Needs, Costs, and Funding Alternatives for Transportation Services for Older Adults and People with Disabilities in Urban and Rural Oregon

Final Report

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Executive Summary

Background

Mobility, or the ability to get around, is crucial to the health and well-being of all Oregon residents. For people with disabilities, younger and older adults alike, loss of mobility means loss of independence and loss of the ability to seek timely medical and preventive healthcare, get a job and remain employed, engage in health-sustaining physical and social activities, and shop for fresh food. Most data indicate that older adults and people with disabilities make fewer trips than they would like to because they lack adequate transportation. Meeting at least part of this demand through improved transit service could have considerable social, economic, and health benefits – both for the individuals served and for their broader communities.

Given the projected growth in numbers of older adults and people with disabilities, along with the lack of a stable funding source for public transportation, it is clear that there will be a funding gap between transportation services needed and present funding available.

The research reported on here was conducted in response to a budget note aimed at this challenge and attached to the 2007 Oregon Legislative Approved Budget. It stated:

> The Departments of Human Services and Transportation are directed to work together to investigate sources of new revenue to enhance funding for elderly and disabled transportation services, with consideration of both urban and rural Oregon. The departments shall report their findings to the Department of Administrative Services, Budget and Management Division and the Legislative Fiscal Office prior to the 2009 Legislative session.

This report presents an estimate of the demand for and costs of transit for older adults and people with disabilities in Oregon in the year 2030. The focus is on demand response transit,[1] although fixed route transit, particularly in rural areas of the state, is also addressed.

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[1] Demand response transit is transit that dispatches passenger cars, vans, or small buses in response to calls from passengers and transports them to their destinations. Vehicles generally do not operate over a fixed route or on a fixed schedule, and they may pick up several passengers at different points before taking them to their respective destinations. Demand response transit is considerably more expensive to provide than fixed route transit.

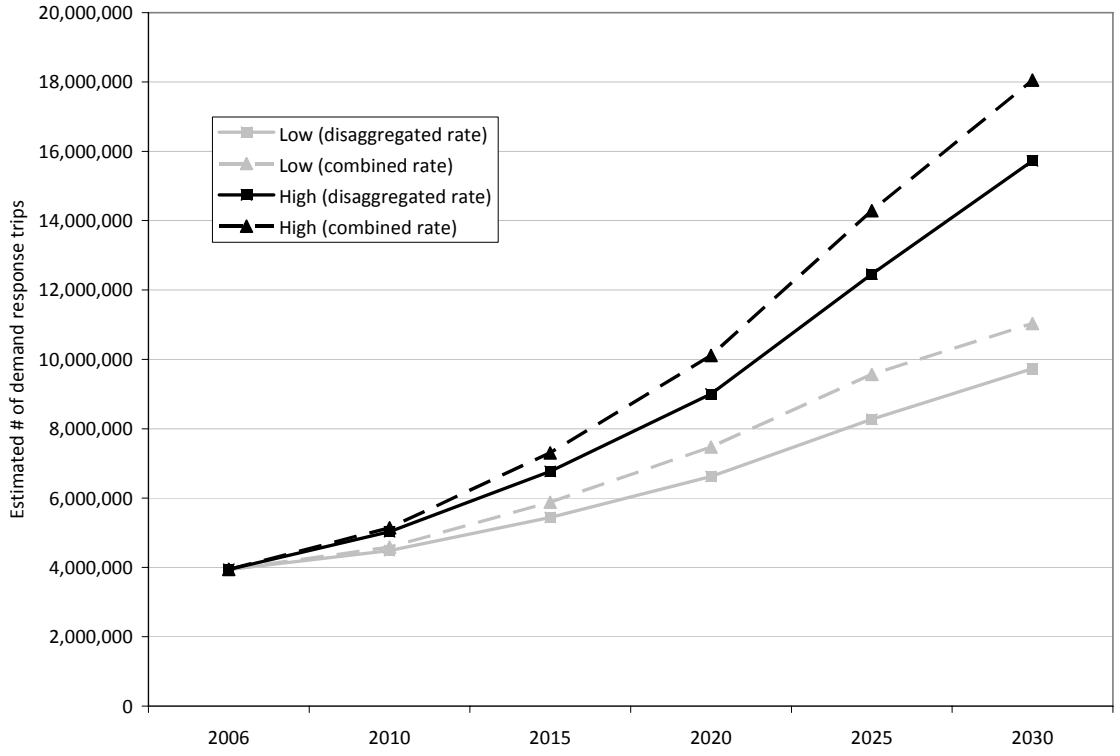
Making such an estimate on a statewide basis is unusual, and there are no standard methods for doing so. Two different approaches were used, with a range of assumptions. The estimates also attempt to address the issue of unmet demand.

Key Findings: Future Transit Demand

Both the number and the proportion of older adults and people with disabilities will grow over the next two decades. In 2010, older adults and people with disabilities will comprise 22% of Oregon's population. By 2030, they will comprise 28% of the population.

The number of trips taken by older adults and people with disabilities on **demand response** transit is estimated to increase by 2.5% to 3.0% annually between now and 2030 *due simply to population growth.* The actual increase in trips on demand response transit could be between 3.8% and 6.5% annually, based upon recent trends in growing rates of use. These low and high estimates of the demand, using two different approaches, are shown in Figure ES.1.

Figure ES.1: Estimated Statewide Demand Response Trips by Older Adults and People with Disabilities, Adjusted for Increasing Rates of Use



Additional findings from the analysis of *future transportation demand* include:

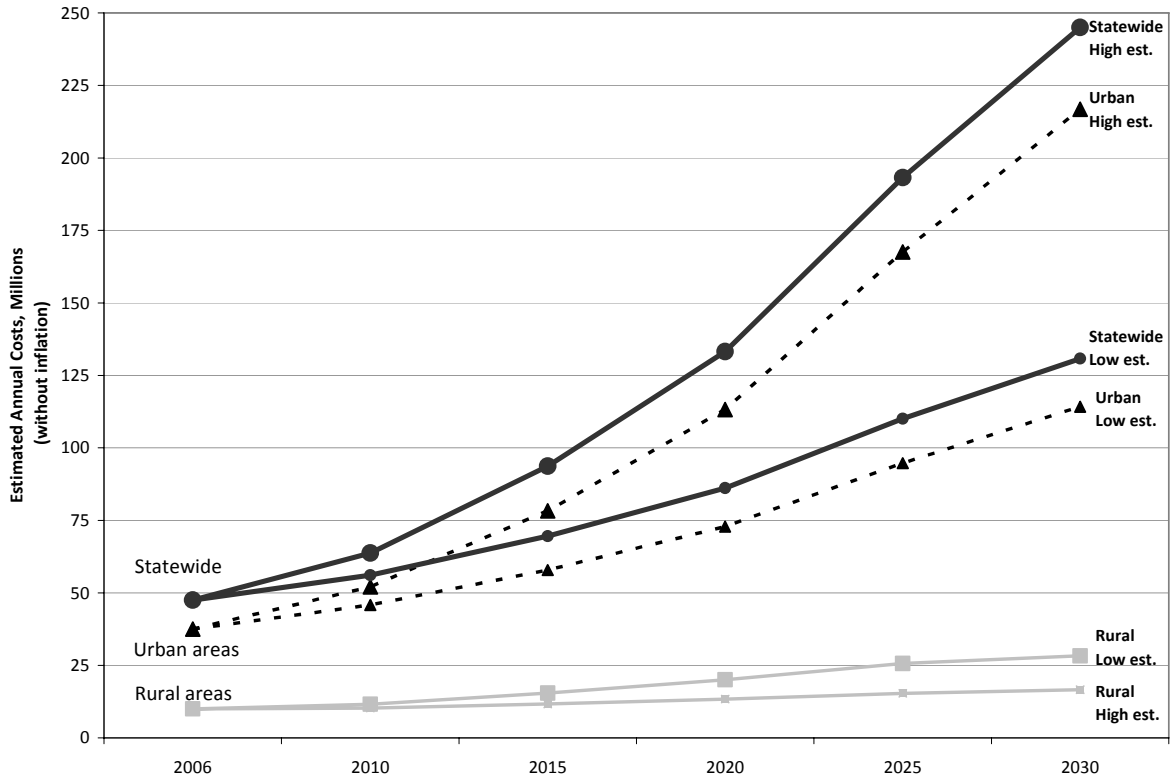
- The number of trips taken by older adults and people with disabilities on **fixed route transit** is estimated to increase by about 2.0% annually in rural areas and 3.5% annually in the largest urban areas *simply due to increases in population*.
- Future demand for transit will generally be higher in the major urban areas in the state. This is because these areas are expected to see higher rates of growth in the number of older adults and people with disabilities. In addition, major urban areas are expected to see greater increases in the rates of use of demand response transit, based upon recent trends. The increase in demand response transit could be between 4.8% and 7.7% annually in urban areas if increasing rates of use continue above population growth.
- A simple estimate of unmet demand indicates that all trips made by older adults and people with disabilities would increase about 26% if unmet demand were satisfied, not taking into account the 2008 price spike in fuel. **If one-third of that unmet demand were to be satisfied through demand response and fixed route transit, the number of trips made by those modes would increase about 9%, and the costs would increase further. *These costs are not included in any of the estimates presented in this report.***

Key Findings: Future Transit Costs

Low and high estimates of future costs were developed using low and high estimates of demand. The estimates show that **in 2030, costs for demand response transit for older adults and people with disabilities could grow from $132 to $246 million, *not accounting for inflation*.**

Costs for demand response transit are largely driven by the growth in demand in urban areas (Figure ES.2)**.**

Figure ES.2: Estimates of Future Costs of Demand Response Transit by Older Adults and People with Disabilities, not including Inflation



Current and future estimates of *costs*, including inflation, for providing transportation services to older adults and people with disabilities through **demand response transit** and **fixed route transit** are shown Table ES.1, with both low and high estimates included. Nationally, demand response transit operating costs have increased about 6% annually over the past eight years, while fixed route bus service operating costs have increased about 5% annually; thus, these are the annual rates of inflation used here in the high estimates. *These estimates of cost* ***do not*** *include any assumptions for meeting any of the unmet demand, nor do they include the effects of changes in service or other programs.* They do assume that the rate of use of demand response service will continue to increase in the future, particularly in large urban areas with complementary paratransit and assumptions for inflation. This assumption may in fact mean that a portion of the unmet demand will be met in the future. However, it is unclear what portion of the unmet demand that might represent.

Finally, these estimates may understate the demand and costs for public transit because the data available were not comprehensive. Agencies that are not in large urban areas or that do not receive funding through ODOT were not included. In addition, some providers do not report all of their costs. Therefore, **the figures likely understate the total transit use and costs.**

Table ES.1: Summary of Estimates of Current and Future Costs for Transportation for Older Adults and People with Disabilities in Oregon

	Annual Cost Estimates (in millions)					
	2006	2010	2015	2020	2025	2030
Demand Response Transit						
Low Estimate	$47.5	$63.7	$91.7	$132.0	$195.7	$269.1
High Estimate	$47.5	$80.5	$149.7	$268.8	$492.8	$790.4
Fixed Route Transit (rides by older adults and people with disabilities only)						
Low Estimate	$48.2	$60.3	$79.8	$105.7	$139.9	$185.2
High Estimate	$48.2	$66.2	$98.5	$146.6	$218.1	$324.4
DHS Brokerage Programs						
Low Estimate	$18.2	$21.7	$27.4	$35.3	$46.8	$60.3
High Estimate	$18.2	$26.2	$41.7	$67.7	$113.3	$184.0

Note: See Chapter 4 for details on assumptions and methodology.

Costs for demand response transit service may be expected to increase by 7.5% to 12.4% per year in the future. Increases in fixed route service costs are not as high, though they do range from 5.2% to 8.3% per year. This is because: (1) it is assumed that the inflation rate for fixed route service is lower, based upon past trends; and (2) there is no adjustment for demand based upon increasing rates of use, as is seen in demand response transit. These figures are highly dependent upon the inflation assumptions. Given the recent volatility in fuel prices, these assumptions may not be accurate. However, it should be noted that fuel is a relatively small share of the total costs of transit operations.

The Potential Gap Between Costs and Existing Funding Sources for Demand Response Transit

An estimate of the potential gap between future costs and funding was made for demand response transit for older adults and people with disabilities. **The analysis finds a potential gap of $10.7 to $25.3 million in the year 2010, representing 17% to 31% of**

the estimated costs. The gap in the year 2030 could be $167.3 to $633.8 million, representing 62% to 80% of the estimated costs. The data are shown in Table ES.2, Figure ES.3 and Figure ES.4

This analysis also highlights the finding that a**bout 60% of the funding for demand response transit for older adults and people with disabilities comes from local sources,** including payroll taxes, property taxes, and general funds.

Table ES.2: Projected Gap Between Costs and Revenues for Demand Response Transit for Older Adults and People with Disabilities

	Revenue and Cost Estimates (Millions)						
	2006	2010		2015		2030	
		Low	High	Low	High	Low	High
Revenues							
Federal	6.5	7.3	8.2	8.5	11.0	13.2	26.4
State Transportation Fund	8.0	7.8	7.8	7.7	7.7	7.7	7.7
Fares	3.8	5.1	6.4	7.3	12.0	21.5	63.2
Local	29.2	32.8	32.8	38.1	38.1	59.3	59.3
Total Estimated Costs	$47.5	63.7	80.5	$91.7	$149.7	$269.1	$790.4
Gap		10.7 (17%)	25.3 (31%)	$30.1 (33%)	$80.9 (54%)	$167.3 (62%)	$633.8 (80%)

Notes: ***Low and high estimates*** *are from Chapter 4 and include inflation assumptions (see Table 4.18). Federal funds were estimated to increase at the assumed low (3%) and high (6%) rates of inflation and local funds were assumed to increase 3% annually for both the low and high estimates.* ***Fares*** *are estimated to contribute 8% of the costs.* ***Local sources*** *may include local taxes, general funds, Business Energy Tax Credits, and Mass Transit Assessment funds.*

Figure ES.3: Low Estimate of Gap between Costs and Revenues for Demand Response Transit for Older Adults and People with Disabilities

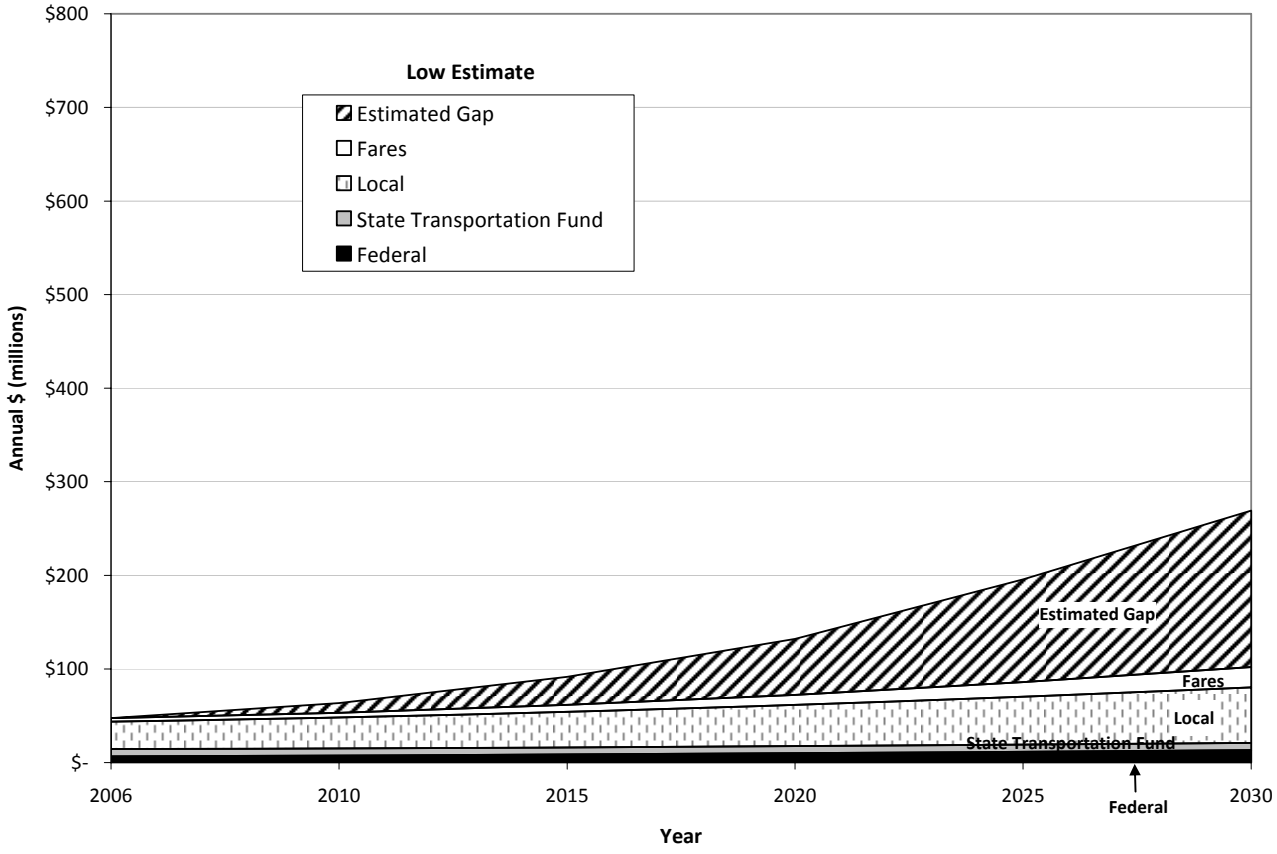
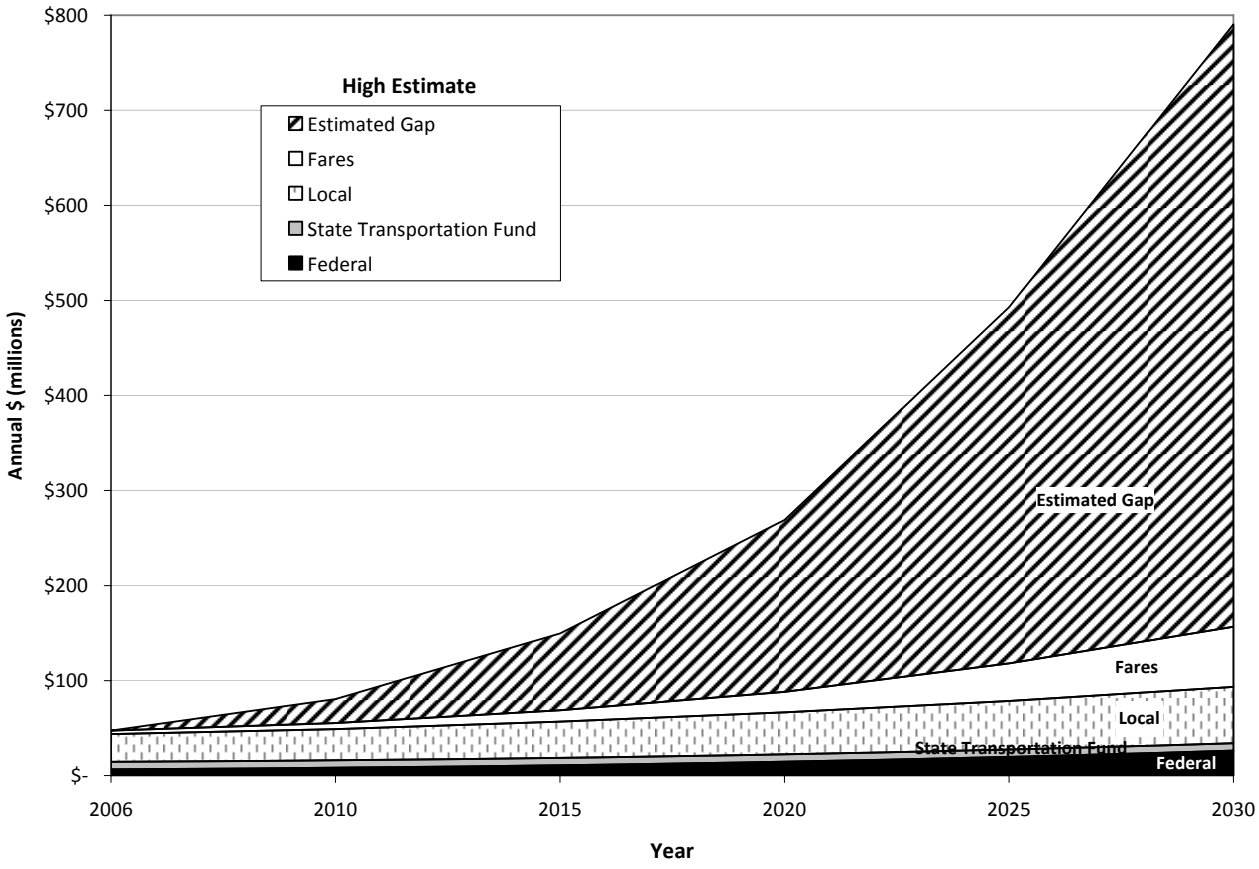


Figure ES.4: High Estimate of Gap between Costs and Revenues for Demand Response Transit for Older Adults and People with Disabilities



Future Funding Sources

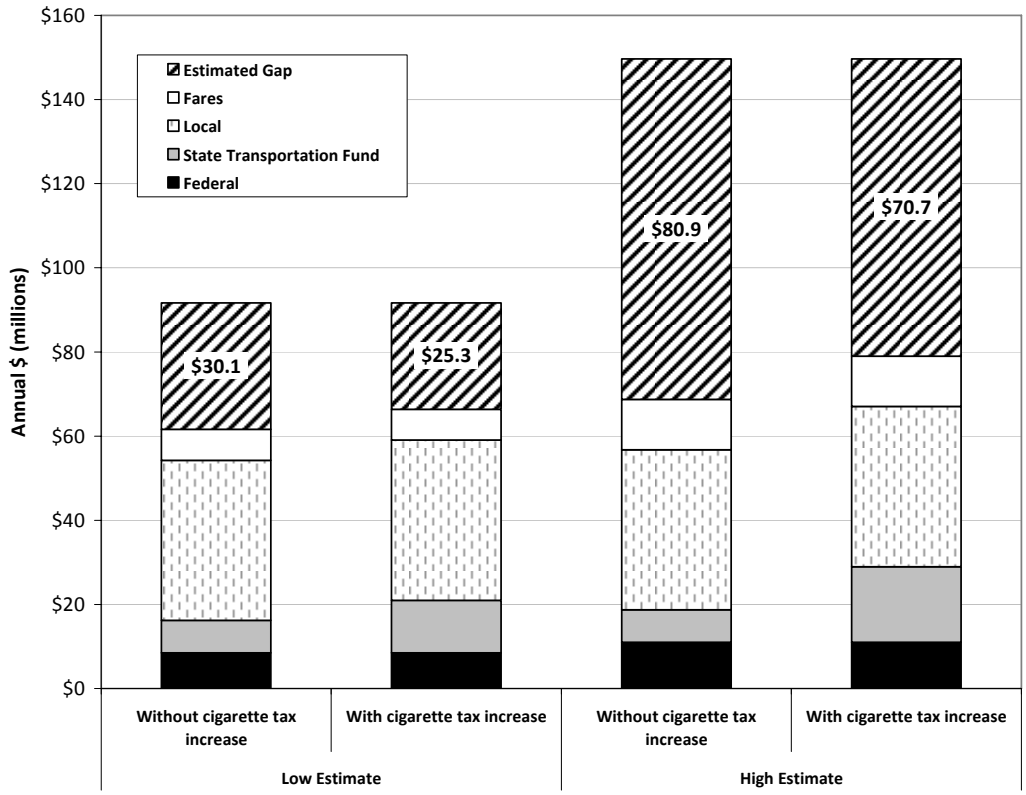
Overall, the outlook for Oregon's major *current* funding sources for special needs transit is not positive. Many of the sources are declining (e.g., cigarette taxes), even without accounting for inflation. A source that has increased somewhat steadily in the past – federal transit funding – is also in doubt due to recent declines in fuel consumption and, therefore, fuel tax revenues.

In order for Oregon's Special Transportation Fund (STF) cigarette tax revenues to keep up with the estimated growth in demand, inflation, and the projected decline in cigarette sales tax revenues, by 2030 the current 2¢ portion of the tax would need to be raised to *at least* 13¢ (lowest estimate) and ***as much as*** 37¢ (highest estimate)**. This could be accomplished with an *annual* increase of 0.6¢ to 1.8¢ per pack. To keep pace in the short-term (to 2015), this portion of the tax would need to be between 4.3¢**

and 7.2¢. *These estimates do not address any of the unmet demand or needs for new and improved service identified by providers.*

Even with such increases in the cigarette tax, a funding gap will remain. The cigarette tax represents about 10% of the funding for demand response transit for older adults and people with disabilities. **The increases suggested above only serve to keep that share stable**, not make up for the full difference between estimated future costs and revenues. Figure ES.5 shows the projected gap for the year 2015 with the increases in the cigarette tax to 4.3¢ (low) and 7.2¢ (high) and without the increases (i.e. remaining at 2¢). This also assumes that other state revenues (from identification cards and some off-road fuel taxes) remain constant.

Figure ES.5: Year 2015 Estimates of Gap between Costs and Revenues for Demand Response Transit for Older Adults and People with Disabilities, with and without Cigarette Tax Increase



There is no single, ideal source to significantly help close the funding gap for transit for older adults and people with disabilities in Oregon. For more than 50 years in the

U.S., a "user pay" principle has guided most transportation funding – those people who use the transportation system pay for it, largely through fuel taxes. At the federal level this has included using fuel taxes to fund transit. Many states have also used state or local sales taxes to fund transit. However, sales taxes are generally more regressive than fuel taxes and are not consistent with a user pay principle.

Oregon's lack of a sales tax and its Constitutional prohibition on using vehicle and fuel taxes to fund transit pose serious constraints on funding all types of transit. Without these constraints, the potential for raising revenue from either source to fund transit would be significant. **A one-cent increase in the gas tax would raise about $18 million per year *(ODOT, 2007h)*, which would cover a significant share of the projected gap for funding demand response transit for older adults and people with disabilities.**

Criteria for evaluating funding sources for demand response transit for older adults and people with disabilities may differ from those used for other transportation systems. Such transit can be viewed as a necessary social service. In this case, the "user pay" principle, may not be the most pertinent guiding principle for choosing a funding source. This argument holds true particularly when the fact is considered that providing good transit service may allow more older adults and people with disabilities to remain living in their homes rather than in institutional facilities. The cost of providing care in such facilities, a significant portion of which is borne by the public, is significantly higher than the cost of providing in-home care.

Social services are traditionally funded through income taxes and through various "sin" taxes (cigarette, liquor) and lottery funds. Revenues from cigarette taxes are expected decline in the future. In contrast, lottery revenues are projected to increase. **Therefore, in addition to increasing the cigarette tax to at least keep up with the increasing costs of the transit programs it funds, the use of lottery funds should be explored for funding the operation of transit for older adults and people with disabilities.**

Finally, this analysis has focused on statewide funding options. However, a patchwork of local sources, including employer and property taxes and other general fund revenues, funds a majority of the state's demand response transit. Employer tax rates are limited by state law and exist in only a few urban areas. Raising the rates may help close the funding gap in those areas, but this option will not be of assistance in other areas. In addition, local governments, too, are constrained by the state Constitutional limits on vehicle- and fuel-related taxes and fees. While a statewide vote to increase gas taxes or registration fees to fund transit might fail, voters in some areas, particularly urban areas, might be willing to

support such taxes or fees. **Therefore, such options should be explored to provide local governments more flexibility in raising transportation revenues locally.**

Recommendations for Future Research

Research is recommended with respect to three general areas: the need for comparable data across programs and providers; research on the effectiveness of strategies to increase demand for fixed route transit and decrease demand for demand response transit; and research on the effects of unmet needs and service improvements on future transit demand and costs relative to long-term care costs and quality of life. Research recommendations are numbered in logical order; priority is assigned at the conclusion of this section.

The Need for Comparable Data across Programs and Providers

One of the biggest challenges of this analysis was the lack of data for some programs, particularly DHS services, and inconsistent or incomplete data for other transit services. The lack of such data will hamper efforts to coordinate services and reduce costs. This need is not unique to Oregon; it has been identified as a national problem and some research is underway.

1. To facilitate the monitoring of costs and the accuracy of the projected cost estimates made here, standardization of data collection is needed. Common data collection forms for all ODOT transit providers and DHS brokerages would be helpful. Continued collaboration between ODOT Public Transit Division and DHS will aid in the development of data collection tools and procedures and is recommended.

Research on the Effectiveness of Strategies to Increase Demand for Fixed Route and Decrease Demand for Demand Response Transit

For individual, social, environmental, and economic reasons, it is crucial that the state be prepared not only to meet the growing demand for fixed route transit but to foster it.

2. Research is needed to identify the effectiveness of public programs, strategies, and policies developed to increase demand for fixed route transit (e.g., public education campaigns on how and why to use fixed route transit; land-use and housing development policies aimed at increasing access to transit).
3. Research should be conducted to determine how the housing location decisions made by middle-aged and older adults influence demand for fixed route transit.

4. Research is needed to identify the specific transit service needs and preferences of the coming wave of older adults, the Baby Boomers.
5. There is a clear need for research to identify the most effective programs and strategies aimed at shifting demand from demand response to fixed route transit.
6. Research should be carried out to determine how efforts at improving transportation program administrative efficiency affect costs, particularly with respect to demand response transit.

Research on the Effects of Unmet Needs and Service Improvements on Future Transit Demand and Costs Relative to Long-Term Care Costs and Quality of Life

There is evidence of considerably high unmet travel needs (demand) on the part of today's older adults and people with disabilities. This report identified some existing pertinent but general studies, but more in-depth study is required.

7. Additional research is needed to develop quantitative estimates of unmet travel need among older adults and people with disabilities.
8. Similarly, further study is required to determine the costs of unmet travel needs among today's and tomorrow's older adults and people with disabilities. These may include health costs resulting from lack of access to services and human interaction.

Future transit demand and costs will also be determined by the extent to which service improvements are made.

9. Research is needed to identify how service improvements made with respect both to fixed route and demand response transit will influence demand on the part of older adults and people with disabilities.

Finally, many of the needed service improvements are likely to be expensive from a transit perspective, yet they can make it possible for individuals to live independently and age in place, thus reducing the personal and societal burden associated with expensive long-term care arrangements.

10. Research is needed to examine how the additional costs associated with making improvements in transit compare with the costs savings derived from lower long-term care costs, as well as higher quality of life for older adults and people with disabilities.

Priorities for Research

Priority should be given to research recommendation #1 (the need for comparable data and common data collection tools), since future research will be constrained by the lack of

comparable and complete data. Following this, given the focus of this report on older adults and people with disabilities, the highest research priorities should be given to research recommendation #4 (identification of the specific transit needs and preferences of the Baby Boomers); research recommendations # 7 and 8 (estimates of the amount and costs of unmet demand on the part of older adults and people with disabilities); and research recommendations #9 and 10 (the effects of service improvements on demand and the cost savings derived from better transit with respect to reduced long-term care costs).

Supporting Findings

Current Transit Services in Oregon for Older Adults and People with Disabilities

Public transportation for older adults and people with disabilities in Oregon currently comes in many forms and is offered by various types of providers. *Fixed route bus service* is available mostly in the larger, more urban communities. Services specifically for older adults and people with disabilities also exist, ranging from large-scale demand response transit, such as TriMet's LIFT program, to programs staffed by volunteers in the most rural parts of the state. Most demand response service is limited to older adults and/or people with disabilities, although some systems serve the general public when no fixed route service is available. Due to Oregon's Special Transportation Fund program, every county and federally recognized Indian Tribe has a transportation program for older adults and people with disabilities. In addition, the Department of Human Services works with brokerages (public transit agencies and private companies, such as taxis) throughout the state to provide transportation for its clients, primarily for non-emergency medical trips.

Two state agencies play major roles in the provision and funding of transit services: the Oregon Department of Transportation (ODOT) and the Department of Human Services (DHS). ODOT develops the public transportation system through a partnership with local governments and other agencies by providing planning, financial support, and technical assistance. This includes public transportation for older adults and people with disabilities, but also includes service for the broader population. DHS buys rides for eligible clients from a wide range of entities, including taxis, ambulance services, transit agencies, and volunteers. Eligibility requirements limit the number of people served by DHS programs and the types of rides provided. Both agencies draw upon a number of different funding sources and, therefore, have more than one "program" or method by which they provide services, either directly or indirectly. DHS and ODOT work together to identify ways to improve transportation services for Oregon citizens and to identify continuing barriers and opportunities for improved coordination. Because of the limited

data available on DHS services, **the analyses here focus on the public transit programs coordinated by ODOT, particularly demand response transit.**

Oregon public transit agencies or other organizations provide over 17 million rides annually to older adults and people with disabilities. Of these, nearly 13 million (73%) occur on five fixed-route transit systems in the four largest urban areas (Portland, Eugene, Salem, and Medford). Another 5% of the rides occur on fixed route systems in rural areas. Overall, 23% of the rides occur on demand response systems, about two-thirds of which are in urban areas. DHS, with state and Medicaid funding, provides about 3 million additional rides for clients to reach non-emergency medical destinations through a brokerage system.

