 percent of mobility impaired individuals report a disability that is varied in nature, such as a stroke, cerebral palsy, or severe accidental trauma. Thus transportation improvements which address only ambulatory limitations are only part of the solution.

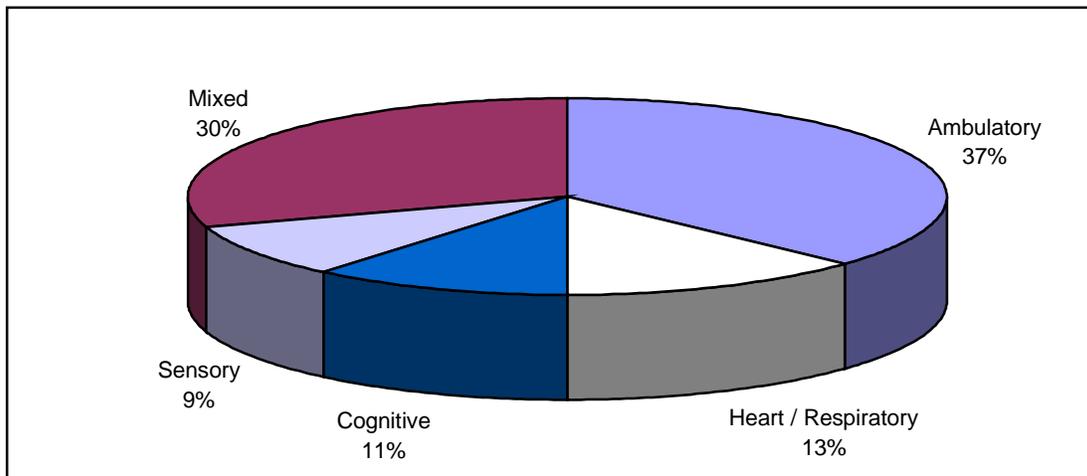


Figure ES.2: Type of Disability (Base = All Mobility Impaired Respondents)

All mobility impaired individuals responding to the survey were asked their ability to perform 16 tasks related to using public transportation. Respondents report the most difficulty with walking six blocks, waiting while standing for 10 minutes, climbing steps, and traveling without a companion. Overall, 75 percent of the mobility impaired indicate they would have difficulty performing one or more six key tasks related to using fixed route public transportation: walking six blocks; waiting for a vehicle for 10 minutes; asking someone for information; hearing what someone is saying; handling coins, bills or tickets; and traveling alone without a companion.

Travel Patterns

Nearly all (98%) of the mobility impaired respondents make at least some trips outside of the home. Overall, mobility impaired individuals travel outside of the home an average of 3.6 days per week (see Figure ES.3). Those who have transportation services available in their community (either fixed route, Dial-A-Ride or other services operated by an entity other than a transit agency) travel on more days than those who have no services available. This finding suggests that public transportation provides an important service to the mobility impaired.

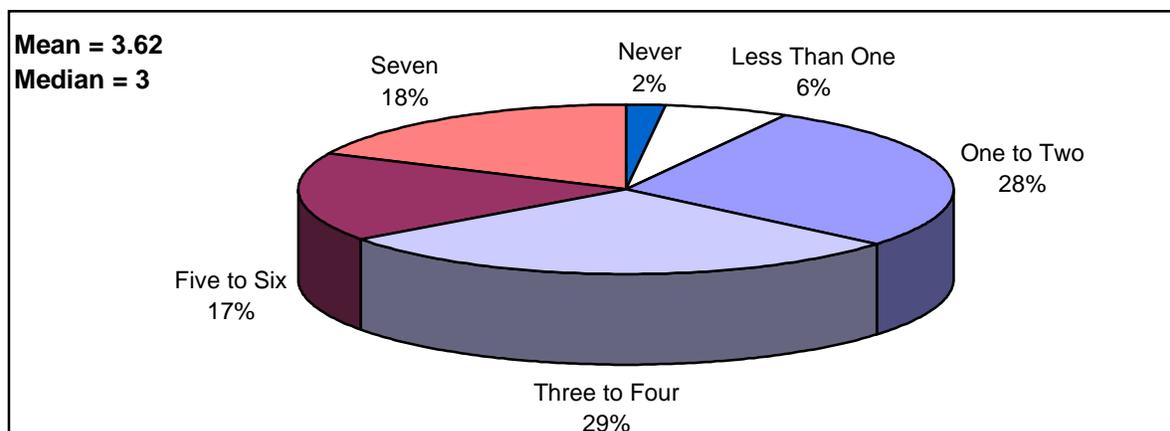


Figure ES.3: Number of Days Traveled Outside the Home
(Base = Mobility Impaired Respondents Who Travel Outside the Home)

Grocery shopping is the trip purpose mentioned most often by the mobility impaired: 68 percent cite it as their primary or secondary purpose when making trips. Other frequently mentioned trip purposes include medical appointments (61%), entertainment (44%) and visiting friends or family (42%).

- The majority of individuals who travel regularly for grocery shopping (77%) do so once a week or more often. This may represent a potential opportunity to provide transportation on a regularly scheduled basis to those with mobility impairments.
- Work or school trips are mentioned as the primary trip purpose 15 percent of the time; an additional 6 percent mention it as a secondary purpose.
- Public transit is an important source of transportation for mobility impaired individuals who regularly travel to work – nearly two out of five (37%) of those who travel to work do so on public transportation.

Access to Public Transportation and Desire for More Services

Two out of five (41%) mobility impaired individuals in Oregon indicate they would like to make more trips in their community but are unable to do so because they do not have transportation. Furthermore, over one-third (34%) say they would like to make more trips to nearby communities, but again are unable to do so because they do not have transportation.

More than four out of five (84%) respondents have access to one or more types of public transit - fixed route, Dial-A-Ride, or other public transportation services (Figure ES.4). Two out of three (65%) have access to fixed route service, one-half (51%) have Dial-A-Ride service, and nearly one out of three (31%) percent have access to other services that provide transportation to seniors and/or disabled individuals.

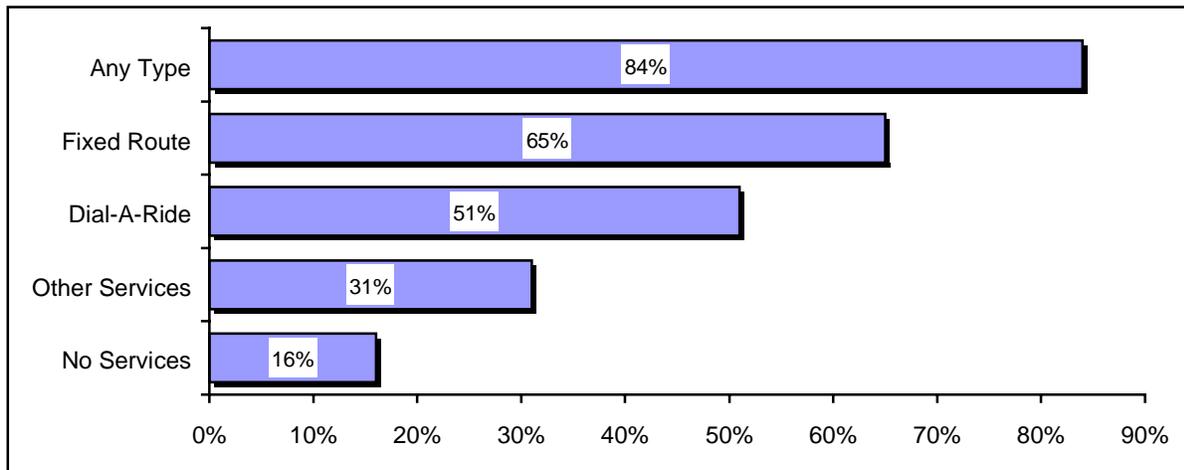


Figure ES.4: Access to Public Transportation (Base = All Mobility Impaired Respondents)

Of all mobility impaired respondents (including those with service and those without), 24 percent indicate they would like to make more trips on existing fixed route service than they currently are. An additional 24 percent of all respondents say they are likely to use fixed route service, if it were to become available, but do not currently have service.

Among all mobility impaired respondents, 17 percent indicate they would like to make more trips on existing Dial-A-Ride service than they currently are. An additional 31 percent say they are likely to use this service, if it were to become available, but do not currently have service.

One third (32%) of mobility impaired individuals strongly support a tax increase to fund additional transportation services in their community, and an additional third (32%) somewhat support this. Fewer (25%) strongly support an increase in bus fare; and 36 percent somewhat support this funding source.

Strengths and Weaknesses of Transportation Services

All respondents were asked to rate the importance of seven public transit service elements. In addition, respondents with specific disabilities were asked to rate the importance of seven other service elements related to their disability.

- The most important service elements include safe operation of the vehicle, personnel that are knowledgeable about special needs, safety of procedures to secure a wheelchair, wheelchair accessible vehicles, and ease of access to the transit location.

- Although still important, less important elements include safety when using the lifts onto / off of the vehicle, availability of alternative schedule formats, availability of lifts, and ease of using the lifts.

Mobility impaired individuals who have access to public transportation were also asked to rate how well service in their community meets their needs. These responses were compared with respondents' ratings of importance in order to identify "strengths" (i.e. areas that are important and also **are** meeting the needs of mobility impaired individuals) and "weaknesses" (i.e. areas that are important and **are not** meeting the needs of mobility impaired individuals).

- Principal strengths include availability of wheelchair accessible vehicles, safety related to operation of the vehicle, safety of procedures used to secure a wheelchair, and ease of getting in and out of the vehicle.
- Weaknesses include ease of accessing service, personnel who are knowledgeable about people with special needs, and easy to understand printed schedules.

HIGHLIGHTS OF THE FINDINGS – Provider Survey

About one-half (52%) of the 129 providers responding to the survey were private non-profit agencies. Forty-four percent (44%) were public agencies and 4 percent were private, for profit agencies.

- The most common type of service provided is Dial-A-Ride, provided by 73 operators or 57 percent of the respondents.
- The second most common type of service is "tailored routes," provided by 53 operators (41%).
- Twenty-six (20%) of the respondents, spread throughout the state, provide fixed route services.

In all, public transportation providers carried over 82 million trips in 1997, of which 13.6 million were taken by seniors and people with disabilities. Seniors and people with disabilities make up a significant share of fixed route transit ridership (14%) and account for 90 percent of the ridership on other modes.

Over 1,500 vehicles are used to provide transit service statewide.

- In the Portland Metro area, about two out of three (68%) are full-size transit buses, but in other areas of the state vans and mini-buses predominate. Three out of four (76%) vehicles in use are accessible to people with disabilities, especially in the case of full-size buses and mini-buses.
- Outside of the Metro area, non-accessible mini-vans and sedans make up a substantial portion of the fleets (38%), reducing the overall percentage of accessibility in these areas.

Only 17 percent of the agencies surveyed believe that public transportation services available to seniors and people with disabilities in their communities meet all or most of those people's needs. This pattern holds throughout the state.

Transportation providers estimate that an 18 percent increase in non-fixed route service would be needed to completely meet the transportation needs of the senior and disabled populations they serve. However, an even greater percentage increase is most likely needed. More than one out of three (35%) mobility impaired individuals who have access to Dial-A-Ride indicate they would like to make more trips on the service.

Providers were asked to rate 15 different needs for improving service for seniors and people with disabilities.

- Providers report the most important need by far is to increase the total number of door-to-door rides available. This is followed by easier to use service for seniors and people with disabilities, and longer service hours.
- One of the relative weaknesses identified in the survey of mobility impaired individuals – personnel who are knowledgeable about people with special needs – receives a relatively low rating of need for improvement among the transportation providers.

CONCLUSIONS AND RECOMMENDATIONS

The survey results will be helpful for planners and decision makers as they work to improve public transportation services for the mobility impaired. Besides the findings in this report, the data collected and the cross-tabulation analysis will be useful at the local, regional and state level. The study provides a baseline for measuring the success of future improvements to the transportation system. Key findings from the study:

- Mobility impairment is a significant problem in the state of Oregon.
- Improvements to transportation systems should be targeted across the state and in areas of varying population density.
- The mobility impaired have a wide variety of needs that require complex solutions.
- Regular fixed route service can help meet the needs of mobility impaired individuals.
- There are opportunities to meet the needs of mobility impaired individuals by offering regularly scheduled public transportation to key locations in the community.
- Latent demand for transportation is significant, both for trips within communities as well as for trips between communities.

- There is significant need for additional fixed route trips and/or Dial-A-Ride trips, both in communities that currently have these services, as well as in communities that do not.
- The mobility impaired population with access to service report three areas where their needs are not being met: ease of access of service, employees knowledgeable about people with special needs and printed schedules that are easy to understand.
- Further study is recommended to better understand the needs of social service agency clients, the needs of other transportation disadvantaged individuals, and the costs of meeting the needs of mobility impaired persons.

1.0 BACKGROUND AND RESEARCH PROCEDURES

1.1 BACKGROUND AND OBJECTIVES

As Oregon's population grows, so does the number of citizens with disabilities and their transportation needs. If solutions are not addressed now, problems for those with impeded mobility will escalate. However, there is no clear understanding of the extent and nature of the transportation needs of persons with mobility impairments. The Oregon Department of Transportation (ODOT) undertook the Mobility Needs Study to investigate these needs and to assess the unmet demand for transportation services among the mobility impaired population in the state of Oregon. The objectives of the research were to:

- 1) Determine the size and geographic distribution of the mobility impaired population within the state of Oregon.
- 2) Characterize the transportation needs and functional abilities of this population.
- 3) Describe the travel habits of this population.
- 4) Assess the effectiveness of current transportation systems in serving the needs of this population.

In order to reach the identified target populations, the research was conducted in two parts. The first part focused on the needs and abilities of mobility impaired individuals. The second part focused on transportation service providers.

There are many factors that could contribute to an individual facing transportation challenges. These factors range from age or health impairment to low-income status and lack of public transportation serving the community. For the purposes of this study, an individual who is "mobility impaired" is defined as follows:

An individual who, because of a physical, cognitive or psychiatric impairment, is unable to transport him/herself without the use of special equipment or outside assistance and is, therefore, dependent on others to obtain access to health care, employment, education, shopping, social activities, or other life sustaining activities.

OR

An individual aged 60 years or older who is unable to purchase transportation and is, therefore, dependent on others to obtain access to health care, employment, education, shopping, social activities, or other life sustaining activities. *(The age-break of 60 or older was selected to coincide with the*

Oregon Special Transportation Fund which defines elderly as 60 years of age or older.)

Thus, in this study mobility impaired people are those who are dependent on others for meeting their transportation needs, due to a **disability** or due to a combination of **age and low income**.

For comparison purposes the census definition of mobility limitation is as follows:

“Persons were identified as having a mobility limitation if they had a health condition that had lasted for 6 or more months and which made it difficult to go outside the home alone.” (*U.S. Bureau of the Census 1992*).

This research was designed to study the needs of those who (due to a disability or age) are dependent on others to gain access to places they want or need to go. Public transportation is often charged with the important responsibility of addressing this population’s needs. In order to understand the requirements of serving this population, it is important that the characteristics of elderly individuals or people with disabilities are explored. The definition of mobility impairment used for this study was carefully chosen to meet this objective; as such, it is worded to include the range of respondents who would most need transportation support. Due to varying objectives, other definitions of mobility impairment may be different in scope and may not be directly tied to the objective of learning how public transportation might meet those needs.

A review of the literature on other studies related to transportation and disabilities helped to provide a conceptual and technical basis for the design of this study (*Crain & Associates 1995, Disability Rights Education and Defense Fund 1996, Javid and Prianka 1993, Kane et al. 1978, Linsalata 1992, Neal 1993*).

1.2 RESEARCH PROCEDURES – GENERAL POPULATION SURVEY

In order to establish the size and geographic distribution of the mobility impaired population, a telephone survey of households throughout the state was conducted to determine the presence of any condition that might affect their ability to travel outside their home or to access transportation.

1.2.1 Sampling Procedures

A sample of 29,673 telephone numbers was drawn using standard methods for developing a probability sample. This method insured that each household in the state of Oregon had a known probability of being selected for an interview. Moreover, this method insured that households with listed and unlisted telephone numbers were included in the sample. A total of 16,846 telephone numbers (57%) were disqualified from the sample for various reasons – business number, non-working number, repeated no answer and repeated busy signal. Successful contact was made with 67 percent of the remaining numbers, resulting in a total of 8,574 households interviewed.

The survey began with a brief, five-minute screening process designed to ascertain the presence of individuals who were mobility impaired. Those identified as mobility impaired individuals were asked to participate in an in-depth survey. Interviews were conducted between February 27 and May 18, 1998. Interviews were conducted daily from 3:00 p.m. to 8:00 p.m. and during the afternoon and early evening hours on weekends. Some interviewing took place in the morning and early afternoon hours so as to include those individuals with alternative schedules.

A total of 578 in-depth interviews were completed. This sample was stratified by community population. That is, the sample was divided into strata based on population counts of the city or town in which respondents resided. Zip codes defined these areas. (A list of the zip codes in each population category is included in Appendix A.) A simple random sample was drawn from within each area. The population categories were defined as follows:

- Large City – Portland.
- Medium City – cities with a population greater than 50,000, excluding Portland.
- Small City / Town – cities or towns with a population between 2,500 and 50,000.
- Rural – towns with a population under 2,500, and all other areas not already described.

Assignment of population type was based on the estimated 1997 population of the community (*Center for Population Research & Census 1998*). This assignment was made regardless of proximity to a large urban area. For example, suburbs of the Portland Metro area were placed into the Small City / Town category if the population of the suburb was less than 50,000.

A minimum of 100 interviews was completed with each of the four population types. A greater number of interviews was completed among the large and medium population types, due to the greater diversity of services offered in these areas. This allowed for sufficient subgroup cell sizes when testing for statistical reliability.

Respondents were also post-coded for analysis into one of four geographic regions, based on their county of residence. The four geographic areas were as follows:

- Portland Metro Area – Clackamas, Multnomah, and Washington counties.
- Northwestern Oregon – Clatsop, Columbia, Tillamook, Yamhill, Polk, Marion, Lincoln, Benton, Linn and Lane counties.
- Southwestern Oregon – Douglas, Coos, Curry, Josephine, and Jackson counties.
- Eastern Oregon – Hood River, Wasco, Sherman, Gilliam, Jefferson, Crook, Deschutes, Klamath, Lake, Morrow, Wheeler, Umatilla, Grant, Harney, Malheur, Baker, Union, and Wallowa counties.

1.2.2 Questionnaire

The screening questionnaire to determine the incidence of mobility impairment contained 25 questions. The screening process was notably shorter for households that did not have any individuals with conditions that limited their ability to get to places they needed to go, and for households which did not have any individuals who had difficulty accessing transportation.

The questionnaire completed by mobility impaired individuals contained approximately 147 questions. (The exact number of questions depended on the individual's responses to several key questions.) Survey length varied widely, with the shortest interviews completed among respondents who had limited ability to make trips outside their home, either because of lack of transportation or due to severe health conditions or impairment.

The questionnaire used a variety of question formats, including closed single- and multiple-response questions for all categorical data. In those situations where not all responses were known, an "other" category was included. These results were then reviewed and, where appropriate, were post-coded into the database. All attitude and evaluation questions used scaled response formats. Scales were typically four points in length. Five open-ended questions were included to provide further clarification of the nature of respondent disability and its impact on the respondent's ability to use types of public transportation. Based on a review of these responses, a code list for each question was developed to capture the range of responses. Results from these open-ended questions were then coded and entered into the respondent database.

The survey instrument contained the following major sections:

- Screening and introductory questions to determine mobility impaired status and reasons for that status.
- Extent of ability to complete transit related activities.
- Nature of trips taken, including frequency and usual mode of transportation.
- Latent demand for trips, both within the community and intercity.
- Use of fixed route services, including limitations of use and unmet needs.
- Use of paratransit or Dial-A-Ride services, including limitations of use and unmet needs.
- Use of other agencies' transportation services, including limitations of use and unmet needs.
- Use of private taxi services.
- Importance and satisfaction with attributes related to using public transportation.
- Demographic questions.

The survey was administered using computer-assisted telephone interviewing technology. The computer program automatically handled all skip and branching patterns. The average amount of time required to complete the questionnaire was 30.6 minutes. A copy of the questionnaire is included in Appendix B.

1.3 RESEARCH PROCEDURES – PROVIDER SURVEY

To accomplish the goals of the provider survey a combination of telephone and mail methodologies was used.

1.3.1 Sampling Procedures

The population of transportation providers consisted of two groups, listed in ODOT's public transportation database: grantees – direct recipients of federal or state funding for public transportation services; and contract providers – organizations under contract to provide transportation services to another entity. An initial telephone call was made to all of these contacts, which totaled 200. This call explained the nature and importance of the study, confirmed who the best person to contact would be, and ascertained if in fact the provider was appropriate for inclusion in the study.

Using the information obtained from the initial telephone call, a questionnaire was mailed to 187 transportation providers included in the sample. If the questionnaire was not returned via mail within two weeks, a follow up call was made to reiterate the importance of the study and urge the respondent to participate. The provider surveys were mailed out on May 13, 1998. A cut-off date of June 15, 1998 was set for returns.

After preliminary analysis of the provider surveys, follow-up telephone calls were made to providers as necessary to clarify ambiguities in the data and obtain further insight into the information provided by the written survey.

A total of 131 surveys was returned. Due to inconsistencies in responses, two surveys were not included in final analysis. The final database thus consisted of 129 completed questionnaires. Thus the final response rate for the provider survey was 70 percent.

1.3.2 Questionnaire

The provider questionnaire contained 68 questions. (A copy is included in Appendix C.) The questionnaire was divided into three sections; most respondents were only required to respond to two of the three sections:

- Description of transportation service provided (type of service, number of trips, hours of operation, etc.)
- Perceptions of latent demand, importance of service improvements, and support for sources of funding to make these improvements and address the unmet demand.
- Use / Consideration of efforts to increase the public's utilization of service.

The questionnaire used a variety of question formats, including closed single- and multiple-response questions for all categorical data. All attitude and evaluation questions used scaled response formats. Scales were four or five points in length. An open-ended question was provided, allowing respondents to record additional comments.

1.4 TRANSPORTATION DEFINITIONS

The following definitions of transportation systems are used in this report:

- **Public transportation service** – Any transportation service which is publicly funded and provides vehicles to transport people between two locations.
- **Public transit / fixed route service** – A transportation service which provides one or more vehicles that travel along a fixed route according to a schedule, and are available to anyone who wishes to use the service. This would not include services that travel between communities.
- **Dial-A-Ride / paratransit*** – A service provided by a public transportation agency, in which the vehicles pick riders up at their door and drop them off directly at their destination. Generally, a person must contact the agency in advance to arrange for this service. Sometimes this service is only available to people with special needs, such as senior citizens or people with health conditions or disabilities. Dial-A-Ride service does not include taxicab service.
- **Other transportation services** – Other groups or agencies in the community that provide transportation services for individuals with health conditions or impairments and/or senior citizens. These do not include taxicab service.

1.5 DATA ANALYSIS AND REPORT FORMAT

Two sets of banner cross-tabulations were done for the General Population Survey, providing insight into how important subgroups (e.g., those under age 60 versus those age 60 and over) responded to each question. One set of banners was run for the Provider Survey. A sample page from each set of banners is included in Appendix D. Complete documentation of the data analysis has been published separately from this report (*Northwest Research Group 1998a, 1998b, 1998c, 1998d*).

The sample size shown for each question in this report is the total number of cases with valid responses for that question. “Don’t knows” and “refusals” are counted as missing values unless “don’t know” is a valid or meaningful response.

For the most part, the data were reviewed and analyzed based on the total sample of mobility impaired individuals. (See page 1 for a definition of mobility impaired.) When significant differences (assuming a 95 percent confidence level) were observed among mobility impaired individuals on key characteristics (e.g. age, use of a mobility aid, etc.), they have been noted in this report. Statistical tests performed included z tests on column proportions, independent t tests on means, and chi-square as appropriate. Discriminate analysis was also performed in some cases.

The report is organized by major topic area. Tables and charts provide supporting data. Some percentages in this report may add up to more or less than 100 percent because of rounding, the permissibility of multiple responses for specific questions, or based on the presentation of abbreviated data.

* The terms Dial-A-Ride and “paratransit” are used interchangeably in this report. The term paratransit was not used in the questionnaire administered to individuals with mobility impairments.

2.0 SUMMARY OF FINDINGS – GENERAL POPULATION SURVEY

2.1 INCIDENCE OF MOBILITY IMPAIRMENT

As part of this study, 8,574 households in Oregon were screened as to the presence of a physical, mental, or other health condition that limited household members' abilities or caused difficulty in getting to places they wanted or needed to go. These individuals were invited to participate in the longer, in-depth survey. All households were also asked if there were any individuals, 60 years of age or older, who had difficulty obtaining transportation to the places they wanted or needed to go. Less than one percent (< 1%) of all households had an individual who was over the age of 59, who did **not** suffer from a health condition that limited their ability to transport themselves, but did have difficulty obtaining transportation. These individuals were also invited to participate in the in-depth survey.

Thus a total of eight percent (8%) of all households have one or more mobility impaired individuals. Figure 2.1 shows the incidence of mobility impairment reported by the respondents.

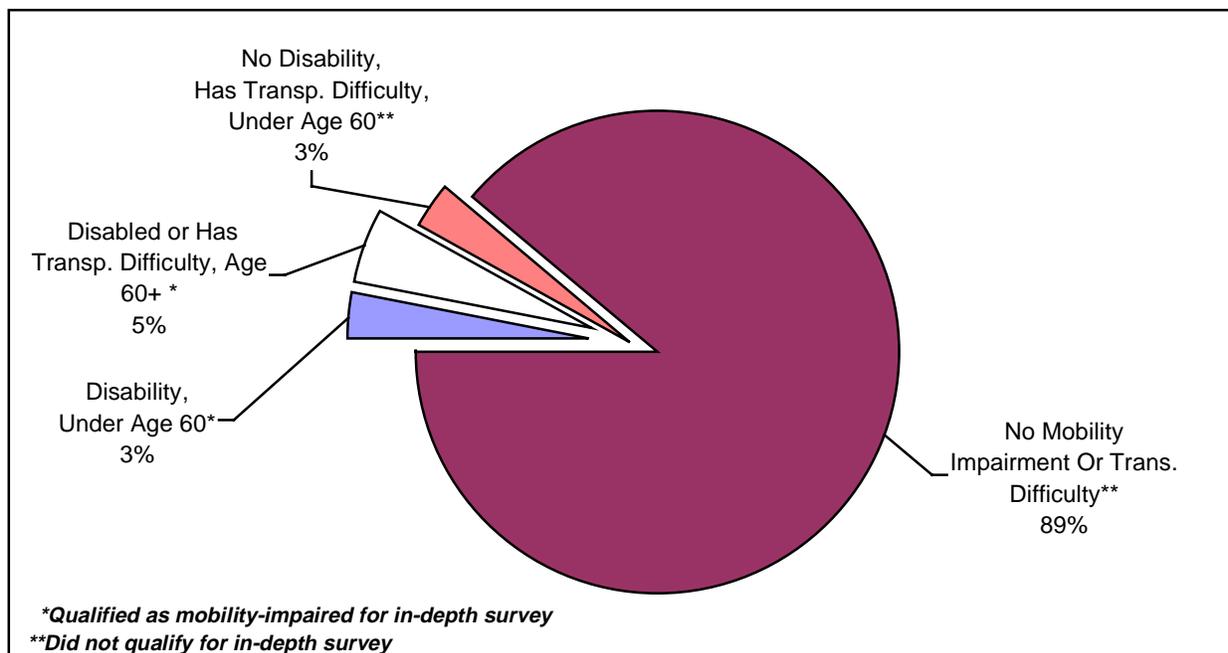


Figure 2.1: Incidence of Mobility Impairment (Base = All Respondents)

This percentage is more than three times greater than that which has been reported in the past. Figures provided by ODOT as well as other national studies have estimated that 2.2 to 2.9

percent of the population is eligible for paratransit under ADA definitions (*Thatcher and Gaffney 1991, KETRON 1987, Grey 1978*). The higher number reported here is a reflection of a broader definition of mobility impairment.

Three percent (3%) of all households reported that although nobody in the household suffered from a health condition or disability, one or more individuals in the household, ages 18 to 59, had difficulty obtaining transportation. Although these individuals could be considered disadvantaged, they did not meet the definition of mobility impaired set for this study and thus were **not** included in this study. Three out of five (60%) of these individuals cited not having a driver's license or "have no car / cannot afford a car" as the reason they had difficulty obtaining transportation.

The incidence of mobility impairment is spread equally across the four geographic areas, as shown in Figure 2.2. The small percentage differences between areas are not statistically significant. (See page 3 for definitions of the four geographic areas.) Similarly, the incidence of mobility impairment is spread equally across communities with varying populations, as shown in Figure 2.3. Again, percentage differences between areas are not statistically significant. (See page 3 for definitions of the four community size groupings.)

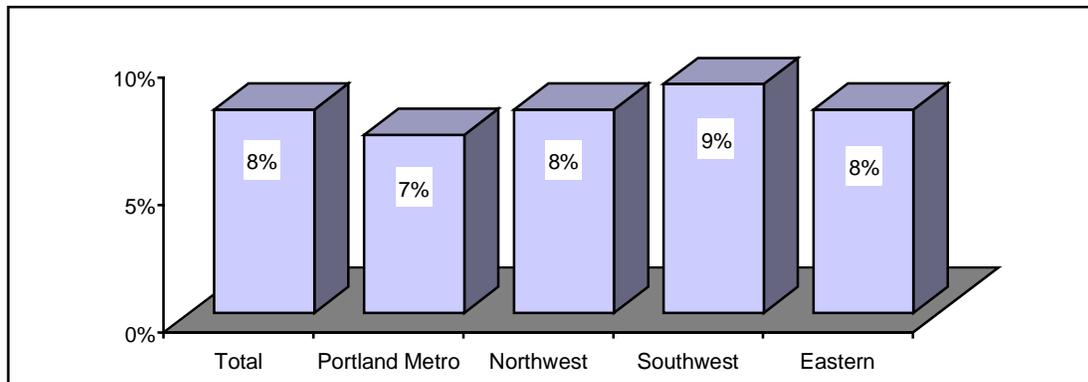


Figure 2.2: Incidence of Mobility Impairment by Geographic Region (Base = All Respondents)

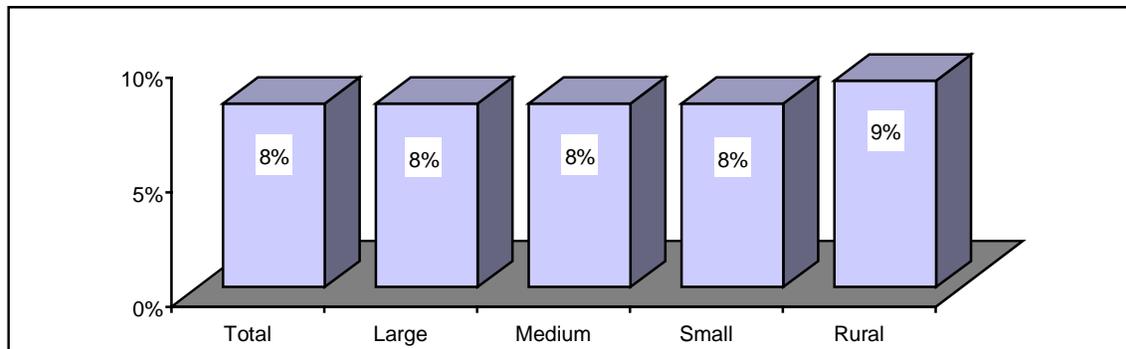


Figure 2.3: Incidence of Mobility Impairment by Population Size (Base = All Respondents)

2.2 DEMOGRAPHIC PROFILE OF MOBILITY IMPAIRED POPULATION

Table 2.1 gives a demographic profile of mobility impaired individuals in Oregon. Overall they are...

- More likely to be female (63%) than male (37%).
- About as likely as not, to be able to transport themselves using a personal automobile. Slightly over half (53%) have a driver's license and/or access to an automobile. Just over half (56%) report having no difficulty obtaining transportation.
- The older members of the population. The median age of the mobility impaired is 64 years. Fifty-eight percent (58%) of mobility impaired individuals are 60 years of age or older.
- Currently not employed. Half (49%) are retired, and 28 percent are unemployed due to their disability. Only 16 percent are currently employed either full or part time.
- Less affluent than the average citizen. The median household income of the mobility impaired is \$20,540. More than one out of five (22%) report an annual household income of less than \$10,000. The median household income in Oregon has been estimated to be \$32,698 in 1995 (*Vaidya 1997*) and \$35,012 in 1997 (*Clark 1997*).
- More likely than not to use a mobility aid such as a wheelchair or a cane / crutches. Fifty-five percent (55%) use a mobility aid.

Mobility impaired individuals who are under 60 years of age are more likely than those 60 and over to be...

- Male.
- Employed either full or part time. However, over half (53%) are unemployed due to their disability.
- Slightly more affluent; their median household income is \$21,071. However, this group has a significantly higher percentage of households under \$10,000, compared to those 60 years or older.
- Non-users of a mobility aid.

Mobility impaired individuals 60 years or older are more likely than those under 60 to be...

- Female. Less than three out of ten (29%) are male.
- Not employed. Not surprisingly, a strong majority (80%) is retired.
- Slightly less affluent. The median household income is \$19,879. About half (51%) of this group earns less than \$20,000 per year.
- Users of a mobility aid (61%).

Table 2.1: Demographic Profile (Base = Mobility Impaired Respondents)*

	Total	Under Age 60	Age 60 Plus
All	100%	42%	58%
Gender			
Male	37%	45%	29%
Female	63	55	71
Ability to Transport Self			
Yes, Driver's License & Car	53%	52%	53%
No Driver's License and/or Car	47	48	47
Transportation Difficulties			
Difficulty Obtaining Trans.	44%	47%	43%
No Difficulty	56	53	57
Employment Status			
Employed	16%	28%	6%
Retired	49	7	80
Unemployed Due To Disability	28	53	9
Other	7	12	5
Age			
Under 35	8%	20%	--
35 to 44	11	26	--
45 to 54	16	37	--
55 to 59	7	17	--
60 to 64	9	--	16
65 to 75	23	--	39
76 Plus	26	--	45
Median Age	64.3 yrs.	46.1 yrs.	74.6 yrs.
Income			
Under \$10,000	22%	26%	20%
\$10,000 to \$20,000	26	22	31
\$20,000 to \$30,000	23	20	26
\$30,000 to \$40,000	12	11	12
\$40,000 to \$50,000	8	10	7
Over \$50,000	9	11	4
Median Income	\$20,540	\$21,071	\$19,879
Mobility Aid Use			
Use Mobility Aid	55%	47%	61%
Does Not Use Aid	45	53	39
Geographic Area			
Metro	38%	33%	41%
Northwest	35	38	33
Southwest	14	16	12
East	13	13	13

*All data are presented as column percentages, except those under the heading "All".

Figures in **boldface** indicate a statistically significant difference from other respondents in that subgroup.

2.2.1 Type of Disability

Respondents report a wide range of disabilities and conditions that affect their ability to get around and/or transport themselves to places they want or need to go. All respondents were asked to name their primary disability. The respondent's disability was then classified into one of five categories based on the primary presenting symptom of that disability:

- Ambulatory (multiple sclerosis, arthritis, paralysis, back injuries, etc.)
- Cognitive (mental illness, Alzheimer's, cognitive impairment or disease, etc.)
- Heart / Respiratory (chronic obstructive pulmonary disease, asthma, heart disease, etc.)
- Sensory (vision, hearing or speaking impediments).
- Mixed / Varied (cerebral palsy, accidental trauma, diabetes, etc.)

Figure 2.4 shows that 37 percent of all respondents have a disability that is ambulatory in nature. Thirty percent (30%) of all respondents have a disability that is mixed or varied in nature.

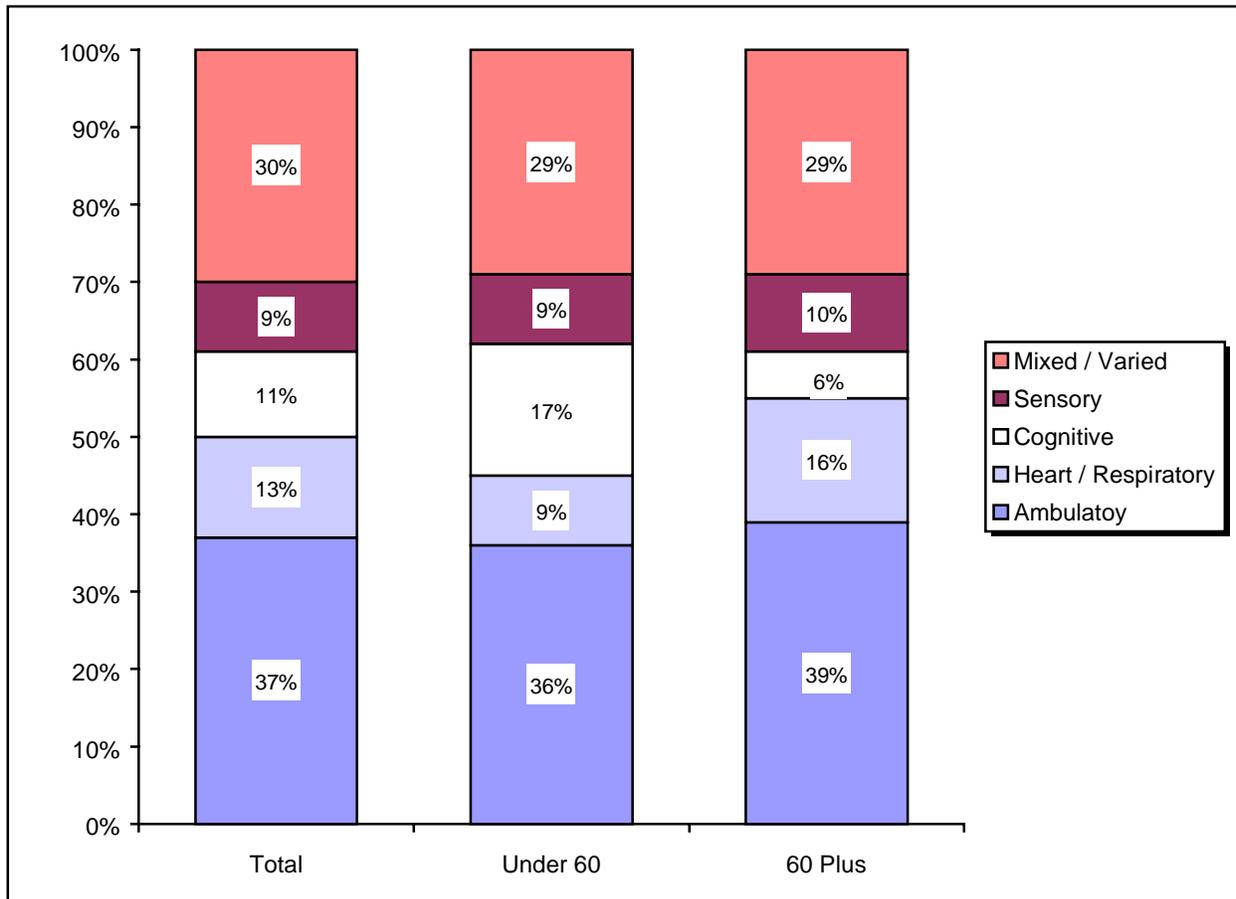


Figure 2.4: Nature of Disability (Base = All Mobility Impaired Respondents)

Individuals' primary disabilities tend to be related to their age. Mobility impaired respondents under the age of 35 most often report the following disabilities:

Disability or Condition	% Responding
Mental Illness	24%
Cognitive Impairment / Disease	11
Cerebral Palsy	11

Mobility impaired respondents between the ages of 35 and 59 most often report the following disabilities:

Disability or Condition	% Responding
Bad Back / Back Injury	11%
Multiple Sclerosis	9
Blind / Vision Problems	9
Mental Illness	8

Mobility impaired respondents between the ages of 60 and 75 report the following disabilities:

Disability or Condition	% Responding
Arthritis	22%
Heart Condition	8

Finally, mobility impaired respondents over 75 years of age report the following disabilities:

Disability or Condition	% Responding
Age / General Old Age	13%
Arthritis	13
Heart Condition	13
Blind / Vision Problems	12
Strokes	10

Nearly two out of three (64%) of those with a disability that limits their ability to get around believe that their disability will continue to limit them 12 months from now, as shown in Figure 2.5.

- The oldest – those over 75 years of age – and the youngest – those under 35 years – are more likely to believe their disability will continue to limit them in the future. Almost three out of four (71%) of those in each of these age groups believe their disability will limit them in 12 months.
- Those 60 to 75 years of age are less likely to believe their disability will continue to limit them. In this age group 57 percent believe that in 12 months they will still be limited to the extent they are now.

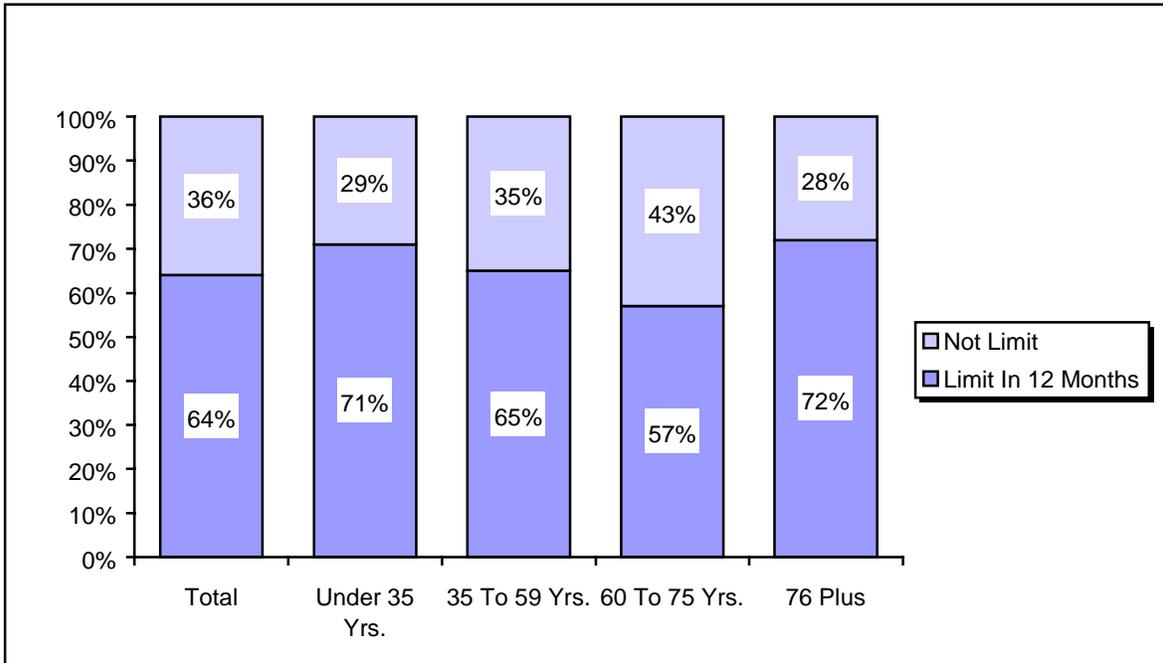


Figure 2.5: Effect of Disability in 12 Months (Base = Mobility Impaired Respondents With Disability)

2.3 ABILITY TO PERFORM TRANSIT RELATED ACTIVITIES

All mobility impaired respondents were asked how much difficulty they would have performing a battery of activities they may need to do to use public transportation. Respondents answered on an anchored four-point scale where “1” meant “not at all difficult,” “2” meant “somewhat difficult,” “3” meant “very difficult,” and “4” meant “not able to do at all.” A wide range of difficulty was reported. Overall, respondents report the most difficulty with the following activities:

Activity	Mean Score (4 = Not able to do at all)
Walking six blocks	2.75
Waiting for 10 minutes while standing	2.38
Climbing up or down steps into a vehicle	2.22
Traveling alone without a companion	2.05
Seeing under different conditions	1.92
Holding bags or packages while riding	1.80
Getting into or out of a seat	1.79

The type and degree of difficulty reported is related to the age of the mobility impaired individual. Figure 2.6 summarizes the responses of those under age 60 and those 60 and over.

- Mobility impaired respondents age 60 and over report more difficulty with most of the transit related activities listed, compared to those under age 60. The most difficult include walking six blocks, waiting while standing, climbing stairs and traveling alone without a companion.
- Further analysis of the data reveals that younger mobility impaired individuals – those under the age of 35 – tend to experience more difficulty than other age groups with some cognitive related tasks, including reading printed schedules, understanding the route name and number on a vehicle, and asking someone for information.

Difficulty with transit activities is also related to the capacity of mobility impaired persons to transport themselves, that is, whether they have both a valid driver's license and an automobile to use. Those without the capacity to transport themselves are more likely to have difficulty and/or a greater degree of difficulty with the following activities:

- Traveling alone without a companion.
- Seeing under different conditions.
- Holding bags or packages while riding.
- Reading a printed schedule.
- Seeing and understanding the route name on a vehicle.
- Reaching or pulling a signal.
- Hearing what someone is saying.
- Handling coins, bills, or tickets.
- Asking someone for information.

On the other hand, mobility impaired individuals who do have a driver's license and a car available for their use are more likely to report a greater degree of difficulty with walking six blocks.

Using the responses to these questions, mobility impaired respondents can be divided into two groups: those who could use fixed route service successfully (provided of course it met minimum requirements for disability accessible vehicles), and those who either would have difficulty using traditional fixed route service or would not be able to use it at all. In this grouping it is assumed the latter group would report the following key activities to be very difficult or impossible to do:

- Walking for six blocks.
- Waiting for a vehicle for 10 minutes while sitting.
- Asking someone for information.
- Hearing what someone is saying.
- Handling coins, bills, or tickets.
- Traveling alone without a companion.

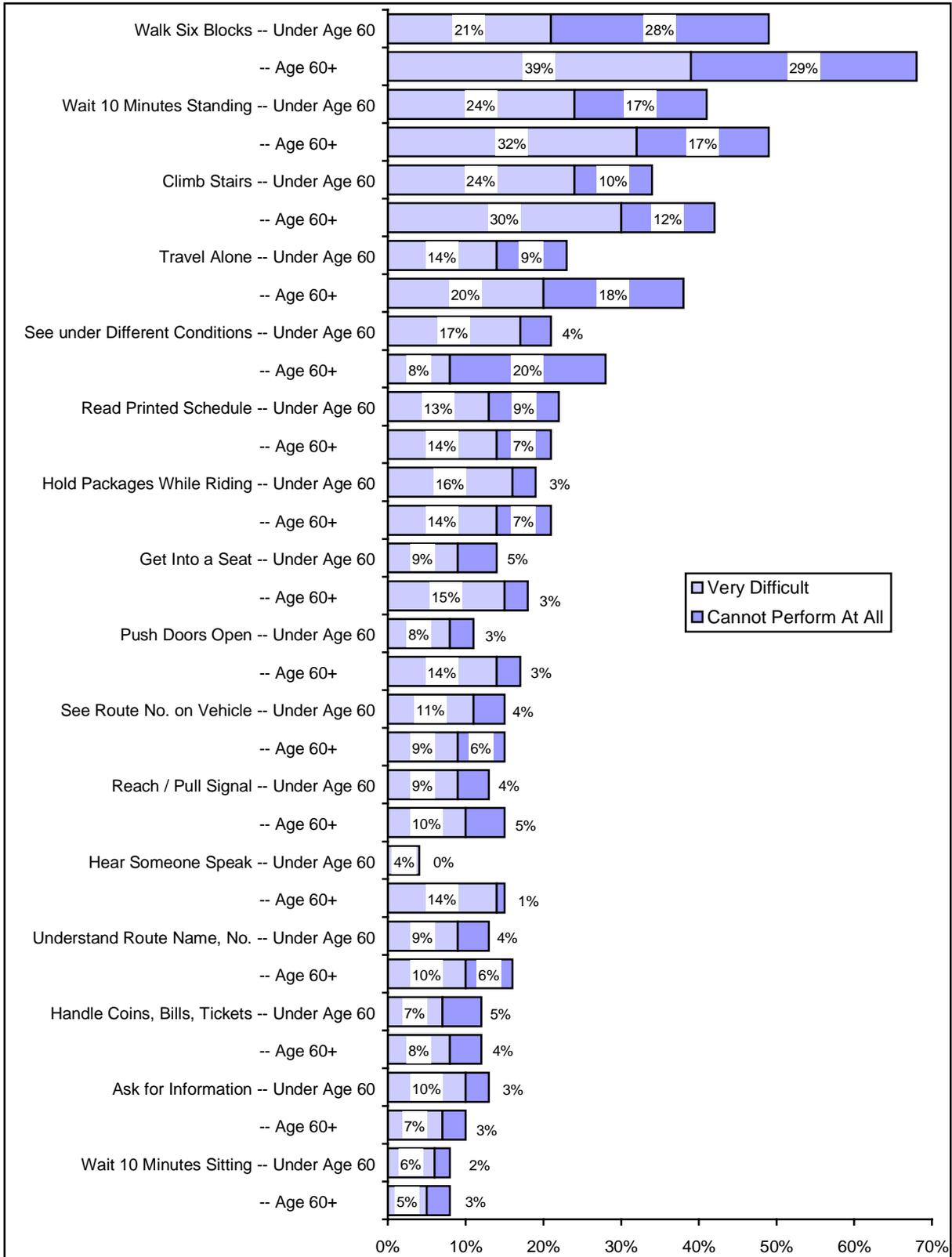


Figure 2.6: Difficulty with Transit Related Activities
(Base = All Mobility Impaired Respondents)

Using this definition, the results of the study show that three out of four (75%) mobility impaired individuals in Oregon would have difficulty using fixed route service. These results are presented in Figure 2.7.

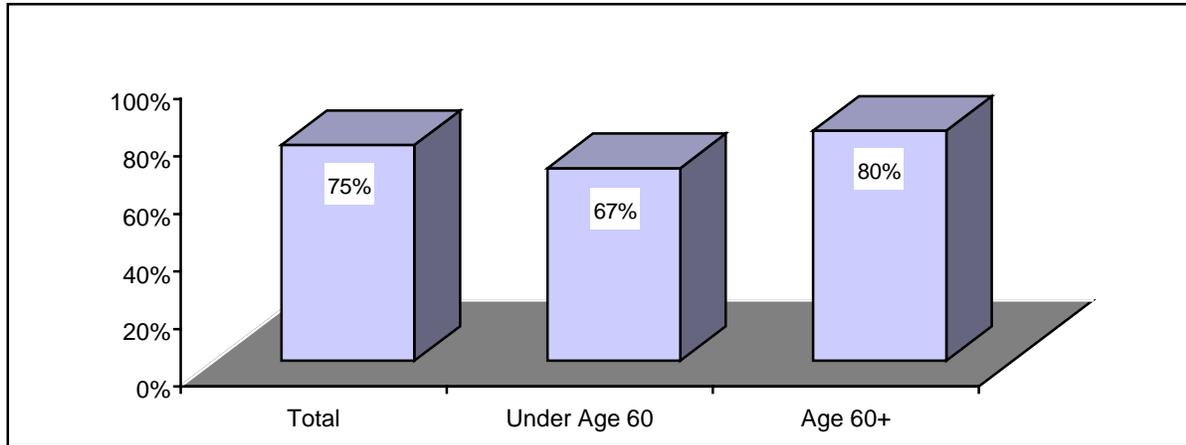


Figure 2.7: Difficulty with Transit (Base = All Respondents)

Table 2.2 compares the characteristics of the survey respondents who indicated “no difficulty” or “some difficulty” in the six key activities with those who indicated these activities were very difficult or impossible.

Those who would have difficulty using fixed route service are more likely to...

- Be female.
- Not have a valid driver’s license. However, those who are less likely to be able to use fixed route services are **not** less likely to have a car available for their use.
- Be among the older members of the population. The median age of those who would have difficulty is 66 years. This can be compared to the median age of 56 years of those who would not have difficulty.
- Be retired. This is most likely a function of age.
- Use a mobility aid such as a wheelchair or cane.
- Never have used fixed route transit services in the past. However, they are not less likely to have fixed route services available in their community.

Table 2.2: Ability to Use Fixed Route Service (Base = All Mobility Impaired Respondents)*

	No Difficulty or Some Difficulty	Very Difficult or Not Able to Do at All
All	25%	75%
Gender		
Male	44%	35%
Female	56	65
Drivers License		
Yes - Have Driver's License	63%	59%
No - Do Not Have Driver's License	37	41
Transportation Available		
Have Access to Personal Auto	70%	79%
Do Not Have Access to Personal Auto	30	21
Employment Status		
Employed	23%	14%
Retired	39	52
Unemployed Due To Disability	30	27
Other	8	7
Age		
Under 35	11%	7%
35 to 44	20	8
45 to 54	18	15
55 to 59	6	7
60 to 64	9	10
65 to 75	20	24
76 Plus	16	29
Median Age	55.5 yrs.	66.0 yrs.
Income		
Under \$10,000	19%	23%
\$10,000 to \$20,000	31	25
\$20,000 to \$30,000	22	23
\$30,000 to \$40,000	10	13
\$40,000 to \$50,000	10	8
Over \$50,000	9	8
Median Income	\$19,190	\$20,854
Mobility Aid Use		
Use Mobility Aid	24%	66%
Does Not Use Aid	76	34
Availability of Fixed Route		
Fixed Route Available	67%	69%
No Fixed Route Available	33	31
Use of Fixed Route		
Used Fixed Route In Past	74%	50%
Has Not Used Fixed Route	26	50

*All data are presented as column percentages, except those under the heading "All".

Figures in **boldface** indicate a statistically significant difference from other respondents in that subgroup.

2.4 TRAVEL PATTERNS

2.4.1 Frequency of Trips

Nearly all (92%) of the mobility impaired respondents interviewed make one or more trips outside of their home per week. An additional 6 percent travel outside their home less than once per week. Only 2 percent of all mobility impaired individuals never leave their home. On the average, mobility impaired respondents travel outside of their home 3.62 days per week. Frequency of travel outside the home is illustrated in Figure 2.8.

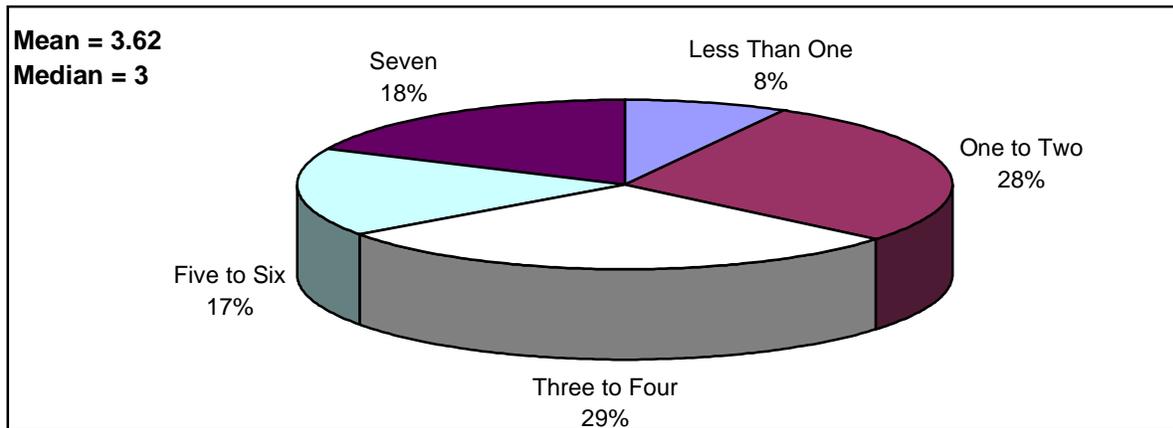


Figure 2.8: Frequency of Travel (Base = Respondents Who Travel Outside the Home)

Table 2.3 summarizes how respondents differ demographically in their travel patterns.

- Males travel outside their home more often than females.
- Frequency of travel follows age closely, with younger respondents traveling more frequently. Those under the age of 35 travel, on average, 5 days per week. Those over the age of 75 travel, on average, less than 3 days per week.
- Those who use a mobility aid to help them get around travel on fewer days per week than those who do not use an aid.
- Those with any transportation services available in their community (either fixed route, Dial-A-Ride or other services operated by an entity other than a transit agency) travel on more days than those who have no services available. There is no difference, however, in number of days traveled between those people who live in communities with fixed route service and those without fixed route service.
- Not surprisingly, those who are able to transport themselves via personal automobile travel more frequently than those who do not have a driver's license or access to a car.
- There is no significant difference in number of days traveled across income groupings.

Table 2.3: Frequency of Travel (Base = All Mobility Impaired Respondents)

	Mean Number of Days Per Week
All	3.62
Gender	
Male	3.99
Female	3.41
Age	
Under 35	4.96
35 to 59	4.09
60 to 75	3.45
Over 75	2.71
Mobility Aid Use	
Use Aid	3.28
Do Not Use Aid	4.07
Income	
Under \$10K	3.51
\$10K to \$20K	3.47
\$20K to \$40K	3.67
Over \$40K	3.91
Transportation Services Available	
Services Available	3.73
No Services Available	3.05
Ability To Transport Self	
Has Driver's License / Automobile	4.02
No License and/or Automobile	3.17

*Figures in **boldface** indicate a statistically significant difference from other respondents in that subgroup.*

2.4.2 Primary Purpose of Trips

All respondents who traveled outside of their home were asked what the primary purpose of their trips was. They were also asked what other types of trips they made regularly. The term “regularly” was not defined to the respondent.

The largest proportion of respondents – 28 percent – cite getting to or from medical appointments as the primary purpose of trips made outside of the home. Grocery shopping is also mentioned frequently: 27 percent of respondents cite this as their primary purpose of travel.

- Those who travel less frequently are more likely to cite medical appointments as the main reason for traveling outside their home. Nearly one half (45%) of those who make 10 or fewer trips per month report that their primary purpose of travel is medical. Among those who make 21 or more trips per month, only 14 percent cite medical reasons as the main reason for leaving their home.
- Those who make more trips – 31 or more per month – are more likely to cite work or school as their primary trip purpose.

Figure 2.9 shows the primary and secondary purposes of trips outside the home for respondents under age 60 and age 60 and over. Figure 2.10 shows the frequency of those trips for the two age groups.

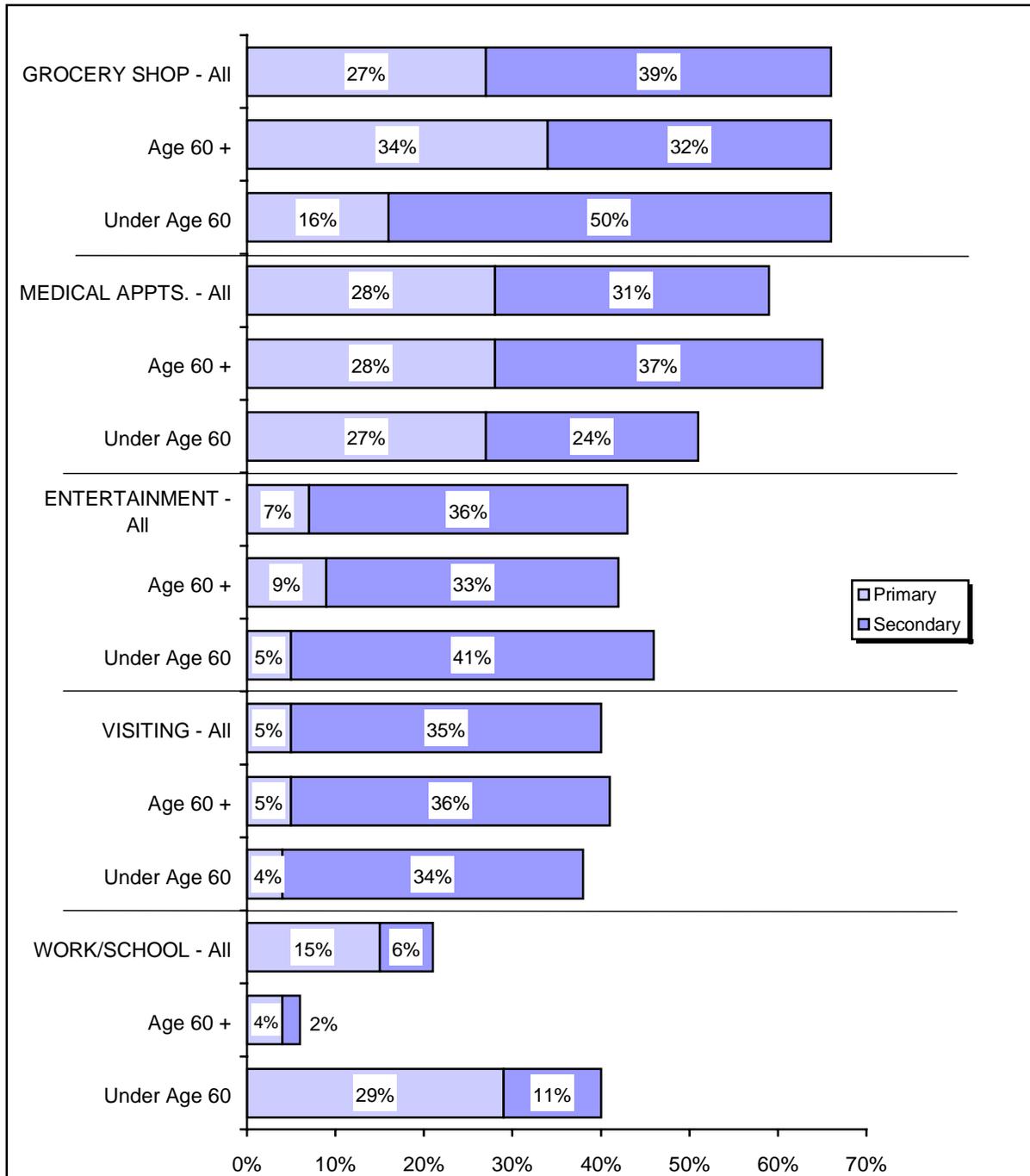


Figure 2.9: Purpose of Trip by Age
(Base = Mobility Impaired Respondents Who Regularly Go Outside Their Home)

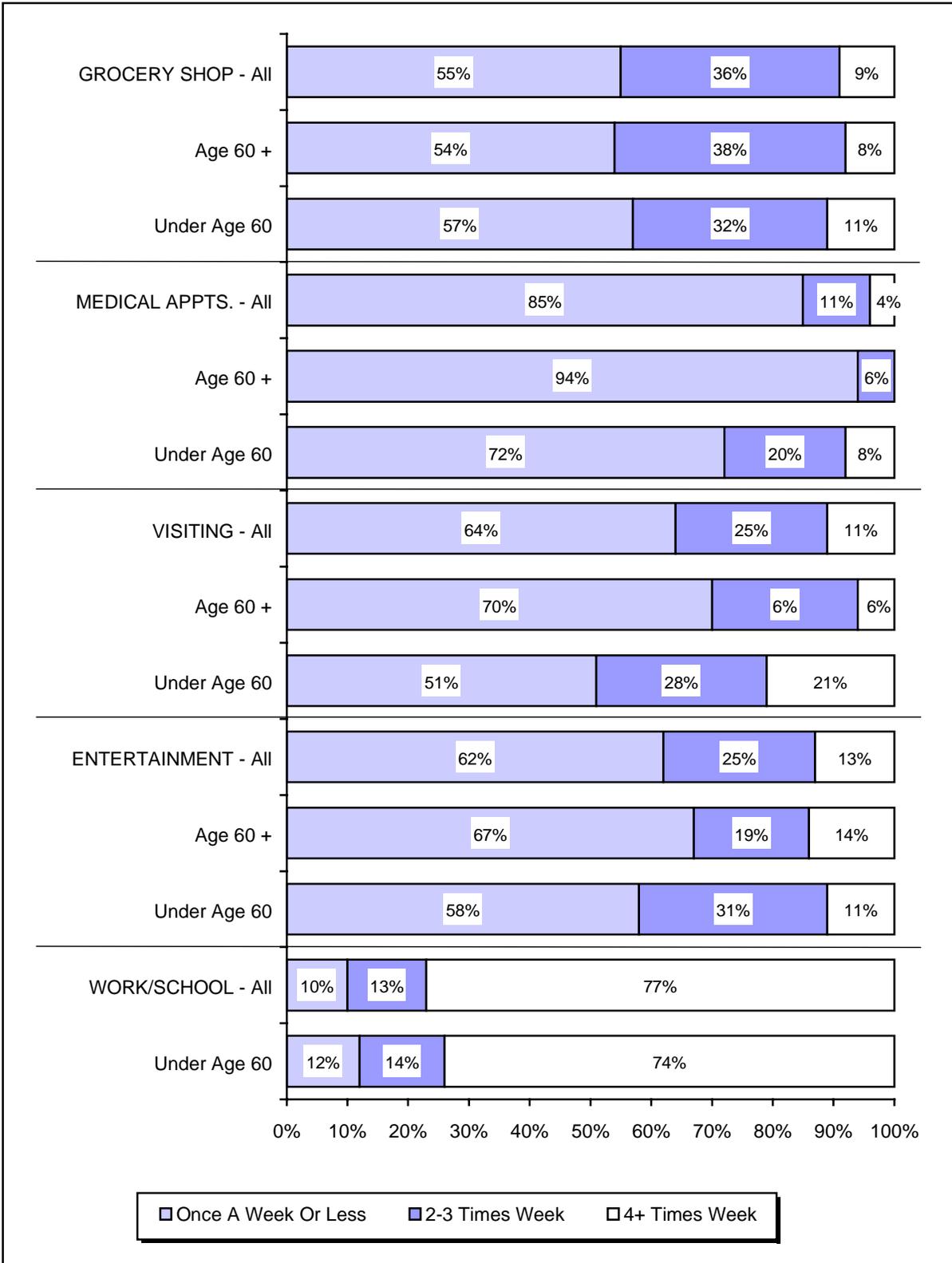


Figure 2.10: Frequency of Travel by Trip Purpose by Age
 (Base = Mobility Impaired Respondents Who Make These Trips Regularly)

2.4.3 Use of Transportation Services by Trip Purpose

To further understand how mobility impaired individuals use public transportation services, responses for various trip purposes were analyzed separately by type of transportation used. Overall the findings show that for many of the trip purposes, persons under age 60 tend to use public transit more than those age 60 and over.

2.4.3.1 Grocery Shopping

Nearly two out of three (65%) of the mobility impaired respondents who make trips outside their home regularly make trips for grocery shopping.

- The majority of individuals who travel regularly for grocery shopping (77%) do so once a week or more often.
- Those who say that they have difficulty obtaining transportation to places they want or need to go are more likely to go grocery shopping less than once a week. Nearly one out of three (32%) go grocery shopping either two or three times a month or once a month. Among those who do **not** have difficulty obtaining transportation, only 14 percent go grocery shopping this infrequently.
- As shown in Figure 2.11, nearly nine out of ten respondents (87%) report an automobile as their means for getting to and from the grocery store. Two out of five (41%) have a family member or friend drive them, one third (31%) drive alone, and 15 percent drive with another person in the car.

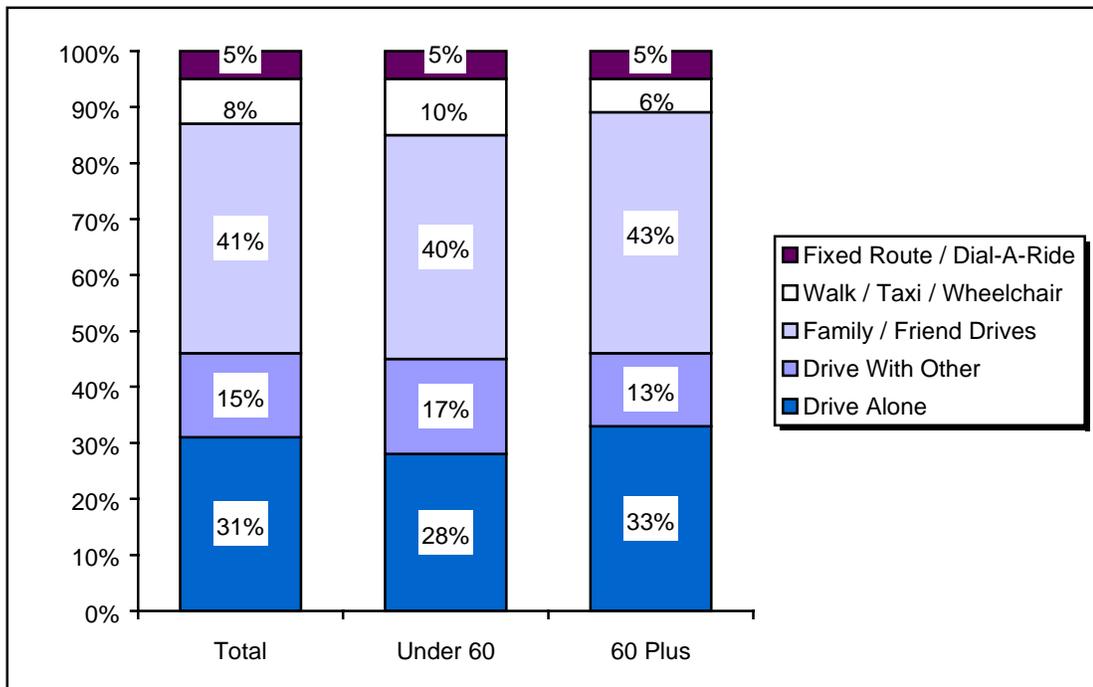


Figure 2.11: Mode of Travel – Grocery Shopping
(Base = Mobility Impaired Respondents Who Regularly Travel For Grocery Shopping)

2.4.3.2 Medical Appointments

Nearly three out of five (59%) of the mobility impaired respondents who make trips outside their home list medical appointments as one of their regular trips.

- Most individuals who travel regularly to and from medical appointments do so less than once a week. However, one out of four make these trips once a week or more often.
- Younger respondents – those under the age of 60 – make more frequent trips to the doctor. Over one out of four (28%) make a trip to the doctor two or three times a week or more. Among those 60 years and older, only 6 percent travel to the doctor more than once a week.
- As shown in Figure 2.12, more than four out of five respondents (82%) report an automobile as their means for getting to and from medical appointments. One-half (50%) have a family member or friend drive them, 20 percent drive alone, and 12 percent drive with another person in the vehicle.
- Among those who have public transit services available to them– either fixed route or Dial-A-Ride – nearly one in five (19%) use these services to get to medical appointments. This finding underscores the value of this service to accommodate this population’s needs.