Providers of demand response service vary significantly in terms of size and types of service provided. Although over 100 separate entities provide demand response service in the State of Oregon, the majority of *rides* are provided by a handful of providers in the four largest urban areas. The majority of the *providers* are located in rural areas and are relatively small operators. More than half of the providers provide just 6% of the total demand response rides. The largest agency, TriMet, represents about 29% of the rides and the five next-largest providers represent 29% of the ridership; thus, combined, these six agencies serve about 58% of all of the demand response trips made by older adults and people with disabilities. The other five agencies are: Ride Connection, Inc., Rogue Valley Transportation District; Oregon Housing and Associated Services/Wheels service, operating in the urban area of Salem and Keiser; CARTS rural service, operating in Marion County; and Special Mobility Services/Lane County RideSource.

Current Transit Funding in Oregon

Transit agencies are supported by a variety of state, federal, and local funds. The most important source of state funding for transit for older adults and people with disabilities is the Special Transportation Fund (STF), managed by ODOT's Public Transportation Division. The STF currently provides about $9 million per year for program administration and services, from three main sources: (1) a 2¢ per pack tax on cigarettes; (2) excess revenues from fees from the issuance of state identification cards at the Driver and Motor Vehicle Services Division; and (3) the imputed gasoline tax revenue generated by sales of fuel for non-highway use, such as lawnmowers and chainsaws. Cigarette tax revenues account for about 45% of the STF revenues. Some transit providers also receive funding through Oregon Department of Energy Business Energy Tax Credits and the Mass Transit Assessment, an assessment on state payroll in ten areas of the state.

Oregon receives federal funding for transit through several different programs, some of which focus on services for older adults and people with disabilities, or for rural areas. In 2006-07, Oregon received over $72 million in transit funding from the federal government, not including capital funds for New Starts projects. About 17% of these funds were for four key programs that primarily serve older adults and people with disabilities.

In addition to the state and federal sources, urban transit programs *generate* funds locally for all of their services. For example, TriMet, the City of Wilsonville (SMART) and Lane Transit District collect a payroll tax. Salem Area Mass Transit District and Rogue Valley Transportation District collect an ad valorem property tax. **Throughout the state, fares cover about 6-10% of the demand response systems' operating costs.** In the rural areas, state and federal funds are the largest single source of funding. **In the counties with the smallest populations and least amount of funds, lack of funding means that the services are limited to rides for essential trips, such as for medical services.**

Per trip, demand response service can cost anywhere from two to nearly ten times as much to provide as fixed route bus service. Most urban fixed route bus service costs about $3.00-$3.50 per trip to operate. Costs for fixed route service in Oregon's rural areas are much higher, a median of $8.35 per trip. Costs for demand response transit trips range from about $11 to $26 per trip, depending on the system.

Over the past three years, DHS spent about $50 million on 2.1 million medical transportation rides provided through brokerages. This reflects an average cost of about $42 per trip. This higher cost reflects the need for special vehicles for some of these trips and the limited ability to transport more than one rider on a trip. Medicaid reimburses about 60% of the cost; the 40% local contribution is from Oregon general funds. DHS provided $3.8 million over three years to fund some non-medical transportation for clients through the same brokerage system, although not in all parts of the state. The cost per non-medical trip is about $25.

Key Issues Facing the Transit System for Older Adults and People with Disabilities

There are two serious, though contrasting, problems facing providers of demand response service. This stems from the difference between demand response service provided as *complementary paratransit* and other demand response systems. The Americans with Disabilities Act requires complementary paratransit service to be offered within three-quarters of a mile of fixed route transit service. Providers of complementary paratransit cannot limit the number of rides provided to eligible riders (people with

disabilities). Although these agencies work to lower costs as much as possible through operating efficiencies, **several providers are facing the difficult decision of cutting fixed route service (e.g., to more outlying areas or on Sundays) in order to control the costs of complementary paratransit**. In other words, the only way they see to significantly control the rising costs of the required complementary paratransit is to reduce the service area and/or hours of operation, which are both determined by the routes and hours of the fixed route system. **This is a key problem facing the major urban areas in the state.**

On the other hand, demand response systems that do not operate as complementary paratransit – mainly the systems in areas without fixed route transit – can place limitations on the amount of service provided based upon funding levels. While this allows them to control costs, it also means that, **because of funding limitations, many of the mobility needs of older adults and people with disabilities may not be served in areas with the other forms of demand response service. This is a key problem facing most of the small towns and rural areas of the state.**

Agencies throughout the state have identified a long list of unmet transit needs facing older adults and people with disabilities, including the need for service during non-standard hours (before 9:00 am and after 5:00 pm) for medical transportation, non-essential travel for seniors (e.g., shopping, social activities), and travel to work during non-standard employment hours. Rural providers also identified a need for service between counties, particularly to meet individuals' medical needs and to serve isolated seniors and people with low incomes. Similarly, DHS indicates a need for more transportation services for their clients.

Increasing fuel costs and the increasing number of older adults will only exacerbate these problems. Demand for services will continue to increase, along with costs, most likely at rates higher than in the past.

Current Demographics, Trends, and Projections

Oregon's current population of older adults (those aged 65 or over, with or without disability) totals 462,314, or about 12.6% of Oregon's civilian, non-institutionalized population. **In 2010, approximately 13% of Oregon's population will be aged 65 or older, increasing to nearly 20% by 2030.**

With respect to people with disabilities, Oregon's current population of people with *any* disability[2] numbers 559,876, or 16.3% of the total population, excluding children under the age of 5, for whom disability data are not gathered (18.1% of Oregon's current population is aged 16 or over with a disability). Oregon's current population of people with a "*go-outside-the-home-alone* disability"[3] numbers 156,724, or 5.4% of Oregon's population of individuals aged 16 or over. (The rates of disability are correlated with age: 3.2% of those aged 16-64, 8.1% of those aged 65-74, and 26.1% of those aged 75+ have go-outside disability.)

The population of older adults in Oregon varies by metropolitan area and by county. The metropolitan area with the highest proportion of older adults is Salem (20% of the population is 65 years of age or older; 26% is 65+), followed by Medford (17% is 65+; 21% is 60+). The metropolitan area with the lowest percentage of older adults is Corvallis (about 10% are 65+, and 12.7% are 60 or older).

The Oregon counties with the highest proportions of people aged 65+ are Curry (28%) and Wheeler (24%); Josephine, Tillamook, Lincoln, Baker, Coos, and Gilliam also have high proportions (20% to 21%). The counties with the lowest proportions of people aged 65+ are Washington County (9%), Benton County (10%), Morrow County (11%), and Multnomah County (11.6%).

Oregon is a largely rural state. **The lack of density poses problems for the provision of both fixed route and special transportation in Oregon's rural counties.**

The population estimates for 2030 reveal that the projected numbers of people having any disability will vary by age, with the largest numbers in the age 75+ and 21-64 age groups. The age 75+ group is projected to have the most dramatically increasing numbers of people with a go-outside disability.

The demographic projections show that the share of Oregon residents in urban areas will increase slightly, while the share in rural areas will decrease slightly. In 2010, about 51% of the population will be in urban areas with populations of 50,000 or more, and 31% in rural areas with under 2,500 population. By 2030, the urban areas of 50,000 or more population are projected to comprise 53% of Oregon's population, while the rural areas will constitute 27% of the population. **Thus, since it is easier to provide fixed**

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[2] One of six disabilities (i.e., sensory, physical, mental, self-care, go-outside-the-home, and employment) tracked in the U.S. Census Bureau's decennial census and American Community Survey (see Appendix 3-3).

[3] One of the six disabilities mentioned above. See Sources of Data on Disability on page 35.

route service in urban areas, it appears that, in the future, it may be possible to serve a slightly larger share of older adults and people with disabilities with fixed route transit.

A number of demographic and social trends will affect the transportation needs and demands of the coming generation of older adults, the Baby Boomers.

- The number and proportion of older adults will be larger than ever before in history. The oldest old, those aged 85 and over, comprise the fastest growing segment of the U.S. population *(He et al. 2005)*. It is this group that is most likely to be frail and in need of special transportation services.
- Although there is no consensus concerning whether disability rates will hold constant, decrease, or increase, the sheer numbers of individuals likely to need special transportation services will increase.
- Meeting the transportation needs of older adults who are adversely affected by changes in the traditional household structure – for example divorced or widowed women living alone or childless seniors – will be especially critical, both because these older adults may have fewer transportation resources when they can no longer drive and because they are at much greater risk of social isolation, which is detrimental to mental and physical health.
- Baby Boomers report that they plan to be more physically active than previous generations of seniors; thus, their transportation demands may be greater. Also, tomorrow's older adults have traveled more and farther, and likely will have higher expectations for mobility than previous generations. Their higher levels of physical and cognitive health should facilitate independent use of transportation modes, including both driving and public transportation.
- The continuing trend toward "aging in place" is likely to mean that the majority of older adults will continue to live in single-family homes and in the suburbs, where destinations are more spread out, making transit service more difficult and expensive. At the same time, there are some indications that the next generation of older adults is more likely than younger adults to have a preference for more walkable locations, higher density living, and access to public transit, signaling the possibility of increased demand for transit.
- The trend toward later retirement or second careers could increase demand for transportation to and from work.

1. Introduction and Problem Statement

Mobility, or the ability to get around, is crucial to the health and well-being of all Oregon residents. For people with disabilities, younger and older adults alike, loss of mobility means loss of independence and inability to seek timely medical and preventive healthcare, engage in health-sustaining physical and social activities, and shop for fresh food. Most data indicate that older adults and people with disabilities make fewer trips than they would like to because they lack adequate transportation. Meeting at least part of this demand through improved transit service could enhance the quality of life for older adults and people with disabilities. As the first of the very large Baby-Boom generation is now 60 years of age, **there is an urgent need to identify funding strategies for meeting the public transportation needs of growing numbers of older adults and people with disabilities.**

The research reported on here was conducted in response to a budget note aimed at this challenge. The budget note, which was attached to the 2007 Oregon Legislative Approved Budget, stated:

> The Departments of Human Services and Transportation are directed to work together to investigate sources of new revenue to enhance funding for elderly and disabled transportation services, with consideration of both urban and rural Oregon. The departments shall report their findings to the Department of Administrative Services, Budget and Management Division and the Legislative Fiscal Office prior to the 2009 Legislative session.

History

The budget note arose as an alternative to a House bill that died in committee in the 2007 legislative session. HB 2422 was sponsored by Representative Beyer at the request of the Oregon Transit Association (OTA) with the goal of creating additional funding for transportation services for older adults and people with disabilities. Legislators, the leadership of the Oregon Department of Transportation (ODOT) and the Department of Human Services (DHS), and advocates alike were concerned about the growing numbers and proportion of older adults in the state and having adequate transportation options for them. The bill (as amended) would have increased the cigarette tax by 2¢ per pack and specified the allocation of the funds raised by the tax increase so that 84.28% of the additional revenue would have been distributed to transportation services for older adults and people with disabilities, amounting to about $6 million per year.

In early April of 2007, the Committee gave the bill a "do pass with amendments" recommendation and referred it to the House Revenue Committee. **After the Governor proposed the *Healthy Kids Initiative*, which also would have raised the cigarette tax, it was clear, however, that the bill would have no chance of passing.** Other sources of funding were explored, but none could be found.

In the last few days of the legislative session, the budget note referred to earlier was inserted into the Department of Human Services' budget, directing DHS and ODOT to investigate revenue sources for transportation services for older adults and people with disabilities in preparation for the 2009 legislative session.

The Present Study

ODOT and DHS determined that analysis of current information would be important to prepare a meaningful and thorough report in response to the budget note. In January 2008, Portland State University was contracted by the Association of Oregon Counties, via an agreement with the Oregon Department of Transportation, to provide that analysis. Using currently available information, the charge was to:

- Analyze the current and estimate the future public transportation needs and costs for Oregon's older adults and people with disabilities from the present to 2030; and
- Identify possible funding mechanisms for the services required to address those needs.

The work, which was conducted by a multidisciplinary team of faculty and graduate students, was guided by a work group whose membership consisted of ODOT and DHS employees and other stakeholders, and a steering committee composed of various stakeholders (see Appendices 1-1, 1-2, 1-3, 1-4, and 1-5 for a description of each committee, a list of members of each, and a schedule of the Steering Committee meetings). Numerous sources of existing data were used to conduct the analyses, including data from the *American Community Survey (2006)*, the *National Transit Database (2006, 2002, 1998)*, the *National Household Travel Survey (2001)* and other transportation survey data, ODOT public transit operations data, and locally adopted coordinated transportation plans. In addition, existing relevant studies were identified through a review of the literature. Those studies, along with statewide reports, such as the Oregon DHS report on *Recommendations on the Future of Long-Term Care in Oregon (2007)*, were consulted to inform the study.

Organization of the Report

This report has six chapters: (1) Introduction and Problem Statement; (2) Current Transit Services in Oregon; (3) Current Demographics, Trends, and Projections; (4) Future Transit Demand and Costs; (5) Future Funding Sources; and (6) Conclusions. There are extensive appendices, as well, containing supporting documentation.

2. Current Transit Services in Oregon

Overview

The purpose of this chapter is to describe the current status of transit services used by older adults and people with disabilities. The first section explains the services provided, including the roles of ODOT and DHS, the types of services provided, who provides the services, and who uses the services. The second section focuses on current funding, including levels and sources. The third section addresses some key current issues.

Providing a simple and concise overview of current services and funding is not an easy task. Two state agencies play major roles in the provision and funding of these services: the Oregon Department of Transportation (ODOT) and the Department of Human Services (DHS). Each agency has its own role and purpose. One key distinction is that ***ODOT develops the public transportation system* through a partnership with local governments and other agencies** by providing planning, financial support, and technical assistance. This includes public transportation for older adults and people with disabilities, but also service for the broader population. **In contrast, *DHS buys rides for eligible clients* from a wide range of entities**, including taxis, ambulance services, transit agencies, and volunteers. The DHS services are largely provided by private entities, while ODOT focuses on public transit providers. Eligibility requirements limit the number of people served by DHS programs and the types of rides provided. Services resulting from ODOT's role, in contrast, serve a wider range and number of people and trips. Both agencies draw upon a number of different funding sources and, therefore, have more than one "program" or method by which they provide services, either directly or indirectly. This can make the "system" confusing to general public. As explained below, however, the agencies are working to improve coordination. Finally, for this analysis extensive data were available for the public transit services connected to ODOT. Little data were available on DHS-funded services. As a result, **the focus of the analysis in this report, both for the present and future, is on the public transit system and not DHS services.**

Current Transit Services for Older Adults and People with Disabilities

Defining Types of Transit Service

Public transportation service for older adults and people with disabilities generally falls into four categories, defined by the Federal Transit Administration:

- **Fixed route transit** operates on pre-determined routes and schedules, regardless of whether a passenger actively requests a vehicle. Services are provided on a repetitive, fixed schedule, along a specific route with vehicles stopping to pickup and deliver passengers to specific locations.
- **Deviated fixed route transit** operates along a fixed alignment or path at generally fixed times, but may deviate to collect or drop off passengers who have requested the deviation.
- **Demand response (or demand responsive) transit** uses passenger cars, vans, or small buses operating in response to calls from passengers. The transit operator dispatches a vehicle to pick up the passengers and transport them to their destinations. Vehicles generally do not operate over a fixed route or on a fixed schedule. The vehicle may pick up several passengers at different points before taking them to their respective destinations. It may also be interrupted en route to pick up other passengers.
- **Complementary paratransit**[4] is a type of demand response service required by the Americans with Disabilities Act (ADA) for individuals with disabilities who are unable to use fixed route transit. Service must be comparable to that provided to individuals without disabilities using the fixed route system. The demand response services must be origin-to-destination or provide service to or from an accessible fixed route, enabling the individual to use the fixed route system for part of his or her trip. By definition, complementary paratransit is only found where fixed route service exists.[5]

Other forms of transit include vanpools, commuter buses, taxis, and intercity services. Vanpools and commuter buses cater to the specific needs of employees. Intercity bus includes Greyhound, which provides access nationwide (and beyond) but has limited circulation within Oregon, and regional transportation providers who link Oregon communities. Commuter and intercity bus modes are accessible to people with disabilities; vanpools may be, if the people using the service require accessible features. Some organizations providing employment services for people with disabilities offer transportation to and from worksites, which could be vanpools or commuter buses. Taxis and other private sector options are widely available. Most of these types of transit are

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[4] Paratransit is a broad term for forms of transit that are more flexible than conventional fixed route transit. Paratransit includes demand response transit, shared-ride taxis, car-pooling and vanpooling, and jitney services. However, many people use the term paratransit to describe wheelchair-accessible, demand response service.

[5] See: *(http://www.ntdprogram.gov/ntdprogram/Glossary.htm).*

provided by private entities. The number of trips and costs associated with these services are not available to ODOT and thus could not be included in this report.

Service Available in Oregon

The kinds of public transportation available for older adults and people with disabilities in Oregon depend on where one lives. Public transportation in Oregon comes in many forms and is offered by various types of providers. Public transportation is "context sensitive," which means that the transportation service reflects the needs of the individuals needing the service, the willingness to pay, the size and complexity of the community and the location of services. Fixed route and deviated fixed route service is available mostly in larger communities. Services specifically for older adults and people with disabilities range from large-scale demand response transit, such as TriMet's LIFT program, to programs staffed by volunteers in the rural parts of the state.

The types of public transportation service available in each county are shown in Table 2.1. Some of the services, particularly the fixed route services, may only be available in parts of the counties indicated. **Generally, there is more public transportation service available in the larger communities, particularly the six urbanized areas.** Those areas have more frequent and comprehensive fixed route service and required complementary paratransit, and sometimes additional demand response service by one or more smaller public and/or non-profit agencies. Coordination between service types and providers in these areas is very deliberate and developed.

The rural areas have fewer transit service options than do the urban areas. However, primarily due to Oregon's Special Transportation Fund (STF) program, **every county and federally recognized Indian Tribe has a transportation program for older adults and people with disabilities. Only six Oregon counties do not have a general public transit program** (service available to the general public, not just older adults or people with disabilities). **Transit service in the rural areas is often a demand response service,** used heavily by older adults and individuals with disabilities. The services are usually associated with specific needs, such as for senior meals and trips to supported employment. Rural counties are also likely to need transportation between communities within the county and outside the county in order to access medical services and other life-sustaining purposes.

Table 2.1: Transit Service Availability by County

County	Transit Service Modes Available (Service may be available *only in a portion* the county)		
	Demand Response	Deviated Fixed Route	Fixed Route
Baker	✓		
Benton	✓		✓
Clackamas	✓		✓
Clatsop	✓		✓
Columbia	✓	✓	✓
Coos	✓	✓	✓
Crook	✓		
Curry	✓	✓	✓
Deschutes	✓		✓
Douglas	✓	✓	✓
Gilliam	✓		
Grant	✓		✓
Harney	✓		
Hood River	✓		✓
Jackson	✓		✓
Jefferson	✓		
Josephine	✓	✓	
Klamath	✓		✓
Lake	✓		
Lane	✓	✓	✓
Lincoln	✓	✓	✓
Linn	✓		✓
Malheur	✓		
Morrow	✓		
Marion	✓	✓	✓
Multnomah	✓	✓	✓
Polk	✓	✓	✓
Sherman	✓		
Tillamook	✓	✓	✓
Umatilla	✓	✓	✓
Union	✓		✓
Wallowa	✓		✓
Wasco	✓		✓
Washington	✓		✓
Wheeler	✓		
Yamhill	✓		✓

Note: *This table does not indicate the quality of service available. Service may not be available in all areas of the county. Service may have limited hours or days or limit the type of p passenger and the trip purpose.*

Use of Transit Services by Oregon's Older Adults and People with Disabilities

The analysis that follows is based upon data from two sources: (1) the National Transit Database (NTD) has data for the urban transit agencies in the four largest metropolitan areas; and (2) ODOT provided data from quarterly reports submitted by agencies receiving funding through ODOT. These two sources are not comprehensive. Agencies that are not in urban areas and do not receive funding through ODOT are not included. Therefore, **the figures likely understate the total transit use and costs.** For more information on the data and how they are used in this report, refer to Appendix 2-1.

Each year, Oregon public transit agencies or other organizations provide over 17 million rides to older adults and people with disabilities (Table 2.2). Of these, nearly 13 million (73%) occur on five fixed route transit systems in the four largest urban areas (Portland, Eugene, Salem, and Medford). Another 5% of the rides occur on fixed route systems in rural areas. Overall, 23% of the rides occur on demand response systems, about two-thirds of which is in urban areas.

Table 2.2: Current Estimated Transit Use by Older Adults and People with Disabilities

Type of Transit	Estimated Annual Rides by Older Adults and People with Disabilities*	Percent of Total
Fixed Route, Urban Areas	12,747,800	73%
Fixed Route, Rural Areas	917,600	5%
Demand Response, Urban Areas	2,308,500	13%
Demand Response, Rural Areas	1,490,200	9%
Total	**17,464,100**	

Source: Estimated using ODOT Quarterly Report data and NTD data. See Appendix 2-1 for details.

** Annual rides estimated using the maximum annual rides during the most recent three years of data (2004-07). Estimates rounded to nearest 100. May not total 100% due to rounding.*

While over 100 separate entities provide demand response service in the state of Oregon, the majority of rides are provided by a handful of providers in the four largest urban areas. Providers of demand response service vary significantly in terms of size and types of service provided. Table 2.3 provides more detail about the 116 providers in the database used for this analysis. The majority of the providers are located in rural areas. In addition, most providers are relatively small operations. More than half (53%) of the demand response providers provide fewer than 10,000 trips for older adults and people with disabilities per year (Table 2.4). These agencies provide about 6% of the total

demand response rides. In contrast, the largest agency, TriMet, represents about 29% of the rides, and the five next largest providers represent 29% of the ridership. Therefore, combined, these six agencies serve 58% of all of the demand response trips made by older adults and people with disabilities. The other five agencies include: Ride Connection, Inc., Rogue Valley Transportation District; Oregon Housing and Associated Services/Wheels service, operating in the urban area of Salem and Keiser; CARTS rural service operating in Marion County; and Special Mobility Services/Lane County RideSource.

Table 2.3: Current Estimated Demand Response Transit Use by Older Adults and People with Disabilities, by Provider Type

Transit	Number of Providers with Data**	Estimated Annual Rides By Older Adults And People With Disabilities *					
		Mean	Median	Smallest	Largest	Total	Percent of All Rides
Urban Areas							
Complementary Paratransit	5	311,180	136,620	4,060	1,084,050	1,555,900	41%
Other Demand Response	11	65,140	13,470	620	341,230	716,530	19%
Rural Areas							
Complementary Paratransit	17	25,040	13,610	710	144,090	425,670	11%
Other Demand Response (Limited to Older Adults and/or People with Disabilities)	68	11,070	5,400	50	64,750	752,620	20%
General Public Demand Response***	15	20,790	18,100	4,780	81,530	311,870	8%
Statewide	**116**	**32,440**	**8,600**	**50**	**1,084,050**	**3,762,600**	**100%**

Source: Estimated using ODOT Quarterly Report data and NTD data. See Appendix 2-1 for details. Estimates rounded to nearest 10.

Notes:

* *Annual rides estimated using the maximum annual rides during the most recent three years of data (2004-07)*

** *Some providers fall into more than one category and are therefore counted twice.*

*** *These services are available to all residents, not just older adults and people with disabilities. One general public demand response system is in Bend, which is now an urban area.*

Table 2.4: Demand Response Providers by Size, Share of Trips and Providers

Size Category (trips per year)	Percent of Trips	Percent of Providers	Number of Providers
Up to 1,000	0.1%	6.9%	8
1,000-4,999	2.0%	27.6%	32
5,000-9,999	4.0%	19.0%	22
10,000-24,999	14.5%	27.6%	32
25,000-49,999	7.0%	6.9%	8
50,000-99,999	14.7%	6.9%	8
100,000-999,999	28.8%	4.3%	5
Over 1 million	28.8%	0.9%	1
Total	**100.0%**	**100.0%**	**116**

Note: Only includes rides by older adults and people with disabilities.

Older adults and people with disabilities represent nearly all of the riders on demand response systems, but smaller shares of riders on fixed route systems, particularly in urban areas. Older adults and people with disabilities make up about 90% or more of the riders on demand response systems that are targeted at those populations. The number is less than 100% because of companion caregiver trips. For demand response services that do not restrict rides to older adults or people with disabilities, those populations still make up about 70-80% of ridership in Oregon. These types of systems are found in rural areas. Fixed route service has different ridership characteristics. For example, using onboard surveys, TriMet estimates that 11% of the trips on the bus and light rail are by older adults and people with disabilities *(ODOT Quarterly Report Data, FY2006-07)*. In rural areas, older adults and people with disabilities make up a larger share of fixed route transit riders, about 25-40% for most systems. For a few small systems, the share is much higher, 80% or more.

State Agency Roles and Responsibilities

ODOT's Role in Public Transit and Special Transportation Programs

The Oregon Department of Transportation (ODOT) is a state agency whose mission is to provide Oregonians with statewide transportation infrastructure and transportation options. The agency is multimodal in scope, meaning that the agency plans for roads, bridges, and other highway infrastructure and maintenance, and also concerns itself with rail, bike and pedestrian facilities, and public transit.

Public Transit Division (PTD) is the organization that focuses on public transit within ODOT. PTD's vision is to "create a universally accessible public transportation system in order to increase quality of life for all Oregonians through increasing mobility, reducing congestion, stimulating the economy, and conserving critical resources" *(ODOT 2008)*. PTD works with 100+ agencies throughout the state that provide the public transportation services described above.

About DHS Transportation Programs

The Oregon Department of Human Service's (DHS) primary mission is to provide a variety of social supports and programs so that people may lead lives that are independent, healthy and safe. The major programmatic areas are public health, addictions and mental health, seniors and people with disabilities, children and families, and medical assistance. About 1 million individuals receive a service from DHS each year. DHS serves the most vulnerable Oregonians. These individuals are primarily people who are low income, medically fragile, disabled, old, and children *(DHS 2008)*. DHS clients represent about 15% of Oregon's population and may also be individuals who are likely to be in need of transportation services at least some of the time. They frequently do not have cars, or can't drive due to age, medical condition or poverty.

DHS has about 300 different services and programs *(DHS 2008)*. The majority of these programs are client and purpose driven. Transportation may or may not be an eligible benefit. Typically, transportation is a secondary benefit allowed to ensure that the individual receives a primary service. The term "transportation benefit" covers several transportation-related activities, including gas vouchers for private cars, purchase and repairs of private cars, and payment for bus passes and special transportation services.

At this time, DHS has several Medicaid-financed transportation "programs" available to eligible clients. In each of these, the programs are financed by leveraging state-source funds to drawn down federal Medicaid funds. The match rate is approximately 60% federal to 40% state funds. Unfortunately, there is little readily available historic data on the use of these transportation services to use to analyze future needs. This stems, in part, from the fact that there are several different programs within DHS providing the services, with a variety of reporting processes. In addition, transportation services are not the core function of DHS, and, therefore, not a focus of past evaluation or planning efforts.

The program with the most significant transportation benefit is Oregon Health Plan Plus, which is the federally funded Medicaid program for the neediest Oregonians. The eligible clients include children, people with disabilities and older adults. Eligibility includes a

strict income and need guideline. The estimated number of eligible clients is currently 351,000. The number of clients is expected to increase by about 11,000 during 2007-2009. Oregon Health Plan Standard is the medical program established by a federal Medicaid waiver. The waiver allows DHS to prioritize benefits and eligibility in order to provide low-income Oregonians with limited healthcare benefits. Transportation is not a benefit covered by OHP Standard. About 18,000 individuals are enrolled in OHP Standard *(DHS 2008).*

Medicaid Brokerage Services

To provide non-emergency medical transportation services to OHP/Medicaid clients, DHS contracts with seven brokers who are also transit agencies. This is referred to as the "Medicaid Brokerage." Each broker contracts with a variety of local transportation providers to provide the service. The providers include taxis (where they are available), public transit and human service agencies, medical van and ambulance providers, stretcher cars and secured transportation. In some areas, volunteer drivers are used. The broker acts on behalf of DHS to determine client eligibility and to identify the most appropriate service provider at the lowest cost for each request. **The majority of rides are provided by taxi operators and by agencies operating small accessible vans and cars.** The brokers also provide bus passes and tickets to individuals capable of using the local transit system. **During the period of January 1, 2005, through December 31, 2007, DHS spent about $50 million on 2.1 million medical transportation rides provided through the brokerages** *(DHS 2008)*. This reflects an average cost of about $42 per trip. This higher cost (compared to demand response transit) reflects, in part, the need for special vehicles for some of these trips, and the limited ability to transport more than one rider on a trip, which often happens with demand response transit. Medicaid reimburses about 60% of the cost; the 40% local contribution is Oregon general funds. The purchasing power of DHS, especially for non-emergency medical transportation, influences the type and availability of transit services in both rural and urban communities.

In addition, **DHS provides funding for some non-medical transportation for clients** through the same brokerage system, though not in all parts of the state. In the three years of 2005, 2006, and 2007, over $3.8 million was spent on these rides, including matching sources of funding (Table 2.5). Over that time period, the number of rides provided grew by just over 7% per year. The cost per trip is about $25. Each rider makes about 8.5 trips per year using these services.

Table 2.5: Non-Medical Transportation Funded through DHS, 2005-07

Year	Number of Rides	Number of Riders	Total Cost	Total Match	Cost per Ride
2005	52,060	6,009	$885,697	$342,786	$17.01
2006	55,974	6,609	$1,389,226	$537,228	$24.82
2007	64,162	7,491	$1,574,959	$615,093	$24.55
Total			$3,849,882	$1,495,107	
Annual Growth Rate	**7.2%**				

Source: Personal communication from Carol Mauser, DHS, May 8, 2008.

Other DHS Programs

Another program, which is unique to Oregon, is based on the Medicaid 1915(c) Home and Community Based Waiver. According to a national AARP report, Oregon has the largest and most balanced system for older adults and people with disabilities in home and community-based services, rather than in nursing home settings. Over 54% of Medicaid spending for long-term care is for community based care *(Kassner 2008)*. In this program, Medicaid allows expenses associated with community-based living to be eligible under Medicaid, including non-medical transportation services.

DHS also has a Home and Community-Based Waiver to provide community-based care to people with developmental disabilities. Transportation is an eligible service under that waiver. In this program, work-related rides are provided by either public transit providers or by agencies serving people with developmental disabilities.

DHS is expanding its waivered programs to include a new initiative called *Money Follows the Person* (MFP). MFP clients are those currently residing in nursing homes and similar facilities that could function in a community setting if sufficient supports are available. For example, people with extreme morbid obesity frequently need assistance in dressing, bathing, mobility, etc., and are frequently supported in residential care settings. These same individuals are able to direct their own care, and could be successful in a community-based setting. One requirement to successful community placement (along with housing, in-home assistance, etc.) is the availability of appropriate transportation services. In the case of people with obesity, vehicles with lifts that have a capacity of greater than 600 pounds are needed.

Other DHS programs with transportation benefits include Vocational Rehabilitation and Temporary Assistance to Needy Families (TANF), usually related to enable clients to get to and from job searches and training. Vocational Rehabilitation received a Medicaid

Infrastructure Grant to assist in identifying and eliminating community barriers to employment for SSI-eligible Medicaid clients. The project is in its third year, and will be an ongoing effort. One of the project areas is transportation.

Older Americans Act funds may be used to pay for transportation services for older adults. Local area agencies on aging decide on the use of funds based on their locally developed, approved community-based area plans.

United We Ride: Coordination of Transportation Services

The federal government, as directed by an executive order signed by President Bush in 2004, requires the state DOTs to work with peer human service agencies to identify means to maximize the federal investment in public and human service transportation. This program is called *United We Ride*. The USDOT Federal Transit Administration implemented the executive order through its various grant programs. The U.S. Department of Health and Human Services has not enacted the executive order in the same manner, which means that the opportunity for coordination is largely the responsibility of the DOT.

DHS and ODOT are working together to identify ways to improve transportation services for Oregon citizens. DHS and PTD currently collaborate on several mutual projects.

- **Medicaid Brokerage Development**. The Medicaid brokerages were initially developed through joint funding of ODOT and DHS. Both agencies continue to pursue mutually beneficial transportation services that can be supported by the brokers and call centers.
- **Medicaid Home and Community-Based Waivers**. PTD provides about $1.5 million to provide the local match to Medicaid for transportation services offered under the Medicaid Home and Community-Based 1915(c) waivers. TriMet, Lane Transit District, and other public transit agencies also contribute several million dollars annually.
- **Medicaid Infrastructure Grant—Vocational Rehabilitation**. Public Transit Division has a seat on the leadership council guiding this grant.
- **Money Follows the Person**. Public Transit Division has been invited to participate in the development of this project.
- **Public Transit Division's Advisory Committee**. DHS representatives sit on Public Transit Division's Advisory Committee to assist in guiding policies related to grant funding and transit program development.