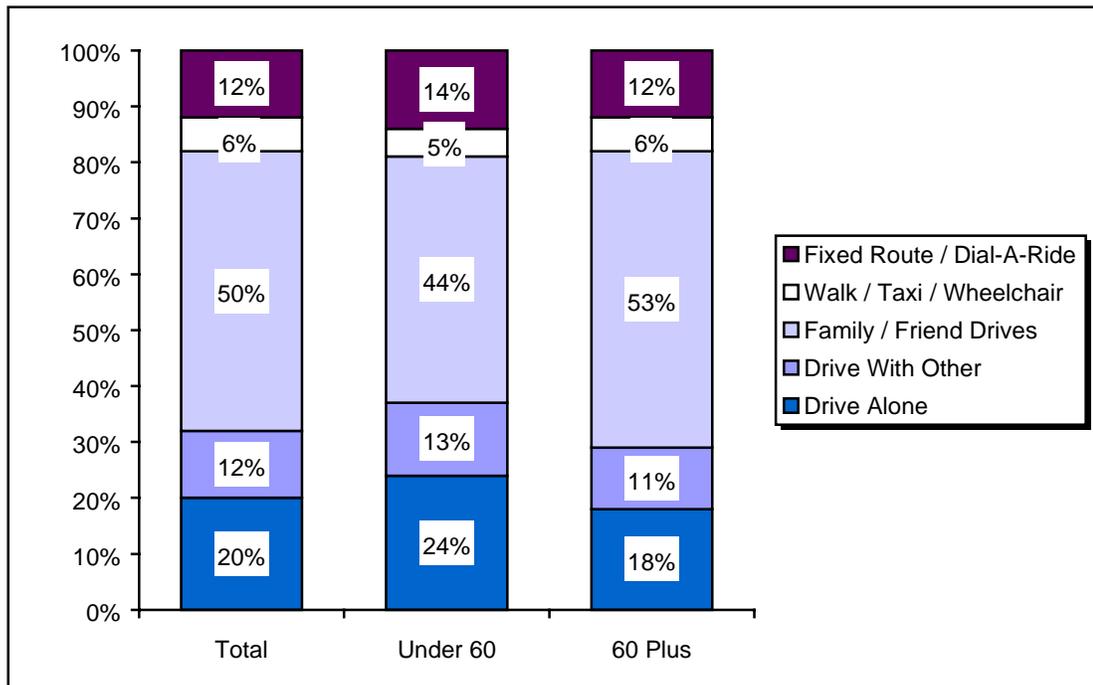


Figure 2.12: Mode of Travel – Medical Appointments
(Base = Mobility Impaired Respondents Who Regularly Travel For Medical Purpose)

2.4.3.3 Entertainment

About two out of five (43%) of the mobility impaired respondents who travel outside their home regularly make trips for entertainment or recreation purposes.

- One out of four (25%) respondents make these trips two or three times a week; a total of 49 percent either make these trips once a week (26%), or two or three times a month (23%).
- Younger respondents make these trips more often; only one out of ten of those under 35 years, who make these trips at all, make them once a month or less.
- As shown in Figure 2.13, more than four out of five respondents (85%) report an automobile as their means for getting to and from trips for entertainment and recreation. One half (51%) have a family member or friend drive them, 15 percent drive alone, and 19 percent drive with someone else in the vehicle. Those under the age of 60 are more likely than those 60 or older to use public transit for these trips.

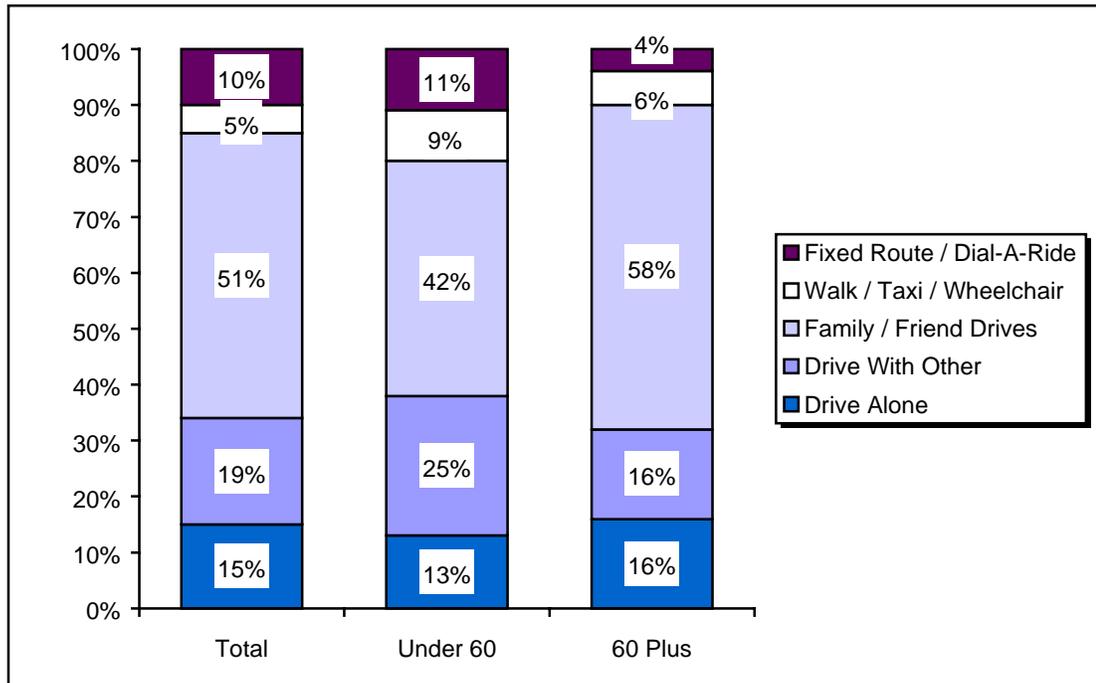


Figure 2.13: Mode of Travel – Entertainment / Recreation
 (Base = Mobility Impaired Respondents Who Regularly Travel For Entertainment)

2.4.3.4 Visiting

Two out of five (40%) of the mobility impaired respondents who travel outside their home regularly make trips to visit friends or family.

- One out of four (25%) respondents make these trips two or three times a week; 50 percent either make these trips once a week (22%), or two or three times a month (28%).
- Of those who make these types of trips at all, middle-aged respondents make them most often; one out of four of those in the 35 to 59 age bracket make this type of trip four times a week or more.
- As shown in Figure 2.14, more than four out of five respondents (85%) report an automobile as their means for getting to and from trips for visiting friends or family. Forty-six percent (46%) have a family member or friend drive them, 28 percent drive themselves, and 11 percent drive with someone else in the car. Those under the age of 60 are more likely than those 60 or older to use public transportation to make these trips.

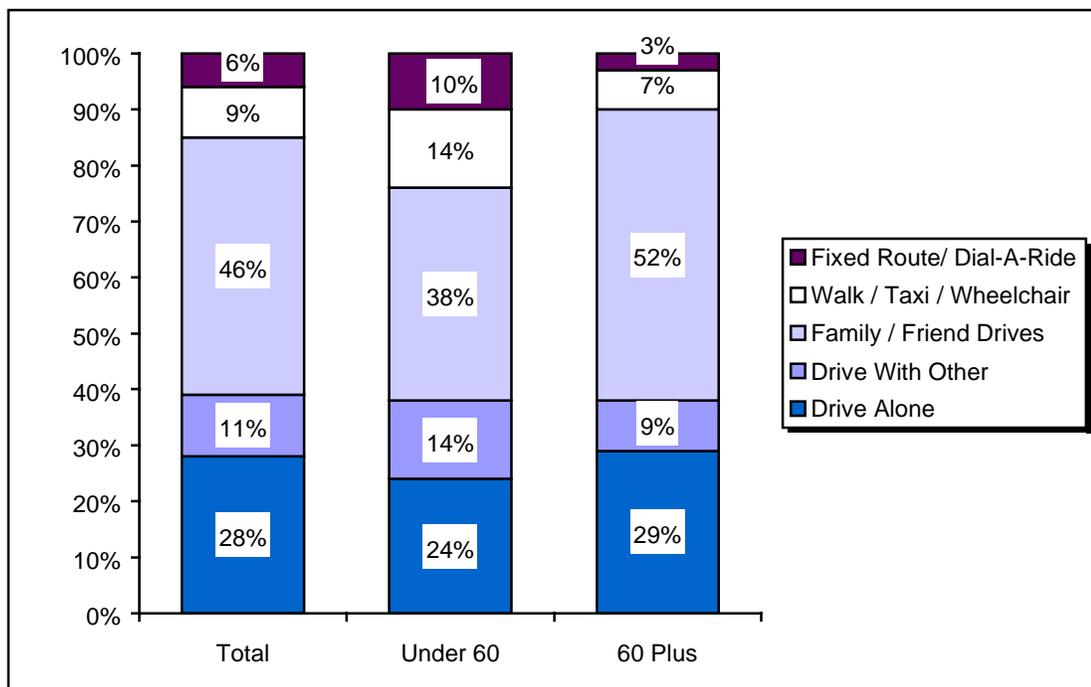


Figure 2.14: Mode of Travel – Visiting Friends / Family
(Base = Mobility Impaired Respondents Who Regularly Travel For Visiting)

2.4.3.5 Personal Business

About one out of five (22%) of the mobility impaired respondents who travels outside their home regularly make trips for personal business.

- The frequency of making these types of trips ranges from two times a week or more often (37%) to once a month or less often (23%).
- There is no difference in frequency of these trips across the age groups.
- As shown in Figure 2.15, four out of five (80%) respondents report an automobile as their means for getting to and from these trips. Thirty percent (30%) have a family member or friend drive them, 34 percent drive alone, and 16 percent drive with someone else in the car. Those under the age of 60 are more likely than those 60 or older to use public transit to make these trips.

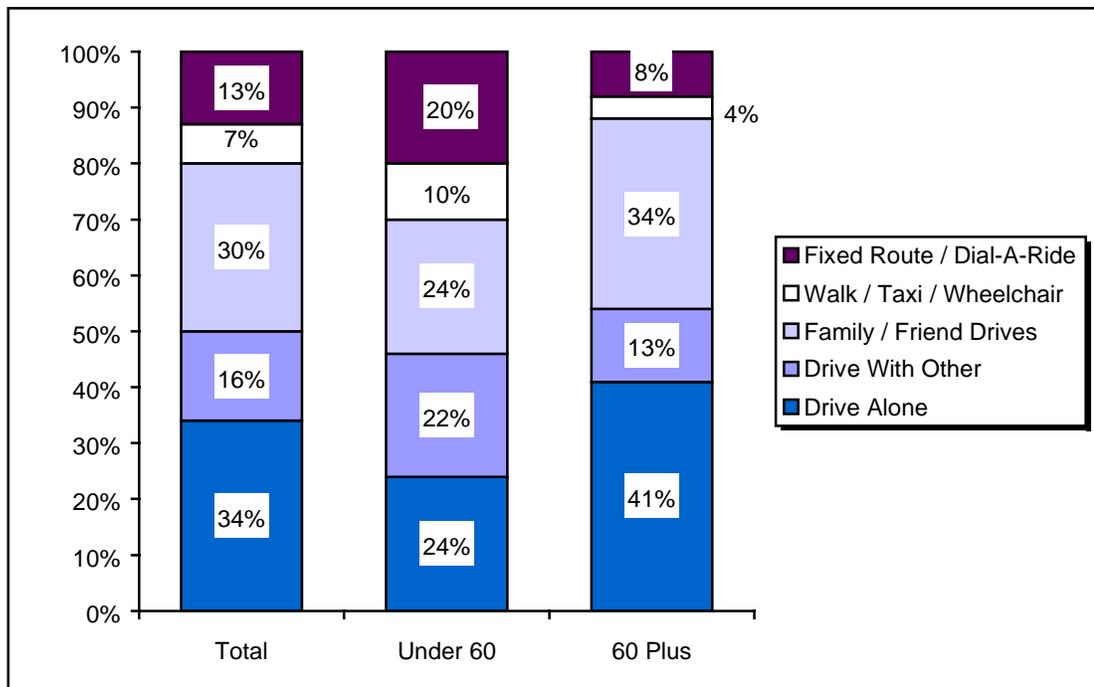


Figure 2.15: Mode of Travel – Personal Business
(Base = Mobility Impaired Respondents Who Regularly Travel For Personal Business)

2.4.3.6 Other Shopping

About one out of five (21%) of the mobility impaired respondents who travel outside their home regularly make trips for other shopping (not grocery shopping).

- The frequency of making these types of trips ranges from two times a week or more often (24%) to once a month or less often (23%). The majority (55%) of those who make these trips make them between once a week and once every two weeks.
- There is no difference in frequency of these trips across the age groups.
- Those who are more affluent – an annual household income of \$40,000 or more – make these trips more often. More than three out of four (77%) of those who make more than \$40,000 per year go shopping once a week or more often. Only 28 percent of those who are the least affluent – household income of \$10,000 or less – go shopping once a week or more often.
- As shown in Figure 2.16, more than five out of six respondents (86%) report an automobile as their means for getting to and from these trips. Forty-two percent (42%) have a family member or friend drive them, 27 percent drive alone, and 17 percent drive with someone else in the vehicle. Those under the age of 60 are more likely to use public transit to make these trips than individuals 60 or older.

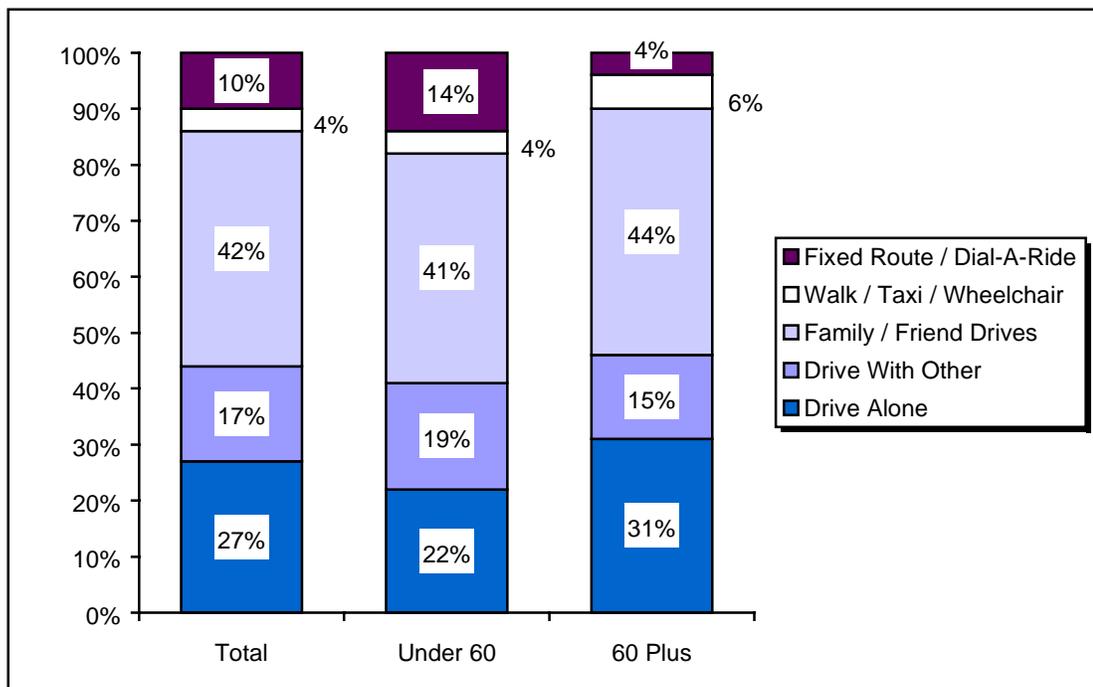


Figure 2.16: Mode of Travel – Other Shopping
(Base = Mobility Impaired Respondents Who Regularly Travel For Other Shopping)

2.4.3.7 Religious Services

Nearly one out of five (19%) of the mobility impaired respondents who travel outside their home regularly make trips to religious services.

- These trips are typically made two or three times a week (33%) or once a week (48%).
- As shown in Figure 2.17, nine out of ten respondents (90%) report an automobile as a means for getting to and from religious services. Over half (56%) have a family member or friend drive them, 17 percent drive alone, and 17 percent drive with someone else in the car.

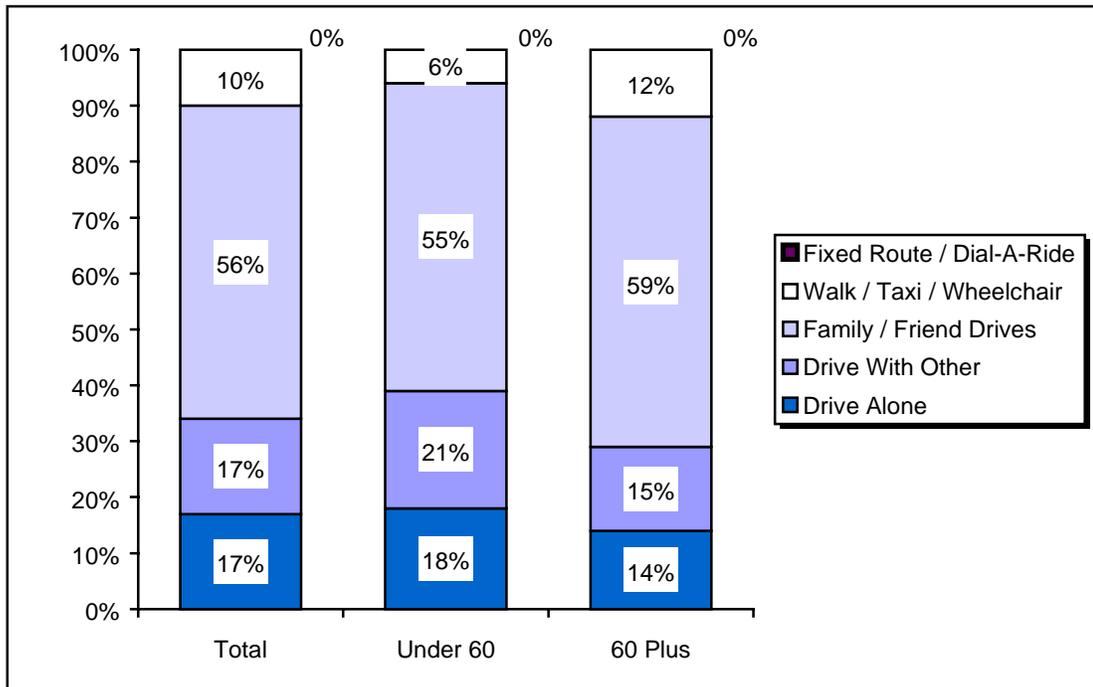


Figure 2.17: Mode of Travel – Religious Services
(Base = Mobility Impaired Respondents Who Regularly Travel For Religious Services)

2.4.3.8 Work or School

About one in five (19%) of the mobility impaired respondents who travel outside their home regularly make trips for work and/or school.

- These trips are typically made four or more times per week (77%).
- The majority of respondents (63%) report an automobile as their means for getting to and from work or school. One third (31%) drive alone to work or school, 22 percent have a family member or friend drive them, and 10 percent drive with someone else in the car.
- As shown in Figure 2.18, the mobility impaired use public transportation to get to and from work or school more than for any other trip purpose. More than one out of three (37%) respondents who regularly travel to work or school use either fixed route service (28%) or door to door service (9%). Those under the age of 60 are more likely to use public transit than those 60 or older.
- Two out of five (40%) of those who have transit services available to them use public transportation – either fixed route or Dial-A-Ride – to get to and/or from work. This is important to note, as the availability of transportation services may be crucial to their ability to work.

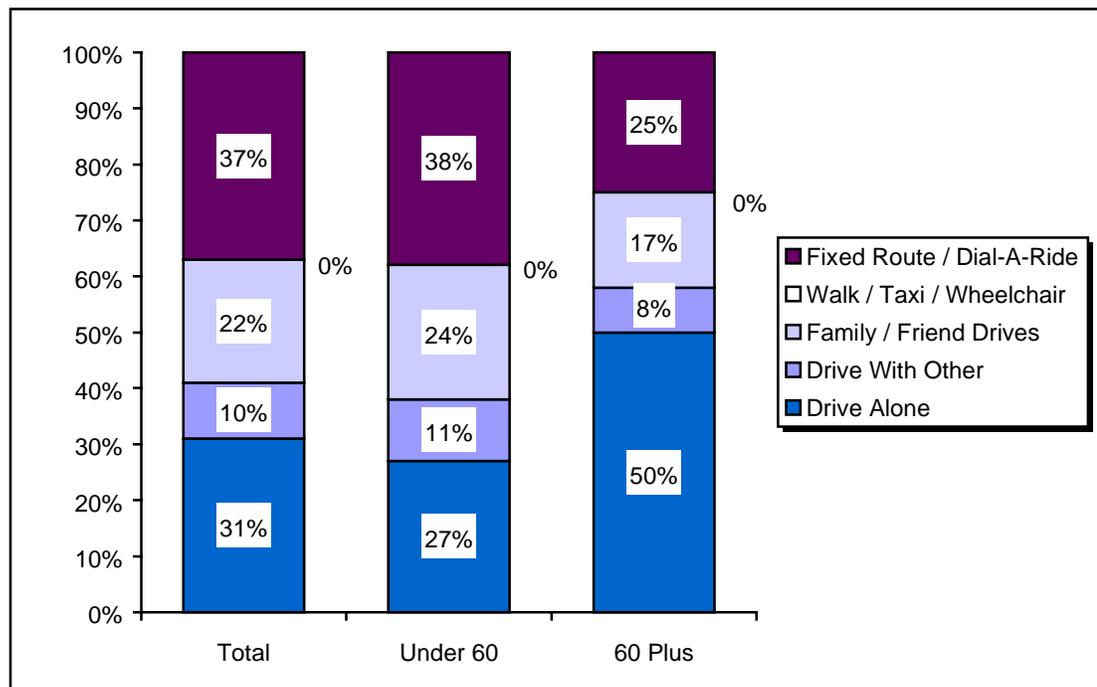


Figure 2.18: Mode of Travel – Work or School
(Base = Mobility Impaired Respondents Who Regularly Travel For Work or School)

2.5 LATENT TRAVEL DEMAND

A central purpose of the Mobility Needs Study was to determine the unmet transportation needs of mobility impaired people in Oregon. The extent to which people would use transportation services more if they were available is referred to as the “latent demand” for these services. While later sections of this report will address unmet need as it directly pertains to specific types of public transportation, this section focuses on unmet transportation needs in general.

2.5.1 Latent Demand within the Community

The survey results show that two out of five (41%) mobility impaired individuals would like to make more trips within their community but are unable to do so because they do not have transportation. (See Figure 2.19.)

- Individuals who do not have a license and/or access to a car are significantly more likely to express a need for transportation to make additional trips within their community. Over one half (52%) of those who cannot transport themselves say they would like to make more trips; while less than one out of three (31%) of those who do have a driver’s license and car available express this need.
- Similarly, those who have difficulty obtaining transportation express a greater need for additional transportation within their community than those who report no difficulty obtaining transportation.
- Those without public transportation services in their community are **not** more likely to express a need for additional transportation. More than two out of five (42%) of those **with** transit services say they are unable to make trips due to lack of transportation; conversely, only one out of three (35%) individuals **without** transit services say they have additional needs for transportation. This difference is too small, however, to be statistically reliable. This finding may be due in part to the fact that state Special Transportation Funds are used to support social service transportation, thus decreasing the likelihood of some mobility impaired persons to express a need for services, even if their community has no public transit.

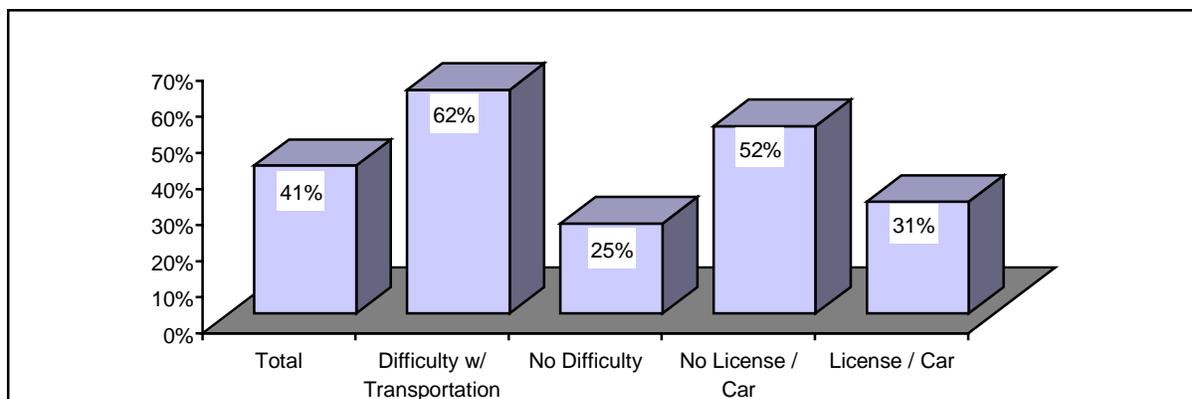


Figure 2.19: Latent Demand Within Community
(Base = All Mobility Impaired Respondents)

As Table 2.4 shows, those who report a need for additional trips within their community are less likely to have a drivers license and less likely to have a car available for their use than those who do not report a need for additional trips. Moreover, those who have latent demand for within-community trips have fewer cars available, on average, than those who do not have latent demand (1.0 and 1.4 automobiles, respectively).

There is no difference in reported need across the population density, age, or income groupings. Moreover, there is no difference among those who use a mobility aid and those who do not.

Table 2.4: Latent Demand – Trips Within Community (Base = All Mobility Impaired Respondents)*

	Yes Need / Desire	No Need / Desire
All	41%	59%
Transportation Available		
% Have License	50%	66%
% With Auto Available	68%	84%
Avg. Number Autos	1.0	1.4
Population of Community		
Large City (Portland)	24%	27%
Medium City (50,000 to 500,000)	31	29
Small Town (2,500 to 50,000)	26	22
Rural Area (Under 2,500)	19	21
Age		
Under 35	10%	7%
35 to 44	12	11
45 to 54	20	13
55 to 59	5	8
60 to 64	6	11
65 to 75	23	23
76 Plus	24	27
Mean Age	60 yrs.	62 yrs.
Income		
Under \$10,000	24%	20%
\$10,000 to \$20,000	29	26
\$20,000 to \$30,000	22	24
\$30,000 to \$40,000	10	14
\$40,000 to \$50,000	7	9
Over \$50,000	8	7
Median Income	\$19,299	\$21,818
Mobility Aid Use		
Use Mobility Aid	53%	56%
Does Not Use Aid	47	44

**All data are presented as column percentages, except those under the heading "All"*

*Figures in **boldface** indicate a statistically significant difference from other respondents in that subgroup.*

The following types of trips are mentioned most often by mobility impaired respondents when asked what kinds of trips they would like to make or make more often within their community:

	% All Mobility Impaired	% Those w/ Latent Demand*
Entertainment / Recreation	20%	60%
Other Shopping (Not Grocery)	10	30
Visiting Friends Or Family	8	24
Grocery Shopping	6	18
Personal Business	4	12
Religious Services	4	12
Medical	3	10

**Column may sum to more than 100%. Multiple responses allowed.*

Those who are younger are more likely to cite a desire to make additional trips to places for entertainment or recreation. More than one-third (36%) of all mobility impaired individuals under the age of 35 would like to make more trips to places for entertainment, but cannot due to lack of transportation. In contrast, one out of five (20%) of those over the age of 75, and 15 percent of those ages 60 to 75 would like to make more trips to places for entertainment.

Those with unmet transportation needs mention a variety of reasons for being unable to make more trips within their community. The primary reasons cited by these respondents focus on their disability and/or the lack of an automobile or person to drive them.

	% Those w/ Latent Demand*
Disability prevents	46%
Nobody available to drive	22
No car available	13
Public transit's hours of service don't meet needs	9
Can't afford transportation	8

**Column may sum to more than 100%. Multiple responses allowed.*

Among those who would like to make more trips, those living in rural areas, and to a lesser extent those living in small towns, are more likely to suggest that their disability prevents them from traveling within their community as much as they would like. Three out of five (60%) of those living in rural areas and one-half of those living in small towns cite their disability as a reason for being unable to make their desired trips; in contrast, less than one third (31%) of those living in Portland cite this reason. This may suggest that those living in rural areas or small towns have more limited access to transportation services that accommodate their special needs.

2.5.2 Latent Demand – Intercity Trips

One third (34%) of the mobility impaired respondents indicate they would like to make trips to nearby communities, but are unable to do so because they do not have transportation. As shown

in Table 2.5, those who are the **most** likely to express an unmet need to make trips to nearby communities include:

- Those who live in a small town.
- Those without a license or a car available.
- The less affluent – the average income of this group is \$17,789 per year.

Conversely, those who are the **least** likely to express this unmet need include:

- Those who live in Portland or a medium population area.
- Those who have a license or a car available.
- The most affluent – those whose annual income is greater than \$40,000.

Table 2.5: Latent Demand – Intercity Trips (Base = All Mobility Impaired Respondents)*

	Yes Need / Desire	No Need / Desire
All	34%	66%
Transportation Available		
% Have License	53%	63%
% With Auto Available	68%	81%
Avg. Number Autos	.95	1.4
Population of Community		
Large City (Portland)	22%	29%
Medium City (50,000 to 500,000)	27	30
Small Town (2,500 to 50,000)	28	21
Rural Area (Under 2,500)	23	20
Age		
Under 35	9%	8%
35 to 44	11	11
45 to 54	18	15
55 to 59	5	8
60 to 64	8	10
65 to 75	25	22
76 Plus	25	26
Mean Age	61 yrs.	62 yrs.
Income		
Under \$10,000	26%	20%
\$10,000 to \$20,000	31	24
\$20,000 to \$30,000	20	24
\$30,000 to \$40,000	13	12
\$40,000 to \$50,000	5	11
Over \$50,000	5	9
Median Income	\$17,789	\$22,302
Mobility Aid Use		
Use Mobility Aid	50%	57%
Does Not Use Aid	50	43

*All data are presented as column percentages, except those under the heading "All"

Figures in **boldface** indicate a statistically significant difference from other respondents in that subgroup.

The kinds of trips mobility impaired individuals would like to make to nearby communities include:

	% All Mobility Impaired	% Those With Latent Demand*
Entertainment / Recreation	19%	60%
Visiting Friends Or Family	12	40
Other Shopping (Not Grocery)	9	30
Grocery Shopping	5	16
Personal Business	3	8

**Column may sum to more than 100%. Multiple responses allowed*

The major reasons cited for being unable to make desired trips to nearby communities include:

	% Those With Latent Demand
Disability prevents	32%
Nobody available to drive	22
No public transit service available	16
No car available	14
Can't afford transportation	10
Nobody available to accompany me	8

**Column may sum to more than 100%. Multiple responses allowed*

All mobility impaired respondents were asked how long it would take them to make transportation arrangements to travel to a community 20 miles away from their home. The results are shown in Figure 2.20.

- One-half (50%) of the respondents report no difficulty with this task, saying it would take them less than an hour to make the transportation arrangements.
- On the other hand, nearly one-fourth (24%) report levels of difficulty, ranging from needing a full day or more to saying this task is impossible to do. Ten percent report that this task would take 1 to 3 days; eight percent say it would take more than 3 days; and six percent report that this task would be impossible for them to do.
- It should be noted that 13 percent of the respondents were unable to respond to this question because they did not know the answer or they needed additional information. For purposes of this analysis, these people are removed from the proportions reported in Figure 2.20.

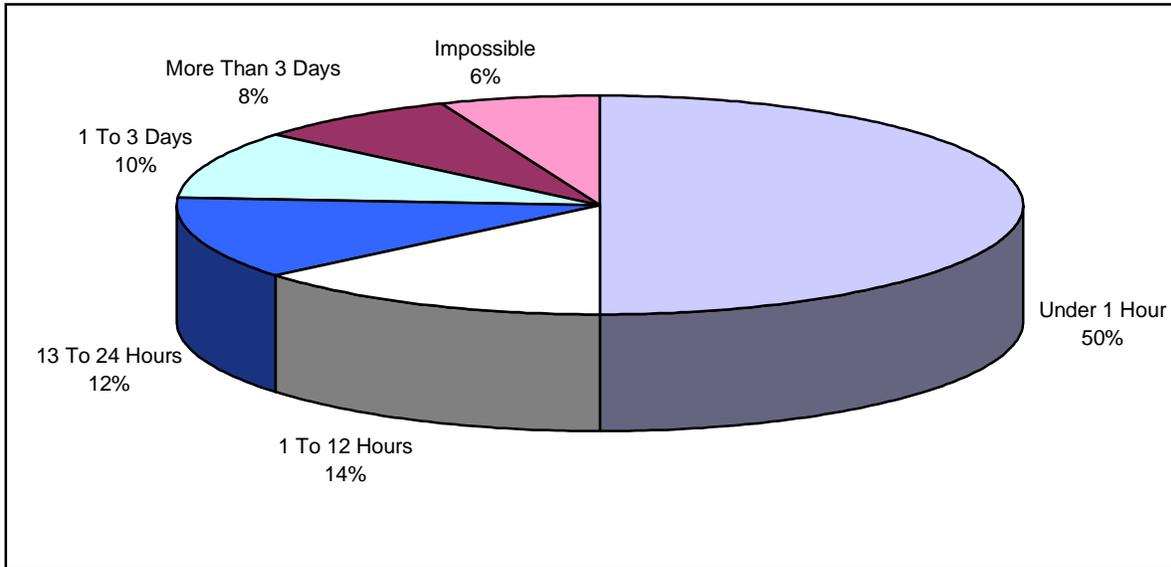


Figure 2.20: Time Needed to Make Travel Arrangements
(Base = All Mobility Impaired Respondents)

Finally, all mobility impaired respondents were asked for what type of trip they had the most difficulty finding transportation. The results are summarized in Table 2.6.

- Two out of five (41%) respondents are unable to cite a specific type of trip for which it is most difficult to find transportation.
- Among those who cite difficulty with one or more types of trips, medical appointments are mentioned most often as the trips that are the most difficult. Finding transportation to medical appointments poses the greatest challenge to those who live in rural areas. Nearly half (48%) of those who live in a rural area and have difficulty finding transportation say that medical appointments are the most difficult.
- Long distance trips are another type of trip that pose a problem for some mobility impaired individuals. One out of five (20%) respondents who do have difficulty finding transportation cite long distance trips as the type of trip they have the most difficulty with.

Table 2.6: Most Difficult Trip (Base = Those Who Have Difficulty)

	% Responding
Medical Appointments	37%
Long Distance Trips	20
Recreation	9
Visiting	7
Other Shopping (Not Grocery)	6
Grocery Shopping	5
Other Type Of Trip	16

2.6 ACCESS AND BARRIERS TO PUBLIC TRANSPORTATION

As shown in Figure 2.21, more than four out of five (84%) mobility impaired respondents report having access to one or more types of public transportation services. Sixteen percent of mobility impaired respondents report having no transportation services available to them. Each type of transportation shown in the graph is discussed in the sections that follow.

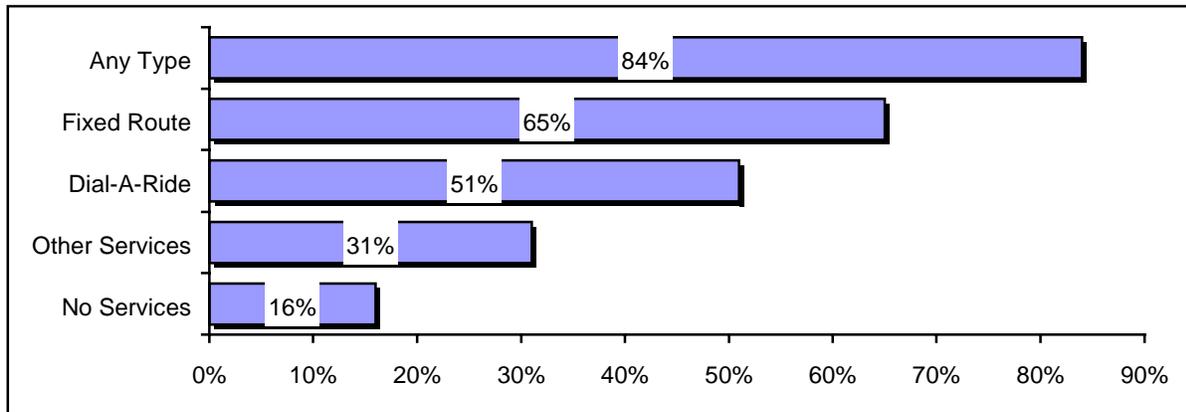


Figure 2.21: Access to Public Transportation Services (Base = All Mobility Impaired Respondents)

2.6.1 Fixed Route Service

Nearly two out of three (65%) of those interviewed report having access to a fixed route public transportation service, as shown in Figure 2.22.

- Service varies by size of the community; about nine out of ten (87% - 88%) of those who live in a large or medium city have access. On the other hand, less than one-half (47%) of those living in small towns have service; and only 27 percent of those living in rural areas report fixed route service within their community.
- Interestingly, those who are younger – under 35 years – are more likely to say they have fixed route service available to them. Nearly four out of five (78%) younger individuals report access to fixed route service. Less than two out of three (62%) mobility impaired individuals age 60 and over say they have fixed route service. Building awareness of the services available may help meet some of the needs of older persons with mobility impairments.