The agencies have identified some continuing barriers and opportunities for coordination:

- **Coordination policy and leadership**. While DHS and ODOT engage in mutual projects, most of this work is at the program staff level. More work at the policy level to systematically explore mutual needs and opportunities could result in additional opportunities to maximize state investments.
- **Continue to identify mutual aid programs to enhance revenues and share costs**. For example, the TANF funds may be used to match FTA funds for transportation services to get people with low-income to work-related activities.
- **Data collection**. One of the biggest barriers to identifying appropriate opportunities for service and resource coordination is the mismatch of data collection processes by DHS and ODOT. With the exception of Medicaid and Older Americans Act funded services, it is extremely difficult to identify the investment of DHS funds for transportation services. For example, the financial aspects of DHS' transportation services for this report are based solely on Medicaid records and anecdotal information.

Community Transportation Coordination

Transit services, whether provided by a non-profit, governmental, or for-profit organization, to some degree must be coordinated with each other and with human service programs in order to receive federal funding through the Public Transit Division. **Per federal and state requirements, counties and metropolitan areas must complete "coordinated plans" in order to be eligible for state Special Transportation Funds and federal transit monies** through programs such as Elderly Individuals and Individuals with Disabilities, New Freedom, and JARC *(Oregon Department of Transportation 2007g)*.

Each plan provides an overview of the transportation services available in a given county and illustrates if and how public transit and human service agencies coordinate service and resources. A review of the coordinated plans revealed varying levels of coordination between service agencies. Many plans cited improved coordination as a need.[6]

Four examples of coordination and differing types of service are presented here.

[6] An analysis of the coordinated plans is posted on the PTD website: *http://www.oregon.gov/ODOT/PT/index.shtml.*

Example 1: Baker, Union, and Wallowa Counties

As reported in their coordinated plan, the rural Oregon counties of Baker, Union, and Wallowa work together to plan to meet the transportation needs of their residents. These sparsely populated counties are connected through school bus companies and Greyhound bus service. The counties also benefit from the public transportation services of Community Connection of Northeast Oregon (CCNO). This one agency offers periodic rural access and senior meals access to the populations in all three counties and provides the majority of the public transportation. CCNO offers Baker and Union counties dial-a-ride and medical access services, and provides the more sparsely populated area of Wallowa County with commuter bus service *(Baker, Union, and Wallowa County Special Transportation Committee 2007)*. Even though CCNO focuses on intra-county transit provision, it coordinates services across all three counties. CCNO's coordination through one decision-making body means that it is able to leverage resources to greater advantage and make sure that services are not duplicated in the region unnecessarily. Additionally, CCNO's fare structure is similar throughout the counties, according to service and population served.

Example 2: The Coquille Indian Tribe

The Coquille Indian Tribe, located in Coos County has very few members *(Coquille Indian Tribe 2007)*. The transportation needs of this community are served by the Coquille Health Center. The service fleet is composed of three mid-sized vans. These vans provide transportation to reservation residents on an as-needed basis for use by seniors, individuals with low income, and those with disabilities. However, none of these vans is equipped with a lift. The reservation is also served by Coos County Area Transit Service (CCAT). CCAT is under contract through Coos County to provide public transportation service to the area in the form of fixed route and demand response service. When a wheelchair lift is required by a tribal member, the service is contracted out through CCAT's dial-a-ride service. Additionally a deviated fixed route running from Coos Bay/North Bend to Myrtle Point stops at the Coquille reservation to pick up passengers on their way to work, school, or shopping.

Example 3: Portland Urbanized Area

In an effort to coordinate services and improve the quality and efficiency of transit service to older adults and people with disabilities, TriMet, serving the Portland urbanized area, convened the Regional Transportation Coordinating Council (RTCC) *(TriMet 2006)*. Of the numerous members, 51% represent the interests of older adults and people with disabilities. Transportation providers such as Ride Connection and Canby Area Transit are

represented, along with governmental agencies such as Multnomah County Aging and Community Services and Metro. As the RTCC, these stakeholders monitor the implementation of the region's Elderly and Disabled Transportation Plan to ensure the maximization of available resources and to prevent the duplication of services. Additionally, these representatives meet to identify gaps in transportation services for older adults and people with disabilities in the regain. Once gaps are identified, innovative solutions to fill them are sought.

Among its accomplishments, the RTCC developed RideWISE, an outreach program for older adults and people with disabilities who wish to be transit riders. This program utilized volunteers and peer groups to work with individuals to identify transportation options and plan trips. Additionally, volunteers work one-on-one with individuals to teach them to ride general public transit safely and efficiently for their travel needs. Through training and information, the RideWISE program was able to shift riders from TriMet's costly demand response program (LIFT) to lower the cost of general public transit. The service saved TriMet LIFT $626,000 in fiscal year 2005 *(TriMet 2007)*.

Example 4: Lane County

Lane Transit District is the largest transit agency in Lane County, and is second in the state in terms of rides and number of vehicles. LTD is also a countywide coordinator of transportation services, in partnership with cities and non-profit agencies. LTD encourages all passengers to use the fixed route bus service whenever possible. This reduces cost and provides greater travel opportunity for most people. Through innovative programs such as Bus Buddies (a one-to-one orientation and training program for older adults) and Transit Host Program (staff at the Eugene Station who facilitate transfers between buses made by people with disabilities, and who provide information and assistance for all riders), LTD has been successful in encouraging many people to use fixed route transit, rather than paratransit *(LTD 2008)*. LTD works with a variety of human service agencies such as White Bird Clinic and Pearl Buck Center to ensure that these agencies have the resources, such as lift-equipped vehicles and a operating funds, to provide context sensitive transportation for their clients. This assists the agencies to better meet client needs and also results in less cost to the public transit program. Lastly, LTD works with rural communities in Lane County to provide public transit services. For example, LTD in coordination with the City of Florence (a community with very large population of older adults) developed a public transit service, called the Rhody Express, designed to meet the needs of older adults, other residents, and visitors in Florence *(LTD 2008)*.

Public Transit Financing

Overview

This section describes funding sources for public transportation services, not DHS client services described above, including Medicaid-related services. Transit agencies are supported by a variety of state, federal and local funds. **Local sources contribute more than half of the funds used to provide transit for older adults and people with disabilities.** Currently, ODOT provides grants to 7 large urban public transit systems, 37 rural and small city public transit systems, and 64 additional special transportation providers. The amount of special payments in 2005-2007 was $46.4 million, including both state and federal sources. Of this amount, rural and special transportation grants totaled $40 million. In addition, providers in urban areas of the state receive funds directly from USDOT Federal Transit Administration.

State Sources

The most important source of state funding for transit for older adults and people with disabilities is the Special Transportation Fund (STF), managed by ODOT's Public Transit Division (PTD). The STF program provides a flexible, coordinated, reliable, and continuing source of revenue in support of transportation services for older adults and people with disabilities. The Oregon Legislature intended that STF funds be used to provide transportation services needed to access health, education, work, and social/recreational opportunities so that older adults and people with disabilities may live as independently and productively as possible. The funds may be used for any purpose directly related to transportation services, including transit operations, capital equipment, planning, travel training and other transit-related purposes.

The STF receives revenue from three main sources: (1) a 2¢ per pack tax on cigarettes; (3) excess revenues from fees from the issuance of state identification cards at the Department of Motor Vehicles; and (3) the imputed gasoline tax revenue generated by sales of fuel for non-highway use, such as lawnmowers and chainsaws, called Transportation Operating Fund. **Cigarette tax revenues account for about 45% of the STF revenues.** Oregon's current cigarette tax rate is $1.18 per pack. Of this amount, 22¢ goes into the State General Fund, 87¢ goes to the Oregon Health Plan, 3¢ goes to the Tobacco Use Reduction Account, 4¢ goes to cities and counties, and 2¢ per pack is dedicated to the STF.

The STF currently provides about $9 million per year for program administration and services. The STF is currently divided into two accounts: STF Formula Program and STF Discretionary Grant Account. There are 33 transit districts or counties and 9 federally recognized Indian Tribes that are eligible to receive the STF moneys, referred to as "STF Agencies." STF Agencies receive either $40,000 per year or their population share of the funds, whichever is greater. TriMet receives the largest share, since its population is based on the three most populous counties in the state: Clackamas, Washington, and Multnomah. Half of the 42 STF Agencies receive the minimum allocation of $40,000. Funds remaining after payment of the Formula allocation and an administrative allotment are retained in the STF Discretionary Account. Discretionary funds (about 25% of the STF) are distributed to the STF Agencies through a competitive grant program.

Two additional state-defined resources may substantially contribute to financing public transit in urban and rural areas, as determined by defined eligibility criteria: Oregon Department of Energy Business Energy Tax Credit and the Mass Transit Assessment.

The Business Energy Tax Credit has a transportation component that provides financial incentives to invest in energy conservation, transportation options, and less polluting transportation fuels. A variety of public and private entities is eligible to apply. One of the categories is "transportation services" which is not available to the largest transit districts, but is widely used by the rural and special transit providers who participate through the Pass-through Program. The pass-through program provides between 25.5% to 30.5% of the approved expenses, which is based on the cost per ride and the total number of rides provided in a defined period.

The Mass Transit Assessment is defined by Oregon Revised Statutes 291.405 through 291.407. State agency payroll is assessed not more than 6/10th of one percent to provide funds to mass transit districts, transportation districts and service districts formed to provide transportation services. **These funds can be spent on both fixed route and demand response transit.** Payments are made quarterly to the named recipients who also raise funds via some type of local taxation: non-taxing districts do not receive funds. There are ten recipients. The purpose is defined as "in reimbursement for the benefit the state government receives from the districts." Since federal regulations limit the eligibility of this cost as reimbursable, only state employees paid from the general fund and other state-source funds are included. Also, the amount of funds paid to an entity would be related to the number of affected employees in the district. The amount paid by Department of Administrative Services in the 2005-2007 biennium to the ten current recipients ranges from $9,411 paid to South Clackamas Transportation District to $7,466,195 paid to Salem Area Mass Transit District. The total amount provided in the 2005-07 biennium was

$15,632,686, or about $7.8 million per year *(ODOT Mass Transit Assessment Distribution for 1985-2009 By Biennium 2008)*.

Federal Sources

The Federal Transit Administration (FTA) distributes transit funding through several different programs. Most of these funds are distributed from the FTA based on formulas that take into account population and other factors. **The four key programs related to transit for older adults and people with disabilities are shown in Table 2.6.** The PTD manages federal funds that are granted to eligible agencies for the federal programs listed in Table 2.6. Two programs are dedicated to the needs of older adults and people with disabilities: Federal Transit Administration's Section 5310 Elderly Individuals and Individuals with Disabilities and Section 5317 New Freedom programs. There are two additional related programs that may also serve older adults and people with disabilities: FTA's Section 5311 Non-urbanized Area Formula and Section 5316 Job Access and Reverse Commute programs.

Table 2.6: Major Federal Transit Administration Funding Programs

FTA Funding Source	Description	Federal Allocation
§5310 Transportation for Elderly Persons and Persons with Disabilities	Provides formula funding to States for the purpose of assisting in meeting the transportation needs of older adults and people with disabilities.	Funds are apportioned based on each State's share of population for these groups of people. Considers the number of older adults and people with disabilities in each state.
§5311 Nonurbanized Area Formula Funding Program and §5311(f) Intercity Bus Program	Provides formula funding to states for the purpose of supporting public transportation in areas of less than 50,000 populations. Funds may be used for capital, operating, and administrative assistance. States must spend 15% of the apportionment to support rural intercity bus service.	Apportioned by a statutory formula that is based on the latest U.S. Census figures of areas with a population less than 50,000.
§5316 Job Access and Reverse Commute Program	Provides funding for local programs that offer job access and reverse commute services to provide transportation for low income individuals who may live in the city core and work in suburban locations.	Formula allocations are based on the number of low-income persons.
§5317 New Freedom	Provides funding for programs which enhance transportation for people with disabilities beyond the Americans with Disabilities Act which are new public transportation, or new alternatives to public transportation.	Based on the population of people with disabilities in states and large urbanized areas.

In 2006-07, Oregon received over $72 million in transit funding from the federal government, not including capital funds for New Starts projects[7] (Table 2.7). About 17% of these funds were for the four key programs listed in Table 2.6.

[7] New Starts funds capital costs for new fixed rail and bus rapid transit projects, such as TriMet MAX light rail extensions.

Table 2.7: Oregon FTA Funding by Program, Fiscal year 2006-07

Funding Program		Match (Grant Share/Local Match)		Funding
		Capital / Planning	Operating	
Programs Providing Significant Funds for Transit for Older Adults and People with Disabilities				*$12,621,580 (17%)*
5310	Elderly Individuals & Individuals with Disabilities	89.73/10.27	56.08/43.92	$1,432,073
5311	Nonurbanized Area Formula Program	89.73/10.27	56.08/43.92	$8,581,134
5316	Job Access and Reverse Commute Program	80/20	50/50	$1,672,828
5317	New Freedom Program	80/20	50/50	$935,545
Other Transit Programs				*$59,947,269 (83%)*
303	Metropolitan Transportation Planning Program	80/20	Not eligible	$733,094
5304	Statewide Transportation Planning Program	80/20	Not eligible	$166,181
5307	Urbanized Area Formula Program 1 million and over population	80-90/20	Not eligible	$33,570,887
5307	Urbanized Area Formula Program 200,000 - 999,999 population	80-90/20	Not eligible	$7,528,014
5307	Urbanized Area Formula Program less than 200,000 population	80-90/20	50/50	$2,902,420
5309	Capital Investment Program - Fixed Guideway	80/20	Not eligible	$8,508,419
5309	Bus and Bus Facility Program	80/20	Not eligible	$3,409,075
5314	National Research Program	Not applicable		$1,000,000
5339	Alternative Analysis	Not applicable		$2,000,000
5311(b)(3)	Rural Transit Assistance Program	Not applicable	Not applicable	$129,179
Total				**$72,568,849**

Notes: New Start funding not included in FTA Funding total for this review ($108,142,940)
Includes some funding sources that are received in Oregon for transit, but that are available for transit operating or capital expenses, including Rural Transit Assistance Program and the various planning and research programs.

In 2007, the FTA allocated $117 million nationally to Section 5310 programs, which are dedicated to transit for older adults and people with disabilities. Of this funding, Oregon received 1.2% or $1.4 million. Section 5310 allocations to Oregon since 1998 have kept proportional pace with national allocation trends (*Federal Transit Administration 2008*). Section 5311 funds are allocated by a formula to qualified transit agencies providing general public service in the rural areas. The formula factors include: service area population, rides, revenue miles, and funds available. The funds are distributed annually.

The remaining funds from the Section 5310, 5311(f), 5316, and 5317 programs are allocated through a discretionary, statewide grant process administered by ODOT's PTD. These funds are combined with STF funds described above. Potential grantees submit applications to the PTD for specific projects. Past practice by PTD has been to allocate grant sources that best fit the request based on type of project and applicant, which allows for flexibility in funding. The allocation process also means that the tracking of specific program funds over time to discern trends is largely unrelated to the PTD's overall funding patterns. The discretionary grant program allocated about $25.8 million in funding throughout the state for the 2007-2009 biennium (see Table 2.8 for a breakdown by ODOT region).

Table 2.8: 2007-2009 PTD Discretionary Grant Program Funding Allocations

Grants	ODOT Region					Total
	1 Portland area	2 Willamette Valley and Coast	3 South-western	4 Central Oregon	5 Eastern Oregon	
Grants Approved	$11,916,124	$8,351,508	$2,693,981	$1,300,726	$1,566,855	**$25,829,194**
Percent of Approved Amount	46%	32%	10%	5%	6%	**100%**
Total Population Count	1,637,470	1,104,220	467,825	300,930	180,060	**3,690,505**
Percent of Total Population	44%	30%	13%	8%	5%	**100%**

Note: Total amount distributed includes some carryover funds from previous years.

In addition to the FTA transit funds listed in Table 2.7, Oregon uses about $7.8 million in Surface Transportation Program (STP) funds each year for transit. Of this, about $5 million goes to transit services for older adults and people with disabilities *(Palmateer 2008)*.

Local and Other Sources

In addition to the state and federal sources described above, urban transit programs generate funds locally. TriMet, the City of Wilsonville (SMART), and Lane Transit District collect employer tax. Salem Area Mass Transit District and Rogue Valley Transportation District collect an ad valorem property tax. The Cities of Bend and Corvallis do not have dedicated funds, but receive city general funds.

In rural areas, grants and other funds from the ODOT Public Transit Division are the largest single source of funding. Several of the smaller cities in the Portland urban area operate their own transit programs and are able to levy payroll tax. There are also several taxing transit districts in the rural areas of the state. Rural agencies are more likely to depend on fund-raisers and other on-going sources of earned income. Most of the rural communities combine the various sources of state and federal revenues into a limited number of transit programs to serve as many citizens as possible. In the counties with the smallest populations and least amount of funds, lack of funding means that the services are limited to rides for essential trips, such as for medical services.

Fares make up a small share of all transit operating funds, particularly for demand response systems. Moreover, fares rarely cover any of the capital costs of transit service, including purchasing buses. Therefore, "fare recovery ratio" is defined as fare revenues divided by total operating expenses. At the high end, Lane Transit District (LTD) and TriMet recover at least 10% of the operating costs of their complementary paratransit service through fares (Table 2.9). These rates are higher than found nationally in urban areas of similar size. In rural areas in Oregon, providers recover about 6% of the expense of demand response service through fares. The fare recovery rates for demand response service are generally lower than for fixed route bus service because operating costs are significantly higher (see next section), and fares are often capped because of federal ADA requirements and the populations served. For example, fares for complementary paratransit service may not be more than twice that of the full fare for a similar trip on fixed route service.

Table 2.9: Transit Fare Recovery Ratios, 2006

Agency	Fare Recovery Ratio	
	Demand Response	Fixed Route Bus
Four Largest Urban Areas In Oregon		
TriMet	12%	20%
South Metro Area Rapid Transit	0%	2%
Lane Transit	10%	19%
Salem Area Mass Transit	8%	11%
Rogue Valley Transportation District	5%	19%
Rural Areas In Oregon (Median)		
Fixed route providers (n=16)		8%
Demand response providers (n=23)	6%	
Urban Areas Nationally (Median)		
Population 1,000,000 - 2,999,999	5%	20%
Population 200,000 - 999,999	8%	17%
Population 50,000 - 199,999	9%	14%

Source: ODOT Quarterly Report and NTD data, 2006

Transit Operating Costs

Per trip, demand response service can cost anywhere from two to nearly ten times as much to provide as fixed route bus service. Table 2.10 shows the operating costs per trip for demand response and fixed route bus service in Oregon, along with national averages for urban areas. Most urban fixed route bus service costs about $3.00-$3.50 per trip to operate. **Costs for fixed route service in Oregon's rural areas are much higher**, a median of $8.35 per trip. This reflects, in part, the greater inefficiencies of operating fixed route transit in low-density areas. In contrast, the per trip cost of demand response service in Oregon's rural areas appears to be lower than in the urban areas.

Table 2.10: Expenses per Passenger Trip, Oregon Transit Providers

Agency	2006 Operating Expense per Trip	
	Demand Response	Fixed route Bus
Four Largest Urban Areas In Oregon		
TriMet	$25.74	$3.08
South Metro Area Rapid Transit	$15.92	$7.44
Lane Transit	$19.82	$2.89
Salem Area Mass Transit	$15.11	$3.24
Rogue Valley Transportation District	$23.48	$3.20
Other Urban Systems In Oregon (Median)		
Demand Response (N=10)	$15.57	
Rural Systems In Oregon (Median)		
Demand Response (N=56)	$10.77 *(mean=$16.53)*	
Fixed Route (N=22)		$8.35
Urban Areas Nationally (Median)		
Population 1,000,000 - 2,999,999	$28.39	$3.50
Population 200,000 - 999,999	$23.47	$3.30
Population 50,000 - 199,999	$16.64	$3.36

Source: ODOT Quarterly report and NTD data, 2006

Unmet Transportation Needs Identified by Providers

Transit services, whether provided by a non-profit, governmental, or for-profit organization, must be coordinated in order to receive federal funding through Oregon's Discretionary Grant Program. Counties, tribes, and metropolitan areas must complete "coordinated plans" in order to be eligible for federal transit monies through programs such as 5309, 5311, and JARC (*Oregon Department of Transportation 2007g)*. Each plan is required to identify unmet transportation needs. This analysis reviewed 32 of those plans, specifically with the aim of better understanding unmet needs. Table 2.11 presents the unmet needs that were identified by at least 10% of the plans.

Based on the review, some unifying trends emerged. Most notably, over three-quarters of plans identified the need for service during non-standard hours (that is, for the hours before 9:00 am and after 5:00 pm). Reasons cited included the need for medical transportation for seniors, for non-essential travel for seniors (e.g., shopping, social activities), and for travel to work during non-standard employment hours. Similar shares identified a need for additional service between counties, particularly for medical needs,

and to rural or remote portions of the county in order to serve isolated seniors or low-income populations.

Table 2.11: Unmet Needs Identified in 32 Oregon Coordinated Transit Plans

Rank	Identified Issue	Percent of Plans Which Cited Issue
1	Accessibility: Hours/Days of Service	78%
2	Accessibility: Intracounty Service Area	75%
3	Accessibility: Intercounty Medical	72%
4	Awareness of Service/Marketing	69%
5	Inter-Agency/Organization Coordination	47%
6	Affordability (Patron)	44%
7	Improved/Increased Service to Disabled	44%
8	Improved/Increased Service to Low-Income	44%
9	Nonessential Intercounty Travel	41%
10	Improved/Increased Service to Seniors (Life Sustaining)	38%
11	Inter-County (Nonspecific)	38%
12	Improved/Increased Service to Veterans	31%
13	Improved/Increased Service to Youth	28%
14	Improved/Increased Service to Elderly (Life Enriching)	28%
15	Funding Reliability	28%
16	Additional/Improved Rolling Stock	25%
17	Employee Training	25%
18	Job-Search Services	25%
19	Improved/Increased Service to Families	22%
20	Improved/Increased Service to Social Services	22%
21	Transit Availability	22%
22	Improved/Increased Service to Non-English Speakers	13%

These findings echo the recommendations made by older adult advocacy organizations, such as the Beverly Foundation *(2007)* and Partners for Livable Communities *(2007)*. Both organizations identified expanded or more flexible hours of operation as a pressing need for seniors as they travel, and suggested moving from a focus on commuting to life sustaining and enriching travel. For example, arranging medical appointments (especially out of the county) and shopping trips can be quite difficult for seniors using a demand response system. In addition, often these systems require much advance notice and have operating hours oriented toward a standard workday.

DHS and ODOT Issues

DHS and ODOT, along with their partner local agencies, have identified four key issues related to providing transit for older adults and people with disabilities: the need for more service, the rapidly escalating demand and cost of paratransit, Oregon's rapidly aging population, and the high price of fuel. Each of these issues is elaborated below.

More Service Needed for Clients

The caseload of seniors and people with disabilities is currently straining the DHS budget. The state's ability to match Medicaid with General Fund is limiting the services that can be financed by Medicaid. Oregon, through its various Medicaid waivers, is creatively and effectively providing a wide range of service. However, the financial impact of rising client populations will get worse over time, especially as the Baby Boomers age. According to the Governor's Commission on Senior Services, one of the solutions to avoid the future cost of long-term care is to develop more community-based supports, such as housing and transportation, which would assist to avoid these costs *(Governor's Commission on Senior Services 2006)*. In many areas, additional public transportation services are necessary to reduce the risk of older adults and people with disabilities being institutionalized.

Additional state funds for the match required for Medicaid could result in more transportation services for clients who are vulnerable older adults and people with disabilities. For example, one of the key needs for people with developmental disabilities is to have the opportunity to work in a supported or community-based setting. A recent report from DHS identifies about 30,000 adults with developmental disabilities receiving services in Oregon (*DHS 2007a*).

The lack of transportation is a barrier to work for people with developmental disabilities. While the available data does not allow a comprehensive estimate of the unmet need for transportation services, anecdotal reports and local planning documents indicate that more service is needed. In the urban areas, people with developmental disabilities are usually able to use public transit to get to work; however, many people with developmental disabilities are not able to travel independently. One individual traveling to and from work five days per week generates about 520 trips per year. Using a cost per trip estimate of $25 per demand response ride, the cost to transport one individual is about $13,000; on the fixed route, the cost is about $1,820 in the urban areas and about $4,342 in the rural areas. (These figures illustrate the vastly greater costs associated with demand response transit compared with fixed route transit.) Currently, some funding for this service is contributed

by the Special Transportation Fund program and other local sources, such as from the general fund of the transit districts.

Oregon is engaged in offering services to DHS clients through Brokerage Support Services. The primary job of a Support Service Brokerage is to help an individual plan, arrange, and monitor supports needed to stay at home and use the community. These support services are in-home or other personal supports that assist an individual to live in their own home or with family or friends and to fully participate in community life, including work *(DHS 2008).* **However, a significant barrier to employment is access to routinely available transportation services during days and hours when entry-level and supported employment is available.** The funds available to clients for their support services are very limited; therefore, these clients are best served by a broad-based, low cost public transit service.

DHS programs do not provide comprehensive transportation supports. A client might be eligible for a transportation benefit to get to the doctor, but not to the grocery store. DHS clients need low-cost, comprehensive community transportation to meet their day-to-day needs.

Rapidly Escalating Demand and Cost of Paratransit

Complementary paratransit is a requirement defined by the Americans with Disabilities Act of 1990 *(ADA)*. The requirement applies to the provision of fixed route services operated by public agencies and is a service for people who, because of their disability, are unable to use or access the fixed route. Intercity and commuter services are exempted from the paratransit requirement.

The paratransit service design is demand responsive and is to be "equivalent" to the fixed route. The service is required to be offered within ¾ of a mile on each side of each fixed route, and must be available during the same days and hours of fixed route service. The fare cannot exceed twice the regular fixed route bus fare. **There is no limitation as to the purpose of the trip (people may travel for any reason, just as they would on a regular bus) and all requests for paratransit service received within the parameters defined by the service provider must be provided.** There are additional requirements that protect the interests of people with disabilities and that provide the transit agencies with the ability to define and manage their programs. **It is important to note that complementary paratransit service is not a transportation program for older adults, unless the individual has a disabling condition that prevents use of the fixed route.**

As of July 1, 2008, there are 43 rural and urban public transit services available to the general public. Of these services, 20 use a fixed route design that requires complementary paratransit. **The fixed route service model is appealing since it serves more people at a lower cost; however, the requirements of complementary paratransit create an obligation for an unconstrained paratransit, which may offset the cost savings.** In rural areas of the state, the public transit operators continue to use a demand-response design as it is more flexible, although with lower productivity, and allows more control over costs.

Lane Transit District reports that between fiscal years 2004 to 2005, there was a 7.1% increase in the demand for paratransit. There was a 12.1% increase between 2006 and 2007, and a projected end of year increase for 2008 of 16% over 2007. The estimated number of trips provided in FY 2008 is 124,656. In 2008, the cost to provide complementary paratransit service to approximately 1,500 people with disabilities in the service area is about $23.50 per trip, compared to the fixed route per trip of about $3.00. The annual operating cost of paratransit is $2.4 million, which is over 6% of LTD's annual budget.

TriMet also reports an increasing demand for complementary paratransit service. TriMet serves about 5,600 individuals per month, representing about 0.4% of the area's population. The operating cost of LIFT is 8% of TriMet's budget, with an additional cost of $2.5 million per year for the vehicles used to provide the paratransit vehicles. At a conservative estimate of 3% growth in demand per year, by 2014, the cost of paratransit will be $11 million per year.

Oregon's Aging Population

There is growing demand for transportation service by older adults. By 2025, one out of every five Oregonians will be over the age of 65. Older adults often have unique travel needs, primarily related to access to medical services, and associated with shopping and social needs. **Older adults are not eligible to use complementary paratransit unless they are also disabled.** Senior transportation is not required by law, and sometimes takes second place to the requirements and cost of paratransit. As older adults transition from using their personal car for some or all of their needs, alternative transportation resources need to be available. Sometimes the appropriate alternative is learning to use the available public transit; sometimes the individual needs more assistance. Transportation alternatives for older adults vary widely: in some communities, transportation services are provided by volunteers, sometimes by senior programs and senior centers. Occasionally, public transit providers offer limited access to complementary paratransit services when

there is extra capacity not being used by people with disabilities. Often transit agencies have special programs for older adults, such as escorted shopping trips and trips organized around groups of individuals living in senior communities.

Currently, Lane Transit District is able to encourage older adults to use the regular fixed route by providing orientation to using the bus system, passenger shelters, benches, and high frequency service that combine to make transit attractive to older adults. Salem Area Mass Transit District partners with a human service agency, Oregon Housing and Associated Services, to provide supported transportation services for older adults. TriMet is partnering with the counties, cities and many non-profit agencies in the Multnomah, Washington, and Clackamas County area to develop a comprehensive network of service options for older adults and people with disabilities. By providing these options, older adults and people with disabilities have services better suited to their particular needs, and TriMet has slowed the growth of paratransit demand to 2.2%.

The rural areas of the state will need to develop more services to meet growing needs. Since there is less funding, fewer options, and higher costs, it will be a significant challenge to provide appropriate service.

High Price of Fuel

Transportation providers are experiencing an unprecedented increase in the cost of fuel. The increase in fuel prices is affecting the ability of volunteers to provide services and the same increased fuel costs are resulting in large increases in passenger demand, especially during commute times. Fuel prices, combined with increased demand for service, are causing transit agencies to consider various cost-reduction strategies, and are driving fares up. The first cost cuts are in areas of the programs that do not affect the amount of service; however, if the costs get too high, service cuts are possible. Lane Transit District is considering cutting service by 15% as a result of increased costs. Harney County recently increased its fare by 100%, the first increase in 10 years. Transportation services for older adults are considering implementing a fare to raise money; formerly fare-free, public subsidies and donations are not keeping up with costs.

3. Current Demographics, Trends, and Projections

Background

For this study, the investigators were asked to provide a demographic analysis of Oregon's current population by age, disability, and geographic distribution. This analysis was needed to determine the number of potential users of special transportation (demand responsive and complementary paratransit). This estimate was then used to calculate the cost of special transportation in the future, based on current (low estimate) and potential (high estimate) use.

Similarly, an analysis of trends that could affect transportation use (fixed transit and special transportation) was needed to help gauge where in this range actual use in the future would fall. This chapter presents Oregon's current and projected demographics and socio-economic trends that are likely to affect transit use and provision in the future.

Defining Oregon's Current Population: Number, Age, and Geographic Distribution of Older Adults and People with Disabilities

To answer the question of how many older adults and people with disabilities currently live in Oregon, it first is necessary to define "older adults" and "people with disabilities."

Who Are "Older Adults?"

The most commonly used definitions for "older adults" (or "elders," "elderly," or "seniors") rely on chronological age as their criterion. The *Older Americans Act* defines older adults as those aged 60 and over. Other federal programs, such as Social Security and Medicare, traditionally have stipulated age 65 as the age at which one becomes eligible for services (although for Social Security, that age is now 67½). The State of Oregon's Seniors and People with Disabilities (SPD) Services, in its draft *Long-Range Plan (May 2008)*, presented statistics concerning services provided to people aged 65 (not 60) and over, and to people with disabilities. Most gerontological research has used age 65 as the minimum age criterion for defining the population being studied. Although strong arguments have been made for using a functional, rather than chronological, definition, solely functional definitions for program eligibility purposes are expensive and unwieldy to implement.

In this report, where possible, data are presented for older adults beginning at age 60, since that is the eligibility age for DHS programs funded by the *Older Americans Act*. Much of the demographic data relied upon for the analyses conducted, however, were available for older adults beginning at age 65, not 60.

What is Meant by "Disability?"

As is the case with "older adults," or "elderly," or "seniors," there is no consensus concerning the definition of "disability." In addition, researchers, practitioners, and policymakers have been urged by members of the disabilities community to **focus on individuals' functional capacities and abilities, and ways to enhance those**, rather than on individuals' inabilities or incapacities *(Hunter-Zaworski 2008)*. For transportation planning purposes, however, it is necessary to identify the population to be served, including the number of individuals with disabilities.

In the U.S., disability is defined in various ways by different organizations and groups. The *Americans with Disabilities Act* (ADA) of 1990 gives broad legal definitions and guidelines regarding who falls under the protection of the act. **In discussions of transportation needs and planning, the ADA is important, as it prohibits discrimination on the basis of disability** in employment, state and local government, public accommodations, commercial facilities, telecommunications, **and transportation** *(U.S. Department of Justice 2005).* The ADA protects not only individuals who have a disability, but also those who have a relationship or association with an individual with a disability, such as caregivers *(U.S. Department of Justice 2005)*. As stated in the *Americans with Disabilities Act of 1990* in *Section 3, Definitions*, "The term `disability' means, with respect to an individual – (A) a physical or mental impairment that substantially limits one or more of the major life activities of such individual; (B) a record of such an impairment; or (C) being regarded as having such an impairment."

Because many of the terms in the ADA's definition are ambiguous – including "impairment," "substantially limits," and "major life activities" – several legal cases have been brought before the U.S. Supreme Court and lower courts. Rulings from these cases generally have narrowed the definitions by which individuals can qualify for legal protection under the ADA *(Gregory 2004)*. (Appendix 3-1 summarizes how these terms were clarified by the Supreme Court in one such case: the 2002 case of *Toyota Motor Manufacturing, Kentucky Inc. v. Williams*.) Furthermore, the Supreme Court ruled that decisions concerning what constitute a limitation in major life activities must be made on a "case-by-case" basis *(Transit Cooperative Research Program 2003)*; this has made defining "disability" difficult, at best, from a legal standpoint.

In Oregon, determination of Medicaid eligibility for long-term care services is based on an individual's limitations in activities of daily living (ADLs), defined as "those personal functional activities required… for continued well-being," including mobility, eating, elimination, cognition, bathing/personal hygiene, dressing and grooming *(Oregon DHS 2008)*. This, however, is just one definition of disability that is used by the State of Oregon. **The different programs in Oregon's Department of Human Services (DHS) use varying definitions of disability.** [8]

Despite these inconsistencies in defining disability, one of the charges in the present study was to identify current rates of disability in Oregon and to project these forward to 2030. To do this, sources of data on the prevalence of disability were sought. As detailed in the next section, **for the purposes of this study, disability was defined broadly as: (1) having any of six types of sensory or functional disabilities; or (2) narrowly, as having a mobility disability, specifically the inability to go outside the home alone to a doctor's office or shopping.**

Sources of Data on Disability

Four possible national sources of data on the prevalence of disability in the American population were identified and assessed for their usefulness for this study's purposes: the *U.S. Decennial Census*, the *American Community Survey* (ACS), the *National Health Interview Survey* (NHIS), and the *National Long-Term Care Survey* (NLTCS).[9] The most recent source for Oregon-specific demographic data consisted of population estimates for Oregon available for the year 2007 from Portland State University's Population Research Center *(Population Research Center 2008)*. Data on disability rates, however, are not available in that report, thus limiting its usefulness for the present study.

Examination of the data sources revealed that **disability is defined and measured in these four surveys differently, resulting in inconsistent estimates of the numbers of people with disabilities**. The NHIS and the NLTCS have narrower definitions and measures, yielding fewer people identified as disabled; the Census and the ACS use broader measures, resulting in higher numbers of people reported as having a disability.

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[8] Appendix 3-2 contains the definitions of disability used by DHS programs, as provided by Carol Mauser, Program Operations Manager, Seniors and People with Disabilities (2008).

[9] A description of these data sources and the rates of disability yielded in each is presented in Appendix 3-3.

More specifically, the NHIS and the NLTCS assess disability status based on the ability to perform activities of daily living (ADLs) and instrumental activities of daily living (IADLs), and the degree of difficulty the respondent has performing these tasks. In these surveys, ADLs include the following tasks: bathing, dressing, eating, toileting, getting in or out of bed, and getting around inside the home. IADLS include preparing meals, going outside the home, managing money, using the telephone, taking prescription medicines, and doing housework. Some, but not all, of these measures are similar to those used by DHS.

In contrast, the Census and the ACS assess the presence of six types of disability and the limitations that result from them. The ACS is an annual survey conducted by the U.S. Census Bureau to supplement and update the information gathered in the decennial census, which is conducted every 10 years. The six types of disability examined are: sensory, physical, mental, self-care, go-outside-the home, and employment disability. Specifically, six questions, as listed below in Figure 3.6 are answered either *yes* or *no* by respondents. Items 2.c. and 2.d. are asked only for respondents who are 16 years of age or older.

Figure 3.6: Disability Items, Census 2000 and ACS 2006

1. **Does this person have any of the following long-lasting conditions:**
    a. **Blindness, deafness, or a severe vision or hearing impairment?**
    b. **A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying?**
2. **Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities:**
    a. **Learning, remembering, or concentrating?**
    b. **Dressing, bathing, or getting around inside the home?**
    c. **Going outside the home alone to shop or visit a doctor's office?**
    d. **Working at a job or business?**

Selecting the Data Source for this Study

The Census 2000/ACS 2006 definitions of disability were particularly well suited for the present study, as they could be used to yield both a narrow and a broad estimate of the numbers of people with disabilities. Furthermore, among the four possible data sets examined, the Census and the ACS had the greatest detail by disability, age, and geography

(e.g., urbanized area, county, city) for people of all ages, not just older adults. **As a result, the decision was made to use the Census, the ACS, or both data sets.**

Although information on six types of disability was gathered in each data set, to make the projections more manageable, just two measures of disability were used – one specific and one general and broad. The first measure was the most closely aligned with the need for special transportation: *go-outside-the-home-alone disability*. The second measure was the presence of *any* of the six types of disability.

- **"Go-outside-the-home" disability (Item 2c)** measures mobility impairment. This measure is highly relevant to transportation and transit planning, as it can serve as a proxy indicator of need for special transit.
- **"Any disability"** is a composite measure created by aggregating respondents' answers to the six disability items, indicating how many individuals had *any* of the six types of disability. This yields a very broad estimate of the number of people with disabilities who would potentially need and use special transportation.

A decision then was required as to *which* of the two data sources, the ACS or the Census, should be used, or whether some combination of both could be employed.

Two key advantages of the ACS 2006 were:

- **The ACS 2006 corrected design flaws in Census 2000** that resulted in considerable overestimation of the rates of disability, especially *go-outside-the-home disability* (a measure used in this study) and employment disability (see Appendix 3-4 for details).
- **The ACS 2006 data are more recent**.

At the same time, there were disadvantages with the ACS data, as detailed in Appendix 3-4. In brief, these included:

- **The ACS is based on a smaller sample and thus has a greater sampling error**. Although even the Census data on disability are based on a sample (the items on disability are contained on the long form), the sample is larger – approximately 15% of households compared to 3% for the ACS.
- **The ACS data are available in less demographic detail** (geographic and age) than the Census. Because of the smaller sample size, the ACS requires that a geographic area have a minimum population of 65,000 to be reported separately, resulting in the inability to describe separately the populations of several Oregon counties.

- **The age groupings available in the ACS do not allow for separate reporting on adults aged 60-64**; these individuals are aggregated with younger adults. The next age categories are *65-74* and *75 and over*.

Thus, to make use of the best features of both the ACS and the 2000 Census, a combined approach was attempted. This involved using the more geographically-detailed age and disability data from the 2000 Census, but adjusting it using the disability rates derived from the 2006 ACS data. However, because of the sampling error associated with the ACS data and because of instability in the results of the finer geographic divisions, the estimates could not be trusted (see Appendix 3-4 for details).

As a result, for this report, for purposes of consistency, comprehensiveness, and accuracy, both to describe the current population with respect to age and disability rates and to project forward to 2030:

- Only the 2006 American Community Survey (ACS) data were used for the age and disability projections.
- Just two measures of disability were used: *go-outside-the home alone disability* and *any disability* (one or more of six types of disability).

In the next section, the findings regarding Oregon's current population by age and disability are presented, as well as population projections by age and disability, and size of place.

Findings: Current Number and Proportion of People with Disabilities in Oregon – the Disability Rate

Appendix 3-5 (Table 3-5 A through Table 3-5 D) presents the current population for Oregon by age, disability, and geographic region (the state as a whole, individual counties, and groups of counties when required by the ACS data set). As shown in Table 3-5 A, in Appendix 3-5, a total of 3,658,449 civilian, non-institutionalized individuals reside in Oregon, according to the ACS 2006 data.[10]

The population aged 65 or over in Oregon totals 462,314, or about 12.6% of Oregon's civilian, non-institutionalized population. This compares to a national population of which adults aged 65 or over comprise 12.8%, and are estimated to number 40.2 million in

[10] Note that the totals for Oregon and counties are slight overestimates, as the ACS data for children aged 0-4 do not exclude children who are institutionalized or living in military families.

2010 and more than 71.4 million people by 2030. **In 2010, approximately 13% of Oregon's population will be aged 65 or older, increasing to nearly 20% by 2030.**[11] These projections are consistent with those prepared by the present study's project team (see Appendix 3-7).

Oregon's current population of people with any disability numbers 559,876, or 16.3% of the total population, excluding children under the age of 5, for whom disability data are not gathered at all. In addition, some disability data are gathered only for individuals who are 16 or over. People aged 16 or over with a disability number 525,940, or 18.1% of Oregon's population (see Appendix 3-5, Table 3-5 B and Table 3-5 C).

Among people aged 16-64 in Oregon, 13.8% have at least one disability; among people aged 65-74, 28.1% have at least one disability; among those aged 75+, 54.6% have a disability; combined, among all individuals aged 65 and over, 41% have a disability. People aged 65 and over comprise 33.9% of Oregon's population with any disability.

Oregon's current population of people with go-outside-the-home-alone disability numbers 156,724, or 5.4% of Oregon's population of individuals aged 16 and over (4.3% of all Oregon residents, including children under age 16). Among individuals aged 16-64, 3.2% have go-outside disability. Among people aged 65-74, 8.1% have go-outside disability; 26.1% of those aged 75+ have this type of disability. Among all individuals aged 65 and over, 16.8% have a go-outside disability (see Appendix 3-5, Table 3-5 D and Table 3-5 E.)

For comparison purposes, nationally, of the six types of disability assessed (i.e., sensory, physical, mental, self-care, go-outside-the-home, and employment), the ACS 2006 revealed that 12.3% of the population aged 16 through 64 experienced at least one type of disability ("*any disability*"), compared to 41% of those aged 65 or over.

Oregon has a higher proportion of people aged 16 through 64 with a disability, compared to the U.S. as a whole: as noted above, 13.8% of persons in this age group experienced one or more of the six types of disability. This compared to 41% of those aged 65 or over, which is equal to that for the nation. Oregon ranked twenty-first among the 50

[11] These figures are according to U.S. Census-Interim Projections, consistent with 2000 Census, March 2004, and Oregon Office of Economic Analysis, Forecast of Oregon's Populations by Age and Sex, April 2004, both as cited in the draft Seniors and People with Disabilities Long Range Plan, May 2, 2008.

states and the District of Columbia in percentage of people aged 65 plus with a disability.[12] Appendix 3-5 presents these data in Table 3-5 B and Table 3-5 C.

With respect to *go-outside-the-home disability*, nationally, 3.2% of those aged 16 through 64 experienced this type of disability, compared with 17.7% of those aged 65 or over.[13] **Oregon's proportion of people with go-outside disability is the same as those for the U.S. as a whole for those aged 16 through 64, but slightly lower, 16.8%, for those aged 65 or over.** Appendix 3-5 presents these data in Table 3-5 D and Table 3-5 E.

Using *go-outside-the-home-alone disability* as a proxy measure of the need for special transportation among people aged 16-64, this means that currently 78,906 people aged 16-64 and 77,815 people aged 65 and over could need special transportation in Oregon.

How Is The Population of Older Adults and People with Disabilities Currently Distributed Geographically?

The population of older adults in Oregon varies by metropolitan area and by county (Figure 3.7 and Figure 3.8). The metropolitan area with the highest proportion of older adults is Salem (20% of the population is 65 years of age or older; 26% is 65+), followed by Medford (17% is 65+; 21% is 60+). The metropolitan area with the lowest percentage of older adults is Corvallis (about 10% are 65+, and 12.7% are 60 or older).

The Oregon counties with the highest proportions of older adults aged 65+ are Curry (28%) and Wheeler (24%), followed closely by Josephine, Tillamook, Lincoln, Baker, Coos, and Gilliam (all with 20-21% of their populations aged 65+). When the population aged 60 or over is examined, the rankings remain approximately the same, with over one-third (35%) of the population of Curry County and 32% of Wheeler County's population aged 60+, followed by the populations of Tillamook (27%), Josephine (27%), Gilliam (26%), Baker (26%), Coos (26%), Lincoln (26%).

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[12] See: *http://factfinder.census.gov/servlet/GRTTable?_bm=y&-_box_head_nbr=R1803&-ds_name=ACS_2006_EST_G00_&-_lang=en&-format=US-30&-CONTEXT=grt.*

[13] See: *http://factfinder.census.gov/servlet/STTable?_bm=y&-geo_id=01000US&-qr_name=ACS_2006_EST_G00_S1801&-ds_name=ACS_2006_EST_G00_&-_lang=en&-_caller=geoselect&-redoLog=false&-format=.*

Figure 3.7: Percent of Oregon Population with Go-Outside Disability

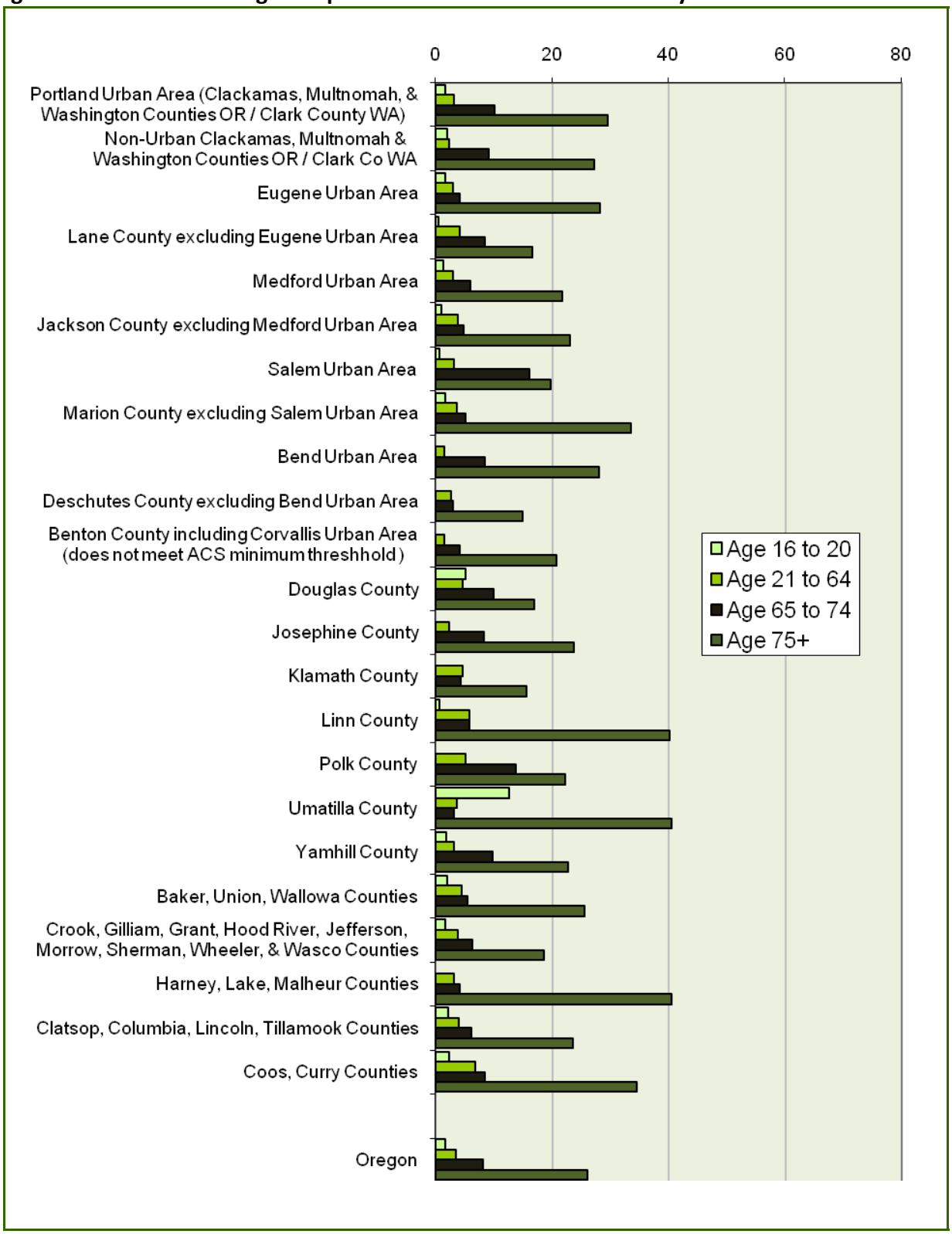
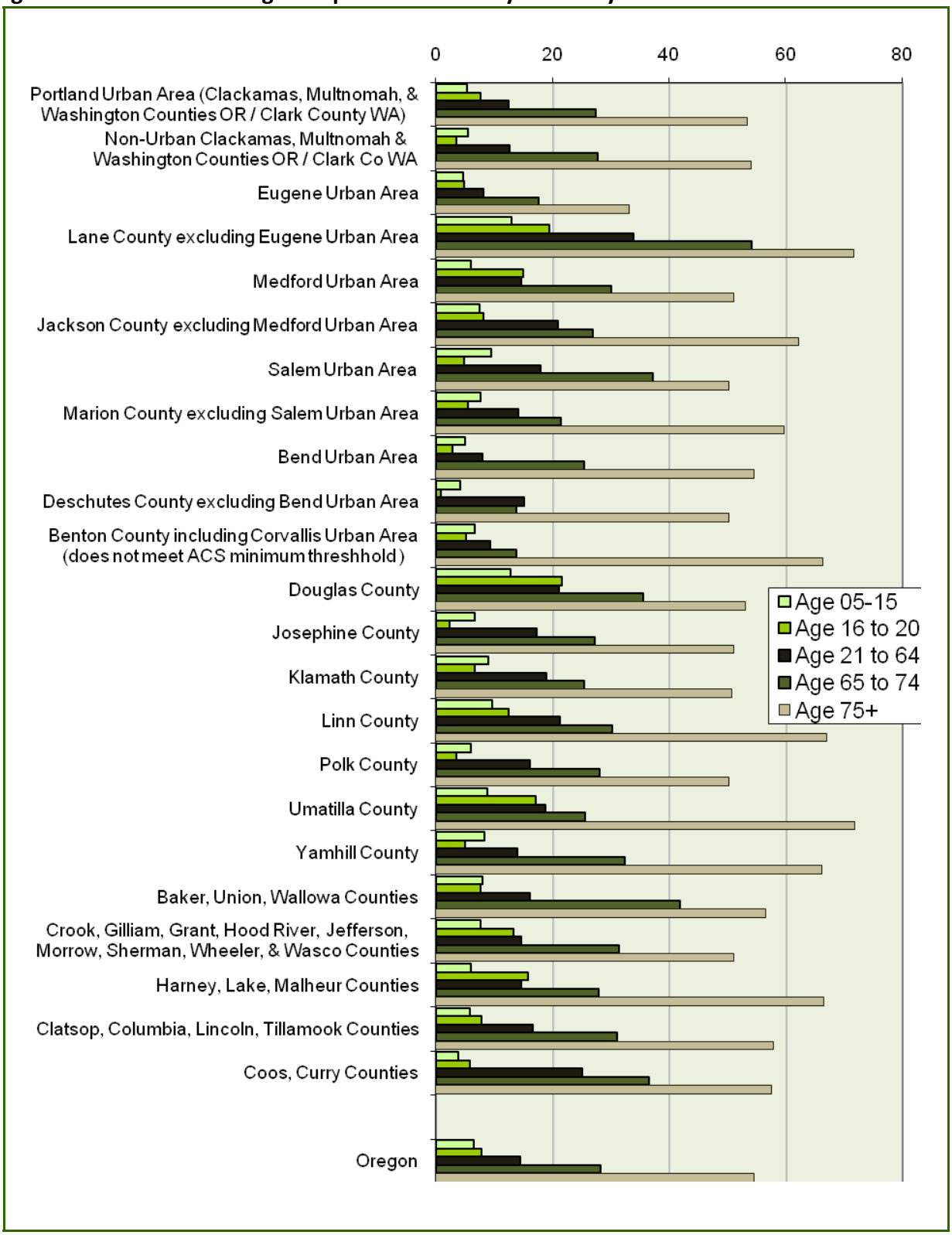


Figure 3.8: Percent of Oregon Population with Any Disability



The counties with the lowest proportions of older adults aged 65+ are Washington County (9%), Benton County (10%), Morrow County (11%), and Multnomah County (11.6%). The pattern is similar for the population aged 60 and over; counties having the lowest proportions are Washington County (12.5%), Benton County (13.7%), Multnomah (15%), and Morrow County (16%).

Oregon is a largely rural state. This lack of density poses problems for the provision of fixed route and special transportation. Most of the 36 counties are *rural* (that is, the county's population is less than 500 people per square mile and 90% of the county population is in rural areas or the county has no urban area with a population of 10,000 or more; *Isserman 2005*). In contrast, there are a few *urban* counties (i.e., counties whose population density is at least 500 people per square mile, 90% of the population lives in urban areas, and the population in urbanized areas numbers at least 50,000; *Isserman 2005*). A county is considered *mixed rural* if it meets neither the urban nor the rural county criteria and its population density is less than 320 people per square mile (that is, two acres per person); a mixed urban county is one that meets neither the urban nor the rural county criteria and its population density is 320 people or more per square mile.

Projected Number of Older Adults and People with Disabilities in Oregon in 2030

Projections for each county, based on the current population, were developed. The methods used for creating the projections are detailed in Appendix 3-6. In brief, because the rates of disability reported in the 2000 Census were revealed to be flawed, the ACS 2006 rates were used. Although the study had hoped to be able to apply geography-specific rates (e.g., by urbanized area and county), this was not possible due to sampling error and instability in the finer geographic divisions. As a result, the geography-specific rates were not used in the projections; instead, **the single statewide rate of disability derived from the 2006 ACS data was applied. Appendix 3-7 contains the projections for Oregon and for each of the 36 counties.**

In addition, it was decided to hold constant the rate of disability by age. This decision was made based on the examination of the literature on recent trends in disability rates. The results of this review and analysis of the literature are presented within Appendix 3-8, *Key Demographic and Social Trends and How They May Affect Public Transportation*. The results of the analysis of disability rates revealed that **trends in disability rates vary by age cohort, and the findings are inconclusive within age groups.**

- For **older adults**, the rate of disability clearly has been dropping, but now, due to the rise in obesity, there are indications that this positive trend may be reversing.
- For **younger adults**, the rates of disability definitely have been rising.

Because of these ambiguous results, a conservative approach was taken and a constant rate of disability by age over the period of study was used, from 2010 to 2030.

Similarly, the assumption made for the purposes of the projections was that the share of DHS clients would remain the same as it currently is.

Findings Re: Oregon's Future Population

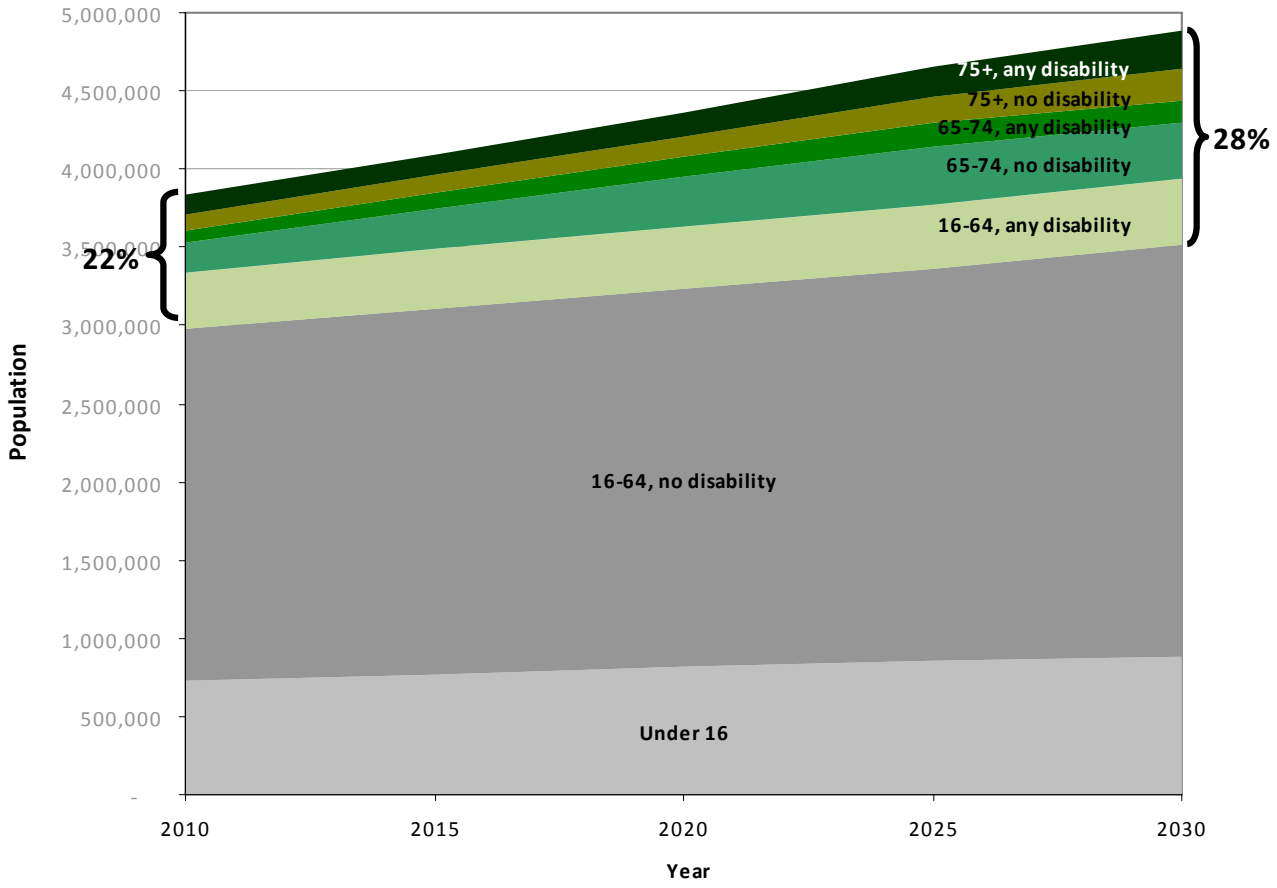
Appendix 3-7 presents the population projections, first for the state as a whole and then for each individual county by age, number of persons with any disability, and number of persons with go-outside-the-home-alone disability (abbreviated "go-outside" or "go-out" in the tables for space purposes). These data were used in the calculations of the future cost for special transit in Oregon for the year 2030. At the bottom of each page are two charts – one depicting the numbers of people having "go-outside" (go outside the home alone to visit the doctor or shop) disability, and the other depicting the number of people having "any" disability. These charts are the most easily digestible way of viewing the data.

The charts for the State of Oregon reveal that, with respect to go-outside disability, the projected numbers of people having any disability vary by age, with the largest numbers in the age 75+ and 21-64 age groups. The age 75+ group is that projected to have the most dramatically increasing numbers of people with go-outside disability.

With respect to any disability, the projections are that, for Oregon as a whole, individuals aged 75+ – and especially those 21-64 – will have the largest, and rising, numbers with any disability through 2030. The numbers of individuals aged 5-15 and 16-20 with any disability are projected to remain relatively small and stable over time. The numbers of people aged 65-74 having any disability are projected to rise over time and then drop somewhat.

Figure 3.9 illustrates the growth in absolute numbers, as well as the proportion of the population aged 65 and over, regardless of disability, and those aged 16 and over with a disability. As can be seen, **older adults and people 16 and older with disabilities will comprise 22% of the population in 2010, increasing to 28% in 2030.**

Figure 3.9: Percent of Oregon Population that are Older Adults or Adults with Disabilities, 2010 to 2030



Of particular importance here is where the growth will occur in the state as a whole with respect to population size. **The demographic projections developed show that the share of residents in urban and rural areas in Oregon will shift slightly over time** (see Appendix 3-7, Oregon projections), **with slightly more people in urban areas.** As shown in the projections for Oregon (see Population Age, Disability Rates by Time Period), in 2010, about 51% of the population will be in urban areas with populations of 50,000 or more, 3% in urban areas of 25,000 to 49,999, 15% in urban areas between 2,500 and 24,999, and 31% in rural areas with under 2,500 population. By 2030, the urban areas of 50,000 or more population are projected to comprise 55% of Oregon's population, urban areas of 25,000 to 49,999 will comprise 5%, urban areas between 2,500 and 24,999 will have 14% of the population, and rural areas with under 2,500 population will constitute 26% of the population. Thus, **it appears that it may be possible to serve slightly more**

of the older adult/people with disabilities populations with fixed route transit than are presently served.

In the next section, various demographic, social, and economic trends are described that may affect these projections and thus, planning for the public transit needs of Oregon's older adults and people with disabilities.

Key Demographic, Social, and Economic Trends and How They May Affect Transportation Demand

A number of demographic and social trends will affect the transportation needs and demands of the coming generation of older adults, the Baby Boomers. Of central importance are the sheer, vast size of this generation and the large proportion of the population that Baby Boomers comprise. Other key trends include those with respect to racial and ethnic composition, life expectancy, sex ratio, dependency ratio, socio-economic situation, retirement age and retirement income, labor force participation by women, household size and structure, health status and disability, physical activity, patterns of housing ownership, types, and costs, and Internet and technology use.

A major reason for examining trends over time is to extrapolate to the future and use the data to inform planning efforts – in this case, to be better able to plan for the transportation needs that will exist in Oregon. Thus, a review of the literature was conducted to identify key national demographic, social, and economic trends and their likely impact on public transportation. **These trends and their effects on transportation demand and costs are detailed in Appendix 3-8.**

On average, the results indicated that, compared to previous generations, tomorrow's older adults will likely be:

- More educated
- More ethnically and racially diverse
- More likely to occupy professional or managerial positions
- For women, likely to have more years in the labor force
- More likely to work at least part-time into their seventies
- Wealthier, but with the majority of their wealth in the form of home equity
- More likely to own their own homes

- Less likely to be below the federal poverty level and far less likely to be on public assistance
- More likely to be single or divorced
- More likely to live alone
- More likely to have fewer children or no children
- More likely to live in suburban areas
- Much more likely to "age in place" than to migrate
- If they migrate, more likely to migrate from a city to a suburb than from a suburb to a city
- Less likely to be disabled in ways that limit their independence
- More likely to have chronic diseases, such as obesity and diabetes
- More likely to drive longer, given their higher levels of physical and cognitive health and improvements in technology that allow them to do so safely
- More likely to use the Internet and other forms of technology
- More likely to have high standards for quality of service..

It is important to note that the above general trends obscure the economic disparities and racial and cultural differences and preferences that will exist among the older adults of tomorrow. Also, these trends do not point to a single set of solutions with respect to transportation planning for the future. There are some conclusions that can be drawn, however.

There is no question that **the number and proportion of older adults will be larger than ever before in history**. Over the next 40 years, the age profile of the United States will undergo a dramatic shift that will have far-reaching implications for society. Today's "pre-seniors," defined as those who will be between the ages of 55 and 64 between 2000 and 2010 *(Frey 2007)*, are the group widely known as the "Baby Boomers" (those born between 1946 and 1964). **In 2011, the first members of this generation will hit age 65, the traditional retirement age, and start a "senior tsunami,"** the effects of which will be felt until at least 2050. The number of older persons (those aged 65 and over) will swell, increasing from 12% of the total population in 2000 to 20% by 2030 *(Frey 2007, p. 25)*. In absolute numbers, the population aged 65 and over will increase from about 35 million to about 71 million between 2000 and 2030, a 104% increase *(Frey 2007, p. 25)*. **The oldest old, those aged 85 and over, comprise the fastest growing segment of the U.S. population** *(He et al. 2005)***.** By 2050, the oldest old will account for nearly one out of

every four older persons (24%; *He et al. 2005*). **It is this oldest age group among all older adults that is most likely to be frail and in need of special transportation services.**

Although there is no consensus concerning whether disability rates will hold constant, decrease, or increase **the sheer numbers of individuals likely to need special transportation services will increase.**

Meeting the transportation needs of older adults who are adversely affected by changes in the traditional household structure – for example, divorced or widowed women living alone or childless seniors – will be critical to these elders' well-being, both because these older adults may have fewer transportation resources when they can no longer drive and because they are at much greater risk of social isolation, which is detrimental to mental and physical health.

Health status and transportation are interdependent in a number of ways; ensuring transportation access to recreational and other physical activities is critical to the health of older adults and people with disabilities. Lack of access to transportation can negatively affect the ability to seek timely medical care, including preventive healthcare, the ability to engage in health-sustaining physical and social activities, and even the ability to shop for fresh food, which is essential to a healthy diet. **Baby Boomers indicate that they plan to be more physically active than previous generations of seniors, so their transportation demands may be greater.** At the same time, this population is expected to have **higher levels of physical and cognitive health, which should facilitate independent use of transportation modes including both driving and public transportation.**

How much, and how and where both fixed and special transit are provided will be affected. The continuing trend toward "aging in place" is likely to mean that the majority of older adults will continue to live in single-family homes and in the suburbs, where destinations are more spread out, making transit service more difficult and expensive. At the same time, there are some indications that the next generation of older adults are more likely than younger adults to have a preference for more walkable locations, higher density living, and access to public transit, signaling the possibility of increased demand for transit.

Tomorrow's older adults have traveled more and farther, and likely will have higher expectations for mobility than previous generations. They also are more accustomed to driving and the flexibility and convenience offered by that travel mode, which likely will contribute to high expectations for transit service.

The trend toward later retirement could increase transportation demand because of continued work-related trips. Increased workforce participation by women may lead to a reduced ability to provide private transportation, resulting in increased demand for special public transportation.