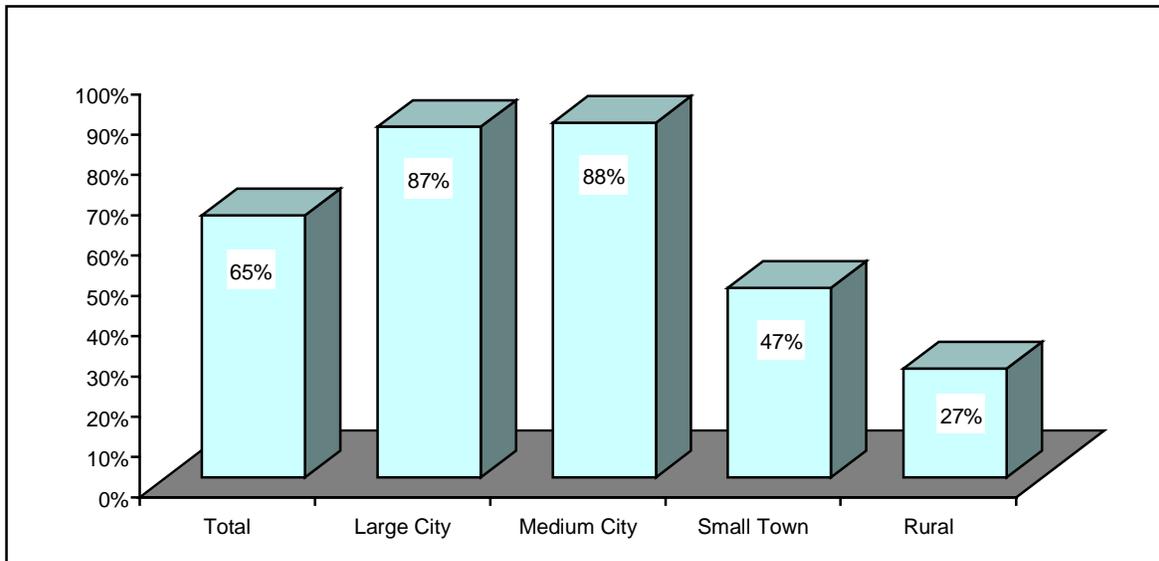


Figure 2.22: Access to Fixed Route Service (Base = All Mobility Impaired Respondents)

2.6.1.1 Use of Fixed Route Service

The survey shows that 36 percent of all mobility impaired individuals (both those with service and those without) have used fixed route service. However, only 15 percent of all respondents use it regularly, that is, one one-way trip per week or more often on a regular basis (see Figure 2.23).

Those who regularly ride fixed route service take an average of six one-way trips in a typical week. Regular riders of fixed route service are more likely than those who have service but never used it to...

- Be younger. Seven out of ten (70%) regular riders are under the age of 60.
- Not use a mobility aid such as a wheelchair or cane. Only 38 percent of regular riders use a mobility aid. Conversely, more than three out of five (63%) of those who have never ridden fixed route service currently use a mobility aid.
- Be less affluent. Nearly one-third (32%) of regular riders make less than \$10,000 per year. Only 18 percent of regular riders have an annual income greater than \$40,000.
- Be employed either full or part time. More than one third (36%) of regular riders are employed. Only 13 percent of those who have never ridden are currently employed.
- Not have a driver's license and/or a car available for their use.

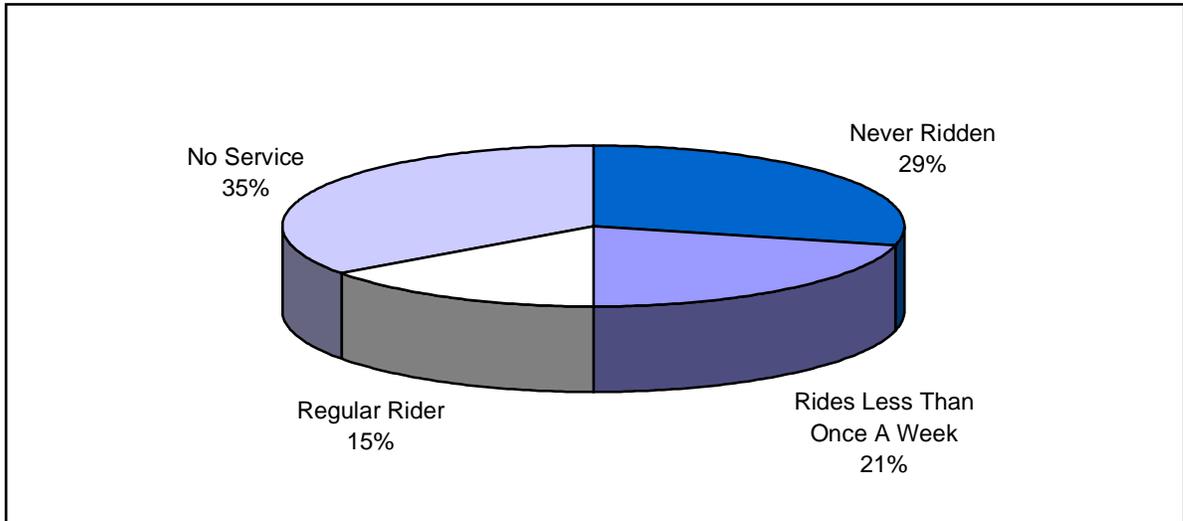


Figure 2.23: Usage of Fixed Route Service
(Base = All Mobility Impaired Respondents)

2.6.1.2 Barriers to Fixed Route Service Use

Respondents who have fixed route service were asked how far they live from a bus stop. Over one-half (51%) of mobility impaired individuals live within two blocks of a bus stop; about one in four respondents (23%) live within three to four blocks, and just over one-fourth (26%) live five or more blocks away from a bus stop. Distance to the nearest bus stop is related to the population of the community in which the respondent lives.

- Those living in rural areas, and to a lesser extent those living in small towns, have a greater distance to travel to a bus stop, if they have fixed route service at all. Those with service who reside in rural areas live an average of 14 blocks away from the closest bus stop. Those living in small towns with service live an average of 8 blocks away from the nearest bus stop.
- In contrast, those living in large towns and urban areas live an average of five blocks away from the nearest bus stop. Those living in medium cities live the closest to a bus stop – an average of four blocks.

When mobility impaired respondents who had used the service were asked how easy it is to use, their responses varied. Nearly half (46%) say the service is somewhat easy or very easy to use. On the other hand, one out of five (21%) respondents say the service is impossible to use. The mean rating for ease of use is 2.5 (based on a scale where “1” is “impossible to use” and “4” is “very easy to use”). Table 2.7 shows these results.

- Younger respondents – those under the age of 60 – rate the service as easier to use than older respondents (mean scores of 2.69 and 2.29, respectively).
- Those who do not use a mobility aid also rate the service as easier to use than those who do use an aid (mean scores of 2.65 and 2.31, respectively).

- Regular riders of the service rate it much easier to use than those who ride less than once a week (mean scores of 3.11 and 2.02, respectively).

Table 2.7: Barriers to Transit Use (Base = Mobility Impaired Respondents Who Have Used Fixed Route Service in Past)

	Total	Regular Rider	Irregular Rider
Ease of Use			
Very Easy To Use	25%	40%	12%
Somewhat Easy To Use	21	32	14
Difficult To Use	33	27	37
Impossible To Use	21	1	37
Ease of Use Mean Score (4 = Very Easy)	2.5	3.11	2.02
Difficulty Getting To Bus Stop			
Very Difficult	32%	8%	49%
Somewhat Difficult	25	35	20
Not Difficult	42	57	31
Ease of Getting On / Off the Bus			
Very Difficult	22%	9%	32%
Somewhat Difficult	30	28	32
Not Difficult	48	63	36

Over half (57%) of the mobility impaired respondents who have used fixed route service report having at least some difficulty getting to or from the bus stop. The amount of difficulty experienced, however, is not correlated to the distance to and from the bus stop.

- Those who use a mobility aid are more likely to say they have difficulty getting to and from the bus stop. Seven out of ten (70%) of those who use a mobility aid and have used fixed route service say it is somewhat or very difficult for them to get to the bus stop.
- Those who are regular riders are significantly more likely to report no difficulty getting to and/or from the bus stop than those who ride less than once a week. While half (49%) of irregular riders have a very difficult time getting to the bus stop, only 8 percent of regular riders report that getting to the bus stop is very difficult.

Ease of getting on and off of the bus was split among those who have ridden fixed route service. Slightly more than one-half (52%) of those who have ridden reported at least some difficulty getting on and off of the bus.

- Again, those who use a mobility aid report a greater level of difficulty than those who do not use an aid. Three out of four (76%) of those who have used the service and use a mobility aid have at least some difficulty boarding or getting off of the bus.
- Irregular riders – those who ride less than once a week – report a greater level of difficulty getting on and off the bus than regular riders.

Thus age and use of a mobility aid are two factors which tend to be related to the difficulty mobility impaired people have using fixed route service. Furthermore, as irregular riders have a much greater likelihood of experiencing difficulty with getting to the bus stop as well as getting onto the bus, this may suggest that these two aspects of fixed route service pose a significant barrier among the mobility impaired.

2.6.2 Dial-A-Ride Service

Figure 2.24 shows the awareness of mobility impaired respondents about the availability of Dial-A-Ride services in their community. One-half (51%) of the individuals responding to the survey say that the community in which they live has a Dial-A-Ride service. Fifty-eight percent (58%) of those living in medium sized cities and 56 percent of those living in large cities report access to Dial-A-Ride. Less than one out of three (31%) of those living in rural areas report this service.

- Respondents who are 60 to 75 years of age are the most likely to say they have Dial-A-Ride in their community – 56 percent report this service. Conversely, those under the age of 35 and those over the age of 75 are the least likely to say that they have this service, only 36 percent and 43 percent, respectively, report Dial-A-Ride. This may suggest that some people in these age categories actually live in communities with service but are not aware of the existing paratransit service because it does not meet their needs or the service is not marketed to them specifically.
- Respondents who use a mobility aid are also more likely to report access to these types of services. Fifty-eight percent (58%) of those who use a mobility aid report the presence of Dial-A-Ride in their community; only two out of five (40%) of those who do not use a mobility aid report it. This may suggest that those who do not use a mobility aid may actually have service but are not aware of Dial-A-Ride services because the service is not marketed towards them, or they do not qualify to use the service.

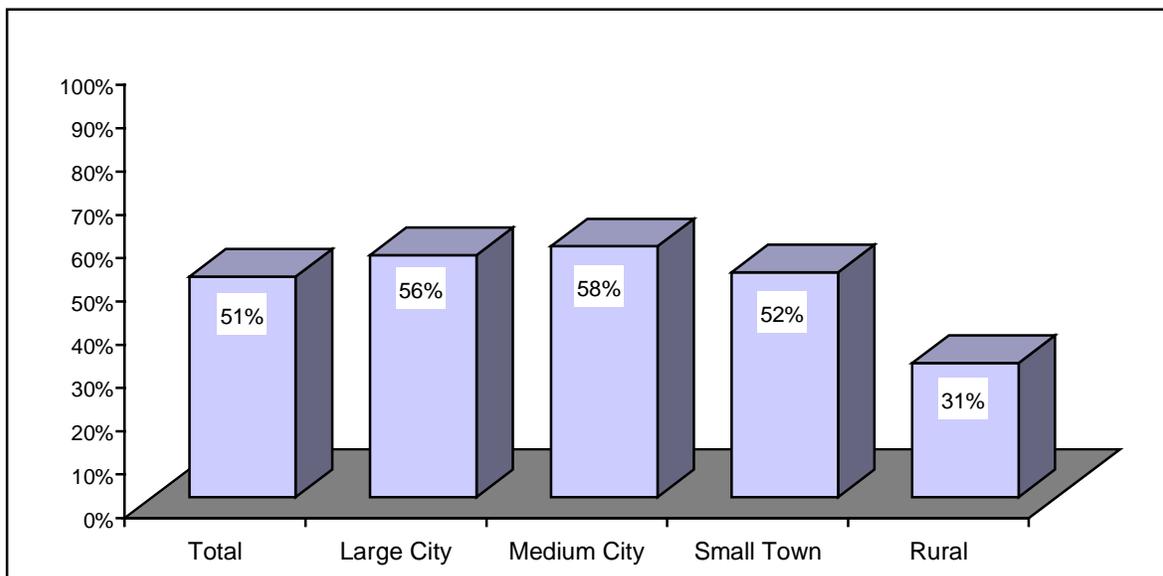


Figure 2.24: Access to Dial-A-Ride (Base = All Mobility Impaired Respondents)

2.6.2.1 Use of Dial-A-Ride Service

Figure 2.25 illustrates the level of use of Dial-A-Ride service among all respondents (including both those with service, and those without.) Fifteen percent (15%) have used the service in the past. However, only 7 percent typically make one or more one-way trips in a week. Regular riders make an average of 5.9 one-way trips on Dial-A-Ride per week.

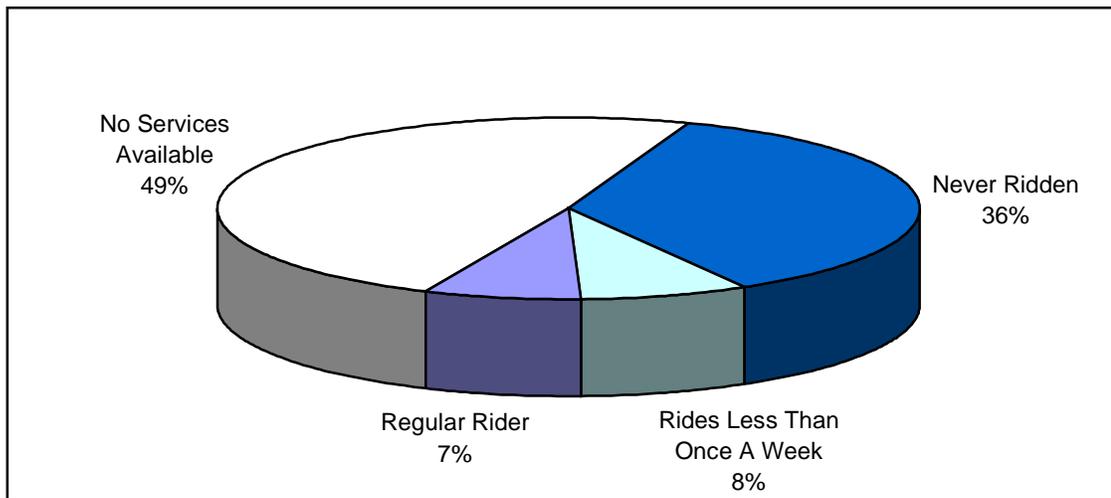


Figure 2.25: Use of Dial-A-Ride (Base = All Mobility Impaired Respondents)

Table 2.8 shows that more than one out of three (35%) mobility impaired individuals who have both regular fixed route and paratransit services regularly ride at least one of the two types of transit. Only a small percentage (4%) of those with both services regularly ride fixed route **and** paratransit.

**Table 2.8: Use of Dial-A-Ride and/or Fixed Route Service
(Base = Mobility Impaired Who Have Both Fixed Route And Paratransit Service)**

	% Responding
Nonriders	
Do Not Use Either Fixed Route Or Paratransit	33%
Irregular Riders	
Use Fixed Route Irregularly / Paratransit Never	21
Use Both Fixed Route And Paratransit Irregularly	8
Use Paratransit Irregularly / Fixed Route Never	3
Regular Riders	
Use Fixed Route Regularly / Paratransit Never	15
Use Paratransit Regularly / Fixed Route Irregularly	6
Use Fixed Route Regularly / Paratransit Irregularly	5
Use Paratransit Regularly / Fixed Route Never	5

2.6.2.2 Barriers to Dial-A-Ride Service Use

The survey found that ease of using Dial-A-Ride service varies among the mobility impaired. As shown in Table 2.9, the majority who have used the service report that it is very easy (34%) or somewhat easy (36%) to use. About one out of three individuals who has used the service in the past found it to be difficult (22%) or impossible (8%) to use.

- When compared to other community sizes, those living in rural areas find Dial-A-Ride service to be the most difficult to use. Based on a scale where “1” is “impossible to use” and “4” is “very easy to use,” individuals in rural areas rate Dial-A-Ride services a 2.15. Conversely, Dial-A-Ride services in large or medium cities received an ease of use score of 3.14, and services in small towns received a score of 3.0.
- Those who use a mobility aid find Dial-A-Ride easier to use than those who do not use a mobility aid. Less than one in four (23%) of those who use a mobility aid say that Dial-A-Ride service in their area is difficult or impossible to use. Conversely, nearly half (46%) of those who do **not** use an aid say the service is difficult or impossible to use.
- Those who are irregular riders of Dial-A-Ride report a somewhat greater level of difficulty using the service than those who are regular riders (mean scores of 2.86 and 3.03, respectively).

Table 2.9: Barriers to Dial-A-Ride Use
(Base = Mobility Impaired Respondents Who Have Used Dial-A-Ride In Past)

	Total	Regular Rider	Irregular Rider
Ease Of Use			
Very Easy To Use	34%	37%	30%
Somewhat Easy To Use	36	37	35
Difficult To Use	22	18	26
Impossible To Use	8	8	8
Ease Of Use Mean Score (4 = Very Easy)	2.95	3.03	2.86
Ease Of Getting On / Off the Vehicle			
Very Difficult	9%	8%	11%
Somewhat Difficult	32	40	25
Not Difficult	59	53	67
Advance Notice Required			
24 Hours Or Less	62%	83%	44%
2 to 3 Days	25	11	37
1 Week Or More	13	6	19
Median Hours Required	24 Hours	24 Hours	48 Hours
Had Problems In Past			
Yes	33%	30	37
No	67	70	63
Mean Attribute Score (4 = Very Satisfied)			
On-time Performance	3.23	3.16	3.27
Hours of Operation	3.15	3.21	3.05

Available When Needed	2.93	3.08	2.77
Ease of Scheduling	2.93	2.97	2.82

Two out of five (41%) of the mobility impaired individuals who have used Dial-A-Ride service report at least some difficulty getting on and off of the vehicle.

- Those 60 years or older have more difficulty boarding and disembarking the vehicle. Fifteen percent of those over the age of 60 who have ridden the service say they find getting on and off the vehicle “very difficult.” Only 3 percent of those under the age of 60 report this level of difficulty with boarding and disembarking the vehicle.
- There is no difference in difficulty experienced in getting on and off the vehicle among those who are regular riders and those who do not ride at least once a week.

Three out of five (62%) of those who have ridden report being required to call to schedule service 24 hours or less in advance. Thirteen percent (13%) are required to call one or more weeks in advance.

- Dial-A-Ride services in rural areas are reported to have longer advance notice requirements. More than one out of three (36%) of those who have used Dial-A-Ride services in rural areas say that they must call one week or more in advance to schedule service.
- Regular riders report a much lower advance notice requirement than irregular riders. Only 17 percent of regular riders report having to call more than 24 hours in advance to schedule service. On the other hand, 37 percent of irregular riders report having to call two to three days in advance, and 19 percent report having to call one or more weeks in advance.
- As irregular riders report a much longer advance notice requirement, this may suggest that long – greater than 24 hours – requirements for scheduling Dial-A-Ride service is a potential barrier to ridership.

Mobility impaired individuals who have ridden Dial-A-Ride service in the past were asked how satisfied they were with four service elements: on-time performance, hours of operation, availability of service when needed, and ease of scheduling. As shown in Table 2.9, all four elements score above the mid-point (2.5) of the scale where “one” means “very dissatisfied” and “four” means “very satisfied.” Thus overall, mobility impaired individuals are “somewhat satisfied” with all four service elements.

- Dial-A-Ride services in large and medium cities score significantly higher than services in small towns and rural areas on all four items.
- With the exception of on-time performance, regular riders rate the service elements higher than irregular riders.
- The largest gap between scores from regular riders and irregular riders occurs with availability of service. This service element receives a mean score of 3.08 from regular riders and a mean score of 2.77 from irregular riders. This gap between

regular and irregular riders may suggest that lack of service capacity when needed is a barrier to Dial-A-Ride ridership.

2.6.3 Other Transportation Services

Mobility impaired respondents were asked whether there were other transportation services available in their community for elderly or disabled individuals. Figure 2.26 summarizes their responses. Three out of ten (31%) respondents report other such transportation services in their community.

- The least affluent respondents – those with a household income of less than \$10,000 – are more likely to report the existence of these services. This is most likely due to the means tested qualifications often in place for this type of service.
- A third of those who live in large or medium sized cities are more likely to report such transportation services operated in their community for those with health conditions or the elderly. Only 23 percent of those who live in a rural area report the availability of these services.

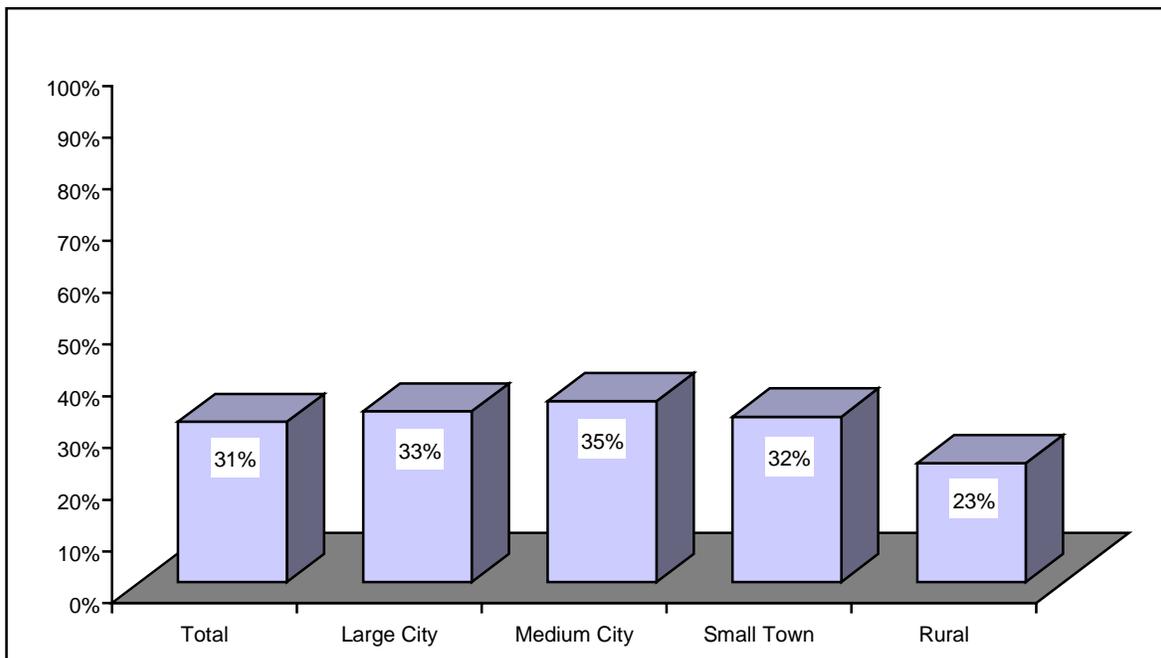


Figure 2.26: Access to Other Transportation Services
(Base = All Mobility Impaired Respondents)

2.6.3.1 Type of Transportation Service

The following types of agencies are mentioned most often as those which offer transportation services to elderly or disabled individuals:

Base = Respondents Reporting Other Services	% Responding
Senior Center / Adult Day Center	39%
Public Transportation Agency	12
Hospital / Medical Facility	10
Church	7
Group Home	4
Social Service Agency	2

- The majority of these agencies (64%) do not charge for transportation services. Of those that do charge for their services, the median cost for a one-way ride is \$1.75.
- Four out of five agencies require advance notification to schedule service. Over one-half (54%) require 24 hours or less advance notice, 19 percent require two or three days notice, and 26 percent require notice of one week or more.

2.6.3.2 Use of Other Agencies' Transportation Services

As shown in Figure 2.27, eight percent (8%) of all mobility impaired individuals have used other transportation services in the past. However, only 4 percent use these services regularly – once a week or more often. Those who use the service regularly make an average of 5.5 one-way trips per week.

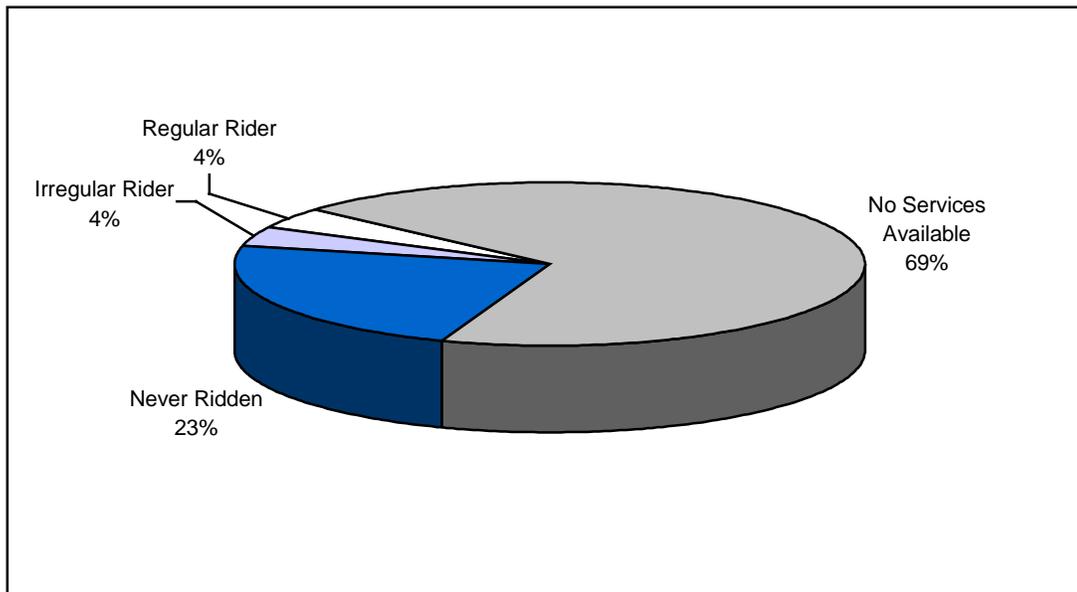


Figure 2.27: Use of Other Services
(Base = Mobility Impaired Respondents Who Have Other Services Available)

2.6.3.3 *Barriers to Other Agencies' Transportation Services*

Other transportation services are rated higher than fixed route service and Dial-A-Ride in ease of use – receiving a mean score of 3.25, where “4” means “very easy to use” and “1” means “impossible to use.”

2.6.4 Taxi Service

More than one-half (53%) of respondents have taxi service available in their community. Those living in rural areas are the least likely to have services available. Only 22 percent of mobility impaired individuals living in rural areas have taxi service, compared to 65 percent of those living in medium population cities, and 61 percent of those living in small towns.

The majority of respondents do not use taxi services regularly. Only 8 percent of those with service (or 4 percent of all respondents) make one or more trip via taxi service in a typical week. About half (49%) of all respondents either use taxi service irregularly or do not use it at all. These results are summarized in Figure 2.28.

Overall, the survey results suggest that taxi service is not a viable option for the mobility impaired population's transportation needs. Only 13 percent of those who have taxi service (or five percent of all mobility impaired respondents) indicate they would like to make more trips by taxi. Of those who would like to make more trips via taxi service, 84% cite the high cost of taxis as the reason they are unable to make the trips.

Public transportation providers in some communities have subcontracted with taxi services to provide paratransit, feeder services, extra capacity or evening/weekend services. These services are usually provided to the customer at the regular public transportation fares, with the additional costs covered in the service agreement between the transportation provider and the taxi service. This option enables many rural taxi services to survive.

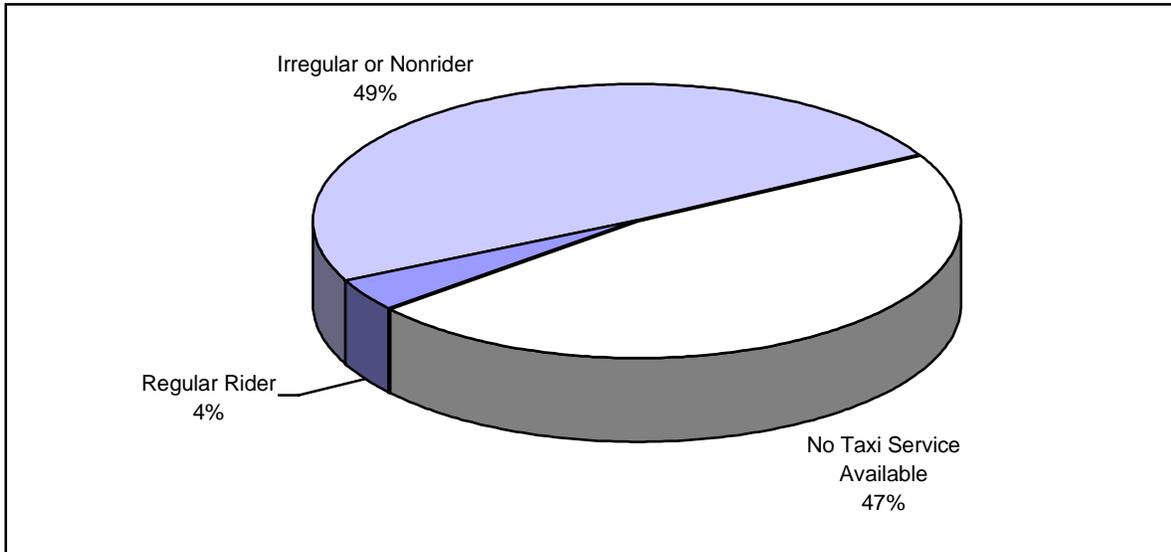


Figure 2.28: Taxi Service Ridership (Base = All Mobility Impaired Respondents)

2.7 NEEDS ASSESSMENT

Survey participants were asked their opinion on the importance of several elements of public transportation services. Those who had services were then asked to rate their system’s performance for the same service elements. From this data, system strengths and weaknesses can be assessed. Participants were also asked about desire for additional trips using public transportation services.

2.7.1 Importance of Transportation Services

A total of 14 service elements related to the use of public transportation by the mobility impaired was tested for importance among respondents. All mobility impaired respondents were asked to rate the importance of seven service elements using an anchored 4 point scale where “1” means “very unimportant” and “4” means “very important.” In addition, respondents with specific disabilities – difficulty walking, climbing steps or standing, use of a wheelchair or other mobility aid, difficulty seeing at night or under different conditions and difficulty hearing or speaking – were asked the importance of seven specific service elements related to their disability.

All service elements are considered to be somewhat or very important, rating above a “3” on the scale in all but one case – availability of TTY or TDD services for the hearing impaired. The most important service elements to mobility impaired individuals are:

(Base = All Mobility Impaired Respondents)	Mean Score (4 = Very important)
Safety of the vehicle related to the operation of the vehicle	3.73
Employees are knowledgeable about people with special needs	3.70
Safety of the procedures used to secure a wheelchair*	3.68
Availability of wheelchair-accessible vehicles*	3.65
Ease of accessing the place where you get on / off the vehicle	3.65
Printed schedules are easy to understand	3.54
Ease of getting in and out of the vehicle	3.54

**Asked only of those who use a wheelchair or scooter.*

Although still considered important, service elements which score lower include:

(Base = All Mobility Impaired Respondents)	Mean Score (4 = Very important)
Ease of identifying the vehicle	3.49
Cost of service	3.48
Safety of using the lift onto and off of the vehicle*	3.45
Availability of schedule formats for the sight impaired**	3.33
Availability of lifts onto and off of the vehicle*	3.33
Ease of using the lift onto and off of the vehicle*	3.29
Availability of TTY or TDD service for hearing impaired***	2.92

**Asked only of those who have difficulty walking, climbing steps, or standing.*

***Asked only of those who have difficulty seeing.*

****Asked only of those who have difficulty hearing or speaking.*

Availability of TTY or TDD service was the only service element that is rated below a “3” on the scale – scoring a 2.92. Nonetheless, 50% of the respondents rate this item as a “4” – very important.

2.7.2 Performance of Transportation Services

Respondents who have access to one or more types of public transportation (fixed route service, Dial-A-Ride, etc.) were asked to rate how well the transportation services in their area meet their needs, on the same service elements as those in the previous section. Respondents answered on a four-point anchored scale where “1” means “never meets needs” and “4” means “always meets needs.” As with importance ratings, all respondents were asked to rate seven of the service elements, the remaining seven elements were only asked of those with specific disabilities.

Five of the fourteen elements receive scores of 3 or higher, that is, they sometimes or always meet the needs of the mobility impaired. These five elements are as follows:

(Base = Mobility Impaired Respondents With Transportation Services)	Mean Score (4 = Always Meet Needs)
Ease of identifying the vehicle	3.09
Availability of wheelchair-accessible vehicles*	3.08
Safety of the vehicle related to the operation of the vehicle	3.08
Safety of the procedures used to secure a wheelchair*	3.03
Ease of getting in and out of the vehicle	3.00
<i>*Asked only of those who use a wheelchair or scooter.</i>	

The results show that, with the exception of “ease of identifying the vehicle,” all of the elements that score highest in meeting the needs of the mobility impaired are also among those that are most important to the mobility impaired. Thus these service elements may be regarded as overall strengths of the public transportation system, in the view of mobility impaired respondents.

The elements that scored lower include the following:

(Base = Mobility Impaired Respondents With Transportation Services)	Mean Score (4 = Always Meet Needs)
Ease of accessing the place where you get on / off the vehicle	2.91
Cost of service	2.90
Employees are knowledgeable about people with special needs	2.86
Safety of using the lift on / off the vehicle*	2.84
Availability of lifts on / off the vehicle*	2.83
Ease of using the lift on / off the vehicle*	2.77
Printed schedules are easy to understand	2.69
Availability of schedule formats for sight impaired**	2.54
Availability of TTY or TDD service for hearing impaired***	2.40
<i>*Asked only of those who have difficulty walking, climbing steps or standing.</i>	
<i>**Asked only of those who have difficulty seeing.</i>	
<i>***Asked only of those who have difficulty hearing or speaking.</i>	

Three service elements – ease of accessing the place where you get on / off the vehicle, employees are knowledgeable about people with special needs, and printed schedules are easy to understand – fall significantly below the mobility impaired expectations for public transportation service. That is, all three elements are among the most important considerations for mobility impaired individuals, and all three elements scored below a “3” on the fulfillment of needs scale. Thus these service elements may be regarded as overall weaknesses of the public transportation system. Transit services may not be meeting these needs of the mobility impaired some of the time.

Although overall there is a significant gap between some of the transportation needs of the mobility impaired in Oregon and the fulfillment of those needs, there are significant differences among areas with different populations, as shown in Table 2.10.

- With the exception of availability of TTY / TDD service, medium cities are scored higher than small towns and rural areas on all service elements.
- With the exception of availability of TTY / TDD service and aspects related to the lifts onto and off of the vehicle, large cities are scored higher than small towns and rural areas.

Table 2.10: Performance of Transportation Services
(Base = Mobility Impaired Respondents With Transportation Services)

	Mean Score (4 = Always Meet Needs)			
	Large	Med.	Small	Rural
Ease of identifying the vehicle	3.20	3.30	2.97	2.59
Availability of wheelchair-accessible vehicles****	3.35	3.46	2.62	2.41
Safety of the vehicle related to the operation of the vehicle	3.21	3.35	2.79	2.64
Safety of the procedures used to secure a wheelchair****	3.22	3.54	2.55	2.32
Ease of getting in and out of the vehicle	3.15	3.16	2.82	2.62
Ease of accessing the place where you get on / off the vehicle	3.05	3.14	2.66	2.51
Cost of service	2.98	3.22	2.61	2.46
Employees are knowledgeable about people with special needs	2.97	3.04	2.69	2.49
Safety of using the lift on / off the vehicle*	2.85	3.07	2.69	2.38
Availability of lifts on / off the vehicle*	2.86	3.06	2.67	2.47
Ease of using the lift on / off the vehicle*	2.69	2.98	2.76	2.44
Printed schedules are easy to understand	2.76	2.91	2.47	2.43
Availability of schedule formats for sight impaired**	2.85	2.68	2.31	1.95
Availability of TTY or TDD service for hearing impaired***	2.42	2.66	2.16	2.25

*Asked only of those who have difficulty walking, climbing steps, or standing.