Increased access to information through technology means that individuals can more easily find out about fixed route transit options and schedules, as well as other special transportation services. Another way in which technology will impact transportation services is through telemedicine services, which may help seniors and people with disabilities reduce the number of medical trips they need to take, and possibly reallocate their transportation resources to more mentally and physically stimulating activities.

These are but a few of the ways in which the trends among Boomers as described here will impact public transportation. Clearly, however, **these trends signal changes in both the amount of fixed route and special transportation service needed and likely to be demanded, as well as the nature of the transportation services provided.**

4. Future Transit Demand and Costs

Overview

This chapter presents an estimate of the demand for and costs of transit for older adults and people with disabilities in Oregon in the year 2030. The focus is on demand response transit, although fixed route transit is also addressed. Making such an estimate on a statewide basis is unusual, and there are no standard methods for doing so. The methods used in the analysis are explained below. The estimates also address the issue of unmet demand. Most data indicate that older adults and people with disabilities make fewer trips than they would like to because they lack adequate transportation. Meeting at least part of this demand through improved transit service could enhance the quality of life for older adults and people with disabilities. Because of the number of assumptions that must be made about the future and unmet demand, the analysis presents a range of results.

Future Transit Demand

Methodology

A review of the literature found no examples of *statewide* forecasts for demand for transit by older adults and people with disabilities (OA&PWD). Some tools have been developed to predict certain types of transit demand at a system level. For example, the Transit Cooperative Research Program (TCRP) Report 119 *Improving ADA Complementary Paratransit Demand Estimation* has an accompanying spreadsheet tool that predicts the number of complementary paratransit trips per year, based upon the service area population, the base fare, the percent of applicants found eligible for the service, the percent of the population below poverty, and the length (minutes) of the on-time window. There are limitations with using this model for a statewide analysis. First, the model is specifically for complementary paratransit (i.e., areas where fixed route service exists). This type of service is only available in parts of Oregon. Second, the model was developed with data from 29 systems throughout the U.S. (including TriMet and Lane Transit District) that are not necessarily representative of most of Oregon. For example, all but two of the systems had a service area of over 50,000 people, with an average population of over one million. Oregon only has six areas that meet the 50,000 population threshold that defines an "urbanized area." Therefore, there are many areas of the state for which this model would not accurately estimate demand response transit needs.

Thus, for this report, two different approaches to estimating the future use of transit for older adults and people with disabilities were used: a level of service approach and a travel demand approach. Both approaches follow a similar four-step framework and are based upon common transportation planning practices. The first step is to use existing data sources to understand transit use among older adults and people with disabilities. The second step is to develop a rate that measures *either* service levels or demand-per-person. The third step applies that rate to future population projections. The fourth step applies adjustments to reflect varying assumptions on future supply or demand that are currently not accounted for in the baseline data developed from step 1.

The ***Level of Service Approach*** starts with current levels and types of service provided in Oregon. Future demand is estimated by applying population projections. Here is a simple example. In County X a variety of providers currently provide 59,700 rides taken by older adults and people with disabilities. County X has an estimated 22,100 people who are 65 or over, or who have a go-outside-the-home (GOH) disability. Therefore, there are 2.7 trips taken per older adult or person with a GOH disability. Applying that same level of service to the future estimated number of older adults and people with GOH disabilities (33,100 in 2030) results in an estimate of about 89,400 trips. The Level of Service Approach uses data from current transit providers as the base for future estimates. In this analysis, those sources include the National Transit Database (NTD), maintained by the U.S. Federal Transit Administration (FTA) for major providers in urbanized areas, and Quarterly Reports submitted by smaller Oregon providers to ODOT (*ODOT Quarterly Report Data*). Because some providers do not report to either NTD or ODOT, the analysis may underestimate demand.

The ***Travel Demand Approach*** starts by using travel surveys to estimate the demand for travel by older adults and people with disabilities. Survey data are then used to estimate what share of this travel will be made on different types of transit. From this, a trip generation rate is developed (e.g., X demand response transit trips per person). Different rates can be developed for different ages, disability categories, and locations (e.g., rural vs. urban). These rates are then applied to future population projections. This method is similar to a traditional, four-step travel demand modeling approach that estimates, usually sequentially, trip generation, trip destination, travel mode, and route choice. In this case, the focus is on trip generation and mode choice, although trip purposes (also known as destinations) are also analyzed, as well as trip distances. This method used data from the 2001 National Household Travel Survey (NHTS), the 2002 National Transportation Availability and Use Survey (NTAUS), and a survey conducted for ODOT for the Oregon Mobility Needs Study (OMNS) in 1998. These data sources are explained in greater detail in the sections where they are used and in Appendix 4-1.

Baseline Estimates of Future Demand Response Transit Use: Level of Service Method

The level of service method was briefly described above. There are two additional options to take with this method. The first has to do with the types of demand response service provided. Oregon agencies provide a variety of types of demand response service. The services can be grouped into four types based upon the populations served: (1) older adults; (2) people with disabilities; (3) older adults *and* people with disabilities; or (4) the general public. Because the services target different populations, the trip rate (trips per person) used in the level of service method can be calculated based upon the targeted population. For example, the rate for services for people with disabilities can be calculated based upon only the number of people with go-outside-the-home disabilities. This approach should be more accurate than combining all types of demand response service together and calculating a rate based on the total population of older adults and people with disabilities, because the rates are developed and applied to the specific population the service is intended to serve. However, the level of accuracy is dependent upon the accuracy of current ridership data. Any errors in the data can be amplified when applied to an entire county or region and projected into the future. If, for example, there is only one provider with a certain type of service, with only one year of recent ride data, and that figure has even a relatively small error, that could result in large errors in the future projections. Therefore, this study employed two approaches: (1) rates based upon the four types of demand response service ("disaggregated rate approach"); and (2) rates based upon all service types combined ("combined rate approach"). The calculated rates (demand response trips per person) for both approaches are shown in Appendix 4-1.

Second, data were available from fiscal year 1999-2000 through 2006-07. However, as shown in Appendix 2-1, there are not data for all providers for all years. This can be due to some providers ceasing or starting operations during the time period, or the service may still be operating, but the data may be missing from the database for some other reason. Therefore, to maximize the available data, it was appropriate to look at the most recent three fiscal years (2004-05, 2005-06, and 2006-07) rather than choosing a single year. Within those three years, for some providers, there was substantial year-to-year variation in ridership and expense data. Therefore, one approach is to use a three-year average to estimate the current annual ridership. However, this approach may result in a low estimate if, for example, the rate of use was increasing over those three years and continues to increase at a similar rate in the future. Therefore, a second approach is to use the highest value from the three most recent fiscal years. To reduce the potential for error with this approach, extreme high values were examined for potential errors and omitted or corrected, if appropriate.

The results of this method, with the different approaches, are shown in Table 4.1 (total trips) and Table 4.2 (percentage increases). The estimates indicate that the number of demand response transit rides taken by older adults and people with disabilities will increase by 2.5% to 3.0% annually between now and 2030, assuming that the *rate* of use is held constant. As expected, using a three-year average produces lower estimates than using the maximum number of annual rides in the same three years. The disaggregated rate approach results in a lower estimate for the state as a whole. However, for some counties and regions, the results of the two approaches (disaggregated versus combined rate) are very similar. These are generally areas with fewer types of services and fewer services that target either older adults or people with disabilities, rather than both groups.

Table 4.1: Estimate of Current and Future Demand Response Trips, Level of Service Method

County	Current (2006) Demand Response Trips by Older Adults and People with Disabilities (Annual)		Future (2030) Estimate of Demand Response Trips by Older Adults and People with Disabilities (Annual)			
			Disaggregated Rate Approach		Combined Rate Approach	
	Using 3-Year Average	Using 3-Year Maximum	Using 3-Year Average	Using 3-Year Maximum	Using 3-Year Average	Using 3-Year Maximum
Non-Urbanized and New Urbanized Areas (UA)						
Baker, Union, Wallowa Counties	63,020	109,540	91,910	162,130	96,520	167,770
Benton County (including Corvallis UA)	106,000	134,190	238,870	303,470	220,720	279,420
Clatsop, Columbia, Lincoln, Tillamook Counties	157,630	251,830	221,390	364,050	283,360	452,710
Coos, Curry Counties	59,680	94,790	60,830	102,920	80,540	127,930
Deschutes County (including Bend UA)	117,530	144,990	325,110	399,740	319,470	394,110
Douglas County	74,960	81,390	96,140	105,590	117,830	127,930
Harney, Lake, Malheur Counties	53,350	79,840	79,680	119,570	80,490	120,470
Josephine County	74,570	144,790	141,180	274,110	134,250	260,660
Klamath County	34,630	39,700	53,890	61,740	53,250	61,030
Lane County outside Eugene UA	40,270	63,870	49,580	76,930	51,030	80,940
Linn County	142,730	151,360	125,210	159,710	218,720	231,950
North Central Counties (Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, Wasco)	82,890	79,520	147,580	141,590	147,400	141,400
Umatilla County	85,870	133,820	162,690	212,370	174,570	272,060
Yamhill County	154,640	181,840	286,390	329,740	214,880	252,680
Largest Urbanized Areas						
Eugene-Springfield UA	133,900	142,780	346,250	369,210	374,180	398,990
Medford UA & rest of Jackson County	137,080	137,990	246,470	248,200	258,870	260,600
Portland UA & rest of three counties	1,317,890	1,511,530	2,413,016	2,760,560	2,900,180	3,326,310
Salem-Keizer & rest of Marion & Polk Counties.	378,400	458,990	736,070	909,060	847,430	1,027,890
Total	**3,215,040**	**3,942,760**	**5,822,256**	**7,100,690**	**6,573,700**	**7,984,850**

Table 4.2: Estimated Increase in Demand Response Trips, Level of Service Method

County	Future (2030) Estimate of Demand Response Trips by Older Adults and People with Disabilities Percent Change over 2006			
	Disaggregated Rate Approach		Combined Rate Approach	
	Using 3-Year Average	Using 3-Year Maximum	Using 3-Year Average	Using 3-Year Maximum
Non-Urbanized and New Urbanized Areas (UA)				
Baker, Union, Wallowa Counties	46%	48%	53%	53%
Benton County (including Corvallis UA)	125%	126%	108%	108%
Clatsop, Columbia, Lincoln, Tillamook Counties	40%	45%	80%	80%
Coos, Curry Counties	2%	9%	35%	35%
Deschutes County (including Bend UA)	177%	176%	172%	172%
Douglas County	28%	30%	57%	57%
Harney, Lake, Malheur Counties	49%	50%	51%	51%
Josephine County	89%	89%	80%	80%
Klamath County	56%	56%	54%	54%
Lane County outside Eugene UA	23%	20%	27%	27%
Linn County	-12%	6%	53%	53%
North Central Counties (Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, Wasco)	78%	78%	78%	78%
Umatilla County	89%	59%	103%	103%
Yamhill County	85%	81%	39%	39%
Largest Urbanized Areas				
Eugene-Springfield UA	159%	159%	179%	179%
Medford UA & rest of Jackson County	80%	80%	89%	89%
Portland UA & rest of three counties	83%	83%	120%	120%
Salem-Keizer & rest of Marion & Polk Counties	95%	98%	124%	124%
Total	81%	80%	104%	103%
Annual growth rate	**2.51%**	**2.48%**	**3.03%**	**2.98%**

Baseline Estimate of Future Demand Response Transit Use: Travel Demand Method

Using the data from the NHTS (see Appendix 4-2 for more detail and analysis), an estimate of the number of demand response transit trips made per person, by disability status, driver status, age group, and urban versus rural location was developed. This estimate was developed in several steps. The first steps are shown in Table 4.3.

The first step started with the average total number of person trips taken per day, by any mode. Unfortunately, the NHTS data did not have a mode category for demand response. These trips could be in bus, taxi, or other mode of transportation category. To arrive at an estimate of transit use, then, it was necessary first to subtract out the share of trips made in private vehicles, bicycling, or walking and then to calculate the share and number of trips per day "remaining." Table 4.3 reveals that the number of trips per day "remaining" (that is, trips *not* by private vehicle, walking, or bicycle) ranged from .04 to 1.38, depending on disability status, driver versus non-driver, urban versus rural status, and age group.

Next, in the absence of actual data, an assumption had to be made as to what portion of the "remaining" trips would have been made using some form of transit. *The assumption made was that 30% of these trips would be made on transit.* This assumption was chosen after testing to estimate the current number of demand response trips, which is known.

Table 4.3: Estimates of Trip Generation Based upon NHTS Data

Driver Type	Total Number of Trips Per Day	Percent in Private Vehicle	Percent Walking	Percent by Bike	Remaining Percent	Number of Trips per Day Remaining
Disabled Drivers, 16-64 Urban	4.81	90.17%	7.58%	0.34%	1.91%	0.09
Disabled Drivers, 16-64 Rural	4.52	93.63%	4.95%	0.07%	1.35%	0.06
Disabled Drivers, 65+ Urban	4.31	92.94%	5.74%	0.14%	1.18%	0.05
Disabled Drivers, 65+ Rural	4.16	93.13%	5.70%	0.16%	1.01%	0.04
Disabled Non-Drivers, 16-64 Urban	4.97	48.27%	22.87%	1.02%	27.84%	1.38
Disabled Non-Drivers, 16-64 Rural	4.66	72.88%	10.12%	1.93%	15.07%	0.70
Disabled Non-Drivers, 65+ Urban	3.21	69.97%	16.81%	0.17%	13.05%	0.42
Disabled Non-Drivers, 65+ Rural	3.41	81.75%	11.78%	0.00%	6.47%	0.22
Non-Disabled Drivers, 65+ Urban	4.91	91.62%	6.80%	0.29%	1.29%	0.06
Non-Disabled Drivers, 65+ Rural	4.55	93.01%	5.89%	0.31%	0.79%	0.04
Non-Disabled Non-Drivers, 65+ Urban	3.61	60.71%	25.82%	0.30%	13.17%	0.48
Non-Disabled Non-Drivers, 65+ Rural	3.48	81.93%	15.69%	0.00%	2.38%	0.08

Source: 2001 NHTS

A determination then needed to be made as to what share of the transit trips would be on fixed route transit and share on demand response service. There were very little data upon which to base this determination. The best source found to guide the making of this assumption was the Oregon Mobility Needs Survey. As shown in Table 4.4, analysis of the Oregon Mobility Needs Survey data revealed that younger adults with disabilities who used transit made more trips per day on fixed route (64% of trips were made using fixed route transit), while older adults with disability made more trips on paratransit (only 35% of trips were made using fixed route transit).

Table 4.4: Average Number of Transit Trips per Day, Adults with Disabilities, Oregon

Disability and Age Status		Average Number of Trips per Day		Percent of Transit Trips on Fixed Route
		Fixed Route	Paratransit	
18-64 with Disability	Mean	0.54	0.30	64%
	Standard Deviation	0.85	0.43	
	N	117	39	
65+ with Disability	Mean	0.08	0.15	35%
	Standard Deviation	0.17	0.19	
	N	69	39	

Source: Authors' calculations using data from the Oregon Mobility Needs General Population Survey, 1998

Table 4.5 shows the assumptions made, then, for the split between fixed route and demand response trips. The data in Table 4.4 do not distinguish between urban and rural areas. Presumably, fixed route transit offers a higher quality of service in urbanized areas and higher shares of use would be expected, compared to non-urbanized areas with fixed route service. The 64% figure from above would be somewhere in the middle. Therefore, for people 16-64 with a disability, shares of 75% and 55% were chosen for urbanized and non-urbanized areas, respectively. Similarly, for people 65 and older with a disability, shares of 45% and 25% were chosen (compared to the 35% share in Table 4.5). Finally, it would seem reasonable for older adults without a disability to use fixed route transit at a higher rate than older adults with a disability.

Table 4.5: Assumptions for Shares of Remaining Trips on Fixed Route Transit

Urbanized Area?	Fixed Route Service Available?	Percent of Remaining Trips On Fixed Route Transit*		
		Age 16-64 With Disability	Age 65+ With Disability	Age 65+ Without Disability
Yes	Yes	75%	45%	55%
No	Yes	55%	25%	35%
No	No	0%	0%	0%

* *Note: Percent of remaining trips on Demand Response Transit is 100% minus the percent on Fixed Route Transit.*

It was also necessary to estimate the share of adults with and without disabilities, in rural and urban areas, that are drivers. To do this, the NHTS data were used; the results of the analyses are shown in Table 4.6. For the subsequent analyses, we assumed that these rates would remain stable in the future.

Table 4.6: Driver Rates Based on NHTS Data

Age and Urban/Rural	Percent of People with Disabilities Who Are Drivers	Percent of Non-Disabled Older Adults Who Are Drivers
16-64 Urban	73%	NA
16-46 Rural	86%	NA
65-74 Urban	72%	92%
65-74 Rural	80%	96%
75+ Urban	55%	85%
75+ Rural	56%	91%

Finally, these factors and assumptions were then applied to the population estimates for Oregon in 2030 (described earlier in this report and presented for each county/group of counties in Appendices 3-6 and 3-7). The results are shown in Table 4.7. This estimate indicates that the number of demand response transit rides taken by older adults and people with disabilities will increase by 2.6% to 3.5% annually between now and 2030, depending upon the baseline estimate. The total estimate is higher than all but one of the estimates using the level of service method. The travel demand method is subject to more errors, given the number of assumptions that had to be made and the numerous sources of data that were necessary to use.

Table 4.7: Estimate of Current and Future Demand Response Trips, Travel Demand Method

County	Demand Response Trips By Older Adults and People With Disabilities (Annual)				
	Current (2006)		Future (2030)		
	Using 3- Year Average	Using 3-Year Maximum	Annual Trips	Percent Change Over 2006 (Average)	Percent Change Over 2006 (Maximum)
Non-Urbanized and New Urbanized Areas (UA)					
Baker, Union, Wallowa Counties	63,020	109,540	83,460	32%	-24%
Benton County (Including Corvallis UA)	106,000	134,190	146,100	38%	9%
Clatsop, Columbia, Lincoln, Tillamook Counties	157,630	251,830	245,910	56%	-2%
Coos, Curry Counties	59,680	94,790	133,440	124%	41%
Deschutes County (Including Bend UA)	117,530	144,990	394,780	236%	172%
Douglas County	74,960	81,390	173,970	132%	114%
Harney, Lake, Malheur Counties	53,350	79,840	109,980	106%	38%
Josephine County	74,570	144,790	148,230	99%	2%
Klamath County	34,630	39,700	87,810	154%	121%
Lane County Outside Eugene UA	40,270	63,870	190,920	374%	199%
Linn County	142,730	151,360	186,790	31%	23%
North Central Counties (Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, Wasco)	82,890	79,520	227,560	175%	186%
Umatilla County	85,870	133,820	100,180	17%	-25%
Yamhill County	154,640	181,840	93,430	-40%	-49%
Largest Urbanized Areas					
Eugene-Springfield UA	133,900	142,780	504,860	277%	254%
Medford UA & Rest Of Jackson County	137,080	137,990	436,920	219%	217%
Portland UA & Rest Of three counties	1,317,890	1,511,530	3,298,800	150%	118%
Salem-Keizer & Rest Of Marion & Polk Counties	378,400	458,990	804,470	113%	75%
Total	**3,215,040**	**3,942,760**	**7,367,610**	**129%**	**87%**
Annual Growth Rate				**3.52%**	**2.64%**

Adjustments to the Baseline Estimates of Demand Response Transit Needs

Table 4.8 summarizes the baseline estimates from the two methods. ***If rates of use remain constant*, the number of trips taken by older adults and people with disabilities on demand response transit is estimated to increase by 2.5% to 3.0% annually between now and 2030. The rate of growth is projected to be higher in the four largest urban areas**, ranging from 2.8% to 3.4%, compared to 1.3% to 2.4% in the remainder of the state. This difference is a result of differences in population growth rates.

Table 4.8: Estimate of Current and Future Demand Response Trips, Summary of Both Methods

Area	Demand Response Trips by Older Adults and People with Disabilities (Annual)						
	Current (2006)		Future (2030)				
			Level of Service Method: Disaggregated Rate Approach		Level of Service Method: Combined Rate Approach		Travel Demand Method
	Using 3-Year Average	Using 3-Year Maximum	Using 3-Year Average	Using 3-Year Maximum	Using 3-Year Average	Using 3-Year Maximum	
Non-Urbanized and New Urbanized Areas	1,247,770	1,691,470	2,080,450	2,813,660	2,193,030	2,971,060	2,322,560
Annual Growth Rate			2.2%	2.1%	2.4%	2.4%	1.3%
Four Largest Urbanized Areas	1,967,270	2,251,290	3,741,810	4,287,030	4,380,670	5,013,790	5,045,050
Annual Growth Rate			2.7%	2.7%	3.4%	3.4%	3.4%
Statewide	3,215,040	3,942,760	5,822,260	7,100,690	6,573,700	7,984,850	7,367,610
Annual Growth Rate			2.5%	2.5%	3.0%	3.0%	2.6%*

* *Based upon three-year maximum as 2006 baseline.*

Table 4.9 shows the share of demand response trips by region, using all five estimates. While the numbers differ some, one trend is clear. **The share of the state's demand response trips occurring in the four largest urban areas increases.** The increase is anywhere from 4-11 percentage points, but likely is at the lower end of the range.

Table 4.9: Estimated Current and Future Demand Response Trips, Share of Total by Region

Region	Estimate of Demand Response Trips by Older Adults and People with Disabilities (Percent Share of Total)						
	Current (2006)		Future (2030)				
			Level of Service Method: Disaggregated Rate Approach		Level of Service Method: Combined Rate Approach		Travel Demand Method
	Using 3-year avg.	Using 3-year max.	Using 3-year avg.	Using 3-year max.	Using 3-year avg.	Using 3-year max.	
Non-Urbanized and New Urbanized Areas (UA)	39%	43%	36%	38%	33%	37%	32%
Eugene-Springfield UA	4%	4%	6%	6%	6%	5%	7%
Medford UA and Rest of Jackson County	4%	3%	4%	4%	4%	3%	6%
Portland UA and Rest of Three Counties	41%	38%	41%	41%	44%	42%	45%
Salem-Keizer and Rest of Marion & Polk Counties	12%	12%	13%	13%	13%	13%	11%
Subtotal of Largest UAs	61%	57%	64%	60%	67%	63%	68%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The baseline estimates developed using both methods are just that – *baseline* estimates. The estimates do not take into account two important factors. First, data from the larger transit providers in the urban areas reveal that in recent years ridership, particularly for complementary paratransit service, is growing at a rate faster than the population. This indicates that the *rate* of use of the services (i.e., the number of trips per person) is not constant, but is increasing. The baseline estimates assume that the rate of use will remain the same as it is now. Second, the estimates do not address the issue of unmet demand. There is general consensus that the mobility needs of some older adults and people with disabilities are not being met because of a lack of transportation options. A higher level of demand response (or fixed route) transit service could address this need. The next two sections discuss both of these issues.

Increasing Rates of Use

The historical transit data was analyzed to see how use of demand response transit has changed in recent years. **The use of demand response transit is increasing faster than the population for the largest urban transit providers.** For example, ridership on Lane

Transit District's complementary paratransit service and similar specialized services (not including Medicaid and waivered transportation), increased 6.1% annually between 2000 and 2007, about twice the rate in the baseline estimate. Looking just at 2004 through 2007, ridership grew 10.9% annually (calculated from data provided by LTD). From 2000 to 2006, ridership on TriMet's LIFT complementary paratransit service increased 6.7% annually (calculated from NTD data). Annual rates of increase in more recent years were comparable. When data from the largest providers are combined with other services in the same geographic region, the rates of growth are not quite as high, though still higher than population growth rates. For example, for all of the demand response service in the Eugene area, ridership increased 5.9% annually from 2003-04 to 2005-06.

Data for the non-urbanized and small urban areas does not show a similar or consistent pattern of growth. This is due to two factors. First, many of those areas do not have complementary paratransit service, which must provide rides where and when fixed route service is available. Other types of demand response service constrain ridership due to limited funding. Therefore, ridership can usually only increase significantly if funding also increases. Second, the trend data for smaller areas can be skewed by missing or incorrect data from one or more providers. Therefore, for some areas, ridership data show large increases one year and decreases the next. This could be due to significant changes in service or missing data. For other areas there are consistent declines in ridership, most likely due to constrained funding and increasing costs. Because of these two factors, the lack of a clear and consistent pattern of growth does not necessarily mean that *demand* for transit by older adults and people with disabilities in these areas is not increasing faster than population, as seen in the urban areas. For example, the three demand response systems in Linn County had large one-year increases between 2006-07 and 2007-08. Lebanon Dial-A-Bus provided 17% more rides, Albany Call-A-Ride provided 15% more rides, and Sweet Home Dial-A-Ride provided 27% more rides *(Volmert 2008)*.

It would not be reasonable to ignore the recent trends in increasing rates of use, particularly for the urban areas, and hold the rate of use constant, as the current baseline estimate does. The questions involve how to adjust the baseline estimate to address this issue. These are difficult questions to answer, largely because it is not clear exactly why this increase is occurring. The increase in ridership on large complementary paratransit systems, which generally cannot constrain ridership without cutting fixed route service, probably indicates that users of the system are increasingly meeting their mobility needs through this service. This may mean that some of their unmet demand is now being met. Alternatively, they may be shifting from other services (including families, volunteer programs, and other less formal modes of service), to the complementary paratransit service. Other factors could account for the increase. For example, eligibility for the

service may be increasing at a higher rate than indicated looking at Census data for disability status.

Without knowing exactly why the increase is occurring, it is impossible to know whether the trend will continue at the same pace. However, it seems unlikely that the trend would continue at the same pace for the long-term. This is because there is a limit to how many total trips per day a person will make, even with unlimited service; the number of demand response transit trips *per person* will inevitably reach a limit. Therefore, it would seem reasonable to assume that rates of use will continue to increase, though at a more moderate pace in the longer term, at least for the large urban areas. Based upon this reasoning, assumptions for additional growth for a set of low and high scenarios are shown in Table 4.10. These assumptions were added to the estimates of future demand response trips developed using the level of service method (all four approaches) and population projections for each of the years listed.

Table 4.10: Assumptions for Additional Growth, Low and High Scenarios

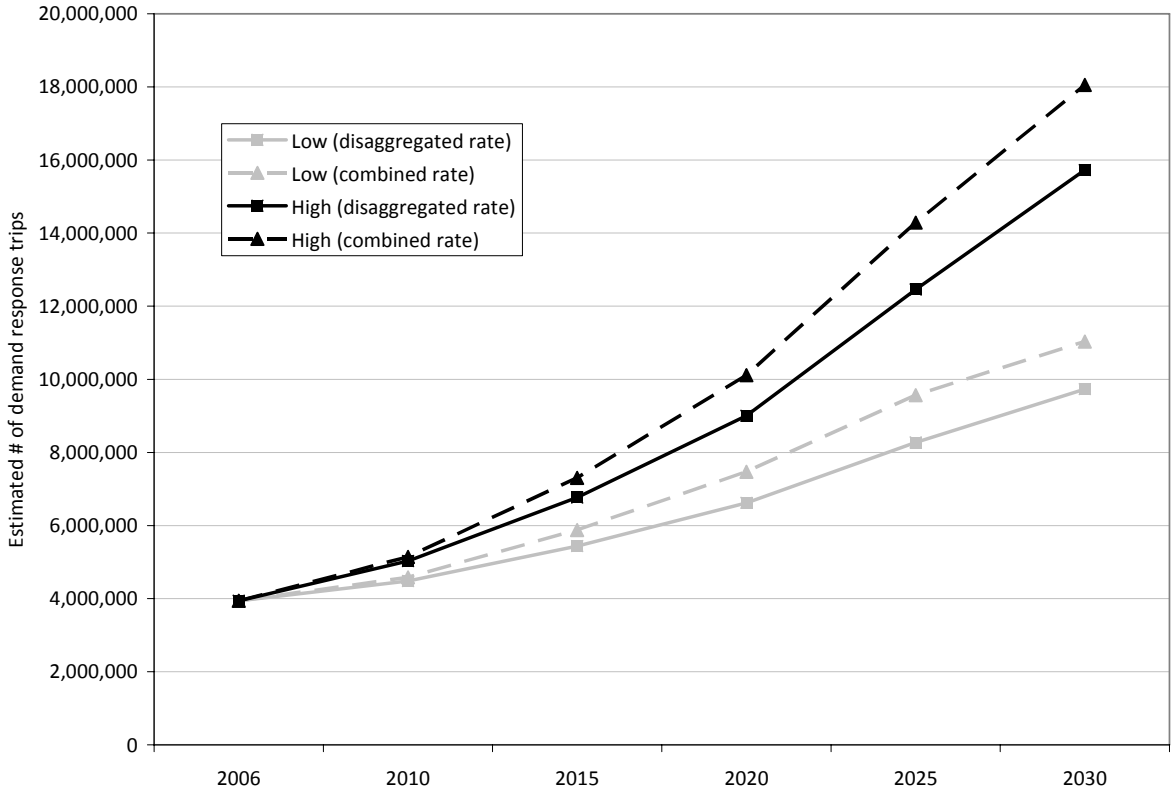
	Annual additional growth				
	2006-2009	2010-2014	2015-2019	2020-2024	2025-2029
Rural – low scenario	0.0%	0.0%	0.0%	0.0%	0.0%
Rural – high scenario	2.5%	2.5%	2.0%	2.0%	1.5%
Urban – low scenario	2.5%	2.5%	2.0%	2.0%	1.5%
Rural – high scenario	5.0%	5.0%	4.0%	4.0%	3.0%

The results are shown in Table 4.11 and summarized further in Figure 4.1. The results show the approaches that use the maximum number of rides in the past three years as the baseline. **This analysis indicates that the use of demand response transit service by older adults and people with disabilities could increase from 3.8% to 6.5% annually statewide through the year 2030. Growth rates through the year 2015 could range from 3.6% to 7.1% annually.**

Table 4.11: Adjusted Estimates of Statewide Demand Response Trips by Older Adults and People with Disabilities

	Current (2006)	Future	
		2015	2030
Non-Urbanized and New Urbanized Areas			
Low Scenarios			
Disaggregated Rate Approach, Number of rides	1,691,500	1,975,400	2,813,600
Annual growth rate		1.7%	2.1%
Combined Rate Approach, Number of rides	1,691,500	2,119,300	2,971,100
Annual growth rate		2.5%	2.4%
High Scenarios			
Disaggregated Rate Approach, Number of rides	1,691,500	2,438,700	4,531,100
Annual growth rate		4.2%	4.2%
Combined Rate Approach, Number of rides	1,691,500	2,612,900	4,778,400
Annual growth rate		5.0%	4.4%
Urbanized Areas			
Low Scenarios			
Disaggregated Rate Approach, Number of rides	2,251,300	3,462,600	6,918,400
Annual growth rate		4.9%	4.8%
Combined Rate Approach, Number of rides	2,251,300	3,762,100	8,064,000
Annual growth rate		5.9%	5.5%
High Scenarios			
Disaggregated Rate Approach, Number of rides	2,251,300	4,332,500	11,195,100
Annual growth rate		7.5%	6.9%
Combined Rate Approach, Number of rides	2,251,300	4,691,900	13,272,100
Annual growth rate		8.5%	7.7%
Statewide Annual Growth Rates			
Low Scenarios			
Disaggregated Rate Approach		3.6%	3.8%
Combined Rate Approach		6.2%	5.9%
High Scenarios			
Disaggregated Rate Approach		4.5%	4.4%
Combined Rate Approach		7.1%	6.5%

Figure 4.1: Estimated Statewide Demand Response Trips by Older Adults and People with Disabilities, Adjusted for Low and High Growth Assumptions



Addressing the Issue of Unmet Demand

There is general consensus that some older adults and people with disabilities are not getting all of their transportation needs met. Estimating future transit demand simply based upon current transit use or travel patterns, as is done above, will not address this unmet demand. There is limited research that attempts to quantify unmet travel needs. Appendix 4-3 includes a summary of the existing research on the topic. Key findings from the national literature include the following:

- Most transit providers focus their monitoring efforts on assessing quality of services. Many programs do not collect data on either type or portion of unmet need. Moreover, the lack of a widely accepted definition of *mobility needs* means that the agencies that do monitor unmet needs use a wide variety of indicators, many of which have significant limitations.

- There is a large gap in knowledge about the unmet travel needs of people with developmental disabilities. Much of the literature on transportation needs and barriers for people with disabilities focuses on issues of ADA compliance or mobility obstacles to use of specific modes of travel, rather than specific types of unmet travel needs.
- In general, older and disabled non-drivers have greater unmet travel needs than older adults and disabled people who do drive.
- Data suggest that 1.9 million disabled individuals never leave their homes. About 12% of all people with disabilities reported difficulties getting needed transportation, more than triple the rate reported by people without disabilities *(Bureau of Transportation Statistics 2003)*. The following types of difficulties were most frequently reported: limited or no public transportation; not having a car; difficulties using transportation due to disability; and not having someone to depend on for transportation.
- A direct link between unmet travel demand and physical and mental health effects has yet to be established for older adults and people with disabilities. Previous research, however, has revealed that older non-drivers and older adults who are in poor health or have disabilities are more likely than other older adults to have had no social contact on a given day. Several decades of research has established a clear link between social isolation, lower activity level outside the home, and a variety of negative psychological and health outcomes.