**Asked only of those who have difficulty seeing.

***Asked only of those who have difficulty hearing or speaking.

****Asked only of those who use a wheelchair or scooter.

Figures in boldface indicate a statistically significant difference from other respondents in that subgroup.

2.7.3 Desire for More Trips

Both those that currently have public transportation services available and those without services were asked about additional trips they would like to make using public transportation services.

2.7.3.1 Unmet Needs of Those with Fixed Route Service

Two out of five (39%) mobility impaired respondents who have fixed route service indicate they would like to make **more** trips on this service than they are currently making. This translates into the finding that 24 percent of all respondents (both those with service and those without) would like to make more trips on fixed route service. As shown in Figure 2.29, over half (56%) of regular riders say they would like to make more trips; 42 percent of irregular riders and 27 percent of nonriders would like to make more trips.

- Those who have access to fixed route service and who would like to make more trips would like to make an average of 6.45 additional one-way trips per week.
- Reasons most often cited for being unable to take additional trips on the bus include: bus stop is too far away (24%), disability prevents (21%), hours of service do not meet needs (14%), and don't know how to use fixed route service (7%).

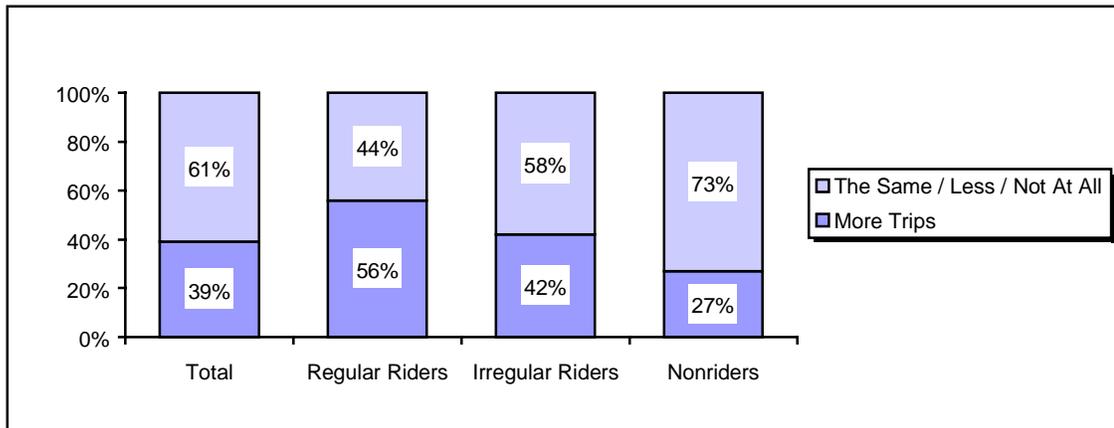


Figure 2.29: Desire for Additional Trips on Fixed Route Service
(Base = Mobility Impaired Respondents With Fixed Route Service)

2.7.3.2 Use of Fixed Route if Available

About one out of three (35%) mobility impaired respondents do not currently have fixed route service in their communities or do not know if they have service available. These respondents were asked how likely they would be to use fixed route service, if it became available. The findings are shown in Figure 2.30.

Two out of five (41%) say they would be very likely to use the service. Three out of ten (29%) say they are somewhat likely to use fixed route service. When these two groups were asked how often they would use the service, four out of five (80%) said they would use the service once a week or more often. Thus, among all mobility impaired respondents (those with service and those without), an additional 24 percent would be likely to use fixed route service if it were available.

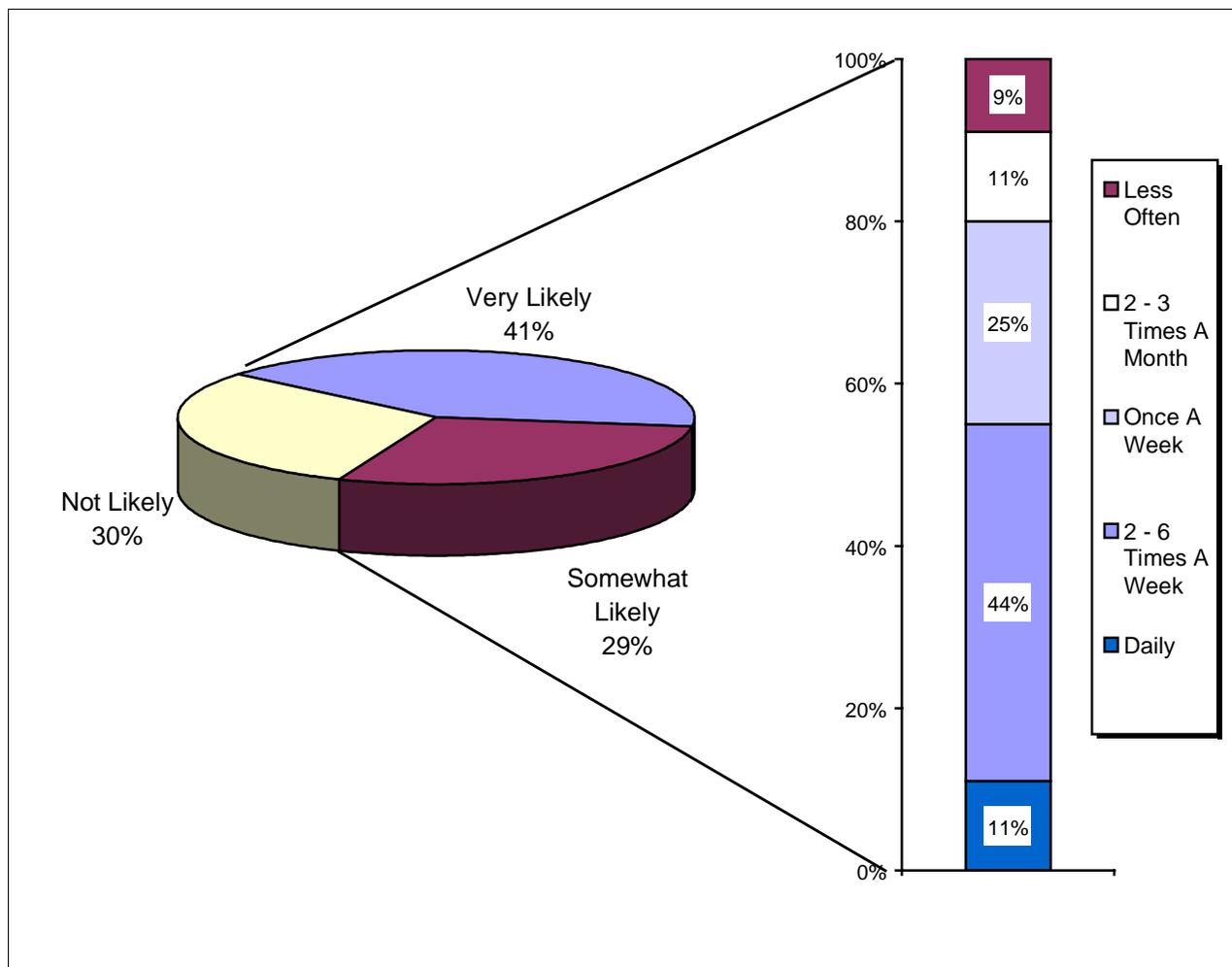


Figure 2.30: Use of Fixed Route if Available
 (Base = Mobility Impaired Respondents With No Fixed Route Available)

2.7.3.3 *Unmet Needs of Those with Dial-A-Ride Service*

When asked about their desire for trips on Dial-A-Ride services, more than one out of three (35%) mobility impaired individuals who have Dial-A-Ride service indicate they would like to make more trips (see Figure 2.31). This translates into the finding that 17 percent of all respondents (both those with service and those without) would like to make more trips on Dial-A-Ride services. Two out of five regular riders (41%) indicate they would like to make more trips using Dial-A-Ride service; 45 percent of irregular riders and 31 percent of nonriders indicate they would like to make more trips.

- Those who have access to Dial-A-Ride and who would like to make more trips on Dial-A-Ride services would like to make an average of 3.73 additional one-way trips per week.
- Reasons most often cited by mobility impaired individuals for not making the additional trips they desire include: do not qualify to use service (20%), have other

transportation (15%), have to schedule in advance (13%), not available when needed (11%), and don't know how to use Dial-A-Ride service (9%).

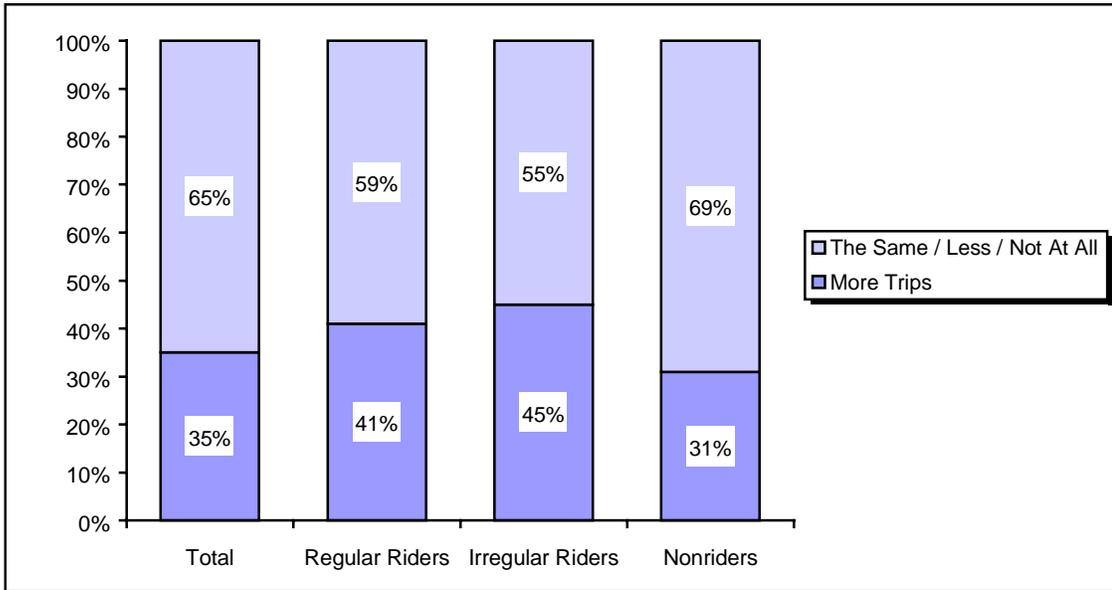


Figure 2.31: Desire for Additional Trips on Dial-A-Ride
(Base = Mobility Impaired Respondents With Dial-A-Ride Service In Community)

2.7.3.4 Use of Dial-A-Ride if Available

One-half of all (49%) mobility impaired respondents either do not currently have Dial-A-Ride service in their community or do not know if service is available. These respondents were asked how likely they would be to use Dial-A-Ride service if it became available. The findings are shown in Figure 2.32.

More than one out of four respondents (27%) indicate they are somewhat likely to use this service, and 37 percent say they are very likely. When those who are likely to use it were asked how often they would use Dial-A-Ride nearly two out of three respondents (65%) said they would use it once a week or more often. Thus, among all mobility impaired respondents (those with service and those without), an additional 31 percent would be likely to make trips on Dial-A-Ride service if it were available.

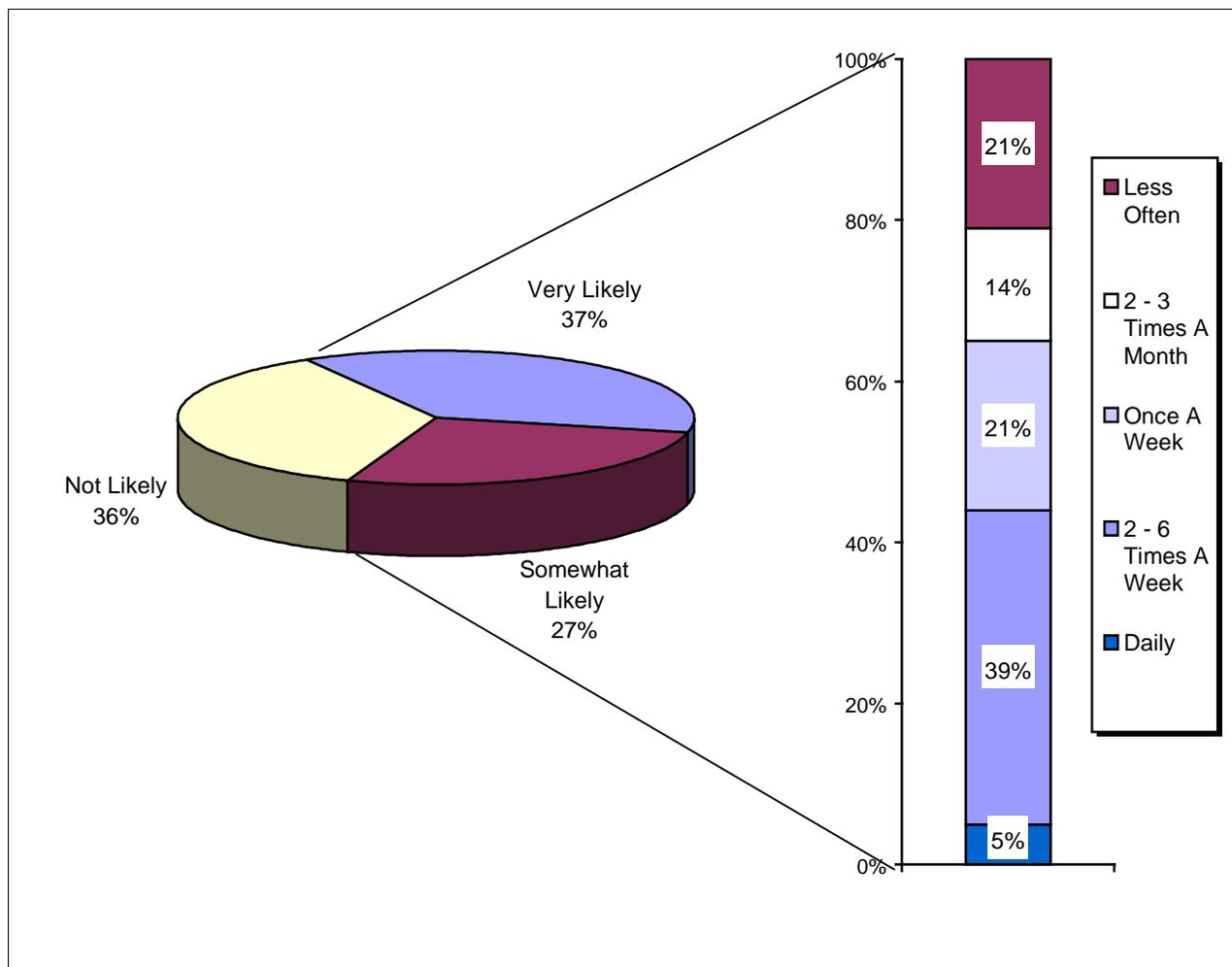


Figure 2.32: Use of Dial-A-Ride if Available
(Base = Mobility Impaired Respondents With No Dial-A-Ride Available)

2.7.3.5 *Unmet Needs of Those with Other Transportation Services*

As shown in Figure 2.33, one out of four (25%) mobility impaired respondents indicate they would like to take more trips than they currently do on other transportation services.

- Those who have access to these other types of transportation and who would like to make more trips would like to make an average of 4.08 additional one-way trips per week.
- Reasons most often cited for not taking the desired additional trips include: don't know how (21%), have other transportation (19%), disability prevents (14%), don't qualify (12%), hours of operation (9%), only available for certain trips (7%), and too expensive (7%).

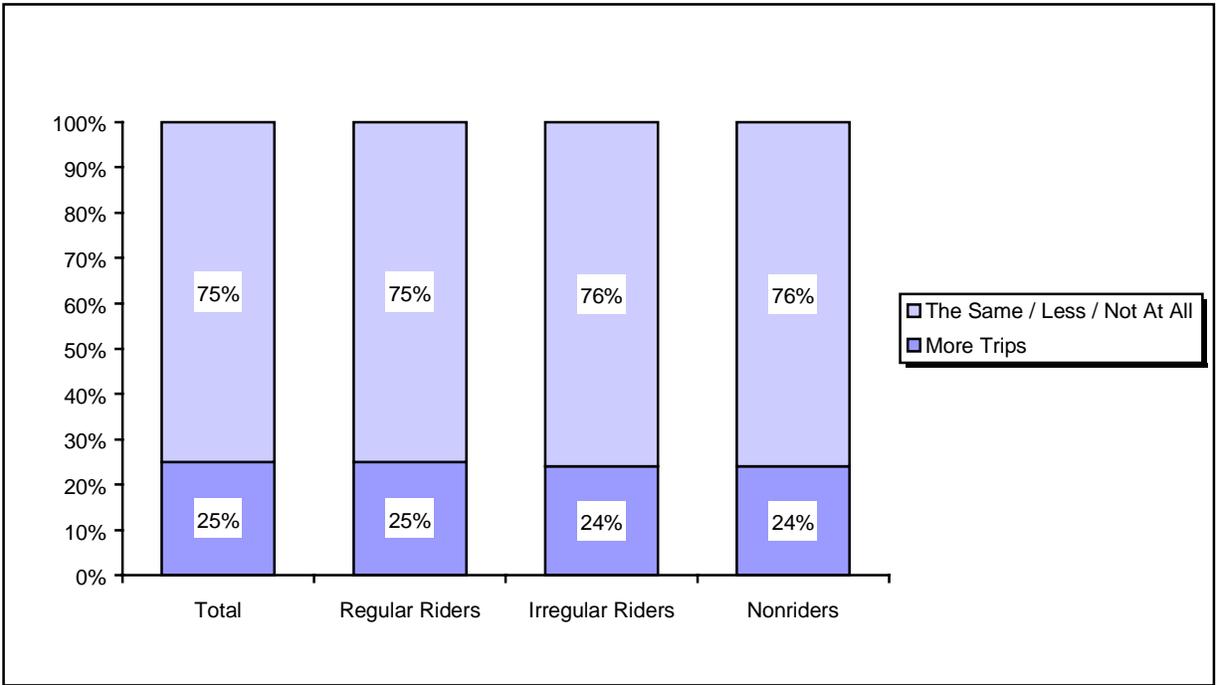


Figure 2.33: Desire for Additional Trips on Other Services
 (Base = Mobility Impaired Respondents With Other Services Available In Community)

2.7.4 Support for Additional Services

All respondents were asked whether they would support tax increases to fund additional transportation services. Mobility impaired respondents who had fixed route services in their community were also asked whether they would support fare increases. The survey findings on these questions are summarized in Figure 2.34.

- The majority of respondents (61%) say they would somewhat support or strongly support an increase in the cost of a one-way fare. However, about one out of five (23%) strongly do **not** support this option. Those living in Portland are the most likely to strongly **not** support an increase in bus fares: more than one out of four (28%) strongly do not support, while only 15 percent of those who live in rural areas strongly do not support an increase.
- A similar percentage of respondents (64%) say they would support an increase in taxes for expansion of transportation services in their community; among these, one third (32%) strongly support a tax increase. Again, however, one in five (21%) strongly do **not** support this option. Younger individuals – those under the age of 35 – are the most likely to strongly support an increase in taxes.
- When comparing the two propositions, it is interesting to note that more respondents “strongly” support a tax increase than an increase in bus fares. Moreover, more individuals strongly support than strongly do **not** support a tax increase.

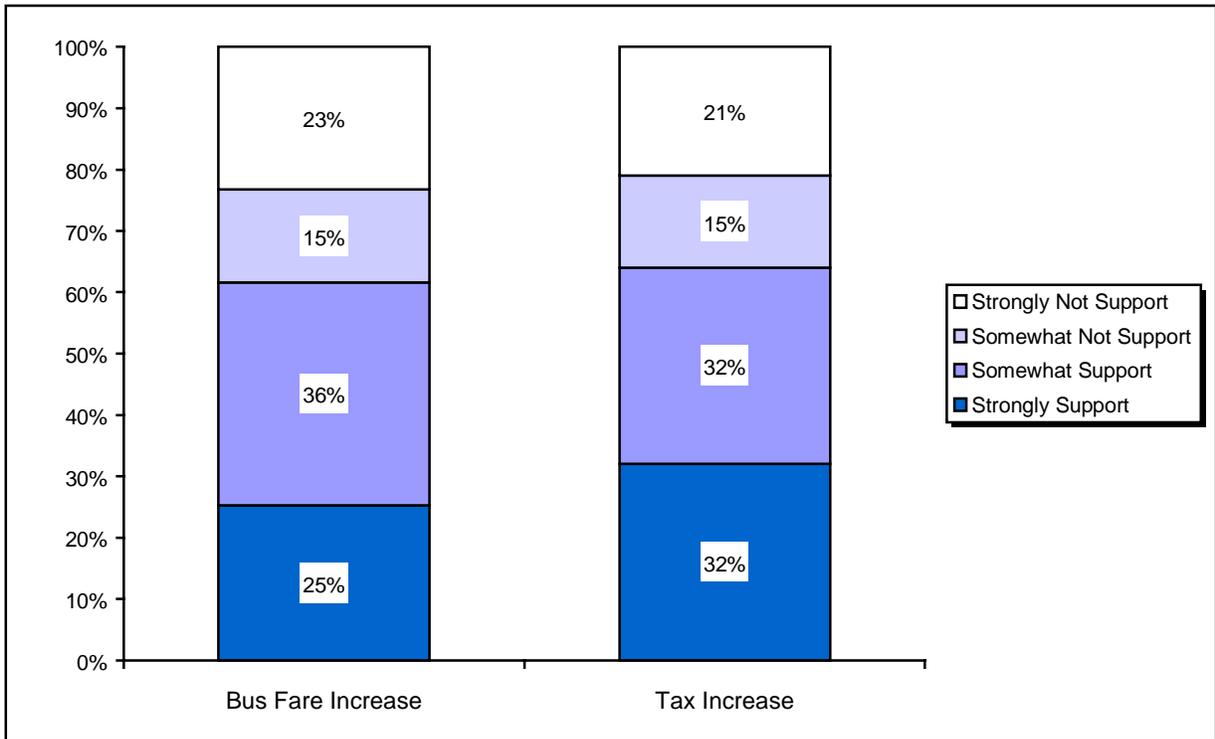


Figure 2.34: Support for Additional Services
 (Base = Mobility Impaired Respondents With Fixed Route Service / All Mobility Impaired Respondents)

3.0 SUMMARY OF FINDINGS – PROVIDER SURVEY

Of 187 grantees and contract providers included in the sample, a total of 129 grantees and three contract providers returned surveys. Of the total of 131 responses, 129 were usable, resulting in a 70% response rate. As shown in Figure 3.1, 44 percent of the respondents were public agencies, 52 percent were private non-profit organizations, and 4 percent were private for-profit organizations.

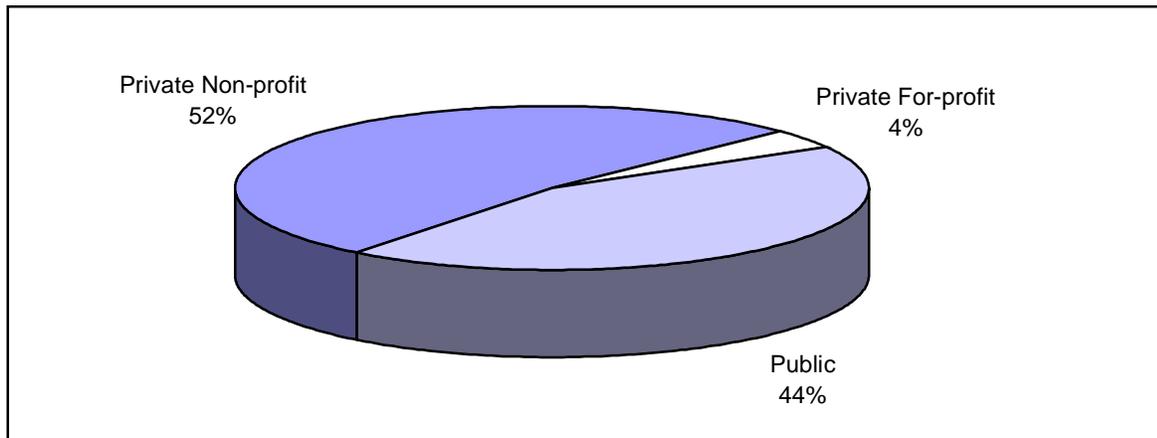


Figure 3.1: Type of Provider (Base = All Respondents)

Those that could be classified by geographic region were divided as follows:

	Grantees	Contractors
Portland Metro Area	28	1
Northwestern Oregon	44	--
Southwestern Oregon	15	1
Eastern Oregon	39	1
Total:	129	3

Northwestern and Southwestern Oregon providers were grouped together for analysis purposes because the number of returned surveys from providers in Southwestern Oregon was too small to allow for reliable analysis at the subgroup level.

3.1 DESCRIPTION OF AGENCY

3.1.2 Service Provided

The survey asked agencies to indicate what types of service(s) they provide. Table 3.1 summarizes the responses.

- The most common type of service provided is Dial-A-Ride, provided by 73 operators or fifty-seven percent (57%) of the respondents.
- The second most common type of service, provided by 56 operators, is “tailored routes.” This can be described as a service that follows a route which is designed to pick and drop off a particular group of people, and may vary over a period of weeks or months according to the needs of the riders being served. Many of these operators might be classified as “other transportation” in the general population survey.
- Twenty-six operators, spread throughout the state, provide fixed-route services.

Table 3.1: Services Provided (Base = All Respondents)

	Respondents	% of Total
Dial-A-Ride	73	57%
Tailored Routes	53	41
Volunteer Rides	43	33
Fixed-Route	26	20
Intercity / Rural Routes	19	15
Scrip / Tickets / Passes	15	12
Other	9	7

Table 3.2: Type of Trips Provided (Base = All Respondents)

Trip Types Provided	Dial-A-Ride	Tailored Routes	Intercity	Scrip	Volunteer Rides
All Kinds	79%	49%	75%	79%	38%
Medical / Doctor	16	18	19	14	59
Grocery Shopping	10	6	6	0	13
Other Shopping	9	4	6	0	10
Entertainment / Recreation	9	14	0	0	0
Meal Program	6	8	6	0	3
Senior Center	4	8	0	0	3
Work	1	18	0	0	5
School / Training	1	10	0	0	3
Other	1	4	0	7	3
Adult Day Center	0	10	0	0	0

Dial-A-Ride is most commonly provided for all trip types (see Table 3.2) and with eligibility restrictions based on age or ADA disability status (see Table 3.3).

Tailored route service is most commonly designed to serve people using programs of the agency operating the service, although all types of trips may be served (see Table 3.2 and 3.3.)

Table 3.3: Eligibility Restrictions (Base = All Respondents)

Eligibility Restrictions	Dial-A-Ride	Tailored Routes	Intercity	Scrip	Volunteer Rides
Age	48%	29%	25%	14%	49%
ADA	45	16	13	14	26
None	31	24	75	36	21
Agency Program Participant	13	51	0	7	26
Residency	12	6	0	0	15
Other	9	12	6	21	15
Medical Reason	4	4	0	0	21
Income	1	0	6	21	8

3.1.3 Number of Trips Provided

As shown in Table 3.4, the public transportation providers in the survey carried over 82.5 million trips in 1997. Of these, 13.6 million trips were taken by seniors and people with disabilities. Seniors and people with disabilities make up a significant share of fixed-route transit ridership (14%) and account for 90 percent of ridership on other modes

- In the Portland area, fixed route transit services carries 99 percent of the total trips and 91 percent of the trips by seniors and people with disabilities.
- In non-Metro Western Oregon, fixed route transit carry 93 percent of the total trips and 77 percent of the trips by seniors and people with disabilities.
- In Eastern Oregon, other modes such as Dial-A-Ride and tailored routes predominate, carrying 58 percent of the total trips and 75 percent of the trips by seniors and people with disabilities.

Table 3.4: Number of Trips Provided (Base = All Respondents)

	1997 Total (One-way Trips)	Senior / Disabled	% Senior / Disabled
Fixed-Route	80,033,406	11,386,139	14%
Dial-A-Ride	1,509,483	1,392,122	92
Tailored Routes	556,476	549,176	99
Intercity / Rural Routes	177,690	70,474	40
Scrip / Tickets / Passes	65,452	64,579	99
Volunteer Rides	145,863	139,933	96
Other	33,487	33,487	100
Total	82,521,857	13,635,911	17
Other Than Fixed Route	2,488,451	2,249,772	90

3.1.4 Hours of Service

The survey findings show that fixed-route service hours are generally longer in the Metro area, and shortest in Eastern Oregon (see Figure 3.2).

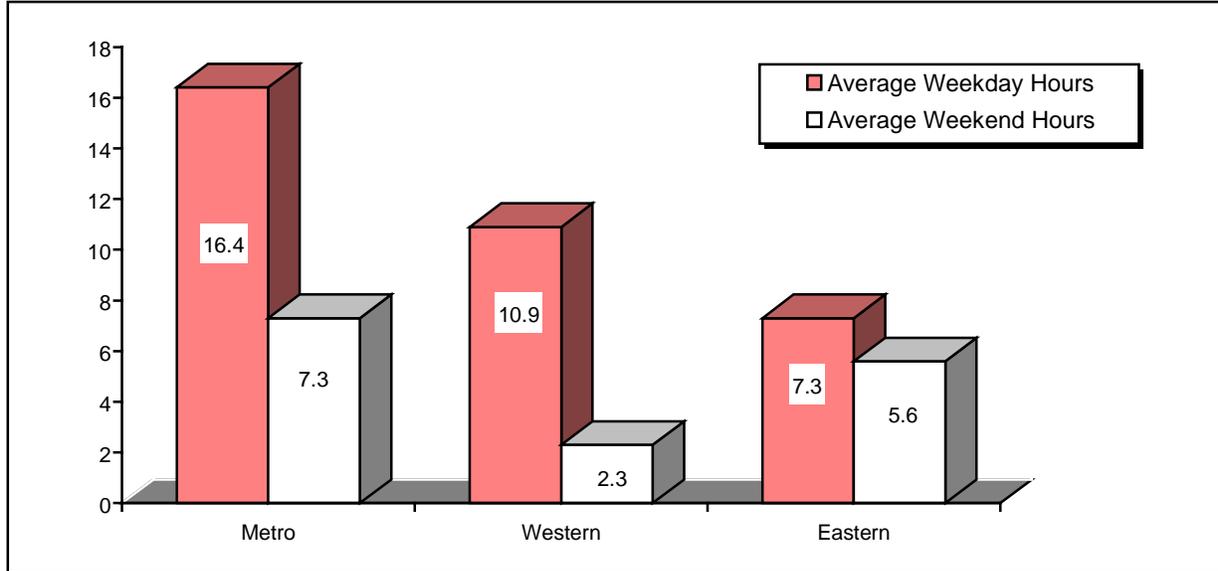


Figure 3.2: Hours of Service – Fixed Route
(Base = Respondents With Fixed Route Service)

A comparison of Figure 3.2 with Figure 3.3 shows that non-fixed route service in the Metro and Western areas generally has shorter hours than fixed-route service. This pattern is reversed in Eastern Oregon, which has longer non-fixed route service, compared to fixed route service.

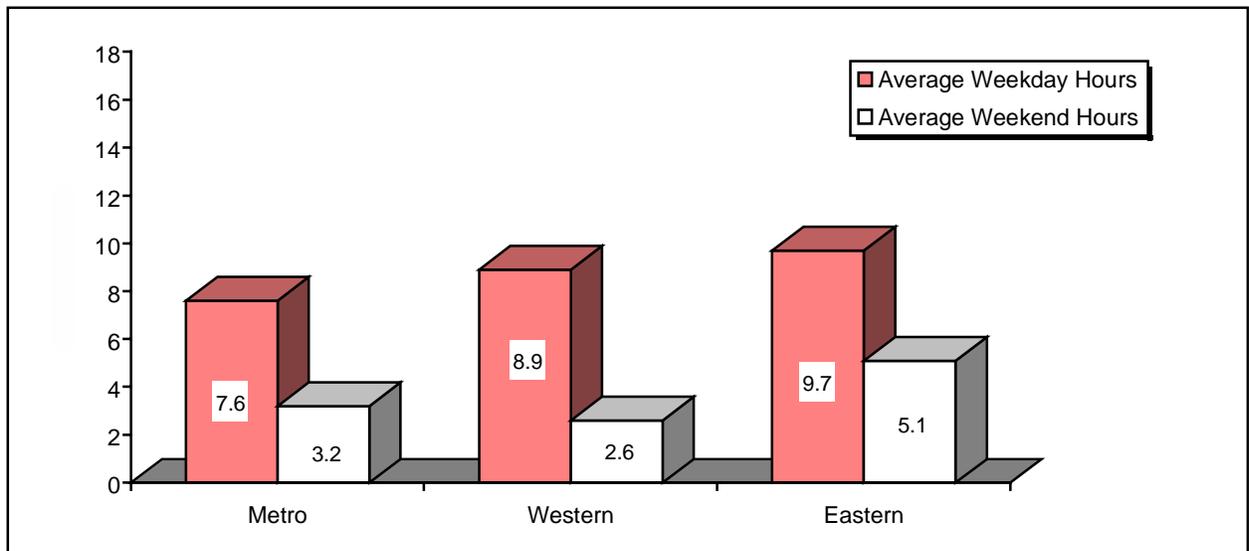


Figure 3.3: Hours of Service – Services Other than Fixed Route
(Base = Respondents With Other Services)

3.2 CONTRACTING

Twenty-two percent of the responding agencies indicate they use contractors to provide some or all of their service. These results are shown in Figure 3.4.

- Contracting is less prevalent in Eastern Oregon, where only 12 percent of the 40 agencies responding use contractors.
- The most common use of contractors is to provide Dial-A-Ride service (64 percent of contracts).

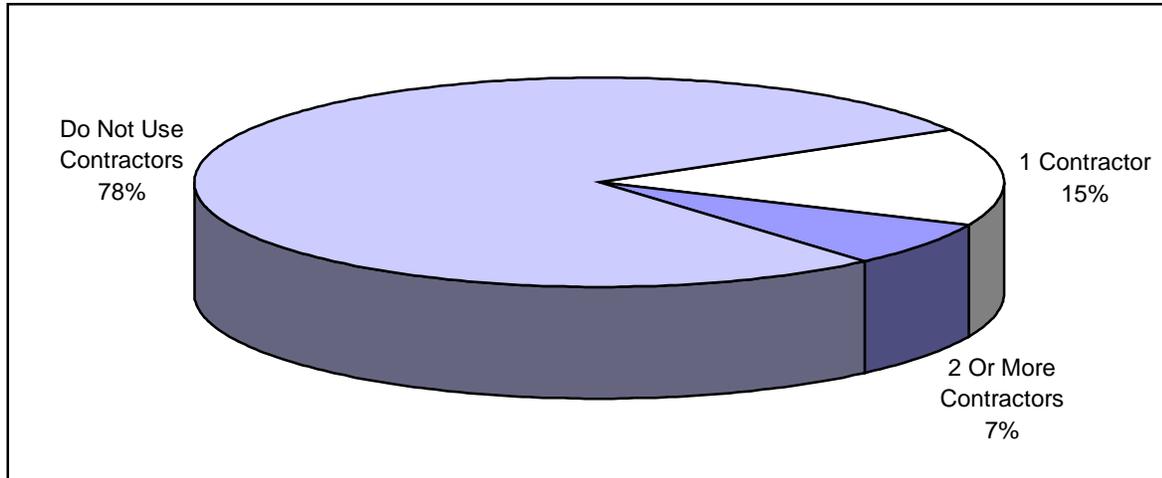


Figure 3.4: Use of Contractors (Base = All Respondents)

3.2.1 Resource Sharing

Thirteen agencies report a total of 36,000 trips either provided or received under resource sharing arrangements with other agencies (other than formal provider contracts). These arrangements account for about 1.4 percent of the non-fixed route service reported.