According to a mobility needs survey conducted in 1999, mobility-impaired Oregonians experience unmet travel needs that generally reflect the national trends discussed above, with respondents specifically expressing a desire for more transit services *(Northwest Research Group 1999)*. Two in five respondents expressed an unmet need for additional transportation within their community, and one in three said their need for travel to nearby communities was not fully met. Nearly half of the survey respondents indicated a desire to make more trips using fixed route transit than they currently did or stated they would use fixed route should it become available in their area. In comparison, about one in six wanted to make more demand-responsive transit trips than they currently did, and one in three would use the service if it became available to them. **The three main service quality deficits reported by mobility-impaired individuals concern problems with the accessibility of the service, the lack of staff educated about the needs of the mobility-impaired, and printed schedules that were not easy to understand.** Oregon transit providers appeared to be aware of these gaps: **of the 129 Oregon public transportation providers surveyed, 83% felt that the services they provided did not meet the full needs of older adults and people with disabilities**.

The literature revealed that when older adults and people with disabilities are also non-drivers, they travel outside the home at reduced rates and are more likely to report difficulty in meeting their travel needs. Evidence suggests that because of their reduced access to transportation, they must prioritize the trips they are able to take, with social and recreational activities receiving lower priority *(Bailey 2004; Cvitkovich and Wister 2001)*. Insufficient transportation sometimes leads to lost jobs or missed employment opportunities. Although little research exists on the effects of social isolation and reduced activity levels among people with disabilities, both of these phenomena are linked to sizeable negative mental and physical health consequences among older adults. It appears, therefore, that ensuring that older adults and people with disabilities have access to transportation options supporting a full range of life activities will have considerable social, economic, and health benefits – both to the individuals so served and to their broader communities.

The existing literature, while informative, did not provide any clear, quantitative estimates of unmet travel demand among older adults and people with disabilities. A simple estimate was made using the number of trips (by any mode) made by drivers compared to non-drivers, using the 2001 National Household Travel Survey (additional details in Appendix 4-2). The assumption is that people who are drivers meet most of their travel needs by driving and that the difference between drivers and non-drivers is, at least in part, unmet demand. Depending upon disability status and whether the person lived in an urban or rural area, older adults (65+) who were not drivers made from 0.75 to 1.30 fewer trips per day, compared to drivers (Table 4.12). These older adults would have to increase the number of trips they make by 22% to 36% to equal the rates of drivers. Among people 16-64 years old, disabled non-drivers and drivers made about the same number of trips. Therefore, an estimate of unmet demand for this group cannot be made using this method. The average (unweighted) difference in trips between drivers and non-drivers in the four categories of older adults is 31%, meaning that older adult non-drivers would need to make about 31% more trips to equal the rates of drivers, or, presumably, to meet their unmet demand. Statewide in 2030, about 85% of the population of older adults and people with disabilities will be older adults. Therefore, a very simple estimate of the increase in trips that the population of older adults and people with disabilities, combined, would make if they satisfied their estimated unmet demand is 26%.[14] It is not reasonable, nor financially feasible, for public transportation to meet all of this demand. Assuming**, for example, one-third of this unmet demand were satisfied through demand response**

[14] In other workds, of the population of older adults and people with disabilities, 85% (the older adults) would make 31% more trips and 15% (younger adults with disabilities) would make no more trips.

and fixed route transit, the number of trips made by those modes would increase about 9%.

Table 4.12: Difference in Trips per Day, Drivers vs. Non-Drivers

Category	Mean Number of Trips Per Day		Difference (Non-Drivers vs. Drivers)	
	Drivers	Non-Drivers	Number	Percent
Age 16-64, Urban, With Disability	4.81	4.97	0.16	3%
Age 16-64, Rural, With Disability	4.52	4.66	0.14	3%
Age 65+, Urban, With Disability	4.31	3.21	-1.10	-34%
Age 65+, Rural, With Disability	4.16	3.41	-0.75	-22%
Age 65+, Urban, No Disability	4.91	3.61	-1.30	-36%
Age 65+, Rural, No Disability	4.55	3.48	-1.07	-31%

Source: 2001 National Household Travel Survey data, including "add-on" areas

Estimates of Future Fixed Route Transit Needs: Level of Service Method

As discussed in Chapter 2, anywhere from 10% to 40% or more of the riders on fixed route transit are older adults and people with disabilities. Data provided by ODOT included estimates from the providers of the number of fixed route trips made by older adults and people with disabilities. These data were used to estimate future fixed route transit trips, using the level of service method. As with the demand response estimate, two approaches were used for selecting the baseline data – the average and the maximum of the last three years of data. The results are shown in Table 4.13 (average) and Table 4.14 (maximum). Statewide, the differences in the methods are not substantial. They both produce a similar annual growth rate. The rates of use range from less than one trip per year per older adult or person with a disability in many rural areas to about 60 trips per year in the Portland and Eugene urbanized areas.

Table 4.13: Estimated Current and Future Fixed Route Trips, Level of Service Method (3-Year Average Approach)

County	Estimates of Fixed Route Transit Trips by Older Adults and People with Disabilities			
	Current (2006)	Rate (Trips per OA&PWD*)	Future (2030)	Percent Change
Non-Urbanized and New Urbanized Areas (UA)				
Baker, Union, Wallowa Counties	0		0	
Benton County (Including Corvallis UA)	2,870	0.3	5,980	108%
Clatsop, Columbia, Lincoln, Tillamook Counties	201,900	7.0	362,950	80%
Coos, Curry Counties	25,380	1.2	34,260	35%
Deschutes County (Including Bend UA)	*See Notes*			
Douglas County	50,220	2.2	78,940	57%
Harney, Lake, Malheur Counties				
Josephine County	6,620	0.4	11,920	80%
Klamath County	133,070	11.9	204,590	54%
Lane County Outside Eugene UA	7,290	0.2	9,240	27%
Linn County	41,580	2.1	63,730	53%
North Central Counties (Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, Wasco)	6,250	0.3	11,110	78%
Umatilla County	9,120	1.0	18,530	103%
Yamhill County	104,020	8.4	144,550	39%
Largest Urbanized Areas				
Eugene-Springfield UA	1,396,430	66.3	3,902,200	179%
Medford UA and Rest of Jackson County	311,540	8.7	588,350	89%
Portland UA and Rest of Three Counties	10,843,240	58.0	23,861,870	120%
Salem-Keizer and Rest of Marion & Polk Counties	598,420	11.1	1,340,160	124%
Total	**13,737,950**		**30,638,380**	**124%**
Annual Growth Rate			**3.42%**	

Source: ODOT Quarterly Report data. See Appendix 2-1 for more information.

Note: Fixed route transit was not available in Bend in 2006. Therefore, it is not possible to make estimates of future trips.

** OA&PWD = older adults or person with a disability*

Table 4.14: Estimated Current and Future Fixed Route Trips, Level of Service Method (Maximum in Past 3 Years Approach)

County	Estimates of Fixed Route Transit Trips by Older Adults and People with Disabilities			
	Current (2006)	Rate (Trips per OA&PWD*)	Future (2030)	Percent Change
Non-Urbanized and New Urbanized Areas (UA)				
Baker, Union, Wallowa Counties	0		0	
Benton County (including Corvallis UA)	2,870	0.3	5,980	108%
Clatsop, Columbia, Lincoln, Tillamook Cos.	278,460	9.6	500,580	80%
Coos, Curry Counties	39,690	1.8	53,570	35%
Deschutes Co. (including Bend UA)	*See notes*			
Douglas County	66,400	2.9	104,370	57%
Harney, Lake, Malheur Counties	0		0	
Josephine County	6,620	0.4	11,920	80%
Klamath County	177,350	15.8	272,670	54%
Lane Co outside Eugene UA	8,370	0.3	10,610	27%
Linn County	47,510	2.4	72,810	53%
North Central Counties (Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, Wasco)	10,750	0.6	19,110	78%
Umatilla County	10,480	1.2	21,310	103%
Yamhill County	105,060	8.5	145,990	39%
Largest Urbanized Areas				
Eugene-Springfield UA	1,396,430	66.3	3,902,200	179%
Medford UA and Rest of Jackson County	331,740	9.2	626,490	89%
Portland UA and Rest of Three Counties	11,136,510	59.6	24,507,240	120%
Salem-Keizer and Rest of Marion & Polk Counties	602,260	11.2	1,348,750	124%
Total	**14,220,500**		**31,603,600**	**122%**
Annual Growth Rate			**3.38%**	

Source: ODOT Quarterly Report data. See Appendix 2-1 for more information.

Note: Fixed route transit was not available in Bend in 2006. Therefore, it is not possible to make estimates of future trips.

** OA/PWD = older adults or person with a disability*

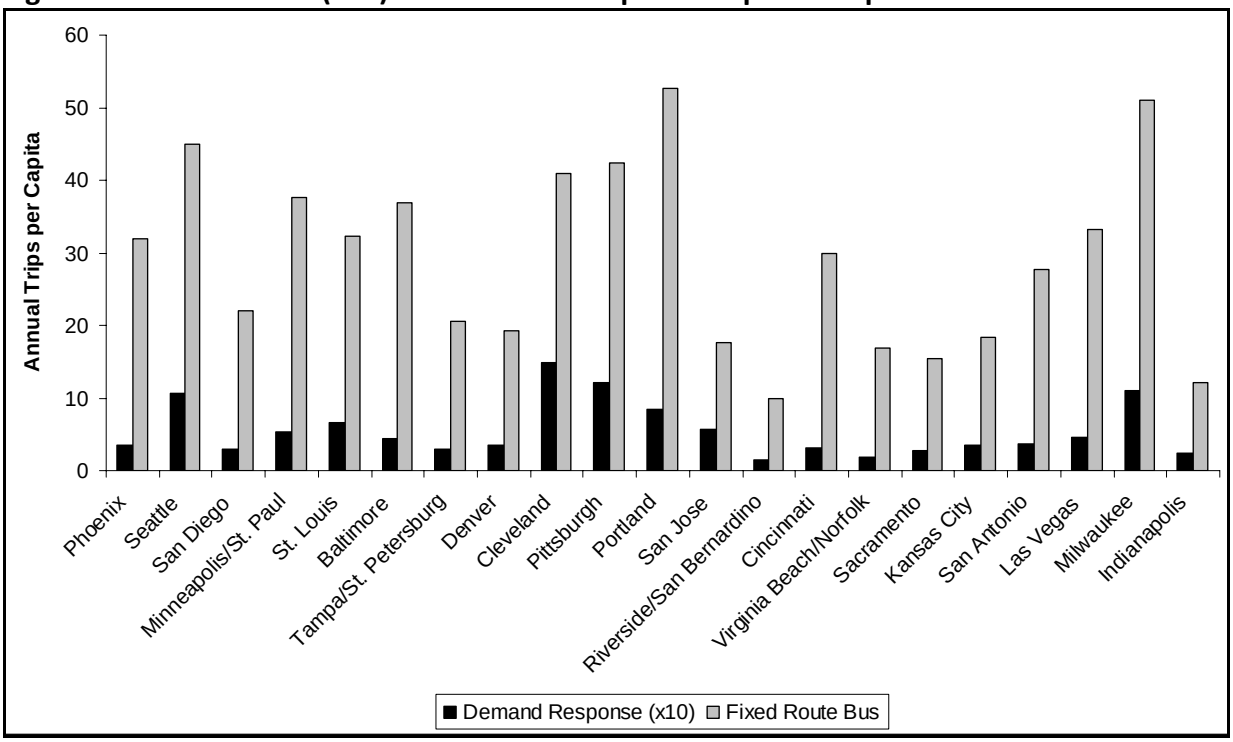
Overall, the total number of trips taken on fixed route transit by older adults and people with disabilities is estimated to increase by over 120% by 2030, or about 3.4% per year statewide. The increases are greatest in the large urbanized areas of the

state. For the four large urban areas combined, the annual rate of growth is 3.45%, compared to 2.0% in the remainder of the state.

Several things must be noted about this estimate. First, **it assumes that the rate of use of fixed route transit by older adults and people with disabilities stays the same** in the future. Second, and related to the first point, **it does not assume any significant improvements in fixed route service, or new service in areas not currently served**. If rates of use were to increase, either due to new service, marketing and training programs encouraging use, external factors such as high gas prices, or other factors, the amount of growth might well be higher.

As explained above, **the estimates do not account for any policy changes that would increase levels of fixed route service.** In addition, if fixed route service were introduced or increased, that could affect requests for demand response service. **Theoretically, improved fixed route service might reduce demand for demand response service.** This possibility was examined using the NTD data. The overall service areas of transit agencies across the U.S. were considered, looking for correlations between the level of service on fixed route bus service and the number of trips taken on demand response transit in the same urbanized areas. **An analysis of the NTD data revealed that such a shift would not necessarily occur, particularly without marketing or education programs that specifically attempt to shift riders from demand response to fixed route transit.** Figure 4.2 shows the annual number of fixed route and demand response trips per capita for 21 urbanized areas – Portland and the ten regions directly above and below it by population rank. Per capita trip data for the largest fixed route bus provider and the largest demand provider in each area were examined to look for correlations between trips provided. As Figure 4.2 shows, the higher the level of bus service, the more demand response trips are taken per capita. Note that the five cities with the highest level of fixed route bus service are also the five with the most demand response trips per capita.

Figure 4.2: Fixed Route (Bus) and Demand Response Trips Per Capita in 21 Urbanized Areas



Future Transit Costs

Demand Response Transit

Transit providers in Oregon currently spend at least $47.5 million annually to provide demand response trips to older adults and people with disabilities. This is likely an underestimate, because some providers do not report data to either ODOT or NTD and some of the providers that do report data to ODOT do not report all of their costs. In addition, the figures only include operating costs, not capitals costs. Low and high estimates of future costs were developed using the lowest and highest estimates of demand from Table 4.11. These demand estimates include adjustments for increasing demand, on top of the increase expected from population growth. The low and high cost estimates appear in Table 4.15 by area. The estimates show that **in 2030, costs for demand response transit for older adults and people with disabilities could grow to $132 to $246 million, *not accounting for cost inflation or for meeting any of the unmet demand*. These estimates indicate an annual growth in costs ranging from 4.4% to 7.1%. In 2015, the costs could range from $69.5 to $93.7 million, representing an annual growth rate of 4.3% to 7.8% for that time period.**

Table 4.15: Estimated Current and Future Demand Response Transit Expenses for Trips made by Older Adults and People with Disabilities (without inflation adjustment)

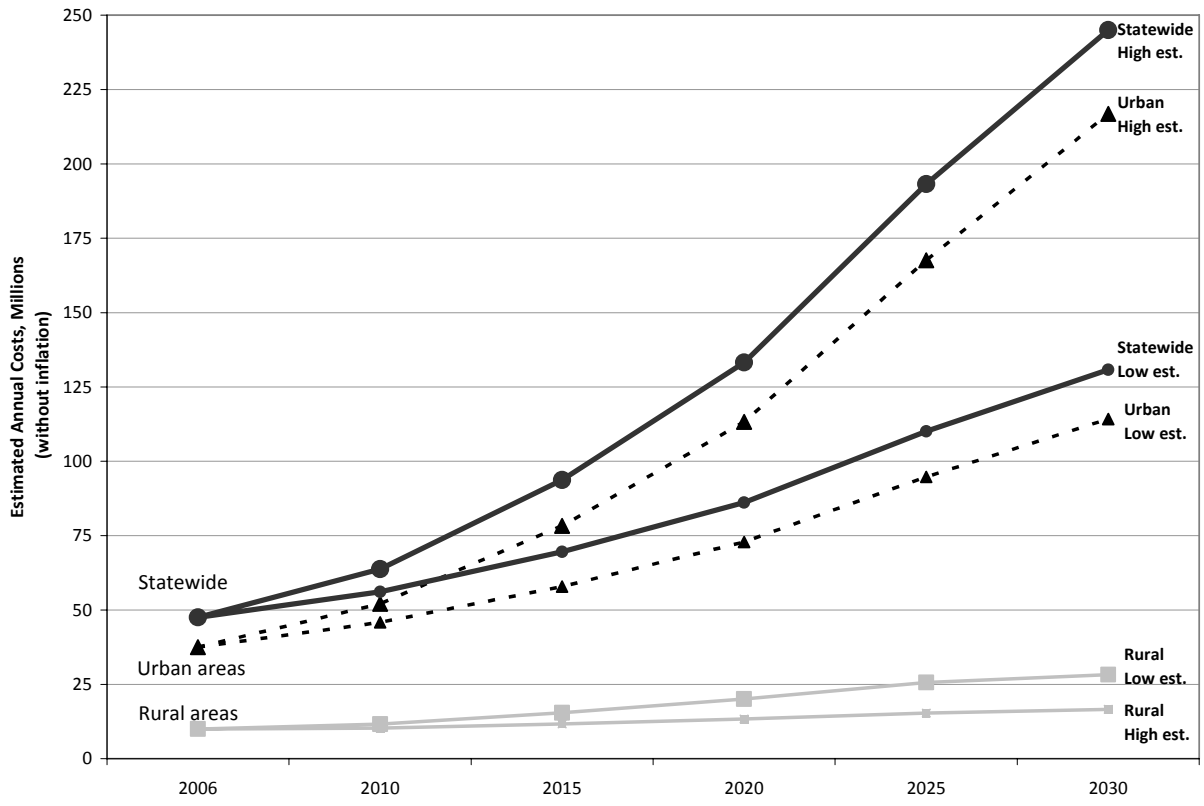
County	Estimated Annual Costs for Demand Response Transit for Older Adults and People with Disabilities				
	Current* (2006)	Future (2030) Low**	Future (2030) High**	Percent Change Low	Percent Change High
Non-Urbanized and New Urbanized Areas (UA)					
Baker, Union, Wallowa Counties	441,400	653,300	1,085,300	48%	146%
Benton County (including Corvallis UA)	1,278,700	2,891,700	4,276,000	126%	234%
Clatsop, Columbia, Lincoln, Tillamook Counties	285,000	412,000	821,400	45%	188%
Coos, Curry Counties	190,900	207,300	415,600	9%	118%
Deschutes County (including Bend UA)	1,453,700	4,007,900	6,317,000	176%	335%
Douglas County	632,400	820,500	1,612,700	30%	155%
Harney, Lake, Malheur Counties	656,800	983,600	1,596,800	50%	143%
Josephine County	471,700	893,000	1,356,100	89%	187%
Klamath County	165,000	256,600	411,000	56%	149%
Lane County outside Eugene UA	519,300	625,500	1,063,100	20%	105%
Linn County	635,000	670,000	1,580,200	6%	149%
North Central Counties (Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, Wasco)	2,462,000	4,383,800	7,103,400	78%	189%
Umatilla County	227,100	360,400	738,600	59%	225%
Yamhill County	577,200	1,046,700	1,298,700	81%	125%
Largest Urbanized Areas					
Eugene-Springfield UA	2,261,200	9,387,700	16,077,400	315%	611%
Medford UA and Rest of Jackson County	2,373,200	6,917,300	11,627,800	191%	390%
Portland UA and Rest of three counties	29,358,200	86,595,700	165,567,000	195%	464%
Salem-Keizer and Rest of Marion & Polk Counties	3,531,300	11,271,000	23,515,000	219%	566%
Statewide Total	**47,520,100**	132,384,000	246,463,100	179%	419%
Annual Growth Rate (Not Including Inflation)		4.36%	7.10%		

* *Current costs estimated using highest annual expenses during the last three years, 2004-07. Total costs for demand response transit are slightly higher. These costs are for the proportion of demand response riders that are older adults and people with disabilities, about 92%.*

***The low estimate is the Low Scenario, Disaggregated Rate Approach and the high estimate is the High Scenario, Combined Rate Approach from Table 4.11.*

The estimates are summarized in Figure 4.3. The figure shows that statewide costs are largely driven by the costs in the four largest urban areas.

Figure 4.3: Estimates of Future Costs of Demand Response Transit for Older Adults and People with Disabilities



Fixed Route Transit

A similar approach was used to estimate future fixed route costs associated with rides taken by older adults and people with disabilities. These estimates should be used with some caution, however, because of the assumptions that were made and the available data. First of all, the costs for the trips by older adults and people with disabilities were estimated based upon the share of ridership those groups represent. For example, if 10% of the ridership is older adults and people with disabilities, 10% of the total costs of the fixed route system were attributed to those riders. In reality, associating costs with specific riders is not that simple. For systems that have excess capacity, new riders may impose minimal additional costs on the system. On the other hand, adding new riders during

congested peak periods might require new service, costing significantly more. Secondly, the number of fixed route trips taken by older adults and people with disabilities is usually an estimate, based upon rider surveys. It is unclear how accurate these numbers are. Finally, data on some areas is missing. The analysis is based on data from 2004-07. Fixed route transit service began operating in the Bend area after that time period. Also, fixed route cost and ridership data was not available for Corvallis.

With these caveats, **Oregon transit agencies currently spend about $48.2 million on fixed route transit for older adults and people with disabilities. Of this total, $43.2 million (90%) is spent in the four largest urban areas. In 2030, these costs are estimated to increase to $104.3 million, of which 92% or $96.2 million would be in the four urban areas. This reflects an annual growth rate of 2.0% in the rural and small urban areas of the state and 3.4% in the four large urban areas**. As with the cost estimates for demand response transit, this estimate does not account for inflation, increasing rates of use, or increased levels of service.

DHS Transportation Costs

Estimating future costs of the transportation services provided through DHS, described in Chapter 2, is difficult. Detailed data on current use and costs, similar to that available on demand response and fixed route transit, was not available. In addition, future use and costs will depend not only on the growth in the number of older adults and people with disabilities, but changes in income levels, Medicaid funding, and other external factors, which determine the number of clients served.

In 2005, 2006, and 2007, DHS spent about $50 million on non-emergency medical transportation through Medicaid brokerages, or about $16.7 million per year. Of this, 60% is paid by Medicaid and 40% is paid by the State of Oregon. Another $1.6 million is spent on non-medical transportation, for a total of about $18.2 million annually for these two programs. If demand for these programs grew at the same rate as the population of people with go-outside-the-home disabilities, the costs would be $30.1 million in 2030. This is likely a low estimate. The data for the non-medical transportation services provided in 2005-07 (see Chapter 2) showed an annual growth rate of about 7%. If demand for all of the services increased at a rate of five percentage points above the rate of population growth (1.5% to 2.9%, depending upon the time period), total costs would be $94.8 million in 2030. This is a high estimate. These costs only reflect estimates for the increase in demand, not increase in costs due to inflation.

Cost Increases and Inflation

Background

To examine the question of how transit costs could be expected to change in the future, existing National Transit Database (NTD) data were analyzed for previous years to identify trends. The NTD data revealed that nationally, operating expenses for demand-response service increased more rapidly than those for fixed route bus over the period 1998-2006. Specifically, demand response expenses increased from $16.07 per trip to $28.28 per trip (7.3% annually), compared to fixed route bus expenses, which increased from $2.07 to $3.04 (4.9% annually) over the same period, as revealed in Table 4.16. Data from Oregon transit providers that are required to report to the NTD reveal a wider range of changes in costs, from a 1.7% annual increase to a 4.7% annual decline.

For transit service, an appropriate rate of inflation should reflect the particular expenses that go into providing that service. ODOT uses an overall inflation factor or 3.1% *(Oregon Department of Transportation 2004)*. However, inputs to transit service are very different from inputs to building and maintaining roadways, ODOT's major funding activity. And, as shown above, nationally the per trip costs of demand response transit have grown at a rate significantly higher than 3.1%. The major cost categories for transit service include capital (mainly vehicles for the types of transit analyzed here), labor, and fuel. Nationally in 2006, labor made up 60% of the costs of fixed route bus service, while fuel costs were about 6% *(National Transit Database 2006)*.

Table 4.16: Operating expenses for Demand Response and Fixed Route Bus Service (1998, 2002, and 2006)

Population of Urbanized Area	Operating Expense Per Passenger Trip							
	Demand Response				Fixed Route Bus			
	1998	2002	2006	Annual Growth Rate	1998	2002	2006	Annual Growth Rate
National, Urbanized Areas								
3,000,000 and greater	$22.25	$30.22	$36.27	6.3%	$2.01	$2.31	$2.81	4.3%
1,000,000 - 2,999,999	$16.89	$23.71	$28.39	6.7%	$2.15	$2.87	$3.50	6.3%
200,000 – 999,999	$14.74	$18.55	$23.47	6.0%	$2.12	$2.64	$3.30	5.7%
50,000 - 199,999	$9.98	$13.44	$16.64	6.6%	$2.18	$2.79	$3.36	5.6%
National Total	$16.07	$23.14	$28.28	7.3%	$2.07	$2.48	$3.04	4.9%
Large Oregon Transit Providers								
TriMet	$15.72	$20.20	$25.74	6.4%	$1.80	$2.39	$3.08	6.9%
Lane Transit	$10.15	$17.49	$19.82	8.7%	$2.21	$2.61	$2.89	3.4%
Salem Area Mass Transit		$14.11	$15.11	1.7%	$2.08	$2.86	$3.24	5.7%
Rogue Valley Transportation District	$11.41	$12.25	$23.48	9.4%	$4.69	$3.29	$3.20	-4.7%
South Metro Area Rapid Transit		$4.12	$15.92	**		$10.16	$7.44	**

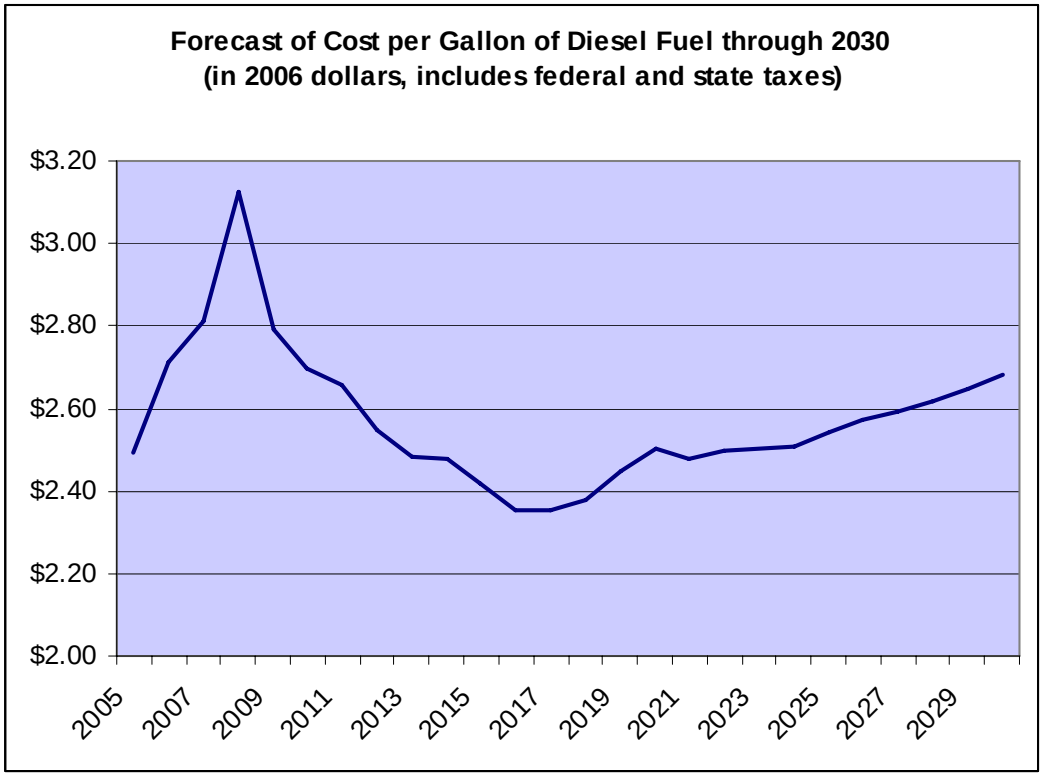
Source: National Transit Database

*** Not estimated due to wide variation in data and shorter time period.*

Figure 4.4 shows the latest long-term forecast for diesel fuel prices from the U.S. Energy Information Administration (EIA). However, this forecast was published in late 2007, and was based on data from 2005 and 2006 (the report was updated in March 2008, but the forecast for diesel fuel prices did not change). It is already wrong by a wide margin. The EIA's short-term energy outlook, published on May 6, 2008, predicted that diesel fuel will cost an average of $3.94 per gallon in 2008, $0.64 per gallon more than its long-term forecast predicted, and $3.67 in 2009, which is about $0.70 more than was predicted (long-term forecasted prices were converted from 2006 to 2008 dollars, assuming 3% annual inflation). The EIA's predicted high for 2008 is $4.14 per gallon, and for 2009 is $3.84.

As of May 19, 2008, the national average price for diesel fuel was $4.48 per gallon. The price on the West Coast was even higher, at $4.61 per gallon. Clearly, there is great uncertainty about the price of diesel fuel and the factors that affect it in both the short and long term.

Figure 4.4: U.S. Energy Information Administration Fuel Cost Forecast, 2008-2030



Source: U.S. Energy Information Administration, Annual Energy Outlook 2008 (AEO2008), December 2007, Table 12. Retrieved from http://www.eia.doe.gov/oiaf/forecasting.html, May 19, 2008.

TriMet is estimating that diesel fuel will be $4.00 per gallon for fiscal year 2009; it is estimating a 7% increase per year beyond 2009 *(Potter 2008)*. This estimate is based on the daily price of diesel fuel, forecasts from the Federal Energy Information Agency, and the staff's best guess. However, since TriMet's fuel costs have increased by more than 300% in the last five years, Potter reports that the organization is in "uncharted territory," and does not have high confidence in this forecast. TriMet uses an inflation rate of 4.5% for labor costs and 3.0% for capital costs *(Potter 2008)*.

Inflation Adjustments to Cost Projections

Table 4.17 shows how the cost projections would change with different assumptions for annual inflation rates. Lower assumptions are used for fixed route transit based upon recent trends.

Table 4.17: Summary of Estimates of Current and Future Costs for Demand Response and Fixed Route Transit for Older Adults and People with Disabilities, Including Inflation

	Annual Cost Estimates (in millions)					
	2006	2010	2015	2020	2025	2030
Demand Response Transit						
Low Estimate (uses low cost estimate as base and 3.0% inflation rate)	$47.5	$63.7	$91.7	$132.0	$195.7	$269.1
High Estimate (uses high cost estimate as base and 6.0% inflation rate)	$47.5	$80.5	$149.7	$268.8	$492.8	$790.4
Fixed Route Transit (rides by older adults and people with disabilities only)						
Low Estimate (uses low cost estimate as base and 2.5% inflation rate)	$48.2	$60.3	$79.8	$105.7	$139.9	$185.2
High Estimate (uses high cost estimate as base and 5.0% inflation rate)	$48.2	$66.2	$98.5	$146.6	$218.1	$324.4
DHS Brokerage Programs						
Low Estimate (uses low cost estimate as base and 3.0% inflation rate)	$18.2	$21.7	$27.4	$35.3	$46.8	$60.3
High Estimate (uses high cost estimate as base and 6.0% inflation rate)	$18.2	$26.2	$41.7	$67.7	$113.3	$184.0

Cost Savings from Service Changes

There may be some potential to reduce costs, or at least reduce the rate of increase, through changing the type of service. A review of the literature suggests that service alternatives can be significantly more cost-effective than traditional demand response or complementary paratransit. According to a recent Beverly Foundation *(2007)* report, shifting from dial-a-ride to flex-route (where drivers deviate short distances from the main route to pick up or drop off riders who are elderly or have disabilities) increased ridership and reduced costs for Benicia Breeze public transit service of Benicia, CA . An analysis by Rosenbloom *(2007)* found that, for special transportation programs (STPs) identified as exemplary by the Beverly Foundation, the average cost per ride was roughly two-thirds that of rides provided by paratransit services in 10 representative cities ($20.31 as compared to $30.81). Metro Transit of King County, WA, partnered with community

agencies to enable them to develop their own specialized transportation services; the average ride cost $4.50 (as opposed to $32.40 for paratransit service), resulting in an estimated $1.2 million of annual savings for Metro Transit *(Beverly Foundation 2007)*. In the rurally-focused APRIL program, the average cost of each ride provided to a person with disabilities was $4.34, significantly lower than the average per-ride operating cost of $16.64 for demand-responsive or paratransit providers in the smallest urbanized areas.[15] This suggests that combining existing public, private, and community-based transportation services to create networks may be a more cost-effective option that attempting to meet all transit needs through only one or two public service systems, particularly in rural areas.

Several Oregon providers have already begun implementation of such service alternatives. It is not possible to estimate how additional changes may affect future costs.

Chapter Conclusions and Key Findings

The analysis resulted in current and future estimates of costs for providing transportation services to older adults and people with disabilities through demand response transit, fixed route transit, and certain DHS transportation services. These estimates are summarized in Table 4.18. As explained above, these estimates are based upon current rates of use and expected growth in the population of older adults and people with disabilities. The estimates do not include inflation, unmet demand, or the effects of changes in service or other programs.