3.3 EMPLOYEE AND STAFFING ISSUES

The provider survey shows that most agencies in the Metro area and Western Oregon have full-time drivers, but in Eastern Oregon, part-time drivers predominate (see Table 3.5).

- Statewide, 24 percent of agencies have no employees other than drivers; 35 percent have full-time employee drivers; 56 percent have part-time employee drivers; 4 percent have full-time volunteer drivers; and 38 percent have part-time volunteer drivers.

Table 3.5: Average Number of Drivers (Base = All Respondents)

	Total	Metro	Western	Eastern
Full-time Employee Drivers	10.64	37.19	6.73	0.85
Part-time Employee Drivers	6.44	14	3.76	5.4
Full-time Volunteer Drivers	0.29	0	0.45	0.3
Part-time Volunteer Drivers	4.35	4.35	4.09	2.5
Other Than Drivers	7.91	5.16	13.37	1.44

Three out of four (77%) of the agencies report they use volunteers for some functions, most commonly as drivers. Volunteers provide the following functions:

	% Responding
Provide rides using their own vehicles	42%
Drive agency vehicles	34
Administration, fundraising, etc.	28
Other	30

The survey also asked about the types of training received by staff and volunteers. Table 3.6 shows that most agency staff receive training in first aid and CPR, sensitivity to disabilities, passenger assistance techniques, and defensive driving. The findings also indicate the following:

- Part-time and full-time drivers are about equally likely to be trained.
- Volunteers are less likely to be trained than drivers. This finding may be due to the fact that this survey question did not distinguish volunteer drivers from other volunteers.
- Non-driving, other staff members are the least likely to receive training.

Table 3.6: Staff / Volunteer Training (Base = All Respondents)

	First-Aid / CPR	Sensitivity	Passenger Assistance	Defensive Driving	Other
Full-time Drivers	73%	60%	80%	84%	18%
Part-time Drivers	75	56	79	75	14
Volunteers	34	35	46	52	5
Other Staff	40	35	33	32	8

3.4 EQUIPMENT AND VEHICLES

Among the survey respondents over 1,500 vehicles are used to provide transit service statewide. As shown in Table 3.7, in the Metro area, most of these are full-size transit buses, but in other areas vans and mini-buses predominate.

Table 3.7: Owned and Leased Vehicles (Base = All Respondents)

	Total	Metro	Western	Eastern
Full-sized Buses	818	608	194	9
Mini-Buses	323	204	83	31
Vans	181	18	101	55
Mini-Vans	123	15	83	15
Sedans	44	4	17	20
Other	73	40	27	5
Total Fleet Size	1,562	889	505	135

Respondents were also asked about the accessibility of their vehicles. The results are shown in Table 3.8. The survey shows that most vehicles in use are accessible to people with disabilities, especially in the case of full-size buses and mini-buses. Outside of the Metro area, non-accessible mini-vans and sedans make up a substantial portion of the fleets, reducing the overall percentage of accessibility in these areas.

Table 3.8: Accessibility of Fleet (Base = All Respondents)

	Total	Metro	Western	Eastern
Full-sized Buses	88%	86%	93%	88%
Mini-Buses	94	99	89	77
Vans	50	50	49	54
Mini-Vans	33	73	24	54
Sedans	0	0	0	0
Other	45	80	0	0
Total % Accessible	76	87	64	52

In terms of fleet size, the survey shows that most agencies operate with small fleets. Figure 3.5 shows that, outside the Metro area, the average Western Oregon provider operates a fleet of 9.4 passenger vehicles of all types, while the average Eastern Oregon provider operates a fleet of 3.6 passenger vehicles of all types.

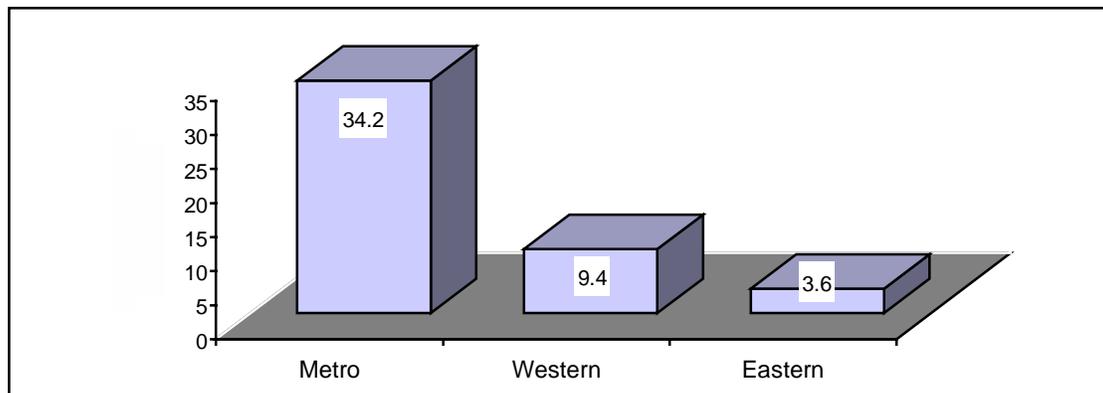


Figure 3.5: Average Fleet Size of Agency (Base = All Respondents)

3.5 NEED FOR ADDITIONAL SERVICE

3.5.1 Extent Service Meets Needs

Providers were asked the degree to which public transportation services available to seniors and people with disabilities met their needs. Figure 3.6 shows that overall, only 17 percent of the agencies statewide believe that the services in their communities meet all or most of those people’s needs. About half (48%) believe that the transportation services meet “a good part” of people’s needs. This pattern is fairly consistent in all regions of the state.

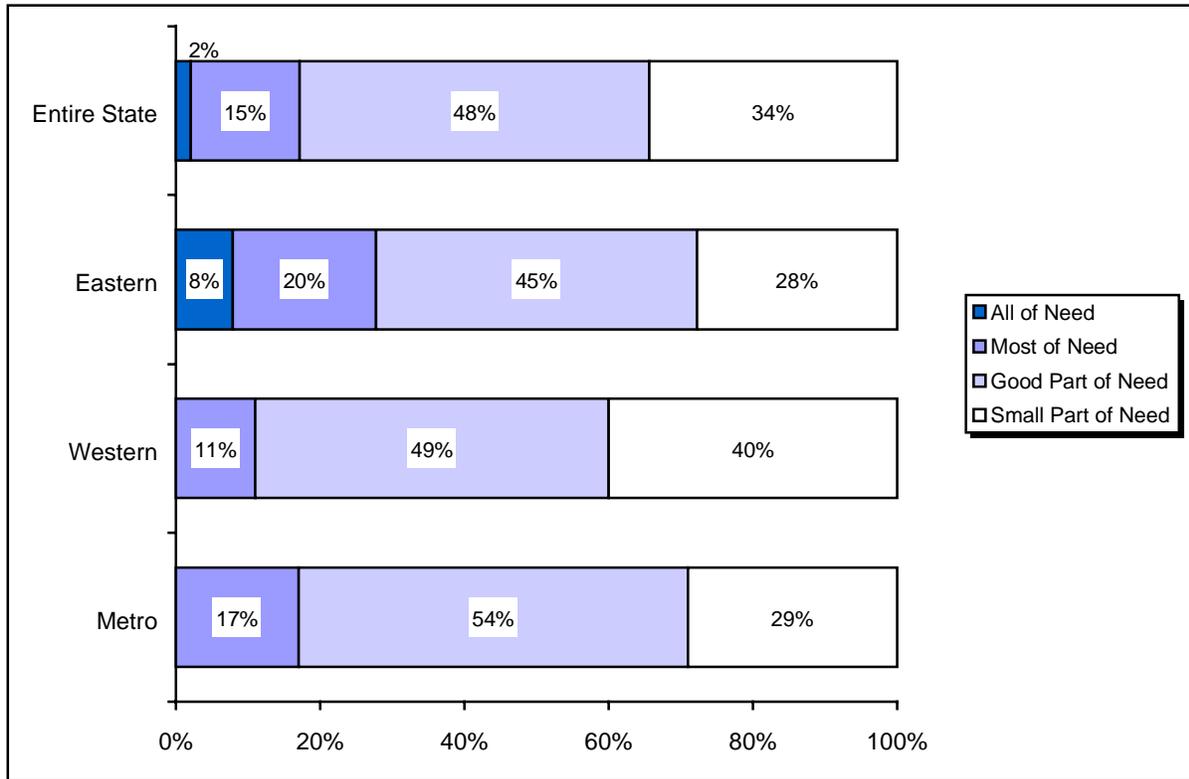


Figure 3.6: Extent to Which Current Services Meet Needs
(Base = All Respondents)

The need for additional service was measured by asking about trips turned down in 1997, and about the number of trips that would be needed to fully meet the needs of elderly and disabled people in the agency’s community. Table 3.9 summarizes the findings.

Statewide, the respondents estimate that it would take an 18 percent increase in non-fixed route trips to fully meet the needs of seniors and people with disabilities that they serve. This figure is significantly lower than latent demand, as reported by the mobility impaired respondents who currently have access to non-fixed-route services (see Section 2.6.2.3). Moreover, the survey findings show that 16 percent of mobility impaired individuals live in communities with no public transportation services (see Section 2.6).

Table 3.9: Need for Additional Trips (Base = All Respondents)

	Metro	Western	Eastern	Entire State
Total Senior / Disabled Trips Provided	9,004,676	3,867,550	574,704	13,446,930
Non-fixed Route Trips Provided	846,644	885,142	431,560	2,163,346
Trips Turned Down	5,555	12,311	18,006	35,872
Additional Trips Needed	159,160	164,455	68,550	392,165
% Needed Increase In Non-Fixed Route Trips	19%	19%	16%	18%

3.5.2 Support for Additional Services

Transportation providers were also asked about the willingness of their communities to support either tax or fare increases for additional services. Figure 3.7 shows that the perceptions of providers statewide – 56% support – is similar to the level of support shown in Figure 2.34 by mobility impaired respondents (64%). Agencies in the Metro area and western region are more optimistic in their assessment of support for tax increases than are those in the eastern region of the state.

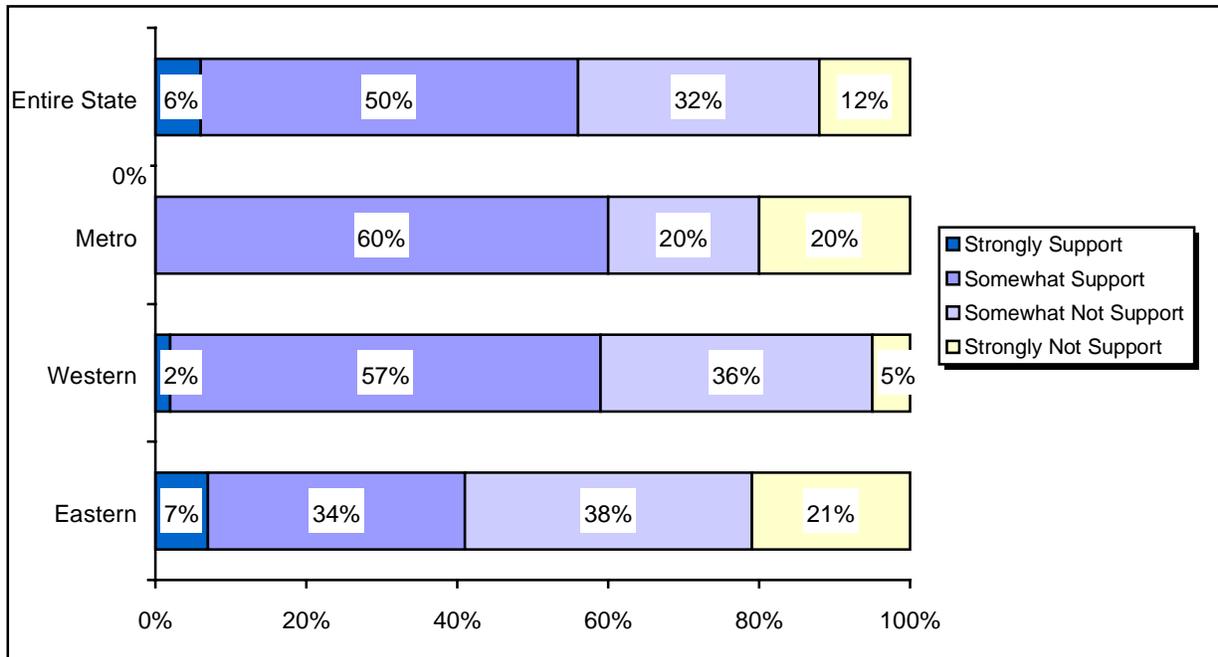


Figure 3.7: Perceptions of Community Support for Tax Increase (Base = All Respondents)

Overall, providers are less optimistic about community support for fare increases than are mobility impaired fixed route users. Figure 3.8 shows that 42% of the providers perceive community support, while 61% of mobility impaired respondents would support fare increases (Figure 2.34). Providers in the Metro region are somewhat more optimistic in assessing the support for fare increases than providers in the western and eastern regions.

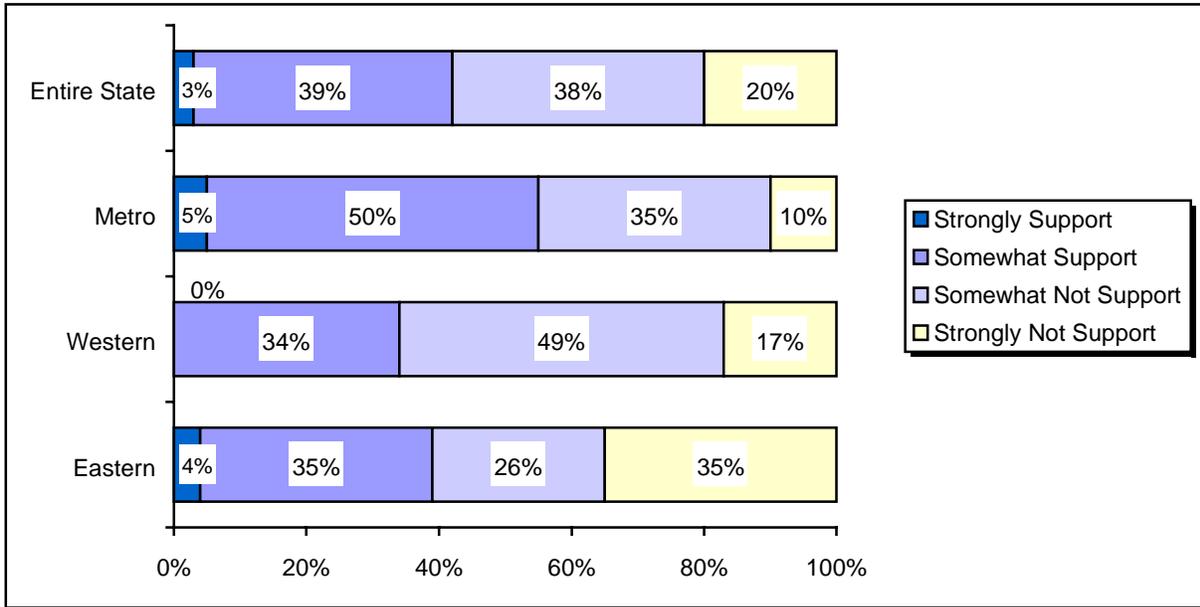


Figure 3.8: Perceptions of Community Support for Increase in Bus Fare
(Base = All Respondents)

3.5.3 Ranking of Needs

Transportation providers were asked to rate 15 different needs for improving service for seniors and people with disabilities. Categories of response were: Urgent, Very Important, Important, Would be Nice, and Not Needed.

Figure 3.9 shows that, based on the percentage responding “Urgent” or “Very Important,” the most important need identified is to increase the total number of door-to-door rides available. Other high ranking needs include making the service easier to use for seniors and people with disabilities, providing longer hours, providing better connections with other services, more days of operation, and more reliable service.

Table 3.10 shows the ranking of needs by geographic area. In general, providers in the Metro and Western regions feel that the suggested improvements are more needed than providers in the Eastern region.

- Metro providers ranked the following improvements significantly higher than Eastern providers: greater number of door to door rides, better connections with neighboring systems, better securement procedures for wheelchairs, more reliable service, more wheelchair accessible vehicles, employees more knowledgeable about people with special needs, more availability of schedules for people with sight impairments, printed schedules that are easier to understand, easier to identify vehicles, and more TTY / TDD service.
- Western providers ranked longer hours of operation and printed schedules that are easier to understand higher than Eastern providers.

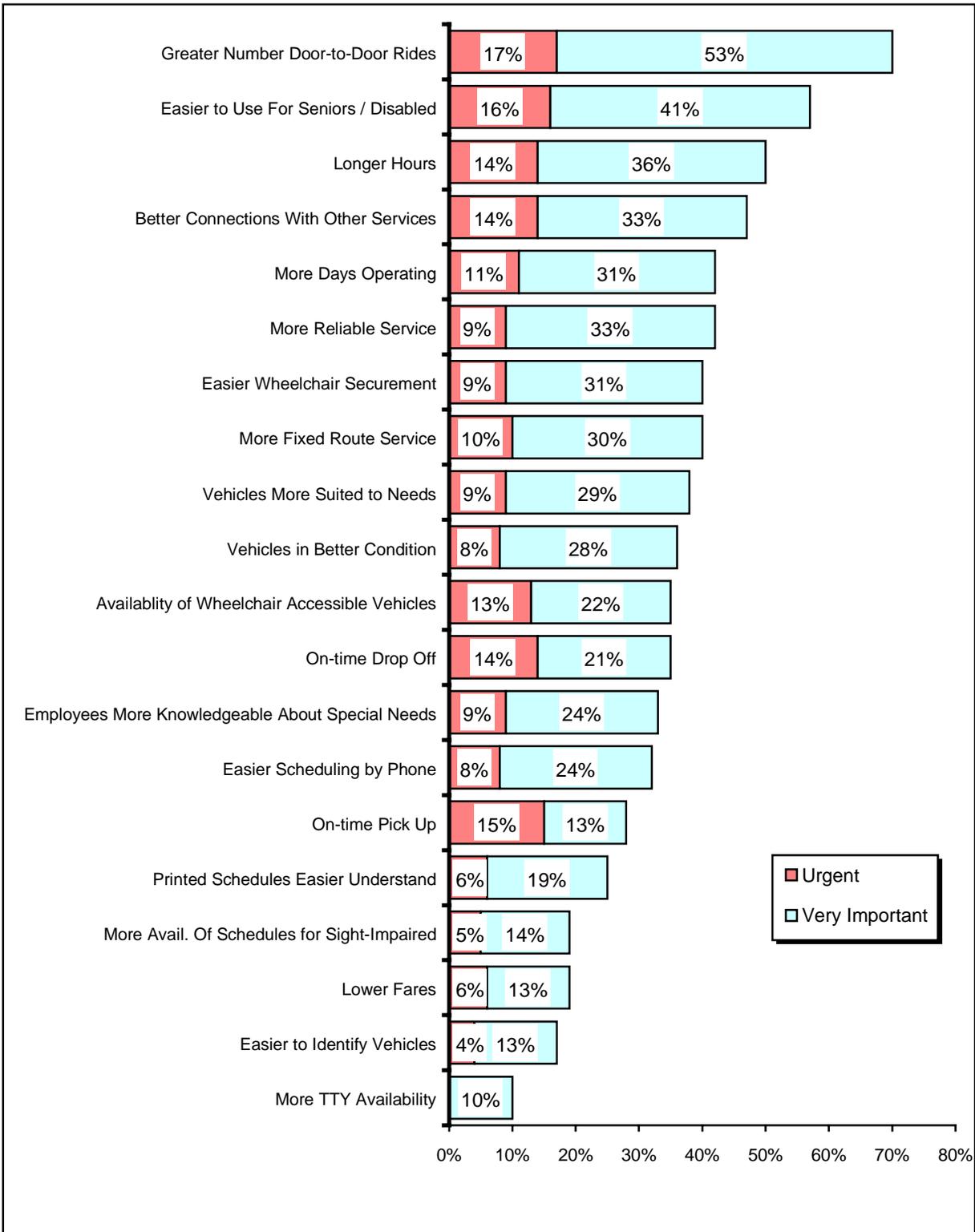


Figure 3.9: Ranking of Needs for Improving Service (Base = All Respondents)

Table 3.10: Ranking of Need by Geographic Area (Base = All Respondents)

	Mean Score (3 = Important, 4 = Very Important, 5 = Urgent)			
	Total	Metro	West	East
Greater Number of Door-To-Door Rides	3.70	4.04	3.60	3.51
Service Easier To Use For Seniors / Disabled	3.55	4.00	3.59	3.17
Longer Hours of Operation	3.22	3.08	3.46	2.84
Better Connections With Neighboring Transit Services	3.13	3.83	3.07	2.72
More Days of Operation	3.03	2.96	3.14	2.89
Better Arrangements For Securing Wheelchairs	2.97	3.61	2.73	2.89
More Fixed-Route Service	2.94	3.00	3.15	2.50
More Reliable Service	2.92	3.84	2.57	2.72
Vehicles More Suited To Your Needs	2.84	3.12	2.77	2.76
More Availability of Wheelchair-Accessible Vehicles	2.84	3.75	2.52	2.79
More Reliable On-Time Drop-Offs	2.83	3.88	2.73	2.27
Employees More Knowledgeable About Special Needs	2.77	3.32	2.76	2.53
Vehicles In Better Condition	2.75	3.12	2.70	2.58
More Reliable On-Time Pick-Ups	2.74	3.77	2.57	2.30
Easier Scheduling Of Trips By Phone	2.71	3.12	2.65	2.50
More Availability Of Schedules For Sight-Impaired	2.44	3.39	2.30	2.00
Printed Schedules That Are Easy To Understand	2.40	3.14	2.48	1.86
Lower Fares	2.31	2.42	2.48	2.08
Easier To Identify Vehicles	2.11	2.61	1.77	2.30
More TTY / TDD Availability	2.10	2.61	1.77	2.21

Figures in boldface indicate a statistically significant difference from other respondents in that subgroup.

3.6 TECHNIQUES TO HELP PEOPLE WITH DISABILITIES

Respondents were asked about whether they are making use of nine different techniques that are sometimes employed to help people with disabilities make better use of transit services. These are listed in Figure 3.10, along with the percentage of providers who reported using each one. The most commonly used methods are marketing and education aimed at disabled riders, facilitated transportation (helpers on vehicles or at transfer points), simplified fare collection, and reduced or free fare beyond the reductions required by law.

- Two out of five providers are currently using or have tried using marketing or education to help people with disabilities better use their services. Nearly one out of three (31%) are using or have used facilitated transportation (helpers on the vehicles or at transit points to assist people with disabilities.)

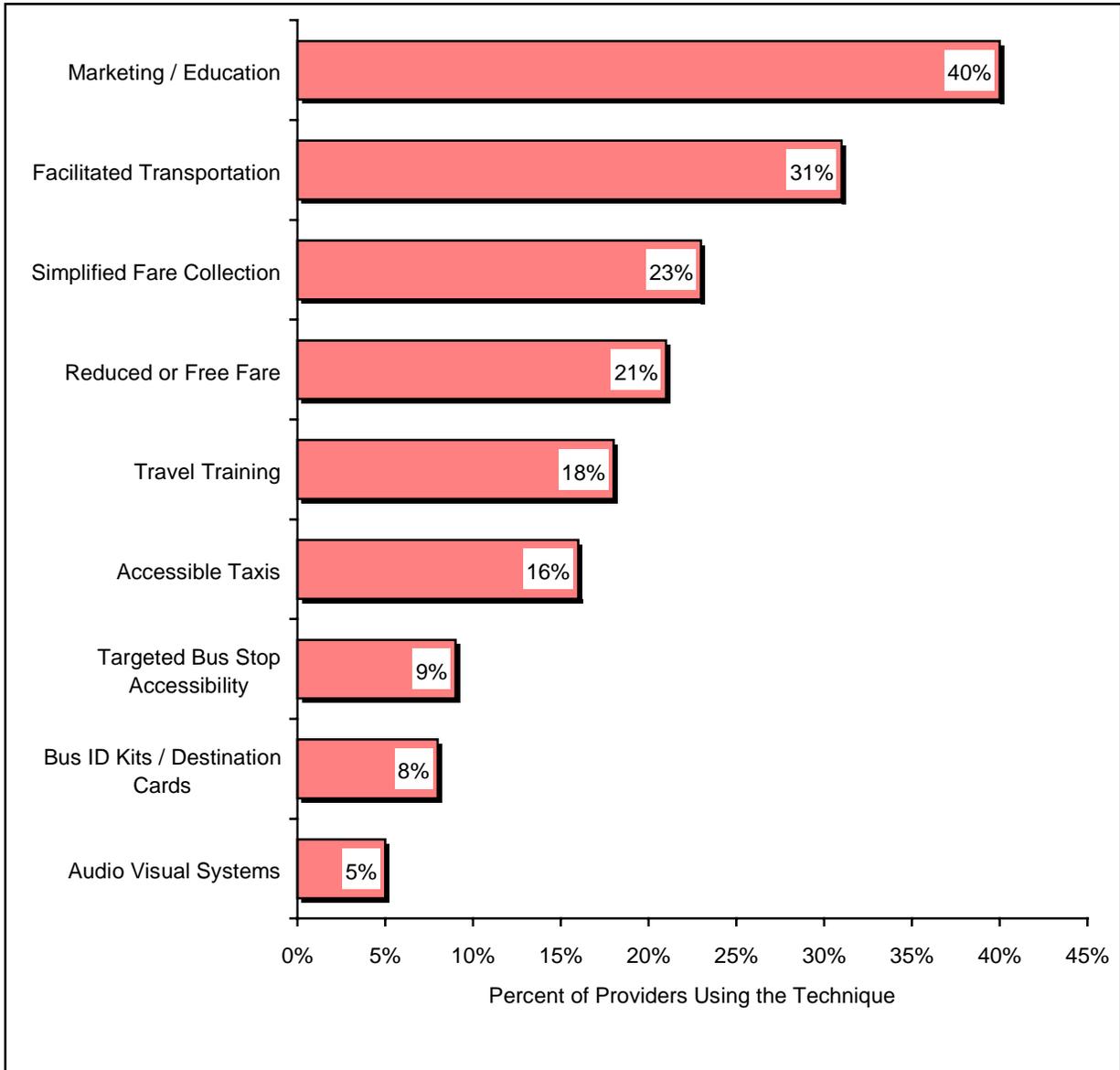


Figure 3.10: Use of Techniques to Help People with Disabilities
(Base = All Respondents)

Respondents who had experience with a technique were also asked to rate its effectiveness on a scale from one to five. The results are shown in Figure 3.11.

- All of the techniques are rated a “3” or higher, on average, by the provider agencies.
- The techniques receiving the highest average ratings – over “4” on a scale of 1-5 – are facilitated transportation (helpers on vehicles or at transfer points) and simplified fare collection.
- While marketing and education is the most frequently used technique by transportation providers, it is rated lower in effectiveness than most other techniques.

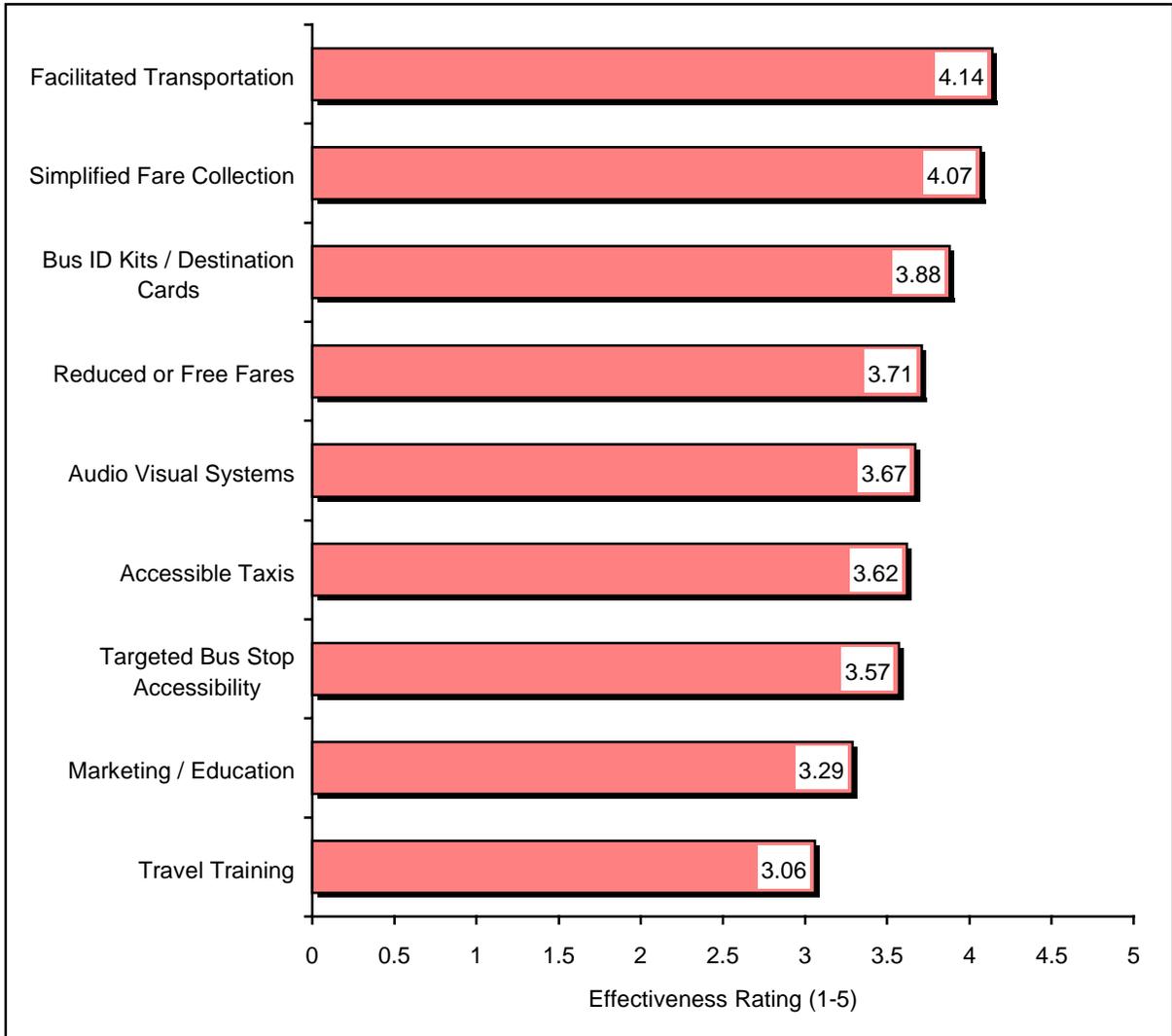


Figure 3.11: Effectiveness of Techniques to Help People with Disabilities
(Base = Respondents with Experience Using the Technique)

4.0 CONCLUSIONS AND RECOMMENDATIONS

The Mobility Needs Study surveyed the views of mobility impaired people and transportation providers throughout the state. This study represents an important first step in quantifying the needs of those individuals who, due to a physical, mental, or cognitive disability have difficulty obtaining transportation to the places they want or need to go. The findings reviewed in the preceding sections suggest several major implications for planning future efforts to address the needs of the mobility impaired:

- **Mobility impairment is a significant problem in the state of Oregon.** The research suggests that the incidence of the mobility impaired may be significantly higher – as much as three times higher – than that which has been previously documented. Notably, 8 percent of the population was found to have some type of mobility impairment. The higher incidence is most likely due to the expanded definition of mobility impaired individuals; however, it is important to not underestimate the extent of transportation needs among those with a disability.
- **Improvements to transportation systems should be targeted across the state and in communities of all sizes.** Contrary to an often-held belief, the incidence of mobility impairment is not concentrated in major urban areas. Rather, mobility impaired individuals are fairly equally dispersed throughout all areas of the state and in communities of all sizes – from the Portland metropolitan region to rural areas in Southwest and Eastern Oregon. It may also be that a particular area contributes to the challenge a person faces with certain impairments; for example, poorly lighted rural roads make driving more difficult for those with minor vision impairments.
- **The mobility impaired have a wide variety of needs that require complex solutions.** An important finding of the study points to the nature and type of the mobility impaired individual's disability. Although one-third of the mobility impaired individuals report a disability that is ambulatory in nature, a nearly equal number report a disability that varies in nature. Improvements in transportation should thus target all of the needs of this population – from ambulatory needs, such as making bus stops more accessible, to cognitive needs, such as providing assistance in identifying the appropriate vehicle, paying the fare, and getting off at the appropriate stop.
- **Regular fixed route service can help meet the needs of mobility impaired individuals.** When looking at the mobility impaired population's functional abilities, a potentially major difficulty when using fixed route service is the individual's inability to stand for 10 minutes while waiting for the bus or vehicle to arrive. Having to stand for ten minutes is cited as one of the major items that differentiates those who have a great deal of difficulty using fixed route service from those who do not. Therefore, the research suggests that providing seats or

benches at all bus stops would significantly affect the mobility impaired population's ability to use fixed route service. Among those who have fixed route service and have used it in the past, difficulty getting to and from the bus stop and ease of getting on and off the bus are also cited as barriers to a large share of mobility impaired persons.

- **There are opportunities to meet the needs of mobility impaired individuals by offering regularly scheduled public transportation to key locations in the community.** Grocery shopping represents one of the major types of trips made by the mobility impaired. Offering a service that transports mobility impaired individuals on a regularly scheduled basis to and from the grocery store provides an opportunity for the mobility impaired to get out of the house. Furthermore, it allows them to perform a task that is necessary to their ability to live independently or semi-independently.
- **Latent demand for transportation is significant, both for trips within communities as well as for trips between communities.** Not only do a significant number of mobility impaired individuals desire to take additional trips within their community, over one-third desire trips to nearby communities. In many cases, however, they are unable to make them because they cannot find transportation that is affordable and accessible.
- **There is significant need for additional fixed route trips and/or Dial-A-Ride trips, both in communities that currently have these services, as well as in communities that do not.** Of the total mobility impaired population (both those with service and those without) 24 percent would like to make more trips on existing fixed route service, an average of 6.45 trips per week. An additional 24 percent of all respondents are likely to use fixed route service if it were available, but do not currently have service. (Fifty-five percent of those without service would travel two times per week or more.) Thus a total of 48 percent of all respondents would like to make trips or make additional trips on fixed route transit. When looking at Dial-A-Ride services, 17 percent of the entire mobility impaired population (those with service and without) would like to make more trips on it, an average of 3.73 trips per week. An additional 31 percent of all respondents are likely to use Dial-A-Ride if it were available, but do not currently have service. (Forty-four percent of those without service would travel two times per week or more.) This brings the total percentage of respondents who would like to make trips or make additional trips on Dial-A-Ride services to 48 percent of the population.
- **The mobility impaired population with access to service report three areas where their needs are not being met.** The first area – ease of access to service – is a relatively long-term investment in terms of time and resources needed to improve on a statewide scale. Two other areas – knowledgeable personnel and easy to understand printed schedules – are relatively easy to correct, and immediate steps can be taken to correct and improve in these areas.

4.1 RECOMMENDATIONS FOR FURTHER STUDY

This study has provided a wealth of information about the needs of Oregonians with mobility impairments. The following recommendations are made to help in further understanding and addressing these needs:

- Conduct a survey of social service providers to glean data about the needs of their clients and about the resources they expend to support client transportation needs.
- Research the needs of other transportation-disadvantaged individuals – the three percent of the general population identified in this study who have transportation difficulties due to income.
- Conduct further analysis to determine the costs of meeting the transportation needs of mobility impaired persons.

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APPENDICES

APPENDIX A

ZIP CODES OF STRATIFIED POPULATION CATEGORIES

ZIP CODES OF STRATIFIED POPULATION CATEGORIES

Area 1 Large	Area 2 Medium	Area 3 Small			Area 4 Rural					
97222	97330	97814	97470	97838	97833	97532	97063	97376	97473	97107
97267	97331	97370	97479	97019	97834	97623	97109	97390	97481	97131
97201	97333	97013	97496	97030	97870	97624	97117	97329	97484	97136
97202	97501	97022	97720	97080	97877	97632	97125	97345	97486	97810
97203	97504	97027	97031	97431	97884	97633	97144	97872	97831	97813
97204	97401	97034	97502	97368	97907	97636	97347	97710	97848	97826
97205	97402	97035	97520	97041	97456	97452	97371	97721	97837	97835
97206	97403	97038	97524	97503	97023	97492	97108	97758	97840	97868
97209	97405	97045	97535	97523	97016	97341	97112	97904	97324	97875
97210	97408	97055	97540	97627	97018	97380	97122	97536	97011	97886
97211	97321	97068	97741	97053	97048	97394	97149	97541	97028	97824
97212	97301	97070	97526	97739	97449	97498	97842	97711	97049	97827
97213	97302	97103	97527	97760	97466	97327	97377	97730	97067	97841
97214	97303	97138	97601	97443	97444	97348	97903	97761	97121	97867
97215	97305	97146	97603	97004	97465	97358	97906	97497	97130	97876
97216	97306	97051	97630	97009	97756	97360	97908	97531	97020	97883
97217	97304	97056	97424	97015	97759	97374	97909	97534	97639	97828
97218	97477	97064	97426	97017	97417	97389	97911	97538	97145	97846
97219	97478	97411	97325	97042	97435	97446	97917	97543	97857	
97220	97404	97420	97362		97436	97901	97920	97544	97885	
97221	97440	97423	97381		97442	97910	97010	97621	97001	
97227	97310	97458	97383		97462	97918	97637	97625	97021	
97230	97005	97459	97818		97469	97002	97638	97731	97037	
97231	97006	97754	97024		97499	97026	97640	97733	97040	
97232	97007	97415	97060		97812	97032	97735	97737	97434	
97233	97008	97701	97338		97823	97137	97412	97620	97437	
97236	97123	97702	97351		97820	97342	97413	97635	97438	
97266	97124	97707	97361		97825	97346	97419	97054	97451	
97223		97457	97141		97845	97350	97427	97414	97453	
97224		97467	97801		97856	97352	97430	97468	97454	
97225		97448	97862		97864	97375	97750	97751	97455	
97229		97463	97882		97865	97385	97830	97752	97461	
		97487	97850		97869	97392	97874	97753	97480	
		97365	97058		97873	97836	97101	97406	97488	
		97367	97062		97738	97839	97111	97450	97489	
		97391	97113		97014	97843	97114	97476	97490	
		97355	97116		97522	97844	97127	97712	97493	
		97386	97140		97525	97344	97148	97410	97326	
		97913	97115		97530	97029	97396	97416	97343	
		97914	97128		97537	97039	97057	97429	97357	
		97071	97132		97539	97050	97106	97441	97364	
		97439	97378		97734	97065	97119	97447	97366	

APPENDIX B

GENERAL POPULATION QUESTIONNAIRE

APPENDIX B: GENERAL POPULATION QUESTIONNAIRE

ODOT MOBILITY NEEDS #97-149
Final Questionnaire 01/28/99 3:37 PM
Postcodes in bold / italics

SCREENER

ALL PERSONS CONTACTED WILL COMPLETE THE FOLLOWING SCREENING SECTION.

INTRO Hello, this is _____ of Northwest Research Group calling on behalf of the Oregon Department of Transportation. We are conducting a statewide study about the transportation needs of Oregonians, and we'd like to get your opinion. Let me assure you that I am not selling anything, and that all of your responses will be kept completely confidential. Are you someone who lives in this household and is 18 years of age or older?

- 1 YES
- 2 NO RESPONDENT NOT AVAILABLE [SCHEDULE CALLBACK / PRESS CNTRL END TO DISPS.]
- 9 NO, REFUSED [PRESS CNTRL END DISPOS AS IMMED. REF]]

SCR1 What is your home zip code?

- _____ ENTER ZIP CODE
99999 DON'T KNOW / REFUSED [SKIPTO THANK9 DISPOS EQ 8]

[CHECK AREA QUOTAS SKIPTO THANK1 IF OVER QUOTA DISPOS EQ 13]

SCR1A Is there local public transportation service available in your community? This would be any transportation service that travels along a fixed route, and is available to **anyone** who wishes to use the service. Please do not include transportation services that travel between communities such as Greyhound bus service.

- 1 YES
- 2 NO
- 8 DON'T KNOW
- 9 REFUSED

SCR2 Do you or does anyone in your household have a physical, mental, or other health condition that limits their ability or causes difficulty in getting to places they need or want to go – for example, work, school, medical appointments, social or recreational activities?

[IF YES, PROBE: Would that be you or someone else in the household?]

- 1 YES RESPONDENT ONLY [SKIPTO SCR3]
- 2 YES OTHERS IN HOUSEHOLD
- 3 YES RESPONDENT AND OTHERS IN HOUSEHOLD
- 4 NO [SKIP TO SCR10]
- 8 DON'T KNOW [SKIP TO SCR10]
- 9 REFUSED [SKIP TO SCR10]

SCR2A How many people in your household have a condition that limits their ability or causes difficulty in getting to places they want or need to go?
__ ENTER NUMBER OF PEOPLE
8 8 OR MORE PEOPLE
9 DON'T KNOW / REFUSED **[THANK AND TERMINATE DISPOS = 8 SKIPTO THANK9]**

SCR3 I am going to read some health conditions or disabilities that might affect people's ability to get around. Please think about all members of your household, including children, when you answer these next questions. Also, please think of anyone who is affected temporarily, as well as permanently.

Do you or does anyone in your household have a health condition or disability that prevents them from going up or down a few steps, walking for short distances, or standing for more than a few minutes?

[PROBE: Would that be you or someone else in the household?]

- 1 YES RESPONDENT
- 2 YES OTHERS IN HOUSEHOLD
- 3 YES RESPONDENT AND OTHERS IN HOUSEHOLD
- 4 NO **[SKIPTO SCR4]**
- 8 DON'T KNOW **[SKIPTO SCR4]**
- 9 REFUSED **[SKIPTO SCR4]**

SCR3A Does anyone in your household ever use a wheelchair, a three-wheel scooter, or any other mechanical device for aid in getting around? Would you say...

- 1 YES RESPONDENT
- 2 YES OTHERS IN HOUSEHOLD
- 3 YES RESPONDENT AND OTHERS IN HOUSEHOLD
- 4 NO
- 8 DON'T KNOW
- 9 REFUSED

SCR3B Does anyone in your household ever use leg braces, crutches, a cane, or a walker? Would you say...

- 1 YES RESPONDENT
- 2 YES OTHERS IN HOUSEHOLD
- 3 YES RESPONDENT AND OTHERS IN HOUSEHOLD
- 4 NO
- 8 DON'T KNOW
- 9 REFUSED

SCR4 Are you or is anyone in your household reluctant to go places because of poor night vision, or any other difficulty seeing that affects their ability to get around?

[PROBE: Would that be you or someone else in the household?]

- 1 YES RESPONDENT
- 2 YES OTHERS IN HOUSEHOLD
- 3 YES RESPONDENT AND OTHERS IN HOUSEHOLD
- 4 NO **[SKIPTO SCR5]**
- 8 DON'T KNOW **[SKIPTO SCR5]**
- 9 REFUSED **[SKIPTO SCR5]**

SCR4A Does anyone in your household ever use a service animal such as a seeing eye dog?

- 1 YES RESPONDENT
- 2 YES OTHERS IN HOUSEHOLD
- 3 YES RESPONDENT AND OTHERS IN HOUSEHOLD
- 4 NO
- 8 DON'T KNOW
- 9 REFUSED

SCR5 Do you or does anyone in your household have any difficulty speaking or hearing, or any other condition that limits their ability to communicate with others?

[PROBE: Would that be you or someone else in the household?]

- 1 YES RESPONDENT
- 2 YES OTHERS IN HOUSEHOLD
- 3 YES RESPONDENT AND OTHERS IN HOUSEHOLD
- 4 NO
- 8 DON'T KNOW
- 9 REFUSED

SCR6 Do you or does anyone in your household have any condition that causes disorientation or limits his or her ability to understand instructions?

[PROBE: Would that be you or someone else in the household?]

- 1 YES RESPONDENT
- 2 YES OTHERS IN HOUSEHOLD
- 3 YES RESPONDENT AND OTHERS IN HOUSEHOLD
- 4 NO
- 8 DON'T KNOW
- 9 REFUSED

SCR7 Do you or does anyone in your household have difficulty getting around away from your home because of a respiratory or heart condition?

[PROBE: Would that be you or someone else in the household?]

- 1 YES RESPONDENT
- 2 YES OTHERS IN HOUSEHOLD
- 3 YES RESPONDENT AND OTHERS IN HOUSEHOLD
- 4 NO
- 8 DON'T KNOW
- 9 REFUSED

SCR8 Is any member of your household ever reluctant to go places because of a health condition or disability that may flare up unexpectedly?

[PROBE: Would that be you or someone else in the household?]

- 1 YES RESPONDENT
- 2 YES OTHERS IN HOUSEHOLD
- 3 YES RESPONDENT AND OTHERS IN HOUSEHOLD
- 4 NO
- 8 DON'T KNOW
- 9 REFUSED

SCR9 Does any member of your household have a health condition or disability not already described that affects their ability to transport themselves without assistance or special equipment?

[PROBE: Would that be you or someone else in the household?]

- 1 YES RESPONDENT
- 2 YES OTHERS IN HOUSEHOLD
- 3 YES RESPONDENT AND OTHERS IN HOUSEHOLD
- 4 NO [SKIPTO SCR10]
- 8 DON'T KNOW [SKIPTO SCR10]
- 9 REFUSED [SKIPTO SCR10]

SCR9A In what way does [your / their] health condition or disability affect [your / their] ability to get to places [you / they] need or want to go?

- 6 **CANNOT TRAVEL ALONE WITHOUT ASSISTANCE (GENERAL)**
- 7 **SEVERE FATIGUE / WEAKNESS**
- 8 **MEDICATION PREVENTS DRIVING / TRANSPORTING SELF**
- 10 **CAN'T DRIVE SELF (GENERAL)**
- 11 **OUTSIDE INFLUENCES / PUBLIC TRANSPORTATION INADEQUATE**
- 12 **OTHER**
- 99 **DON'T KNOW / REFUSED**

IF SCR2 LE 3 AND (SCR3, SCR4, SCR5, SCR6, SCR7, SCR8, OR SCR9 LE 3) HOUSEHOLD QUALIFIES AS DISABLED.

SCR10 Including yourself, how many people are there in your household?

- _____ ENTER ACTUAL NUMBER
- 99 DON'T KNOW / REFUSED [THANK AND TERMINATE DISPOS EQ 8 SKIPTO THANK9]

SCR11 Including yourself, how many of the people in your household are in each of the following age categories?

- _____ Under 18 years of age [ENTER 99 FOR REFUSED]
- _____ 18 to 59 years of age
- _____ 60 years of age or older.

**[IF SCR11 = 99 DISPOS = 8 SKIPTO THANK9]
[SCR11 MUST EQ SCR10]**

SCR13A **[IF SCR11.2 EQ 0 SKIPTO SCR13C]** Do any members of your household who are between the ages of 18 to 59 have difficulty obtaining transportation to get to places they want or need to go – for example, work, school, medical appointments, social or recreational activities?

- 1 YES
- 2 NO [SKIPTO SCR13C]
- 8 DON'T KNOW [SKIPTO SCR13C]
- 9 REFUSED [SKIPTO SCR13C]

SCR13B Why is that?

[SELECT ALL THAT APPLY]

- 1 DON'T DRIVE / DON'T KNOW HOW TO DRIVE
- 2 DON'T HAVE A CAR
- 3 CAN'T AFFORD A CAR
- 4 OTHER [SPECIFY]
- 5 DON'T KNOW / REFUSED / NO MORE APPLY
- 6 **PUBLIC TRANSPORTATION HOURS OF OPERATION DON'T MEET NEEDS**
- 7 **PUBLIC TRANSPORTATION TOO FAR OR DOESN'T SERVE HOUSE / DESTINATION**
- 8 **PUBLIC TRANSPORTATION DOES NOT MEET NEEDS (GENERAL)**
- 9 **NO PUBLIC TRANSPORTATION AVAILABLE**
- 10 **DISABILITY LIMITS ABILITY TO TRANSPORT THEMSELVES**
- 11 **LIMITED AVAILABILITY / OVERCROWDING OF DIAL A RIDE**
- 12 **CANNOT TRAVEL ALONE WITHOUT CAREGIVER**
- 13 **NOBODY AVAILABLE TO TRANSPORT ME**
- 14 **CAR IS BROKEN / UNRELIABLE**
- 15 **HAVE TO SCHEDULE DIAL A RIDE IN ADVANCE**
- 16 **PUBLIC TRANSPORTATION TAKES TOO LONG**
- 17 **SUSPENDED DRIVERS LICENSE / NO LICENSE**
- 18 **DON'T KNOW HOW TO USE PUBLIC TRANSPORTATION**
- 19 **WEATHER / SNOW CAUSES DIFFICULTY GETTING AROUND**
- 20 **WHEELCHAIR DIFFICULT TO TRANSPORT / NO ACCESSIBLE VEHICLES**

SCR13B1 How many members of your household who are between the ages of 18 to 59 have difficulty obtaining transportation to get to places they want or need to go?

- ___ ENTER NUMBER OF PEOPLE
- 8 8 OR MORE PEOPLE
 - 9 DON'T KNOW / REFUSED [THANK AND TERMINATE DISPOS = 8 SKIPTO THANK9]

IF SCR13 EQ 0 AND DISABLED NE 1 THANK AND TERMINATE SKIPTO THANK2

SCR13C Do any members of your household who are 60 years of age or older have difficulty obtaining transportation to get to places they want or need to go – for example, work, school, medical appointments, social or recreational activities?

- 1 YES
- 2 NO [IF HH NE DISABLED THANK AND TERMINATE SKIPTO THANK2]
- 8 DON'T KNOW [IF HH NE DISABLED THANK AND TERMINATE SKIPTO THANK2]
- 9 REFUSED [IF HH NE DISABLED THANK AND TERMINATE SKIPTO THANK2]

SCR13D Why is that?

[SELECT ALL THAT APPLY]

- 1 DON'T DRIVE / DON'T KNOW HOW TO DRIVE
- 2 DON'T HAVE A CAR
- 3 CAN'T AFFORD A CAR
- 4 OTHER [SPECIFY]

- 5 DON'T KNOW / REFUSED / NO MORE APPLY
- 6 **PUBLIC TRANSPORTATION HOURS OF OPERATION DON'T MEET NEEDS**
- 7 **PUBLIC TRANSPORTATION TOO FAR OR DOESN'T SERVE HOUSE / DESTINATION**
- 8 **PUBLIC TRANSPORTATION DOES NOT MEET NEEDS (GENERAL)**
- 9 **NO PUBLIC TRANSPORTATION AVAILABLE**
- 10 **DISABILITY LIMITS ABILITY TO TRANSPORT THEMSELVES**
- 11 **LIMITED AVAILABILITY / OVERCROWDING OF DIAL A RIDE**
- 12 **CANNOT TRAVEL ALONE WITHOUT CAREGIVER**
- 13 **NOBODY AVAILABLE TO TRANSPORT ME**
- 14 **CAR IS BROKEN / UNRELIABLE**
- 15 **HAVE TO SCHEDULE DIAL A RIDE IN ADVANCE**
- 16 **PUBLIC TRANSPORTATION TAKES TOO LONG**
- 17 **SUSPENDED DRIVERS LICENSE / NO LICENSE**
- 18 **DON'T KNOW HOW TO USE PUBLIC TRANSPORTATION**
- 19 **WEATHER / SNOW CAUSES DIFFICULTY GETTING AROUND**
- 20 **WHEELCHAIR DIFFICULT TO TRANSPORT / NO ACCESSIBLE VEHICLES**

SCR13D1 How many members of your household who are 60 years of age or older have difficulty obtaining transportation to get to places they want or need to go?

- ___ ENTER NUMBER OF PEOPLE
- 8 8 OR MORE PEOPLE
- 9 DON'T KNOW / REFUSED [THANK AND TERMINATE DISPOS = 8 SKIPTO THANK9]

IF NOT QUALIFIED AS DISABLED AND SCR13c EQ 1, HOUSEHOLD QUALIFIES AS SENIOR, TRANSPORTATION DISADVANTAGED

SCR14 On behalf of the Oregon Department of Transportation we are conducting a survey regarding individuals who have transportation difficulties which affect their ability to get around to places they need to go. For this survey I would like to speak to the individual who

[IF SENIOR = 1 SHOW "is 60 years of age or older and has difficulty obtaining transportation."]

[IF SCR13D1 > 1 SHOW "And who has the next birthday."]

[IF DISABLED = 1 SHOW "has a health condition or disability that we spoke about previously."]

[IF Q2A > 1 SHOW "And who has the next birthday."]

Would that be you?

- 1 YES [SKIPTO GENDER1]
- 2 NO / PERSON NOT AVAILABLE [PRESS CNTRL. END / SCHEDULE CALLBACK]
- 3 PERSON UNABLE TO RESPOND TO SURVEY DUE TO DISABILITY
- 9 NO, CORRECT PERSON REFUSED [THANK AND TERMINATE SKIPTO THANK2 DISPOS EQ 18]

SCR15 I would like to ask some questions about that person's transportation needs. Would you be the best person to speak to about that subject?

[IF RESPONDENT NOT CORRECT PERSON: Would that person be available to speak with at this time?]

- 1 YES [**SKIPTO SCR16**]
- 2 NO / CORRECT PERSON ON PHONE
- 3 NO / CORRECT PERSON NOT AVAILABLE [PRESS CNTRL. END SCHEDULE CALLBACK]
- 9 DON'T KNOW / REFUSED [**THANK AND TERMINATE SKIPTO THANK2 DISPOS = 18**]

SCR15A Hello, my name is _____ with Northwest Research Group. We are conducting a study regarding individuals who have transportation difficulties which affect their ability to get around to places they need to go. I understand there is someone in your household who meets this definition and that you would be the best person to speak to about their needs. Is that correct?

- 1 YES CONTINUE
- 2 CALLBACK [PRESS CNTRL. END / SCHEDULE CALLBACK]
- 3 NO / CORRECT PERSON ON PHONE [RE-READ QUESTION]
- 9 REFUSED [**THANK AND TERMINATE SKIPTO THANK2 DISPOS = 18**]

SCR16 What is that person's relationship to you?

[PROBE: Is that person male or female?]

- 1 BROTHER / STEP BROTHER / BROTHER IN LAW [**SKIPTO AGE3**]
- 2 SISTER / STEP SISTER / SISTER IN LAW [**SKIPTO AGE3**]
- 3 WIFE [**SKIPTO AGE3**]
- 4 HUSBAND [**SKIPTO AGE3**]
- 5 MOTHER / MOTHER IN LAW / STEPMOTHER [**SKIPTO AGE3**]
- 6 FATHER / FATHER IN LAW / STEPFATHER [**SKIPTO AGE3**]
- 7 AUNT / GREAT AUNT [**SKIPTO AGE3**]
- 8 UNCLE / GREAT UNCLE [**SKIPTO AGE3**]
- 9 GRANDMOTHER / GREAT GRANDMOTHER [**SKIPTO AGE3**]
- 10 GRANDFATHER / GREAT GRANDFATHER [**SKIPTO AGE3**]
- 11 DAUGHTER / DAUGHTER IN LAW [**SKIPTO AGE3**]
- 12 SON / SON IN LAW [**SKIPTO AGE3**]
- 13 GRANDDAUGHTER [**SKIPTO AGE3**]
- 14 GRANDSON [**SKIPTO AGE3**]
- 15 OTHER FEMALE [SPECIFY] [**SKIPTO AGE3**]
- 16 OTHER MALE [SPECIFY] [**SKIPTO AGE3**]
- 17 REFUSED [**SKIPTO GENDER2**]

[FOR ALL FUTURE QUESTIONS: (IF SCR16 = 1, 4, 7, 9, 11, 13, 15, 17 SHOW "HIS / HE") (IF SCR17 = 2, 3, 6, 8, 10, 12, 14, 16 SHOW "HER / SHE")]

GENDER1 ENTER GENDER OF RESPONDENT

- 1 MALE
 - 2 FEMALE
- [**SKIPTO A1INTRO**]

GENDER2 What is the gender of the person who

[IF SENIOR = 1 SHOW "is 60 years of age or older and has difficulty obtaining transportation"]

[IF DISABLED = 1 SHOW "has a health condition or disability"]

[IF Q2A > 1 SHOW "and has the next birthday"]

1 MALE

2 FEMALE

AGE3 What is [her / his] age

___ ENTER AGE [SKIPTO A1INTRO]

99 REFUSED

AGE2 Are they. . .

1 5 years of age and under,

2 6 TO 10,

3 11 TO 13,

4 14 TO 15,

5 16 TO 17,

6 18 TO 24,

7 25 TO 34,

8 35 TO 44,

9 45 TO 54,

10 55 TO 60,

11 60 TO 74,

12 75 TO 84, or

13 85 and older?

14 DON'T KNOW

99 REFUSED

TRANSPORTATION IMPAIRMENTS

A1INTRO I'm going to read you a list of activities [you / he / she] may need to do while travelling on public transportation or using other forms of transportation. As I read each one, please tell me if that activity would be not at all difficult, somewhat difficult, very difficult, or if [you / she / he] would not be able to do that activity at all.

[PRESS ANY KEY TO CONTINUE]

[ROTATE A1 TO A17]

A1 How difficult is it for [you / him / her] to...

Walk six blocks

[PROBE: Would you say not at all difficult, somewhat difficult, very difficult, or not able to do this activity at all?]

1 NOT AT ALL DIFFICULT

2 SOMEWHAT DIFFICULT

3 VERY DIFFICULT

4 NOT ABLE TO DO AT ALL

- 8 DON'T KNOW
- 9 REFUSED

- A3 Wait for a vehicle for 10 minutes while standing
- A4 Wait for a vehicle for 10 minutes while sitting
- A5 See the route name and number on a vehicle
- A6 Understand the route name and number on a vehicle
- A7 Climb up or down steps to get into or out of a vehicle
- A8 Ask someone for information
- A9 Hear what someone is saying
- A10 Handle coins, bills, or tickets
- A11 Get in or out of a seat
- A12 Hold bags or packages while riding
- A13 Reach or pull a signal
- A14 Push doors open
- A15 See at night or under different conditions
- A16 Read a printed schedule
- A17 Travel alone without a companion

TRAVEL BEHAVIOR

B1 Thinking about a typical week, on how many **days** [do you / does he / does she] go someplace outside your home?

___ ENTER NUMBER OF DAYS PER WEEK [IF B1 > 0 SKIPTO B2A]

- 8 DON'T KNOW
- 9 REFUSED

B1A [Do you / does he / does she] ever go someplace outside your home?

- 1 YES
- 2 NO [SKIPTO B10]
- 8 DON'T KNOW [SKIPTO B10]
- 9 REFUSED [SKIPTO B10]

B2A What is the main reason [you go / she / he goes] someplace outside your home?

- 1 WORK
- 2 MEDICAL / DOCTOR VISITS
- 3 GROCERY SHOPPING
- 4 RELIGIOUS SERVICES
- 5 ENTERTAINMENT / RECREATION
- 6 VISITING FRIEND / FAMILY
- 7 SENIOR CENTER / ADULT DAY CENTER
- 8 SCHOOL / TRAINING / WORKSHOPS
- 9 PERSONAL BUSINESS / NON-MEDICAL APPOINTMENTS
- 10 OTHER SHOPPING (NOT GROCERY SHOPPING)
- 11 OTHER
- 12 DON'T KNOW **[SKIPTO B3]**
- 13 REFUSED / NO MORE APPLY **[IF FIRST RESPONSE SKIPTO B3]**
- 14 VOLUNTEER WORK**
- 15 TRANSPORT CHILDREN**
- 16 EXERCISE / HEALTH BENEFITS**

B2B For what other reasons [do you / does he / does she] go someplace outside your home?

[SELECT ALL THAT APPLY]

- 1 WORK
- 2 MEDICAL / DOCTOR VISITS
- 3 GROCERY SHOPPING
- 4 RELIGIOUS SERVICES
- 5 ENTERTAINMENT / RECREATION
- 6 VISITING FRIEND / FAMILY
- 7 SENIOR CENTER / ADULT DAY CENTER
- 8 SCHOOL / TRAINING / WORKSHOPS
- 9 PERSONAL BUSINESS / NON-MEDICAL APPOINTMENTS
- 10 OTHER SHOPPING (NOT GROCERY SHOPPING)
- 11 OTHER1
- 12 OTHER2
- 13 OTHER3
- 14 NONE
- 15 DON'T KNOW
- 16 REFUSED / NO MORE APPLY
- 17 VOLUNTEER WORK**
- 18 TRANSPORT CHILDREN**
- 19 EXERCISE / HEALTH BENEFITS**

B3 **[IF B2B OR B2A = 1]** Thinking about a typical month, how often [do you / does he / does she] go outside your home to go to work? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) **[SKIPTO B4]**
- 9 DON'T KNOW / REFUSED **[SKIPTO B4]**

B3A What type of transportation [do you / does she / does he] **usually** use to get to and from work?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B4 **[IF B2B OR B2A = 2]** Thinking about a typical month, how often [do you / does he / does she] go outside your home to go to medical or doctor appointments? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) **[SKIPTO B5]**
- 9 DON'T KNOW / REFUSED **[SKIPTO B5]**

B4A What type of transportation [do you / does she / does he] **usually** use to get to and from medical or doctor appointments?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B5 [IF B2B OR B2A = 3] Thinking about a typical month, how often [do you / does he / does she] go outside your home to go grocery shopping? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) [SKIPTO B6]
- 9 DON'T KNOW / REFUSED [SKIPTO B6]

B5A What type of transportation [do you / does he / does she] **usually** use to get to and from grocery shopping?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B6 **[IF B2 OR B2A = 4]** Thinking about a typical month, how often [do you / does he / does she] go outside your home to go to religious services? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) **[SKIPTO B7]**
- 9 DON'T KNOW / REFUSED **[SKIPTO B7]**

B6A What type of transportation [do you / does she / does he] **usually** use to get to and from religious services?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B7 **[IF B2 OR B2A = 6]** Thinking about a typical month, how often [do you / does he / does she] go outside your home for visiting friends or family? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) **[SKIPTO B8]**
- 9 DON'T KNOW / REFUSED **[SKIPTO B8]**

B7A What type of transportation [do you / does she / does he] **usually** use to get to and from places for visiting friends or family?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B8 **[IF B2 OR B2A = 5]** Thinking about a typical month, how often [do you / does he / does she] go outside your home to places for entertainment and recreation? Would you say... **[READ AS NECESSARY]**

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) **[SKIPTO B9]**
- 9 DON'T KNOW / REFUSED **[SKIPTO B9]**

B8A What type of transportation [do you / does she / does he] **usually** use to get to and from places for entertainment or recreation?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B9 **[IF B2 OR B2A = 10]**Thinking about a typical month, how often [do you / does he / does she] go outside your home for other types of shopping besides grocery shopping? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) **[SKIPTO B10]**
- 9 DON'T KNOW / REFUSED **[SKIPTO B10]**

B9A What type of transportation [do you / does she / does he] **usually** use to get to and from other types of shopping?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B9B **[IF B2 OR B2A = 7]**Thinking about a typical month, how often [do you / does he / does she] go outside your home to go to senior centers or adult day centers? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) **[SKIPTO B10]**
- 9 DON'T KNOW / REFUSED **[SKIPTO B10]**

B9B1 What type of transportation [do you / does she / does he] **usually** use to get to and from senior centers or adult day centers?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B9C **[IF B2 OR B2A = 8]** Thinking about a typical month, how often [do you / does he / does she] go outside your home to go to school, training or workshops? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) **[SKIPTO B10]**
- 9 DON'T KNOW / REFUSED **[SKIPTO B10]**

B9C1 What type of transportation [do you / does she / does he] **usually** use to get to and from school training or workshops?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B9D **[IF B2 OR B2A = 9]**Thinking about a typical month, how often [do you / does he / does she] go outside your home for personal business or non-medical appointments? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) **[SKIPTO B10]**
- 9 DON'T KNOW / REFUSED **[SKIPTO B10]**

B9D1 What type of transportation [do you / does she / does he] **usually** use to get to and from places for personal business or non-medical appointments?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B9E **[IF B2 OR B2A = 11]**Thinking about a typical month, how often [do you / does he / does she] go outside your home to go to [OTHER1]? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) **[SKIPTO B10]**
- 9 DON'T KNOW / REFUSED **[SKIPTO B10]**

B9E1 What type of transportation [do you / does she / does he] **usually** use to get to and from [OTHER1]?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B9F **[IF B2 OR B2A = 12]** Thinking about a typical month, how often [do you / does he / does she] go outside your home to go to [OTHER2]? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) **[SKIPTO B10]**
- 9 DON'T KNOW / REFUSED **[SKIPTO B10]**

B9F1 What type of transportation [do you / does she / does he] **usually** use to get to and from [OTHER2]?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B9G [IF B2 OR B2A = 13]Thinking about a typical month, how often [do you / does he / does she] go outside your home to go to [OTHER3]? Would you say...

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never) [SKIPTO B10]
- 9 DON'T KNOW / REFUSED [SKIPTO B10]

B9G1 What type of transportation [do you / does she / does he] **usually** use to get to and from [OTHER3]?

[IF CAR / DRIVE: Do you drive alone or with someone else in the vehicle?]

[IF DRIVE WITH OTHERS: Who drives the vehicle?]

[IF WITH OTHERS: How will you get there?]

- 1 DRIVE ALONE
- 2 DRIVE WITH SOMEONE ELSE IN THE CAR
- 3 FAMILY MEMBER DRIVES
- 4 FRIEND / NEIGHBOR DRIVES
- 5 PUBLIC TRANSIT BUS / MAX
- 6 DOOR TO DOOR VAN / BUS SERVICE
- 7 TAXI
- 8 WALK
- 9 WHEELCHAIR / SCOOTER
- 10 OTHER [SPECIFY]
- 11 DON'T KNOW / REFUSED

B10 Are there trips **within** your community [you / he / she] would like to make or trips [you / he / she] would like to make more often, but are unable to do so because you do not have transportation?

- 1 YES
- 2 NO [SKIPTO B11]
- 9 DON'T KNOW / REFUSED [SKIPTO B11]

B10A What kind of trips **within** your community would [you / he / she] like to make or make more often?

[SELECT ALL THAT APPLY]

- 1 WORK
- 2 MEDICAL / DOCTOR VISITS
- 3 GROCERY SHOPPING
- 4 RELIGIOUS SERVICES
- 5 ENTERTAINMENT / RECREATION
- 6 VISITING FRIEND / FAMILY
- 7 SENIOR CENTER / ADULT DAY CENTER
- 8 SCHOOL / TRAINING / WORKSHOPS

- 9 PERSONAL BUSINESS / NON-MEDICAL APPOINTMENTS
- 10 OTHER SHOPPING (NOT GROCERY SHOPPING)
- 11 OTHER1
- 12 OTHER2
- 13 OTHER3
- 14 DON'T KNOW
- 15 REFUSED / NO MORE APPLY
- 16 LIBRARY**

B10B Why are [you / he / she] unable to make these trips?

[SELECT ALL THAT APPLY]

- 1 NOBODY AVAILABLE TO DRIVE ME / HIM / HER
- 2 NO CAR AVAILABLE TO DRIVE MYSELF / HERSELF / HIMSELF
- 3 PUBLIC TRANSIT DOES NOT GO TO THAT DESTINATION
- 4 PUBLIC TRANSIT DOES NOT SERVE THAT DESTINATION AT DESIRED TIME
- 5 NOBODY AVAILABLE TO ACCOMPANY ME / HER / HIM
- 6 CAN'T AFFORD THE COST FOR TRANSPORTATION THERE
- 7 OTHER [SPECIFY]
- 8 DON'T KNOW
- 9 REFUSED / NO MORE APPLY
- 10 DISABILITY PREVENTS THEM / PHYSICALLY UNABLE**
- 11 PUBLIC TRANSPORTATION INVOLVES TOO MANY TRANSFERS**
- 12 CANNOT DRIVE SELF**
- 13 PUBLIC TRANSPORTATION DOESN'T RUN FREQUENTLY ENOUGH**
- 14 PUBLIC TRANSPORTATION IS NOT ON TIME**
- 15 TOO INCONVENIENT TO ARRANGE TRANSPORTATION (GENERAL)**
- 16 WEATHER / CAN'T DRIVE IN BAD WEATHER**

B11 Are there trips to nearby communities [you / he / she] would like to make or trips [you / he / she] would like to make more often, but are unable to do so because you do not have transportation?

- 1 YES
- 2 NO [**SKIPTO B12**]
- 9 DON'T KNOW / REFUSED [**SKIPTO B12**]

B11A What kind of trips to nearby communities would [you / he / she] like to make or make more often?

[SELECT ALL THAT APPLY]

- 1 WORK
- 2 MEDICAL / DOCTOR VISITS
- 3 GROCERY SHOPPING
- 4 RELIGIOUS SERVICES
- 5 ENTERTAINMENT / RECREATION
- 6 VISITING FRIEND / FAMILY
- 7 SENIOR CENTER / ADULT DAY CENTER
- 8 SCHOOL / TRAINING / WORKSHOPS
- 9 PERSONAL BUSINESS / NON-MEDICAL APPOINTMENTS
- 10 OTHER SHOPPING (NOT GROCERY SHOPPING)

- 11 OTHER1
- 12 OTHER2
- 13 OTHER3
- 14 DON'T KNOW
- 15 REFUSED / NO MORE APPLY

B11B Why are [you / he / she] unable to make these trips?

[SELECT ALL THAT APPLY]

- 1 NOBODY AVAILABLE TO DRIVE ME / HIM / HER
- 2 NO CAR AVAILABLE TO DRIVE MYSELF / HERSELF / HIMSELF
- 3 PUBLIC TRANSIT DOES NOT GO TO THAT DESTINATION
- 4 PUBLIC TRANSIT DOES NOT SERVE THAT DESTINATION AT DESIRED TIME
- 5 NOBODY AVAILABLE TO ACCOMPANY ME / HER / HIM
- 6 CAN'T AFFORD THE COST FOR TRANSPORTATION THERE
- 7 OTHER [SPECIFY]
- 8 DON'T KNOW
- 9 REFUSED / NO MORE APPLY
- 10 DISABILITY PREVENTS THEM / PHYSICALLY UNABLE**
- 11 PUBLIC TRANSPORTATION INVOLVES TOO MANY TRANSFERS**
- 12 CANNOT DRIVE SELF**
- 13 PUBLIC TRANSPORTATION DOESN'T RUN FREQUENTLY ENOUGH**
- 14 PUBLIC TRANSPORTATION IS NOT ON TIME**
- 15 TOO INCONVENIENT TO ARRANGE TRANSPORTATION (GENERAL)**
- 16 WEATHER / CAN'T DRIVE IN BAD WEATHER**

B12 What is the **one** type of trip [you / he / she] have the most difficulty finding transportation for?

- 1 EMPLOYMENT
- 2 SCHOOL
- 3 MEDICAL
- 4 GROCERY SHOPPING
- 5 OTHER SHOPPING
- 6 RELIGIOUS SERVICES
- 7 VISIT WITH FRIENDS / FAMILY
- 8 RECREATION
- 10 OTHER [SPECIFY]
- 11 NONE
- 12 DON'T KNOW / REFUSED
- 13 LONG DISTANCE TRAVEL FOR ENTERTAINMENT / RECREATION**
- 14 LONG DISTANCE TRAVEL FOR VISITING FRIENDS / FAMILY**
- 15 LONG DISTANCE TRAVEL FOR SHOPPING**
- 16 LONG DISTANCE TRAVEL (GENERAL)**
- 17 PERSONAL BUSINESS / NON-MEDICAL APPOINTMENTS**
- 18 UNPLANNED EMERGENCIES**
- 19 ALL TRIPS EQUAL**

B13 If [you / he / she] wanted to travel to a community 20 miles away from your home, how long would it take you to make your **transportation** arrangements?