Readers are encouraged to pay attention to the annual growth rates, perhaps more so than the absolute numbers. These rates can be used to project estimates for years other than 2030.[16] In addition, the dollar figures are based upon this analysis's estimate of current costs. That estimate was based upon the best available data. The growth rates could be applied to another estimate that could be more accurate. They could also be applied to a current funding *source* to, for example, estimate how that source would need to increase to keep up with its share of funding the service. In addition, a rate of inflation can be added to the growth rate (e.g., 3.22% growth rate plus a 3.0% annual inflation rate would be a combined rate of growth/inflation of 6.22%).

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[15] The NTD database does not include information for rural areas.

[16] The formula for calculating future costs using the annual growth rate is: Current $ * $(1 + r)^n$ where *n* is the number of years into the future, *Current$* is the current cost, and *r* is the growth rate from the table.

Table 4.18: Summary of Estimates of Current and Future Costs for Transportation for Older Adults and People with Disabilities (not including inflation)

Transit Type	Current (2006) Estimate	Future (2030) Low Estimate	Future (2030) High Estimate
Demand Response Transit	$47,520,000	$132,384,000	$246,463,000
Annual Growth Rate		4.36%	7.10%
Fixed Route Transit	$48,179,000	$104,311,000	$104,311,000
Annual Growth Rate		3.27%	3.27%
DHS Medicaid Brokerage Transportation Services	$18,242,000	$30,204,000	$94,824,000
Annual Growth Rate		2.11%	7.11%

Key findings of the analysis included the following:

- The number of trips taken by older adults and people with disabilities on demand response transit is estimated to increase by 2.5% to 3.0% annually between now and 2030 *simply due to increases in population*. The actual increase could be between 3.4% and 5.5%, based upon recent trends in increasing rates of use.
- The number of trips taken by older adults and people with disabilities on fixed transit is estimated to increase by about 2.0% annually in rural areas and 3.5% annually in the largest urban areas.
- Future growth rates for special needs transit will generally be higher in the major urban areas in the State. This is because those areas are expected to see higher rates of growth in the number of older adults and people with disabilities. In addition, those areas are expected to see greater increases in the rates of use of demand response transit, based upon recent trends.
- Transit providers in Oregon currently spend at least $47.5 million annually to provide demand response trips to older adults and people with disabilities. This number is likely an underestimate, because of agencies that do not report data and agencies that do not report all costs.
- Oregon transit agencies currently spend about $48.2 million on fixed route transit for older adults and people with disabilities. Of this total, $43.2 million (90%) is spent in the four largest urban areas. In 2030, these costs are estimated to increase to about $104.3 million, of which 92% or $96.2 million would be in the four urban areas. This reflects an annual growth rate of 2.0% in the rural and small urban areas of the state and 3.4% in the four large urban areas.

- A simple estimate of unmet demand indicates that trips made by older adults and people with disabilities would increase about 26% if unmet demand were satisfied. If, for example, one-third of the unmet demand were satisfied through demand response and fixed route transit, the number of trips made by those modes would increase about 9%.
- Nationally, demand response transit per trip operating costs have increased about 6% annually over the past eight years, while fixed route bus service operating costs have increased about 5% annually. Using annual inflation estimates of 3.0% (low) and 6.0% (high) for demand response transit and DHS brokerage services and 2.5% (low) and 5.0% (high) for fixed route transit results in higher cost estimates, as shown in Table 4.19.

Table 4.19: Summary of Estimates of Current and Future Costs for Transit for Older Adults and People with Disabilities, Including Inflation

	Annual Cost Estimates (in millions)					
	2006	2010	2015	2020	2025	2030
Demand Response Transit						
Low Estimate	$47.5	$63.7	$91.7	$132.0	$195.7	$269.1
High Estimate	$47.5	$80.5	$149.7	$268.8	$492.8	$790.4
Fixed Route Transit (rides by older adults and people with disabilities only)						
Low Estimate	$48.2	$60.3	$79.8	$105.7	$139.9	$185.2
High Estimate	$48.2	$66.2	$98.5	$146.6	$218.1	$324.4
DHS Brokerage Programs						
Low Estimate	$18.2	$21.7	$27.4	$35.3	$46.8	$60.3
High Estimate	$18.2	$26.2	$41.7	$67.7	$113.3	$184.0

5. Future Funding Sources

Overview

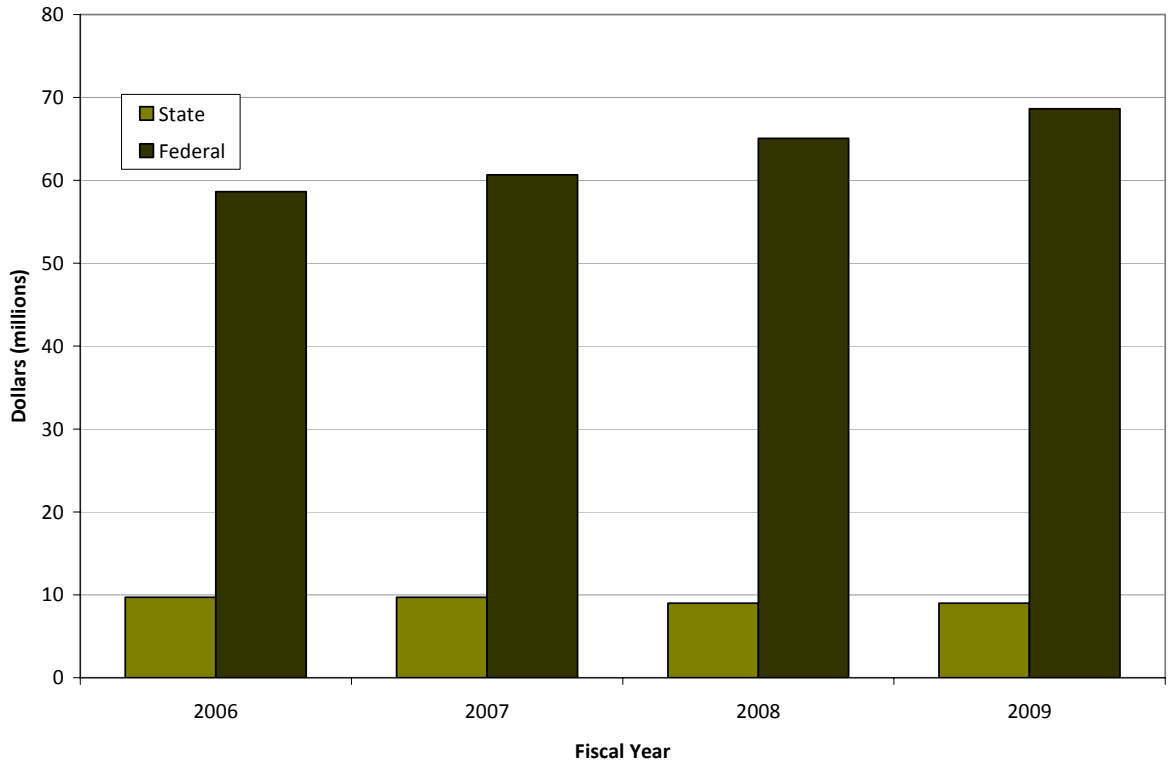
This chapter first presents information on the future of Oregon's major current funding sources for special needs transit. Overall, the outlook is not positive. Many of the sources are declining (e.g., cigarette taxes), even without accounting for inflation. A source that has increased somewhat steadily in the past – federal transit funding – is also in doubt due to recent declines in fuel consumption and, therefore, fuel tax revenues. The chapter then examines other potential sources. Unfortunately, this analysis is also not very positive. Oregon's Constitution does not allow vehicle- and fuel-related taxes to be used for operating transit. These are commonly used sources in other states. Many other states also use sales taxes for transit. Oregon's lack of a sales tax makes this option difficult. These two factors leave very few new options that would raise substantial revenues.

The Future of Current Funding Sources

Federal Sources

The *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) sets forth transportation funding at the federal level for the period of 2005 to 2009 *(Marron 2006)*. The program appropriations are largely derived from the Highway Trust Fund, which is supplied primarily through taxes on motor fuels. The Trust Fund is divided into two separate accounts: the Highway Account and the Mass Transit Account. Less money is devoted to the Mass Transit Account, $6.9 billion of $44.5 billion for fiscal year 2006. Funds from the Transit Account are used for the transit programs described in Chapter 2 that fund a significant share of the state's special needs transit. While these sources have increased in the past (Figure 5.1), future increases are in doubt for two reasons: (1) overspending of the Highway Trust Fund; and (2) declining fuel tax revenues due to reduced fuel consumption.

Figure 5.1: Recent Trends in Oregon's State and Federal Transit Funds



The Congressional Budget Office expects the highway account of the Highway Trust Fund to be exhausted of fund at the expiration of SAFETEA-LU in 2009. SAFETEA-LU outlays $158 billion in obligations for the period of 2006-2009, while revenue from the fuel tax devoted to the account is projected to be $146 billion *(Marron 2006)*.

Due to the volatility of oil prices, accurate projections of the Trust Fund are difficult to make. The fund could be exhausted before or after 2009, but CBO projections indicate an inevitable exhaustion. It is important to note that the Mass Transit Account outlays are not projected to overshoot trust fund revenues. However, how the highway account's budgetary imbalance will be rectified post- SAFETEA-LU is yet to be seen.

Special Transportation Fund Revenues

The existing sources of funding that go into the state's Special Transportation Fund (STF) are not expected to grow in proportion to the need projected in Chapter 4. In fact, some of the sources are expected to decline.

Cigarette tax revenues account for about 45% of the Special Transportation Fund revenues. Oregon's current cigarette tax rate is $1.18 per pack. Of this amount, 22¢ goes into the State General Fund, 87¢ goes to the Oregon Health Plan, 3¢ goes to the Tobacco Use Reduction Account, 4¢ goes to cities and counties, and 2¢ per pack is dedicated to the Department of Transportation for transportation services for older adults and people with disabilities. This will amount to about $4.5 million for the 2007-08 budget year, but the Oregon Office of Economic Analysis expects cigarette tax revenues to be somewhat lower in future budget years. Table 5.1 shows the most recent forecast for cigarette tax distributions released by the Office of Economic Analysis.

Table 5.1: Cigarette Tax Distribution Forecast (in millions of nominal dollars)

Fiscal Year	Total Cigarette Tax Distributions ($1.18 per pack)	Public Transit Share (2¢ per pack)
2007-08	$230.966	$4.46
2008-09	$216.882	$4.19
2009-10	$209.931	$4.06
2010-11	$203.332	$3.93
2011-12	$203.966	$3.94
2012-13	$204.574	$3.95

Source: Office of Economic Analysis, Quarterly Economic and Revenue Forecast, May 28, 2008, Table B-6.

Projections for all funding sources for the STF are shown in Table 5.2. Revenue from the sale of identification cards could be as much as $1.3 million less than the estimated $3.9 million (Legislatively Approved Budget amount) for the 2007-09 biennium due to the implementation of a legal presence requirement to obtain an identification card *(Ward, 2008)*. ODOT also expects revenue from sales of non-highway-use fuels to remain flat.

Based on these assumptions, the Special Transportation Fund is expected to decrease slightly each year until 2011, and then stabilize at almost $7.7 million through 2030. However, it is important to note that these amounts are in nominal dollars. In its December 2004 financial forecast, ODOT assumed an inflation rate of 3.1% between 2005 and 2030. This will erode the value of the Special Transportation Fund revenue each year, and by 2030 the real value of the revenue will be less than half the 2008 value.

Table 5.2: Forecast of Oregon Special Transportation Fund Revenues

Fiscal Year	Nominal Dollars (millions)				
	Cigarette Tax Revenue[1]	Interest Earnings[2]	I.D. Card Revenue[3]	Transportation Operating Funds Appropriations[4]	Special Transportation Fund Total
2008	4.463	0.06	1.554	2.963	9.040
2009	4.191	0.06	1.273	2.963	8.487
2010	4.056	0.06	0.919	2.726	7.761
2011	3.929	0.06	0.919	2.726	7.634
2012	3.941	0.06	0.919	2.726	7.646
2013	3.953	0.06	0.919	2.726	7.658
2014	3.965	0.06	0.919	2.726	7.670
2015	3.977	0.06	0.919	2.726	7.682
2016	3.977	0.06	0.919	2.726	7.682
2017	3.977	0.06	0.919	2.726	7.682
2018	3.977	0.06	0.919	2.726	7.682
2019	3.977	0.06	0.919	2.726	7.682
2020	3.977	0.06	0.919	2.726	7.682
2021	3.977	0.06	0.919	2.726	7.682
2022	3.977	0.06	0.919	2.726	7.682
2023	3.977	0.06	0.919	2.726	7.682
2024	3.977	0.06	0.919	2.726	7.682
2025	3.977	0.06	0.919	2.726	7.682
2026	3.977	0.06	0.919	2.726	7.682
2027	3.977	0.06	0.919	2.726	7.682
2028	3.977	0.06	0.919	2.726	7.682
2029	3.977	0.06	0.919	2.726	7.682
2030	3.977	0.06	0.919	2.726	7.682

[1] *2008 through 2015 based on the Quarterly Economic and Revenue Forecast released by the Office of Economic Analysis, May 2008; held constant after 2015. Source: Office of Economic Analysis, Quarterly Economic and Revenue Forecast, May 28, 2008, Table B-6.*

[2] *Based on assumptions made in the Department of Transportation report, Financial Assumptions for the Development of Metropolitan Transportation Plans 2005- 2030.*

[3] *2008 is based upon actual data through May 2008. 2009 and 2010 are projected by PTD staff based upon recent trends and held steady after 2010.*

[4] *These are funds from a portion of gasoline taxes generated from certain non-road sources, such as lawnmowers. Source: Data from personal communication, J. Palmateer, May 29, 2008.*

In order for the STF cigarette tax revenues to keep up with the pace of growth estimated in Chapter 4, and the projected decline in cigarette sales tax revenues, the 2¢ portion of the tax would need to be raised to *at least* 13¢ (lowest estimate) to 37¢ (highest estimate) by 2030. To keep pace in the short-term (to 2015), the tax would need to be between 4.4¢ and 7.2¢. *This does not address any of the unmet demand or needs for new and improved service identified by providers.* This estimate does take into account the decline in cigarette tax revenues expected in the short-term and the leveling off after 2011.

The two other sources of state funding for transit are the Business Energy Tax Credit (BETC) and the Mass Transit Assessment. The Mass Transit Assessment currently provides over $7 million per year to ten agencies. Those funds are spent on all types of transit service. The funds are based upon an assessment of not more than 6/10th of one percent of the state employee payroll in the effected region. Payments are made quarterly to the named recipients who also raise funds via some type of local taxation; non-taxing districts do not receive funds. The purpose is defined as "in reimbursement for the benefit the state government receives from the districts." The future of these sources will depend upon future state payroll, which generally comes from the general fund. BETC funds are not a dedicated source for transit and can vary from year to year. Like the Mass Transit Assessment, these funds come from general fund sources, though in an indirect way.

The Potential Gap Between Costs and Existing Funding Sources for Demand Response Transit

An estimate of the potential gap between future costs and funding was made for demand response transit for older adults and people with disabilities. The future estimates are based upon an estimate of current funding sources, shown in the first column of Table 5.3. The current use of federal sources and the State Transportation Fund for demand is based upon ODOT records. Unfortunately, there is no single source for information on local funding sources. These data are not reported to a central source. Therefore, current local funds are estimated based upon the difference between estimated costs and the other funding sources. For future revenue assumptions, the estimate assumes that federal sources will increase at the same rate as the inflation assumptions for demand response transit (3% low, 6% high), but that local sources will only increase at 3% per year for both the low and high scenarios. The State Transportation Fund projections are from above.

The analysis finds a potential gap of $30.09 to $80.92 million in the year 2015, representing 33% to 54% of the estimated costs. The gap in the year 2030 could be $167.33 to $633.82

million, representing 62% to 80% of the estimated costs. The data are also shown in Figure 5.2.

Table 5.3: Projected Gap Between Costs and Revenues for Demand Response Transit for Older Adults and People with Disabilities

	Revenue and Cost Estimates (Millions)						
		2010		2015		2030	
	2006	Low	High	Low	High	Low	High
Revenues							
Federal							
5310	$2.25	$2.53	$2.84	$2.93	$3.80	$4.57	$9.10
5311	2.93	3.30	3.70	$3.82	4.95	5.95	11.86
5317 (New Freedom)	0.03	0.03	0.03	0.04	0.05	0.05	0.11
5316 (JARC)	0.04	0.04	0.05	0.05	0.06	0.07	0.15
5307	1.28	1.44	1.61	1.66	2.16	2.59	5.17
State Transportation Fund	8.00	7.76	7.76	7.68	7.68	7.68	7.68
Fares (estimated at 8% of costs)	3.80	5.10	6.44	7.33	11.97	21.53	63.24
Local (includes BETC, MTA, local taxes, general funds)	29.19	32.85	32.85	38.08	38.08	59.33	59.33
Total Estimated Costs	$47.52	63.70	80.52	$91.68	$149.66	$269.11	$790.44
Gap		10.66 (17%)	25.26 (31%)	$30.09 (33%)	$80.92 (54%)	$167.33 (62%)	$633.82 (80%)

Note: Low and high estimates are from Chapter 4 and include inflation assumptions (see Table 4.18). Federal funds were estimated to increase at the assumed low (3%) and high (6%) rates of inflation and local funds were assumed to increase 3% annually for both the low and high estimates.

Figure 5.2: Low Estimate of Gap between Costs and Revenues for Demand Response Transit for Older Adults and People with Disabilities

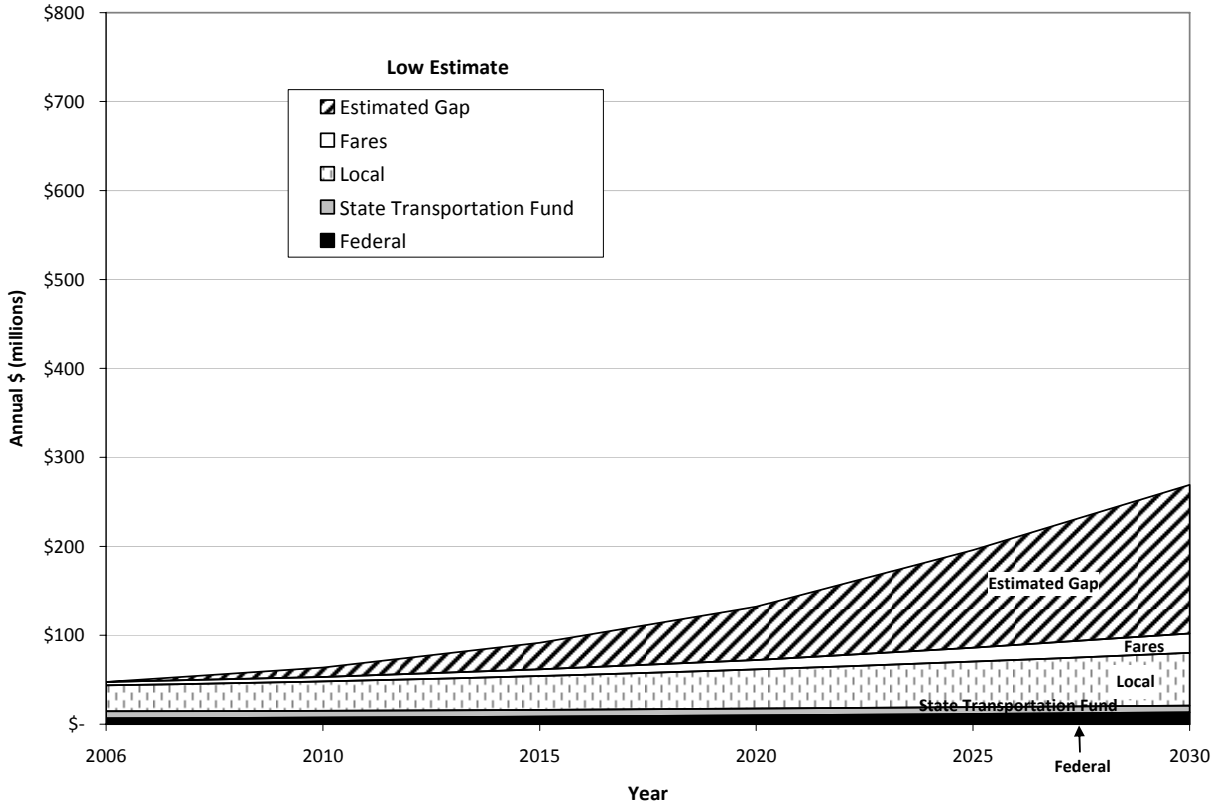
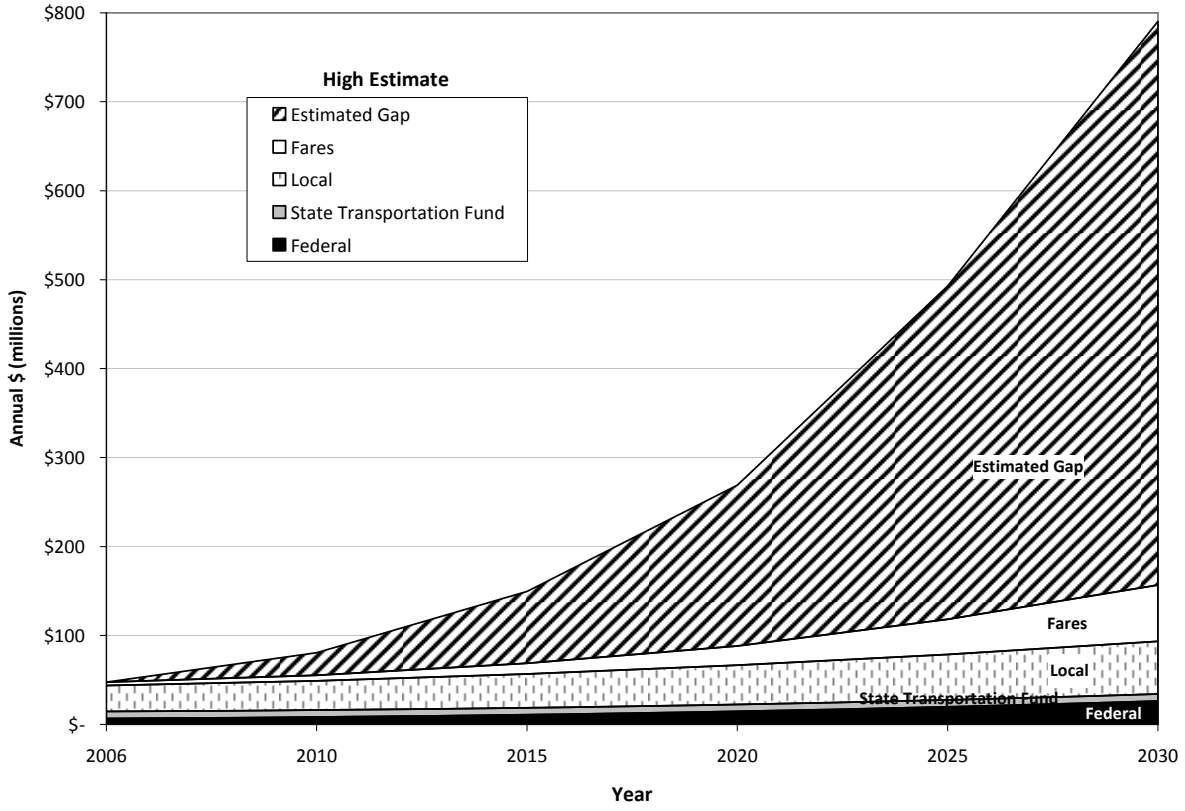
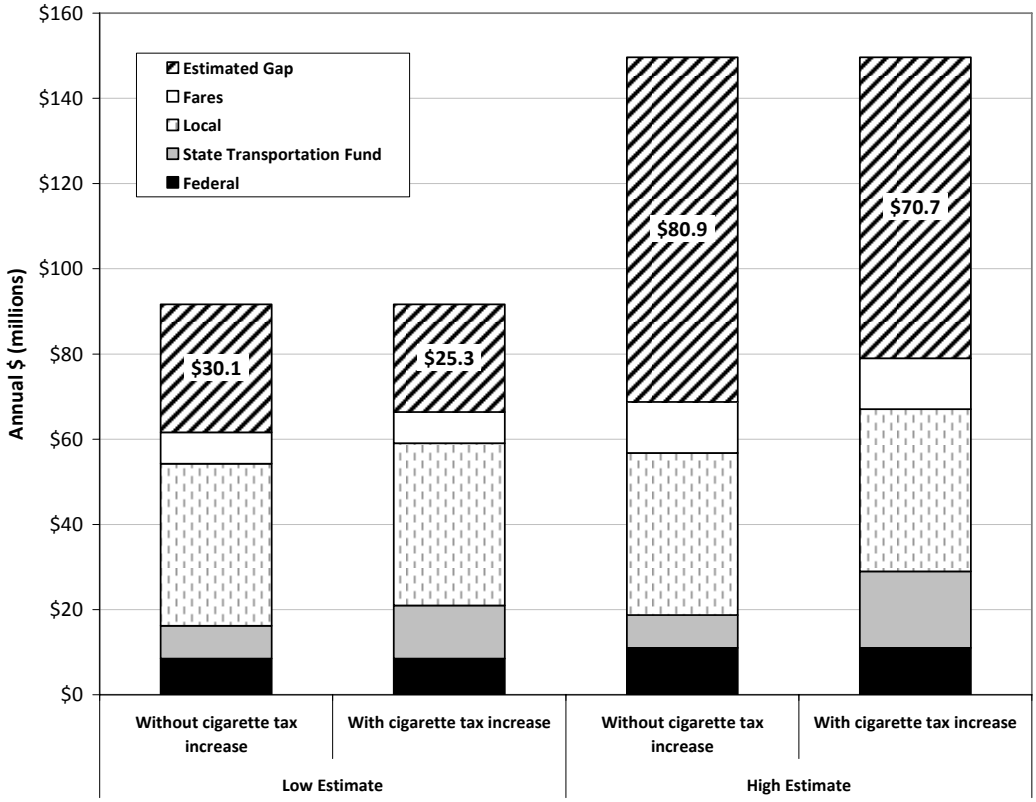


Figure 5.3: High Estimate of Gap between Costs and Revenues for Demand Response Transit for Older Adults and People with Disabilities



Even with such increases in the cigarette tax, a funding gap will remain. The cigarette tax represents about 10% of the funding for demand response transit for older adults and people with disabilities. The increases suggested above only serve to keep that share stable, not make up for the full difference between estimated future costs and revenues. Figure 5.4 shows the projected gap for the year 2015 with the increases in the cigarette tax to 4.3¢ (low) and 7.2¢ (high) and without (remaining at 2¢). This also assumes that other state revenues (from identification cards and some off-road fuel taxes) remain constant.

Figure 5.4: Year 2015 Estimates of Gap between Costs and Revenues for Demand Response Transit for Older Adults and People with Disabilities, with and without Cigarette Tax Increase



Potential New Funding Sources

Background

A wide variety of revenue sources is available to state, regional, and local governments, many of which are in common use today. However, jurisdictions are constrained by many factors when they are considering creating a new revenue source or increasing an existing one. These constraints include practical issues, such as the relative difficulty of administering and collecting the tax/fee, the complexity of overlapping jurisdictions and administrative "silos," and the federal and state laws that govern funding mechanisms. For example, in Oregon, constitutional limits on use of highway-source revenues prohibit one of the primary sources of transit revenue available in other states. Constraints also include political considerations, such as the willingness of the population to bear the burden of the

tax or fee, the willingness of leaders to promote it, the potential effects on income distribution, and the potential effects on commerce.

The existing tax burden (including all forms of revenue generation) on residents is an important consideration in determining the feasibility of creating or expanding a revenue source. In 2007, Oregon ranked 39th in the nation for the amount of state taxes it collected per capita ($2,066 per person) and 38th in the amount of state taxes as a percentage of personal income (6.3%; *Federation of Tax Administrators 2008*). For comparison, Washington State ranked 13th in per capita taxes ($2,743 per person) and 23rd in taxes as a percentage of personal income (7.3%).

Considering all sources of state and local revenue except federal transfer payments, in 2006, Oregon ranked 17th in the nation for the percentage of state and local revenue raised as a percentage of personal income (17.6%; *Federation of Tax Administrators 2008*). Washington State ranked 27th (16.6%). When considering only state and local taxes collected (excluding other forms of revenue such as user fees) as a percentage of personal income, Oregon ranked 46th in nation (10.0%) and Washington ranked 38th (10.6%).

Table 5.4 shows the types of revenue-generating mechanisms considered as part of this study.

Table 5.4: Potential State, Regional, and Local Revenue Sources

Sales Taxes	Vehicle/Highway Taxes and Fees	Employment Related Taxes	Property/ Development Taxes and Fees	Other Revenue Sources
General sales tax Excise/Special sales taxes Cigarettes Alcohol Lodging Restaurant Rental car	Gas tax Vehicle registration fees Flat fee Value-based MPG-based Weight-based Vehicle-age-based Vanity plate fee Off-road vehicles Vehicle sales/title tax Title/title transfer fee Driver's license fee Temp. handicapped parking tag fee Road use fees Tolls Mileage fee Highway naming rights Parking tax	Income Tax Payroll tax Occupational License Tax	Property tax Real estate transfer tax Mortgage recording tax Development fee Transportation utility fee	State lottery & casino revenue Advertising revenue Fares Partnerships Utility taxes "Green tax" Carbon tax Oil company tax Severance tax

Some of these are well-established sources of revenue for transportation-related services, such as gas taxes and vehicle registration fees. Others are either newer ideas or are not widely used, such as a carbon tax or an "oil company tax." Also, some taxes and fees can be directly linked to the provision of transportation services, while others – such as an alcohol or cigarette tax – are not directly related. Bond proceeds were not considered here as a source of revenue for two reasons: first, bonds must be repaid with revenue generated from another source; and, second, bonds generally are used for capital expenses, whereas special transportation services require funding primarily for operating expenses.

The revenue sources were evaluated for their potential based on the following criteria: revenue-generating potential, ease and cost of implementation, equity, and political feasibility.

Revenue Generation

When evaluating a revenue source, it is important to consider the amount of revenue the source will generate relative to the need being addressed. It also is important to consider

how external factors will affect the predictability and stability of the revenue source. Different types of taxes and fees are affected differently by economic factors (such as recession, unemployment, and inflation) and demographic factors (such as population growth). In the case of inflation, percentage tax rates are tied to price or value so their revenue will increase with inflation, but flat tax rates and flat fees (such as the gas tax or driver's license fee) are not tied to inflation, so the value of the revenue they generate will be eroded over time. In this case, tax rates or fees will have to be raised periodically in order to preserve the value of the revenue. This may be difficult to achieve, depending on the political climate, so these types of revenue generation mechanisms are less stable over time.

Some taxes and fees have a relatively small base, so in order to generate sufficient revenue and be worth the administrative costs, the tax rate or fee amount would have to be relatively high. Depending on the group being taxed and the beneficiaries of the revenue, this may be neither fair nor politically feasible. Another consideration is that different types of taxes and fees are subject to different legal and practical constraints. For example, property tax rates are tied to housing values, which tend to rise over time, thereby increasing property tax revenues, but the supply of land is finite and property taxes are subject to a host of legal and jurisdictional constraints.

Ease of Implementation

An important consideration for creating or expanding a revenue source is the ease and cost of administration relative to the potential for revenue generation. Some taxes or fees are inherently easier and less costly to collect and enforce, while others require complex and costly administration systems. Of course, it is much less costly to increase an existing tax or fee than to create a new one. In order to overcome the high fixed cost of establishing a new administrative system, the revenue-generating potential of a new tax or fee must be high as well.

Equity

A basic criterion for evaluating taxes and fees is their level of equity. Equity can be measured in several ways. Equity can refer to the effect of a tax or fee on income distribution. A tax or fee generally is considered equitable if a lower-income person pays the same proportion of their income toward that tax or fee as a higher-income person. In absolute terms, this means that a lower-income person pays less than a higher-income person. For example, a vehicle sales tax would be considered relatively equitable because a person who can afford a more expensive car will pay more in taxes. Because of this, taxes

tend to be more equitable when they are related in some way (directly or indirectly) to income level. Flat fees, such as a driver's license fee, are considered relatively inequitable because a lower-income person pays a larger proportion of their income than a higher-income person.

Another facet of equity is the nexus between those who pay the tax or fee and those who benefit from it, and the amount paid relative to the benefit received. For some taxes and fees, the connection is clear, such as the current gas tax, which pays for road improvements. Furthermore, the amount of gas tax an individual pays is directly related to their level of road use: those who drive more pay more. For other types of taxes and fees, the connection is less clear or arguably non-existent.

Political Feasibility

Political feasibility is a key consideration in evaluating revenue sources. A system that works well in other states may not be suited to the historical and political context in Oregon. Oregon has two obstacles that may be difficult to overcome politically. First, Oregonians have repeatedly rejected a general sales tax, which is an important source of revenue in many states. This general attitude also may make it more politically difficult to create or increase special sales and excise taxes.