[ENTER 00 FOR LESS THAN ONE HOUR]

___ ENTER NUMBER OF HOURS

98 WOULD NOT BE ABLE TO DO IT / IMPOSSIBLE [SKIPTO C1INTRO]

99 DON'T KNOW / REFUSED [SKIPTO C1INTRO]

B13A ENTER HOURS OR DAYS

1 HOURS

2 DAYS

FIXED ROUTE SERVICE USE

C1INTRO Now I'm going to ask you some questions about the **local** public transit system in your community. By local public transit system, I mean any vehicle which travels along a fixed route. This type of scheduled service is available to **anyone** who wishes to use it.

[PRESS ANY KEY TO CONTINUE]

C1 Does your community have any form of **local** public transit, that is, a vehicle which operates along a fixed route?

1 YES

2 NO [SKIPTO D1INTRO]

8 DON'T KNOW [SKIPTO D1 INTRO]

9 REFUSED [SKIPTO D1 INTRO]

C2 Have [you / has she / has he] ever used the **local** public transit service in your community?

1 YES

2 NO [SKIPTO C8]

8 DON'T KNOW [SKIPTO C8]

9 REFUSED [SKIPTO C8]

C3 How many blocks from your home is the nearest local bus stop?

___ ENTER NUMBER OF BLOCKS OR MILES

99 DON'T KNOW / REFUSED

C3A ENTER BLOCKS OR MILES

1 BLOCKS

2 MILES

C4 Thinking about a typical week, how many one-way trips [do you / does she / does he] usually make on local public transit. Please count a round trip as two one-way trips.

___ ENTER NUMBER OF TRIPS

88 DON'T KNOW

99 REFUSED

C5 Thinking about the local public transit system in your area, how easy is it for [you / him / her] to use? Would you say it is...

1 Impossible to use,

- 2 Difficult to use,
- 3 Somewhat easy to use, or
- 4 Very easy to use?
- 8 DON'T KNOW
- 9 REFUSED

C6A **[IF AGE EQ 1]** Is it difficult for [you / him / her] to get from your home to the bus stop?

[IF YES, PROBE: Would that be very difficult or somewhat difficult?]

- 1 YES, VERY DIFFICULT
- 2 YES, SOMEWHAT DIFFICULT
- 3 NO
- 8 DON'T KNOW
- 9 REFUSED

C7A **[IF AGE EQ 1]** Is it difficult for [you / him / her] to get onto or off of a bus?

[IF YES, PROBE: Would that be very difficult or somewhat difficult?]

- 1 YES, VERY DIFFICULT
- 2 YES, SOMEWHAT DIFFICULT
- 3 NO
- 8 DON'T KNOW
- 9 REFUSED

C8 How often would [you / she / he] **like** to make trips using public transit? Would you say...

- 1 More often than now,
- 2 The same as now, **[SKIPTO D1 INTRO]**
- 3 Less than now, or **[SKIPTO D1 INTRO]**
- 4 Not at all? **[SKIPTO D1 INTRO]**
- 8 DON'T KNOW **[SKIPTO D1 INTRO]**
- 9 REFUSED **[SKIPTO D1 INTRO]**

C8A Thinking about a typical week, how many one-way trips would [you / she / he] **like** to make using public transit? Please count a round trip as two one way trips.

- ___ ENTER NUMBER OF TRIPS
- 88 DON'T KNOW
- 99 REFUSED

[C8A MUST BE > THAN C4]

C9 What prevents [you / him / her] from using public transit more often than [you do / she / he does] now?

- 1 *Too far to the bus stop*
- 2 *Transferring / too many transfers*
- 3 *Improper wheelchair / scooter securement*
- 4 *Disability prevents them (general)*
- 5 *Doesn't serve destinations needed*
- 6 *No wheelchair access*
- 7 *Too expensive*
- 8 *Cannot stand while waiting / riding the bus*
- 9 *Hours of operation don't meet needs*
- 10 *Don't know how to use public transportation*
- 11 *Poor on-time performance*
- 12 *Bus service is too infrequent / bus comes to infrequently*
- 13 *No need / have other transportation*
- 14 *Other*
- 99 *Don't Know / Refused*

PARATRANSIT USE

D1INTRO My next questions are about local dial a ride services. These are vehicles which are operated by a public transportation agency. These vehicles pick you up at your door and drop you off directly at your destination. Generally, you must contact the agency in advance to arrange this service. Sometimes this service is only available to people with special needs such as senior citizens or people with health conditions or disabilities. Please keep in mind that dial a ride service does not include taxi cab service.

[PRESS ANY KEY TO CONTINUE]

D1 Is there a dial a ride service that operates in your area?

- 1 YES
- 2 NO [SKIPTO E1INTRO]
- 8 DON'T KNOW [SKIPTO E1INTRO]
- 9 REFUSED [SKIPTO E1INTRO]

D2 Have [you / she / he] ever used the dial-a-ride service in your community?

- 1 YES
- 2 NO [SKIPTO D9]
- 8 DON'T KNOW [SKIPTO D9]
- 9 REFUSED [SKIPTO D9]

D3 Thinking about a typical week, how many one-way trips [do you / does she / does he] usually make on dial a ride services. Please count a round trip as two one-way trips.

- ___ ENTER NUMBER OF TRIPS
- 98 98 OR MORE
 - 99 DON'T KNOW / REFUSED

- D4 Thinking about the local dial a ride service in your area, how easy is it [for you / him / her] to use? Would you say it is...
- 1 Impossible to use,
 - 2 Difficult to use,
 - 3 Somewhat easy to use, or
 - 4 Very easy to use?
 - 8 DON'T KNOW
 - 9 REFUSED
- D5A **[IF AGE = 1]** Is it difficult for [you / him / her] to get onto or off of the vehicle?
[IF YES, PROBE: Would that be very difficult or somewhat difficult?]
- 1 YES, VERY DIFFICULT
 - 2 YES, SOMEWHAT DIFFICULT
 - 3 NO
 - 8 DON'T KNOW
 - 9 REFUSED
- D6 Are you required to call the dial-a-ride service in advance of your planned travel time?
- 1 YES
 - 2 SOMETIMES / DEPENDS
 - 3 NO **[SKIPTO D8]**
 - 8 DON'T KNOW **[SKIPTO D8]**
 - 9 REFUSED **[SKIPTO D8]**
- D7 How far in advance of your planned travel time are you required to call for service?
[ENTER 00 FOR LESS THAN ONE HOUR]
__ ENTER NUMBER **[IF 00 SKIPTO D8]**
998 DON'T KNOW **[SKIPTO D8]**
999 REFUSED **[SKIPTO D8]**
- D7A ENTER HOURS OR DAYS
- 1 HOURS
 - 2 DAYS
- D8 [Have you / has she / has he] had any problems using dial-a-ride service in your community?
- 1 YES
 - 2 NO **[SKIPTO D8B]**
 - 8 DON'T KNOW **[SKIPTO D8B]**
 - 9 REFUSED **[SKIPTO D8B]**
- D8A What problems [have you / has she / he] had?
[SELECT ALL THAT APPLY]
- 1 VEHICLE NOT ON TIME
 - 2 HOURS OF OPERATION
 - 3 QUALIFYING FOR SERVICE
 - 4 NECESSARY EQUIPMENT NOT AVAILABLE
 - 5 TOO CROWDED

- 6 TOO EXPENSIVE OR CAN'T AFFORD IT
- 7 OTHER [SPECIFY]
- 8 DON'T KNOW / REFUSED / NO MORE APPLY
- 9 **VEHICLE DOESN'T COME AT ALL / DOESN'T SHOW UP**

D8B How satisfied [have you / has she / has he] been with the ease of scheduling dial a ride service? Would you say...

- 1 Very Dissatisfied,
- 2 Somewhat Dissatisfied,
- 3 Somewhat Satisfied,
- 4 Very Satisfied?
- 8 DON'T KNOW
- 9 REFUSED

D8C How satisfied [have you / has she / has he] been with the hours dial a ride service operates? Would you say...

- 1 Very Dissatisfied,
- 2 Somewhat Dissatisfied,
- 3 Somewhat Satisfied,
- 4 Very Satisfied?
- 8 DON'T KNOW
- 9 REFUSED

D8D How satisfied [have you / has she / has he] been with the availability of dial a ride service when you want or need transportation?

- 1 Very Dissatisfied,
- 2 Somewhat Dissatisfied,
- 3 Somewhat Satisfied,
- 4 Very Satisfied?
- 8 DON'T KNOW
- 9 REFUSED

D8E Thinking about dial a ride service in your area, how satisfied [have you / has she / has he] been with their on-time performance?

- 1 Very Dissatisfied,
- 2 Somewhat Dissatisfied,
- 3 Somewhat Satisfied,
- 4 Very Satisfied?
- 8 DON'T KNOW
- 9 REFUSED

D9 How often would [you / she / he] **like** to make trips using dial a ride service? Would you say...

- 1 More often now,
- 2 The same now, **[SKIPTO E1INTRO]**
- 3 Less than now, or **[SKIPTO E1INTRO]**
- 4 Not at all **[SKIPTO E1INTRO]**
- 8 DON'T KNOW **[SKIPTO E1INTRO]**
- 9 REFUSED **[SKIPTO E1INTRO]**

D9A Thinking about a typical week, how many one-way trips would [you / she / he] **like** to make using dial a ride service? Please count a round trip as two one-way trips.

___ ENTER NUMBER OF TRIPS

98 DON'T KNOW

99 REFUSED

[D9A MUST BE > THAN D3]

D10 What prevents [you / her / him] from using dial a ride service more often than [you do / she / he does] now?

1 Vehicle is not on time

2 Don't know how to use / schedule service

3 Don't qualify for service

4 Have other transportation / don't need it

5 Vehicle is not available when needed / already booked

6 Hours of operation don't meet needs

7 Too inconvenient to call in advance to schedule service

8 Too expensive

9 Disability prevents them (general)

10 Other

99 Don't Know / Refused

OTHER VEHICLE USE

E1 To the best of your knowledge, are there any **other** groups or agencies in your community that provide transportation services for

[IF DISABLED = 1SHOW "individuals with health conditions or impairments"?]

[IF SENIOR = 1SHOW "senior citizens"]

Again, please do not include taxi cab service.

1 YES

2 NO **[SKIPTO F1]**

8 DON'T KNOW **[SKIPTO F1]**

9 REFUSED **[SKIPTO F1]**

E2 Which group or agencies in your community provide these services?

[SELECT ALL THAT APPLY]

1 CHURCH [SPECIFY NAME]

2 SENIOR CENTER [SPECIFY NAME]

3 ADULT DAY CENTER [SPECIFY NAME]

4 GROUP HOME / CARE CENTER [SPECIFY NAME]

5 OTHER [SPECIFY NAME]

6 DON'T KNOW / REFUSED / NO MORE APPLY

7 PUBLIC TRANSPORTATION AGENCY

8 SOCIAL SERVICES AGENCY

9 HOSPITAL / DOCTOR'S OFFICE

- E3 Have [you / he / she] ever used any of these services?
1 YES
2 NO **[SKIPTO E9]**
8 DON'T KNOW **[SKIPTO E9]**
9 REFUSED **[SKIPTO E9]**
- E4 Thinking about a typical week, how many one-way trips [do you / does she / does he] usually make on a vehicle operated by one of these groups or agencies. Please count a round trip as two one-way trips.
___ ENTER NUMBER OF TRIPS
88 DON'T KNOW
99 REFUSED
- E5 How much does it cost for a one-way ride on this service?
[IF MULTIPLE SERVICES USED: Please think about the service you ride most often.]
[YOU MUST ENTER A DECIMAL POINT TO INDICATE CENTS]
_____ ENTER DOLLAR AMOUNT INCLUDING DECIMAL POINT
88888 DON'T KNOW
99999 REFUSED
- E6 Are you required to call the group or agency in advance of your planned travel time?
[IF MULTIPLE SERVICES USED: Please think about the service ridden most often.]
1 YES
2 NO **[SKIPTO E8]**
8 DON'T KNOW **[SKIPTO E8]**
9 REFUSED **[SKIPTO E8]**
- E7 How far in advance of your planned travel time are you required to call the group or agency?
[ENTER 00 FOR LESS THAN ONE HOUR]
[IF MULTIPLE SERVICES USED: Please think about the service ridden most often.]
___ ENTER NUMBER **[IF 00 SKIPTO E8]**
88 DON'T KNOW **[SKIPTO E8]**
99 REFUSED **[SKIPTO E8]**
- E7A ENTER HOURS OR DAYS
1 HOURS
2 DAYS
- E8 Thinking about this service operated by this group or agency other than the city or county, how easy is it for [you / him / her] to use? Would you say it is...
[IF MULTIPLE SERVICES USED: Please think about the service ridden most often.]
1 Impossible to use,
2 Difficult to use,
3 Somewhat easy to use, or
4 Very easy to use?
8 DON'T KNOW
9 REFUSED

E9 How often would [you / she / he] **like** to make trips using this group or agency's service? Would you say...

- 1 More often than now
- 2 The same as now **[SKIPTO F1]**
- 3 Less than now **[SKIPTO F1]**
- 4 Not at all **[SKIPTO F1]**
- 8 DON'T KNOW **[SKIPTO F1]**
- 9 REFUSED **[SKIPTO F1]**

E9A Thinking about a typical week, how many one-way trips would [you / she / he] **like** to make using these agencies service?

- ___ ENTER NUMBER OF TRIPS
- 88 DON'T KNOW
 - 99 REFUSED

[E9A MUST BE > THAN E4]

E10 What prevents [you / her / him] from using these services more often than [you do / she / he does] now?

- 1 **DISABILITY PREVENTS THEM (GENERAL)**
- 2 **DON'T NEED IT / HAVE OTHER TRANSPORTATION**
- 3 **HOURS OF OPERATION DON'T MEET NEEDS**
- 4 **ONLY AVAILABLE FOR CERTAIN TYPES OF TRIPS / DESTINATIONS**
- 5 **DON'T KNOW HOW TO USE IT / GET SERVICE**
- 6 **DON'T QUALIFY TO USE SERVICE**
- 7 **TOO EXPENSIVE**
- 8 **OTHER**
- 99 **DON'T KNOW / REFUSED**

TAXI USE

F1 Does your community have any privately operated taxi service?

- 1 YES
- 2 NO **[SKIPTO G1INTRO]**
- 8 DON'T KNOW **[SKIPTO G1INTRO]**
- 9 REFUSED **[SKIPTO G1INTRO]**

F2 Thinking about a typical week, how many one-way trips [do you / does she / does he] usually make in a taxi. Please count a round trip as two one-way trips.

- ___ ENTER NUMBER OF TRIPS
- 88 DON'T KNOW
 - 99 REFUSED

F3 How often would [you / she / he] **like** to make trips using a taxi? Would you say...

- 1 More often than now
- 2 The same as now **[SKIPTO G1INTRO]**
- 3 Less than now **[SKIPTO G1INTRO]**
- 4 Not at all **[SKIPTO G1INTRO]**

8 DON'T KNOW [SKIPTO G1INTRO]

9 REFUSED [SKIPTO G1INTRO]

F4 Thinking about a typical week, how many one-way trips would [you / she / he] **like** to make using a taxi service?

___ ENTER NUMBER OF TRIPS

88 DON'T KNOW

99 REFUSED

[F4 MUST BE > THAN F2]

F5 What prevents [you / her / him] from using a taxi more often than [you do / she / he does] now?

1 TOO EXPENSIVE

2 DON'T NEED IT / HAVE OTHER TRANSPORTATION

3 OTHER

9 DON'T KNOW / REFUSED

IMPORTANCE OF FACTORS

GINTRO For my next questions I would like you to think about any service – public or private – that could provide transportation services for persons with disabilities and senior citizens in your community.

As I read each of the following items, please tell me whether it would be an important or unimportant consideration in [your / his / her] being able to use a service that provides transportation services for persons with disabilities or senior citizens.

[ROTATE G1 TO G14]

G1 How important is..

Ease of getting into or out of the vehicle

[PROBE: Please tell me if this item would be an important or unimportant consideration in [your / his / her] being able to use a service that provides transportation for persons with disabilities or senior citizens. Would that be very or somewhat important / unimportant?]

1 VERY UNIMPORTANT

2 SOMEWHAT UNIMPORTANT

3 SOMEWHAT IMPORTANT

4 VERY IMPORTANT

8 DON'T KNOW

9 REFUSED

G2 Employees who are knowledgeable about people with special needs

G3 Printed schedules are easy to understand

G4 **[IF SCR4 < 4]** Availability of schedule formats for the sight-impaired

G5 Ease of accessing the place where you get on and off of the vehicle

- G6 Ease of identifying the vehicles
- G7 Cost of service
- G8 **[IF SCR3A < 4]** Availability of wheelchair-accessible vehicles
- G9 **[IF SCR3 < 4]** Ease of using the lift onto and off of the vehicle
- G10 **[IF SCR3 < 4]** Safety of using the lift onto and off of the vehicle
- G11 Safety of riding the vehicle related to operation of the vehicle
- G12 **[IF SCR3A < 4]** Safety of the procedures used to secure a wheelchair or scooter while riding in the vehicle
- G13 **[IF SCR5 < 4]** Availability of TTY or TDD service for the hearing impaired
- G14 **[IF SCR3 < 4]** Availability of lifts onto and off of the vehicle

SATISFACTION WITH FACTORS

HINTRO **[IF C1 AND D1 AND E1 > 1 SKIPTO I1]** I am going to read the list again, and this time I would like you to tell me how often your area's current transportation services meet [your / his / her] needs.

[ROTATE H1 TO H14]

H1 How often does current transportation service meet your needs on...

Ease of getting into or out of the vehicle

[PROBE: Please tell me how often current transportation services in your area meets [your / his / her] needs concerning this item. Would you say...]

- 1 Never meets needs
- 2 Rarely meets needs
- 3 Sometimes meets needs
- 4 Always meets needs
- 8 DON'T KNOW
- 9 REFUSED

H2 Employees who are knowledgeable about people with special needs

H3 Printed schedules that are easy to understand

H4 **[IF SCR4 < 4]** Availability of schedule formats for the sight-impaired

H5 Ease of accessing the place where you get on and off the vehicle

H6 Ease of identifying the vehicles

H7 Cost of service

H8 **[IF SCR3A < 4]** Availability of wheelchair-accessible vehicles

- H9 **[IF SCR3 < 4]** Ease of using the lift onto and off of the vehicle
- H10 **[IF SCR3 < 4]** Safety of using the lift onto and off of the vehicle
- H11 Safety of riding the vehicle related to operation of the vehicle
- H12 **[IF SCR3A < 4]** Safety of the procedures used to secure a wheelchair or scooter while riding in the vehicle
- H13 **[IF SCR5 < 4]** Availability of TTY or TDD service for the hearing impaired
- H14 **[IF SCR3 < 4]** Availability of lifts onto and off of the vehicle

SUPPORT FOR ADDITIONAL SERVICES
--

- I1 **[IF C1 > 1]** If your community were to offer a public transportation service, that is a bus which operated along a fixed route and was available to anyone who wished to use the service, how likely would [you / he / she] be to use the service? Would you say...
- 1 Very likely,
 - 2 Somewhat likely,
 - 3 Not very likely, or **[SKIPTO I2]**
 - 4 Not at all likely? **[SKIPTO I2]**
 - 8 DON'T KNOW / DEPENDS **[SKIPTO I2]**
 - 9 REFUSED **[SKIPTO I2]**
- I1A How often would [you / she / he] use a public transportation service if it were available?
- [IF NEEDED: Again this would be a service operated along a fixed route and would be available to anyone who wishes to use the service.]
- [READ AS NECESSARY]
- 1 (Daily,)
 - 2 (Between four and six times a week,)
 - 3 (Two or three times a week,)
 - 4 (Once a week,)
 - 5 (Two or three times a month,)
 - 6 (Once a month,)
 - 7 (Less often than once a month, or)
 - 8 (Never)
 - 9 DON'T KNOW / REFUSED
- I2 **[IF D1 > 1]** If your community were to offer a dial a ride service, how likely would [you / he / she] be to use that service? Again, a dial a ride service is one in which you are picked up at your home and dropped off at your destination. You are required to call the day before your planned travel time to schedule service. Would you say...
- 1 Very likely,
 - 2 Somewhat likely,
 - 3 Not very likely, or **[SKIPTO I3]**

- 4 Not at all likely? **[SKIPTO I3]**
- 8 DON'T KNOW / DEPENDS **[SKIPTO I3]**
- 9 REFUSED **[SKIPTO I3]**

I2A How often would [you / he / she] use this dial a ride service? Would you say...

[IF NEEDED: Again, a dial a ride service is one in which you are picked up at your home and dropped off at your destination. You are required to call 24 hours in advance of your planned travel time to schedule service.]

[READ AS NECESSARY]

- 1 (Daily,)
- 2 (Between four and six times a week,)
- 3 (Two or three times a week,)
- 4 (Once a week,)
- 5 (Two or three times a month,)
- 6 (Once a month,)
- 7 (Less often than once a month, or)
- 8 (Never)
- 9 DON'T KNOW / REFUSED

I3 Would [you / he / she] support or not support an increase in taxes for expansion of transportation services in your community? Would that be somewhat or strongly support / not support?

- 1 STRONGLY NOT SUPPORT
- 2 SOMEWHAT NOT SUPPORT
- 3 SOMEWHAT SUPPORT
- 4 STRONGLY SUPPORT
- 8 DON'T KNOW / DEPENDS
- 9 REFUSED

I4 **[IF C1 > 1 SKIPTO DEMO1]** Would [you / he / she] support or not support an increase in the cost of a one-way bus trip to allow for more transportation services in your community? Would that be somewhat or strongly support / not support?

- 1 STRONGLY NOT SUPPORT
- 2 SOMEWHAT NOT SUPPORT
- 3 SOMEWHAT SUPPORT
- 4 STRONGLY SUPPORT
- 8 DON'T KNOW / DEPENDS
- 9 REFUSED

DEMOGRAPHICS

DEMO1 Finally, I have a few classification questions so that we may group your answers with people similar to yourself.

[Do you / Does she / Does he] currently have a valid drivers license?

- 1 YES
- 2 NO

3 DON'T KNOW / REFUSED

DEMO2 How many motor vehicles [do you / does she / does he] have available for [your / her / his] use?

___ ENTER NUMBER OF VEHICLES

8 8 OR MORE VEHICLES

9 DON'T KNOW / REFUSED

DEMO3 **[IF DISABLED EQ 1]** Do you think that [your / her / his] health condition or disability will affect [your / his / her] ability to get around 12 months from now?

1 YES

2 NO

8 DON'T KNOW

9 REFUSED

DEMO4 **[IF DISABLED EQ 1]** What is the name of the condition that most affects [your / her / his] ability to get around?

1 **MULTIPLE SCLEROSIS**

2 **HIP PROBLEM / REPLACEMENT**

3 **ARTHRITIS**

4 **DOWNS SYNDROME**

5 **HEART DISEASE / CONDITION**

6 **AGE / GENERAL OLD AGE**

7 **STROKE**

8 **EMPHYSEMA / COPD / RESPIRATORY PROBLEMS OR DISEASE**

9 **BLIND / CATARACTS / GLAUCOMA / OTHER VISION PROBLEMS**

10 **ALZHEIMER'S**

11 **TRAUMA / ACCIDENTAL INJURY**

12 **PARALYZED**

13 **ASTHMA**

14 **LUPUS**

15 **BAD BACK / INJURY**

16 **PARKINSON'S DISEASE**

17 **COGNITIVE IMPAIRMENT / DAMAGE**

18 **OSTEOPOROSIS**

19 **CEREBRAL PALSY**

20 **MENTAL ILLNESS**

21 **DIABETES**

22 **POLIO**

23 **DEAF / PROBLEMS HEARING OR SPEAKING**

24 **DETERIORATED MUSCLES**

25 **AMPUTATION**

26 **EPILEPSY**

27 **LOU GERIG'S DISEASE**

28 **OTHER**

99 **DON'T KNOW / REFUSED**

DEMO5 [Are you / is he /is she] currently employed?

[IF YES: Would that be full or part time?]

- 1 FULL TIME **[SKIPTO DEMO7]**
- 2 PART TIME **[SKIPTO DEMO7]**
- 3 NO
- 9 DON'T KNOW / REFUSED

DEMO6 Which of the following best describes [your / his / her] current employment status?
Would you say...

- 1 Unemployed but looking for work
- 2 Unemployed because of disability
- 3 Retired
- 4 Student, or
- 5 Not interested in working?
- 6 OTHER [SPECIFY]
- 9 DON'T KNOW / REFUSED

DEMO7 **[IF SCR15 EQ 3 SKIPTO DEMO8]** What is your age?

- ___ ENTER AGE
- 99 REFUSED

DEMO7A I do have some broad categories. Would that be...

- 1 Under 18,
- 2 18 to 24,
- 3 25 to 34,
- 4 35 to 44,
- 5 45 to 54,
- 6 55 to 64,
- 7 65 to 75,
- 8 76 or older?
- 9 REFUSED

DEMO8 Is your total annual household income above or below \$25,000 per year?

- 1 BELOW \$25,000
- 2 ABOVE \$25,000
- 8 DON'T KNOW **[SKIPTO THANK]**
- 9 REFUSED **[SKIPTO THANK]**

DEMO9 Would that be...

- 1 Under \$10,000
- 2 \$10,000 to \$19,999, or
- 3 \$20,000 to \$24,999?
- 9 DON'T KNOW / REFUSED

DEMO10 Would that be...

- 1 \$25,000 to \$29,999
- 2 \$30,000 to \$39,999
- 3 \$40,000 to \$49,999
- 4 \$50,000 to \$59,999 or
- 5 Over \$60,000?
- 9 DON'T KNOW / REFUSED

THANK Those are all the questions that I have. Thank you very much for your time and the useful information you have provided us.

[PRESS ANY KEY TO CONTINUE]

INTNUM INTERVIEWER NUMBER

___ ENTER YOUR INTERVIEWER NUMBER

THANK1 Thank you for your time, I appreciate your willingness to complete the survey, however we have already completed the number of surveys required in your area.

[PRESS ANY KEY TO CONTINUE]

THANK2 Thank you for your time, those are all the questions I have.

[PRESS ANY KEY TO CONTINUE]

THANK3 Thank you for your time.

[PRESS ANY KEY TO CONTINUE]

THANK9 Thank you for your time. I cannot continue without that information.

APPENDIX C

PROVIDER QUESTIONNAIRE

APPENDIX C: PROVIDER QUESTIONNAIRE

Provider Survey – Final Questionnaire

This survey of Oregon public transportation providers is being conducted by Crain & Associates on behalf of the Oregon Department of Transportation's Public Transit Section. It is important that you try to answer all of the questions. If you don't know the exact answer, just make an educated guess. If you need clarification on any questions, please call Linda Aeschliman or Howard Der at (650)323-3444. Thank you for your help.

The version of the survey you have received is for local governments, special districts, and private non-profits which receive government funding or grants and use these funds to operate or contract for transportation services. If this does not describe your organization, please call Linda Aeschliman or Howard Der to see if you should receive a different version of the survey.

Is the information below correct? If not, please make any needed corrections.

Agency name _____
Agency address _____
Agency county _____
Agency phone # _____
Contact Name _____

1. Is your agency: Public Private non-profit Private for-profit

2. To what cities or towns does your agency provide service? _____

Part A

Needs for More and Better Services

1A. This survey is concerned with the full range of public transportation services. This question lists several types of service. Please check each type of service your agency provides.

- Fixed-route (has a published route and schedule)
- Dial-a-ride (varies daily according to trip requests)
- Route(s) tailored to meet the needs of specific riders or groups of riders
- Routes connecting cities or rural communities
- Provide scrip, tickets, or passes to take rides on a service operated by another entity
- Rides provided by volunteers using their own vehicles
- Other (please describe): _____

2A. Please rate the importance of the following service improvements for seniors and people with disabilities in your community.

	Urgent	Very Importa nt	Importa nt	Would be Nice	Not Needed
Greater number of door-to-door rides available	<input type="checkbox"/>				
More fixed-route service	<input type="checkbox"/>				
Service easier to use for seniors and people with disabilities	<input type="checkbox"/>				
Longer hours of operation	<input type="checkbox"/>				
More days of operation	<input type="checkbox"/>				
More reliable service	<input type="checkbox"/>				
Vehicles in better condition	<input type="checkbox"/>				
Vehicles more suited to your needs	<input type="checkbox"/>				
Lower fares	<input type="checkbox"/>				
Employees more knowledgeable about people with special needs	<input type="checkbox"/>				
Easier scheduling of trips by phone	<input type="checkbox"/>				
More TTY/TTD availability	<input type="checkbox"/>				
Printed schedules that are easier to understand	<input type="checkbox"/>				
More availability of schedules for the sight-impaired	<input type="checkbox"/>				
More reliable on-time pick-ups/arrivals	<input type="checkbox"/>				
More reliable on-time drop-offs/departures	<input type="checkbox"/>				
Easier-to-identify vehicles	<input type="checkbox"/>				
More availability of wheelchair-accessible vehicles	<input type="checkbox"/>				
Better/easier arrangements for securing wheelchairs on the vehicles	<input type="checkbox"/>				
Better/more convenient connections with neighboring transit services	<input type="checkbox"/>				

3A. On your services other than fixed-route transit, how many one-way trips were turned down in 1997 due to lack of resources? _____

4A. How many additional one-way trips per year do you think would be needed to fully meet the needs of elderly and disabled people in your community? _____

5A. In your opinion, to what extent do the public transportation services available to seniors and people with disabilities in your community meet their needs?

- | | |
|---|--|
| <input type="checkbox"/> Meets all of the needs | <input type="checkbox"/> Meets most of the needs |
| <input type="checkbox"/> Meets a good part of the needs | <input type="checkbox"/> Meets a small part of the needs |

6A. In your opinion how much would people in your community support an increase in local or state taxes for improvements to public transportation for seniors and people with disabilities?

- Strongly not support
- Somewhat not support
- Somewhat support
- Strongly support
- Don't know/No opinion/Does not apply

7A. In your opinion how much would people in your community support an increase in bus fares (or charging for service that is now free) to support improvements to public transportation for seniors and people with disabilities?

- Strongly not support
- Somewhat not support
- Somewhat support
- Strongly support
- Don't know/No opinion/Does not apply

Part B **Information about your service**

This portion of the survey requests basic information about your services, staffing, and equipment. This information will also help ODOT assess needs. There are some important differences between this information and the information you provide to ODOT on your quarterly reports.

1B. The following table lists several types of service. For each type of service that you provide (directly or through contracts), please indicate the total number of one-way trips (i.e. boardings) served in 1997, and the number of those that were taken by seniors or people who have some type of mental or physical disability. If you do not have precise figures, please provide your best estimate.

Service Type	Total Trips	Trips by Seniors & Disabled
a. Fixed-route (has a published route and schedule)	_____	_____
b. Dial-a-ride (varies daily according to trip requests)	_____	_____
c. Route(s) tailored to meet the needs of specific riders or groups of riders	_____	_____
d. Routes connecting cities or rural communities	_____	_____
e. Provide scrip, tickets, or passes to take rides on a service operated by another entity	_____	_____
f. Rides provided by volunteers using their own vehicles	_____	_____
g. Other (please describe): _____	_____	_____

h. Total for all services	_____	_____

2B. For each of the following services, please indicate what types of trips are provided and whether there are any eligibility restrictions. (Use codes from below)

Service Type	Trip Types	Eligibility
a. Dial-a-ride (varies daily according to trip requests)	_____	_____
b. Route(s) tailored to meet the needs of specific riders or groups of riders	_____	_____
c. Routes connecting cities or rural communities	_____	_____
d. Provide scrip, tickets, or passes to take rides on a service operated by another entity	_____	_____
e. Rides provided by volunteers using their own vehicles	_____	_____
f. Other (please describe): _____	_____	_____

Trip Type Codes		Eligibility Codes
1. All kinds (no restrictions)	7. Senior Center	1. No restrictions
2. Medical/Doctor visits/Therapy	8. Adult Day Center	2. Income level
3. Work	9. Meal Program	3. Medical reason
4. Grocery shopping	10. School/Training	4. Residency
5. Other shopping	11. Religious	5. ADA eligibility
6. Entertainment/Recreation	12. _____	6. Agency program participant
	Other: _____	
	_____	7. Age (please specify): _____
		8. Other (please specify): _____

3B. How many hours per week do your services operate? (For example, if service operates 9:00am to 6:00pm Monday through Friday, that is 45 weekday hours. Do not include 24-hour taxi service.)

	Total Weekday Hours	Total Weekend Hours
a. Fixed Route	_____	_____
b. Other	_____	_____

4B. If you contract for some of your services, please list the contractors and the service each one provides below:

Name of Contractor	Type of Service Provided
_____	_____
_____	_____
_____	_____

5B. Were any of the trips you reported in Question 1B provided by or for another organization under a resource sharing agreement (not including contractors listed above)?

- Yes No

If Yes, please list those organizations and the number of one-way trips provided in 1997.

Name of Organization	No. of Trips You Provided for Them	No. of Trips They Provided for You
_____	_____	_____
_____	_____	_____
_____	_____	_____

6B. How many owned or leased vehicles does your agency operate directly or provide to a contractor/subcontractor to operate on your behalf? Please list the total in the appropriate spaces below:

Vehicle Type	Total No. of Vehicles	No. Wheelchair Accessible*
a. Full-size buses	_____	_____
b. Mini-buses	_____	_____
c. Vans	_____	_____
d. Mini-vans	_____	_____
e. Sedans	_____	_____
f. Other: _____	_____	_____

* Include ADA-accessible and non-ADA accessible vehicles

7B. How many drivers work for you? (Do not include drivers employed by contractors/subcontractors. Do not include volunteers who drive only their own vehicles.)

Full-time employee drivers: _____ Part-time employee drivers: _____
 Full-time volunteer drivers: _____ Part-time volunteer drivers: _____

8B. How many people do you employ in addition to drivers (administrative, dispatch, maintenance, etc.) _____

9B.. What role do volunteers play in your transportation program? (Check all that apply)

- Administration, fundraising, etc. Drive agency vehicles
 Provide rides using their own vehicles Other: _____

10B. Do the employees (and volunteers, if any) receive any of the following types of training? (Check all that apply):

	Full-time Drivers	Part-time Drivers	Volunteers	Other Staff
First aid/CPR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sensitivity training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Passenger assistance techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Defensive driving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11B. Below are listed a variety of steps some public transportation operators are using to help people with disabilities make better use of their services. For each one, please indicate

whether you are using it, and if so, please rate how effective you have found it on a 1-5 scale.

	Tried & Discontinued	Now Doing	Will be Doing	Considering	Not Applicable or Not Considered	How Effective ? (1= not effective 5=very effective)
<u>Marketing/Education</u> to help people with disabilities make better use of your services	<input type="checkbox"/>	_____				
<u>Travel training</u> or mobility training to help people with disabilities use fixed-route service independently	<input type="checkbox"/>	_____				
<u>Facilitated transportation</u> - helpers on vehicles or at transfer points to assist people with disabilities	<input type="checkbox"/>	_____				
<u>Accessible taxis</u> - promoting or facilitating their use by taxi operators.	<input type="checkbox"/>	_____				
<u>Bus Identifier Kits/Destination Cards</u> - for people with disabilities to inform drivers of their desired route, destination, connecting busses.	<input type="checkbox"/>	_____				
<u>Audio/visual systems</u> for providing information to riders with visual or hearing disabilities	<input type="checkbox"/>	_____				
<u>Simplified fare collection</u> for people who have difficulty with the standard fare payment methods	<input type="checkbox"/>	_____				
Targeting <u>bus stops</u> for <u>accessibility improvements</u> where they will help people with disabilities use the bus system.	<input type="checkbox"/>	_____				
<u>Reduced or free fare</u> (beyond required levels) to encourage people with disabilities to use fixed-route service rather than paratransit	<input type="checkbox"/>	_____				

Thank you for your help. Please record any additional comments in the space below:

APPENDIX D

SAMPLE BANNER OUTPUT