Second, Oregon has a constitutional provision limiting the use of highway- and vehicle-related taxes and fees to road-related expenditures. Under current law, highway- and vehicle-related taxes and fees cannot be used to fund transit services. Article IX, Section 3(a) of the Oregon Constitution states:

> (1) Except as provided in subsection (2) of this section, revenue from the following shall be used exclusively for the construction, reconstruction, improvement, repair, maintenance, operation and use of public highways, roads, streets and roadside rest areas in this state:
>
> (a) Any tax levied on, with respect to, or measured by the storage, withdrawal, use, sale, distribution, importation or receipt of motor vehicle fuel or any other product used for the propulsion of motor vehicles; and
>
> (b) Any tax or excise levied on the ownership, operation or use of motor vehicles.
>
> (2) Revenues described in subsection (1) of this section:
>
> (a) May also be used for the cost of administration and any refunds or credits authorized by law.
>
> (b) May also be used for the retirement of bonds for which such revenues have been pledged.

> (c) If from levies under paragraph (b) of subsection (1) of this section on campers, motor homes, travel trailers, snowmobiles, or like vehicles, may also be used for the acquisition, development, maintenance or care of parks or recreation areas.
>
> (d) If from levies under paragraph (b) of subsection (1) of this section on vehicles used or held out for use for commercial purposes, may also be used for enforcement of commercial vehicle weight, size, load, conformation and equipment regulation.

Many states do not have such a constraint and, as a result, they have more flexibility in distributing vehicle- and highway related revenue. In fact, several states dedicate a portion of these types of revenue for transit-related services. In Oregon, this would require a constitutional amendment.

Discussion of Potential Revenue Sources

For the purposes of this study, potential revenue sources for special transportation services are divided into two categories: existing revenue sources in Oregon that could be increased and new revenue sources that could be explored further.

Existing Excise and Special Sales Taxes

Excise and sales taxes are based on either a percentage of the purchase price of a good or service, or a fixed amount attached to the unit price of a good or service, such as the $1.18 per pack cigarette tax. All states have some forms of excise and/or sales taxes.

The general sales tax has a long history of being refused by Oregonians, but like most states, Oregon does levy a variety of excise taxes, such as cigarette, alcohol, and "tourist" taxes. Currently, Oregon's cigarette excise tax rate of $1.18 per pack ranks 22nd in the nation. Washington State's $2.025 tax per pack ranks 3rd in the nation, and the national median tax rate is $1.00 per pack. Oregon's excise tax on wine is equal to the national median at $0.67 per gallon and Washington's is $0.87 per gallon. Oregon's excise tax on beer is $0.08 per gallon, Washington's is $0.261 per gallon and the national median is $0.188 per gallon. Oregon ranks 46th in the nation for its beer tax rate. Oregon is one of 18 states that generate revenue on liquor consumption from taxes, fees, and profits from state-controlled liquor stores, while most other states simply levy excise taxes. As a result, these tax rates are more difficult to compare. In addition to excise taxes, most states gain additional tax revenue on beer, wine, and liquor by applying the general sales tax to these purchases.

Many states and local jurisdictions around the country have "tourist taxes" on lodging, restaurants, and rental cars. Oregon has a one percent tax on overnight lodging, which is

used to fund the Oregon Tourism Commission. This tax generated about $20.2 million in the biennium ending June 30, 2007 *(Oregon Secretary of State 2008)*. Within Oregon, only the city of Ashland has a restaurant tax, currently at 5% of the price of prepared food. Washington State has a rental car tax of $0.059 per day, which is used for multi-modal transportation, and several counties add one or two cents to the tax rate for sports facilities. The Regional Transit Authority adds eight-tenths of a cent per day to fund high-capacity rapid transit.

Excise and special sales taxes have some potential advantages and disadvantages for funding special transportation services. They are considered a relatively predictable form of revenue, but they are sensitive to the health of the economy; people tend to spend more when the economy is growing and less when it is shrinking. While revenue from a percentage tax increases with inflation, the value of revenue from a fixed tax is constantly eroded by inflation (unless it is indexed to an inflation factor). In order to sustain the same level of revenue with a fixed rate, voters and/or legislators must choose to increase the tax or fee, making it a less reliable source of revenue.

One notable advantage of these revenue sources is that, since gas, cigarettes, alcohol, and lodging already have statewide excise/sales taxes, increasing the tax rate would be relatively simple and inexpensive to implement.

A notable disadvantage is that excise and sales taxes are generally regressive in nature, because they take up a larger share of personal income at lower income levels. Also, the relatively low level of connection between the special group being taxed and the beneficiaries of the tax revenue – in this case seniors and disabled persons – raises equity, as well as political, concerns. Mechanisms such as exemptions and rebates can be used to mitigate the negative effects on the lowest-income citizens.

The political feasibility of creating or increasing an excise or special sales tax is questionable, perhaps especially in Oregon, given its history with the general sales tax. While residents who will not be substantially affected by the special tax may be willing to pass it, special taxes will have negative economic consequences on the affected consumers and industries. Additional taxes threaten to lower consumption, thereby lowering profits for the affected industry. Also, these businesses are negatively affected to the extent that they cannot pass along the tax to consumers due to market conditions. A new or increased sales tax on a particular industry can be expected to generate considerable opposition from that industry group regardless of the public's opinion of it.

Fuel Taxes

Fuel taxes come in two forms. First, every state has a motor fuel excise tax, which is usually paid by wholesale distributors, who pass it along to consumers. Second, many states (but not Oregon) charge consumers a sales tax on the purchases of gasoline at the pump. Oregon has a 24¢ per gallon excise tax on gasoline, which is expected to generate $422.5 million in revenue for the Highway Fund in 2008 *(Oregon Department of Transportation 2007g)*. Oregon's gas tax generates about $18 million for each cent of tax. **However, as explained above, these funds cannot legally be spent on transit for older adults and people with disabilities.**

Gas taxes provide a relatively predictable and steady source of revenue that is accepted by highway users *(Cambridge Systematics Inc. and HDR Inc. 2005)*. Gas taxes are directly proportional to road use, which may help reduce driving but also reduces revenue. Gas taxes also may help promote the purchase of smaller, more fuel-efficient cars, but again this reduces revenue. A fixed-rate gas tax will lose value over time because it does not keep pace with inflation. In order to keep the equivalent real value the rate must be indexed to inflation or be a percentage of the fuel price.

Gas taxes are regressive in nature, both because people with lower income will pay a larger proportion of their income for it, but also because they tend to drive older and less fuel-efficient vehicles *(Cambridge Systematics Inc. and HDR Inc. 2005).*

Rhode Island is the only state that dedicates a portion of its gas tax revenue to *special* transportation funding. One cent of its motor fuel tax goes to fund reduced fares for older adults or people with disabilities using fixed route services, ADA services, and the Department of Elderly Affairs elderly transportation services.

Vehicle Registration and Title Fees

All states have some form of vehicle titling and registration fees, although the basis for the fee varies among states; in some states it is a flat fee and in others it varies based on value, horsepower, or age. While registration fees are generally levied on a regular basis, title and title transfer fees are levied only when a new or used vehicle is purchased or retitled. For light vehicles, about half the states have flat fees; about one-third of the states base the registration fee for light vehicles on weight; and the remainder base the fee on various combinations of weight, age, horsepower, and value. Additional revenue is obtained from the sale of vanity plates. For heavier vehicles, registration fees usually increase rapidly with some measure of weight *(Cambridge Systematics Inc. and HDR Inc. 2005)*.

Oregon currently charges a flat fee of $55 for a title and $54 for a 2-year registration. Excluding the few states where the fee is a percentage of value, the average annual registration fee is about $35, with a low of $8 in Arizona and a high of $271 in North Dakota (where registration is based on weight and model year; *Tax Policy Center 2008*). Oregon also charges between $10 and $30 at initial issuance for "vanity plates" and, in some cases, charges a two-year renewal fee as well.

In Montana, motor vehicle license fees fund the operating costs of transportation services for older adults and people with disabilities. The funds are allocated to agencies on a competitive basis, depending on need and the degree of service coordination.

Driver's License Fees

Driver's license fees are usually set to cover the cost of administration, rather than to raise revenue for other purposes. They are a small, but relatively broad-based and stable source of revenue. However, because they are charged at a flat rate, they are considered regressive. Oregon currently charges $54.50 for a new 8-year license, $34.50 for a renewal, $21 for a replacement, and $25 for an identification card.

As explained above, except for identification cards, these funds cannot legally be spent on transit for older adults and people with disabilities.

Vehicle Sales or Title Tax

Vehicle sales taxes or title taxes are paid when a new or used vehicle is purchased. They are usually based on a percentage of the purchase price of the vehicle, although in some states the amount also depends on factors such as the age or weight of the vehicle. Few states have a dedicated vehicle sales tax that is separate from their general sales tax, but for those who do the revenue is dedicated to transportation use.

Since the tax rate is tied to the price of the vehicle, it automatically adjusts for inflation. Vehicle sales taxes are generally considered equitable because people who can afford to spend more on a vehicle will pay more in taxes. However, depending on the tax rate, the amount of the tax may add significantly to the cost of the vehicle making it unpopular among consumers and the automotive industry.

In Minneapolis, Minnesota, $125 million of operating funds are provided by the state Motor Vehicle Sales Tax (MVST). The MVST is a 6.5% tax on the sale of all new and used vehicles, which are exempt from the state's general sales tax. MVST funds are provided to the Council through the State Metropolitan Transit Fund.

It is unclear if this type of tax is feasible in the State of Oregon for funding transit. The Constitution does not allow taxes on the "ownership, operation or use of motor vehicles" to be spent on transit operations. If a vehicle sales tax were interpreted as a tax on ownership, it would fall under this limitation. The Legislative Counsel recently issued an opinion that taxes on rental cars were covered by this limitation *(Legislative Counsel Committee, 2008)*.

Tolls

States and regional transportation agencies are increasingly using tolls to fund construction of new roads and bridges. Tolls have sometimes been imposed on existing roads, originally untolled facilities. The more common approach to doing so is to turn a high-occupancy vehicle (HOV) lane into high-occupancy toll (HOT) lane, where single-occupant vehicles pay a toll to use the lane. Tolls are usually dedicated to pay for the construction (paying off bonds) and maintenance of a facility. However, in some cases, excess revenues are used to fund other services, often after construction bonds are paid, but sometimes beforehand. For example, revenues from tolls on the Golden Gate Bridge from Marin County to San Francisco, CA and from the I-15 HOT lane in San Diego County, CA are used for transit service in those corridors *(Weinstein, et al, 2006)*.

For the Southeast Pennsylvania Transportation Authority (SEPTA) in Philadelphia, state tolls play an important role in funding transit. In 2007, new legislation created the Pennsylvania Public Transportation Trust Fund (PPTTF), which is projected to provide the agency $496.3 million in funding for 2008. The PPTTF is a pot of state money that includes lottery funds, revenue from the turnpike system, and 4.4% of state sales tax revenue. It is important to note that a significant share of the Pennsylvania fund comes from tolls.

The potential in the short term for using tolls to fund transit in Oregon is very limited. Oregon currently does not toll any highways, though it is considering the option for several new projects. In the longer term, the revenue potential may be limited, since tolling is generally only considered for new facilities. In addition, it might be difficult to use tolls from a corridor or bridge to fund transit services beyond the region where the facility is located. Therefore, this might be a more viable option in the urban areas were new facilities, particularly tolled facilities, are more likely to be built.

Employment Related Taxes

Employment taxes generally take the form of income taxes or payroll taxes. Income tax revenues in Oregon go into the general fund. TriMet, Lane Transit District, South Clackamas Transportation District, and the Cities of Canby, Sandy, and Wilsonville are the only jurisdictions in Oregon that uses payroll taxes to pay for transit services.

According to NTD data, the Transit Authority of River City (TARC) in Louisville, Kentucky, received $34.3 million in nonstandard local taxes in 2006. Research revealed that these funds come from an occupational license tax (OLT) of 0.2%, collected by the Louisville Metro Revenue Commission. The OLT is similar to a payroll tax. Entities that pay the tax include self-employed individuals, corporations, partnerships, LLCs, and any other organizations involved in a business or other activity for profit within Louisville Metro. It may be worth exploring the OLT mechanism further to see if it has any political or funding advantages over a standard payroll tax.

General Sales Tax

Forty-five states have a statewide general sales tax, ranging from 2.9% to 7.25%, with various exemptions for food and drugs *(Tax Policy Center 2008)*. California, Massachusetts, Virginia, and Indiana dedicate a portion of their general sales taxes to fund various transportation related programs. Sales taxes, particularly local option sales taxes dedicated to transportation, are one of the fastest growing sources of funding for transportation in other parts of the country, notably in most urban counties in California. Since Oregon has no existing sales tax, implementing this option in Oregon would be extremely unlikely for the purpose of raising funds for transit for older adults and people with disabilities.

Parking-related Taxes and Fees

Similar to Oregon's use of miscellaneous revenue sources for special transportation funding (fees from state-issued ID cards at the DMV and taxes on non-highway use fuels), Florida dedicates $5.00 from each temporary handicapped parking tag fee to its Transportation Disadvantaged Trust Fund. While this idea has the benefit of being related to the needs of the senior and disabled populations, it also may place an undue burden on a potentially disadvantaged population. Currently, Oregon charges no fee for handicapped parking permits.

Parking taxes can be charged either to commercial parking operators, who then pass some or all of the cost onto consumers (depending on the market), or directly to consumers at parking meters. This kind of tax can only be charged in areas of a jurisdiction large enough to have a robust market for paid parking, and even then, only in certain market conditions *(Berk & Associates 2002)*. Because they are only feasible on a small local scale, they are not likely to be a good source of revenue for the broader needs of special transportation. Parking meter revenue has been used in the City of Portland to help fund transit capital costs.

Lottery and Gambling-related Sources

New Jersey uses a portion of its casino revenues to fund capital projects related to transportation services for older adults and people with disabilities. For its Senior Citizen Transportation Program, Pennsylvania uses a combination of lottery proceeds and supplemental general funds to reimburse providers who provide certain types of discounted or free services for seniors. Specifically, the program will reimburse 85% of eligible fares for Shared-Ride Service during all hours and 100% of the fare for off-peak fixed route service.

In the 2007-09 biennium, the Oregon Lottery was expected to raise over $1.3 billion. Allowable uses of lottery funds are limited by previously-approved voter mandates. Those uses include economic development and job creation, education, and parks and natural resources. At least one-third of the funds are mandated by the voters to be spent on specific education and parks and natural resources programs. The approximate allocation of funds for 2007-09 was as follows *(Oregon Lottery, 2007)*:

Parks And Natural Resources	
Parks (7.5% - voter mandate)	$98 million
Natural Resources/Watershed Enhancement (7.5% - voter mandate)	$98 million
Education	
Education Stability Fund (18% - voter mandate)	$236 million
State School Fund	$634 million
Debt Service (Bonds)	$55 million
Sports Programs in Higher Education	$11 million
Economic Development	
Oregon Economic & Community Development Department	$67 million
Debt Service (Bonds)	$112 million
County Fairs	$3 million
Governor's Office for Economic Revitalization Team	$2 million
Counties for Economic Development (Statutory Mandate)	$45 million
Gambling Treatment Program	$13 million

Lottery funds were recently used to fund bonds for capital transportation projects, including rail transit and freight-related projects. These projects are characterized as economic development projects.

The September 2008 Oregon Economic and Revenue Forecast projected a 13% increase ($174 million) in available revenues for the 2011-13 biennium and a 26% increase ($350

million) for 2013-15. Projections for 2009-11 were about the same as 2007-09. All of the projections were lower than previous projections.[17] Continued dampening of the economy could lower these projections further.

Using lottery funds for operating public transit for older adults and people with disabilities would mean that funds for some existing programs could not be increased at the same rate as lottery revenues increase. In addition, it is unclear whether funding transit operations for older adults and people with disabilities would qualify as a job creation or economic development project. Many of the transit services do provide access to jobs for people with disabilities.

Property Taxes and Facility-based Revenues

Some Oregon communities use ad valorem property taxes to support transit. Support for increasing these taxes or imposing new taxes in the near term for transit may be very limited due to current economic conditions.

Some agencies outside of Oregon have been creative with facility-based revenues sources. Of the $25.6 million the Capital Metropolitan Transit Authority (CMTA) in Austin, Texas, collected in directly-generated revenue in 2006, $19.3 million came from negotiated fees from customers who utilize the authority-owned freight line between the towns of Llano and Giddings. A significant amount of this total is generated from fuel surcharges and rebates from Union Pacific. It is doubtful whether this sort of revenue source would be available to an Oregon agency, but this case highlights the importance of understanding the assets that are under agency control and looking for ways to leverage them.

General Funds

Many local governments in Oregon already use general funds to help support transit. State general funds are used in some states to fund demand response transit. Ohio dedicates monies from its general fund to pay for its Elderly and Disabled Transit Assistance Program. The program reimburses transit systems that reduce their fares by 50% or more for seniors and disabled persons. Missouri also dedicates monies from its general fund to pay for its Elderly and Handicapped Assistance Program. The program reimburses non-profit organizations for operating expenses incurred while providing transportation services to their clients.

[17] http://www.oregon.gov/DAS/OEA/docs/economic/appendixb.pdf. Accessed October 5, 2008

Tax credits and other incentives might also be used to fund or encourage transit services or additional volunteer programs. Many Oregon transit providers already use the Business Energy Tax Credit (BETC) program. Options may exist for increasing the use of tax incentives. It should be noted that tax incentives are usually funded through the general fund. An advisory committee for TriMet's special transportation programs developed the following list of possible targets for tax credits or other incentives:

- Employers for allowing employees employment time to volunteer
- Employees who take vacation time to volunteer
- Retirees who volunteer
- Nursing homes, elder care facilities that provide own transportation
- Dialysis centers and hospitals that coordinate and group trips or provide own trips.

Other National Funding Programs

In addition to the revenue raising mechanisms discussed above, state and local jurisdictions may be eligible for a variety of federal and private programs to help fund special transportation services. Requirements for eligibility and use of funds vary between programs. These programs rarely would finance operations of transit service over time, but could be used for service development purposes. These programs may warrant further investigation, particularly where they apply to the coordination of transportation needs with the provision of specific social services. Some of these programs are listed in Table 5.5.

Table 5.5: Federal Funding Programs with Transportation-Related Components

Program Name	Administered by	Funding Method	Eligible Uses	Eligible Recipients	Notes	Currently Used in Oregon
Vocational Rehabilitation Grants	Department of Education	Formula/ block grants	Operating	Public entity	Provides funding for services for disabled people; can include program-related transportation services	Unsure
Senior Community Service Employment Program (Title V)	Department of Labor	Solicited grants	Administra-tion, operating	Public entity, non-profit	Promotes employment for persons aged 55 and over; can include program-related transportation services	Yes
Ticket to Work	SSA	Contract with providers		Public entity, non-profit, for-profit, tribal entity	Primarily for job training and career development for people with disabilities; this can include transportation services	Unsure

Conclusions: New Funding Sources

There is no single, ideal source to significantly help close the funding gap for transit for older adults and people with disabilities in Oregon. For more than 50 years in the U.S., a "user pay" principle has guided most transportation funding – those people who use the transportation system pay for it, largely through fuel taxes. The more people drive (use the system), the more they pay in fuel taxes. Initially, the federal funding system based upon this principle was limited to roads. It has since expanded to include funding from fuel taxes for transit capital and operating costs. In theory, a well-functioning transit system improves the operation of roadways by reducing demand for road space and congestion. The "user pay" principle also guides the funding of roads in Oregon, where fees from drivers' license fees, vehicle registration fees, fuel taxes, and weight-mile fees on large trucks are structured to somewhat match the costs the different users impose on the road

system. However, in Oregon, the state's Constitution does not allow state fuel taxes to be spent on transit.

As an alternative to fuel taxes, many states have used state or local sales taxes to fund transit and other transportation projects. Sales taxes are one of the fastest growing sources of transportation funding in the country. However, sales taxes are generally more regressive than fuel taxes and are not consistent with a user pay principle.

The other growing source of transportation funding in many state consists of toll revenues. Toll revenues from roads or bridges in excess of the costs to build and maintain the facility could fund transit services. However, the revenue potential may be limited, since tolling is generally only considered for new facilities.

Oregon's lack of a sales tax and its Constitutional prohibition on using vehicle and fuel taxes to fund transit pose serious constraints on funding all types of transit. Without these constraints, the potential for raising revenue from either source to fund transit would be significant. **A one-cent increase in the gas tax would raise about $18 million per year *(ODOT, 2007h)*, which would cover a significant share of the projected gap for funding demand response transit for older adults and people with disabilities.** However, traditional fuel taxes may not be a long-term solution for funding transit, since vehicles are becoming more fuel efficient. For this reason, Oregon is exploring the use of a mileage-based fee to replace the gas tax. Without a change in the state's Constitution, however, such a fee could not be used to fund transit either.

Criteria for evaluating funding sources for demand response transit for older adults and people with disabilities may differ from those used for other transportation systems. Such transit can be viewed as a necessary social service, in addition to being a part of the transportation system. In this case, the "user pay" principle may not be the most pertinent guiding principle for choosing a funding source. This argument holds true particularly when providing good transit service may allow more older adults and people with disabilities to remain living in their homes rather than in institutional facilities. The cost of providing care in such facilities, a significant portion of which is borne by the public, is considerably higher than the cost of providing in-home care. Therefore, these transit services can be viewed as part of the larger social service system and as a part that may reduce overall costs.

Social services are traditionally funded through income taxes and through various "sin" taxes (cigarette, liquor) and lottery funds. The State estimates that, without an increase in the tax rate, revenues from cigarette taxes will decline in the future. In contrast, lottery

revenues are projected to increase. **Therefore, in addition to increasing the cigarette tax to at least keep up with the increasing costs of the transit programs it funds, the use of lottery funds should be explored for funding the operation of transit for older adults and people with disabilities.** One option would be to dedicate a portion of the expected increase in revenues to transit operations.

Finally, this analysis has focused on statewide funding options. However, local sources provide a majority of the funding for demand response transit. This includes a patchwork of employer and property taxes and other general fund revenues. Employer tax rates are limited by state law and exist in only a few urban areas. Raising the rates may help close the funding gap in those areas, but this option will not be of assistance in other areas. In addition, local governments, too, are constrained by the state Constitutional limits on vehicle- and fuel-related taxes and fees. This is important because while a statewide vote to increase gas taxes or registration fees to fund transit might fail, voters in some areas, particularly urban areas, might be willing to support such taxes or fees. Recent polling in other states and nationally has shown more support for increasing fuel taxes or other transportation fees when the increase supports programs that address concerns such as global warming. **Therefore, such options should be explored to provide local governments more flexibility in raising transportation revenues locally.**

6. Conclusions

Overview

In this chapter, a summary of key study results is presented, along with a discussion of study limitations, conclusions, and recommendations.

Summary

This report has presented the results of a study to: (a) analyze and project the public transportation needs and costs for Oregon's older adults and people with disabilities from the present to 2030; and (b) identify possible funding mechanisms for the services required to address those needs. The focus was on demand response transit, although fixed route transit was also addressed.

One of the first steps toward accomplishing the project's goals involved conducting analyses to identify the present size of the populations of older adults and people with disabilities, and to develop projections of the number and proportion of these groups in five-year increments to the year 2030. **A key finding of this study is that both the number and the proportion of older adults and people with disabilities will grow over the next two decades.**

- In 2010, older adults and people with disabilities will comprise 22% of the population in Oregon in 2010. By 2030, they will comprise 28% of the population.

On the basis of these projected population increases alone, demand for transportation services for older adults and people with disabilities is expected to increase. As will be described shortly, other factors may affect demand, as well.

To prepare the estimates of future transit demand and costs, an understanding was necessary regarding current baseline use and cost of transit services. An overview of Oregon's present transit system, therefore, was provided in Chapter 2.

Because no previous examples of statewide forecasts for demand for transit by older adults and people with disabilities could be found in the literature, two different approaches to estimating the future use of transit for older adults and people with disabilities were used: a level of service approach and a travel demand approach, as detailed in Chapter 4. The estimates also addressed the issue of unmet demand. A number of assumptions had to be

made about future and unmet demand, so the analysis presented both a low estimate and a high estimate.

Specific findings from the analysis of *future transportation demand* included:

- The number of trips taken by older adults and people with disabilities on demand response transit is estimated to increase by 2.5% to 3.0% annually between now and 2030 *simply due to increases in population*. The actual increase could be between 3.8% and 6.5%, based upon recent trends in increasing rates of use.
- The number of trips taken by older adults and people with disabilities on fixed transit is estimated to increase by about 2.0% annually in rural areas and 3.5% annually in the largest urban areas.
- Future growth rates for special needs transit will generally be higher in the major urban areas in the State. This is because those areas are expected to see higher rates of growth in the number of older adults and people with disabilities. In addition, those areas are expected to see greater increases in the rates of use of demand response transit, based upon recent trends.

Current and future estimates of *costs* for providing transportation services to older adults and people with disabilities through demand response transit, fixed route transit, and certain DHS transportation services were also calculated (see Table 6.1). **These estimates of cost do not include inflation, unmet demand, or the effects of changes in service or other programs.** Annual growth rates can be used to project estimates for years other than 2030. Dollar estimates are based on an analysis of current costs and the best available data.

Table 6.1: Summary of Estimates of Current and Future Costs for Transportation for Older Adults and People with Disabilities (not including inflation)

Transit Type	Current (2006) Estimate	Future (2030) Low Estimate	Future (2030) High Estimate
Demand Response Transit	$47,520,000	$132,384,000	$246,463,000
Annual Growth Rate		4.36%	7.10%
Fixed Route Transit	$48,179,000	$104,311,000	$104,311,000
Annual Growth Rate		3.27%	3.27%
DHS Medicaid Brokerage Transportation Services	$18,242,000	$30,204,000	$94,824,000
Annual Growth Rate		2.11%	7.11%

A simple estimate of unmet demand indicates that total trips made by older adults and people with disabilities would increase about 26% if unmet demand were satisfied, not including the 2008 price spike in fuel. **Assuming one-third of that unmet demand were satisfied through demand response and fixed route transit, the number of trips made by those modes would increase about 9%, and the costs would increase further.**

Nationally, demand response transit operating costs have increased about 6% annually over the past eight years, while fixed route bus service operating costs have increased about 5% annually. Table 6.2 shows how the cost projections (*without* accommodating any unmet demand) would change with different assumptions for annual inflation rates.

Table 6.2: Summary of Estimates of Current and Future Costs for Transit for Older Adults and People with Disabilities, Including Inflation

	Annual Cost Estimates (in millions)					
	2006	2010	2015	2020	2025	2030
Demand Response Transit						
Low Estimate	$47.5	$63.7	$91.7	$132.0	$195.7	$269.1
High Estimate	$47.5	$80.5	$149.7	$268.8	$492.8	$790.4
Fixed Route Transit (rides by older adults and people with disabilities only)						
Low Estimate	$48.2	$60.3	$79.8	$105.7	$139.9	$185.2
High Estimate	$48.2	$66.2	$98.5	$146.6	$218.1	$324.4
DHS Brokerage Programs						
Low Estimate	$18.2	$21.7	$27.4	$35.3	$46.8	$60.3
High Estimate	$18.2	$26.2	$41.7	$67.7	$113.3	$184.0

Thus, costs for demand response transit service may be expected to increase by 7.5% to 12.4% per year in the future. Increases in fixed route service costs are not as high, though they do range from 5.2% to 8.3% per year. This is because: (1) it is assumed that the inflation rate for fixed route service is lower, based upon past trends; and (2) there is no adjustment for demand based upon increasing rates of use, as is seen in demand response transit. These figures are highly dependent upon the inflation assumptions. Given the recent volatility in fuel prices, these assumptions may not be accurate. However, it should be noted that fuel is a relative small share of the total costs of transit operations.

With respect to how to fund this increased service, a variety of sources were explored, **overall, the outlook for Oregon's major *current* funding sources for special needs transit is not positive.** Many of the sources are declining (e.g., cigarette taxes), even without accounting for inflation. A source that has increased somewhat steadily in the past – federal transit funding – is also in doubt due to recent declines in fuel consumption and, therefore, fuel tax revenues.

In order for the STF cigarette tax revenues to keep up with the pace of growth estimated and the projected decline in cigarette sales tax revenues the 2¢ portion of the tax would need to be raised to *at least* 13¢ (lowest estimate) **to 37¢** (highest estimate) **in 2030. To keep pace over the short-term (to 2015), the tax would need to be between 4.4¢ and 7.2¢. *This does not address any of the unmet demand or needs for new and improved service identified by providers.***

There is no single, ideal source to significantly help close the funding gap for transit for older adults and people with disabilities in Oregon. For more than 50 years in the U.S., a "user pay" principle has guided most transportation funding – those people who use the transportation system pay for it, largely through fuel taxes. At the federal level this has included using fuel taxes to fund transit. Many states have also used state or local sales taxes to fund transit. However, sales taxes are generally more regressive than fuel taxes and are not consistent with a user pay principle.

Oregon's lack of a sales tax and its Constitutional prohibition on using vehicle and fuel taxes to fund transit pose serious constraints on funding all types of transit. Without these constraints, the potential for raising revenue from either source to fund transit would be significant. **A one-cent increase in the gas tax would raise about $18 million per year *(ODOT, 2007h)*, which would cover a significant share of the projected gap for funding demand response transit for older adults and people with disabilities.**

Criteria for evaluating funding sources for demand response transit for older adults and people with disabilities may differ from those used for other transportation systems. Such transit can be viewed as a necessary social service. In this case, the "user pay" principle, may not be the most pertinent guiding principle for choosing a funding source. This argument holds true particularly when the fact is considered that providing good transit service may allow more older adults and people with disabilities to remain living in their homes rather than in institutional facilities. The cost of providing care in such facilities, a significant portion of which is borne by the public, is significantly higher than the cost of providing in-home care.

Social services are traditionally funded through income taxes and through various "sin" taxes (cigarette, liquor) and lottery funds. Revenues from cigarette taxes are expected decline in the future. In contrast, lottery revenues are projected to increase. **Therefore, in addition to increasing the cigarette tax to at least keep up with the increasing costs of the transit programs it funds, the use of lottery funds should be explored for funding the operation of transit for older adults and people with disabilities.**

Finally, this analysis has focused on statewide funding options. However, a patchwork of local sources, including employer and property taxes and other general fund revenues, funds a majority of the state's demand response transit. Employer tax rates are limited by state law and exist in only a few urban areas. Raising the rates may help close the funding gap in those areas, but this option will not be of assistance in other areas. In addition, local governments, too, are constrained by the state Constitutional limits on vehicle- and fuel-related taxes and fees. While a statewide vote to increase gas taxes or registration fees to fund transit might fail, voters in some areas, particularly urban areas, might be willing to support such taxes or fees. **Therefore, such options should be explored to provide local governments more flexibility in raising transportation revenues locally.**

Limitations of the Study

A caution with regard to the present study is that **several assumptions had to be made** in order to create the cost estimates. Specifically, assumptions regarding factors such as the inflation rate that can be expected for the next two decades and the rate of presently unmet travel demand that transit could potentially address had to be made, along with estimates of the actual rate of unmet demand. An assumption that service levels and programs would remain constant was also required. Should reality differ from these assumptions and estimates, the cost estimates would have to be revised.

Another limitation of the study concerns the **use of existing data**. In some cases, data were incomplete or inconsistent, and this could affect the estimates provided.

Other factors besides presently unmet demand may also affect demand for transit. Although not quantifiable at present, it is worth noting some of these other major variables that should be considered. **In addition, there are action steps that can be taken in an attempt to increase use of public transit rather than private vehicles and shift demand from demand response to fixed route transit.** These factors and strategies, as well as **suggestions for future research,** are described in the next sections.

Other Factors That May Affect Demand

Trends That May Impact Driving Rates in the Future

As discussed earlier in this report, it is difficult to predict whether life expectancy will change in the future, or if there are likely to be shifts in the amount of the life span that the average adult will spend free of disability. **Future driving rates will depend on whether the gap between total life expectancy and driving life expectancy (the number of years in later life during which an older driver can continue and chooses to drive) widens, narrows, or stays the same. This, in turn, will affect transit demand.**

Based on a two-year community study of 4,700 adults ages 70 and older, Foley, Heimovitz, and colleagues *(2002)* predicted that although male drivers between the ages of 70 and 74 had a life expectancy of an additional 18 years, they would continue to drive for only eleven years, while female drivers aged 70-74 had a predicted remaining life expectancy of 21 years and a driving life expectancy of eleven years. **This suggests that transit demand will be greater among older women, who will spend substantially longer (about 3 years, on average) dependent on alternative transportation sources than will older men.** In the Foley et al. study *(2002)*, drivers who reported vision problems, limitations in activities of daily living, and/or memory problems at the start of the study period were the most likely to have stopped driving two years later.

Technological advances may extend the period of time in which older drivers can drive with confidence. Okola et al. (*2003)* described the potential that in-vehicle technologies have to help older drivers compensate for the cognitive, sensory, and mobility declines that typically occur with age. Emergency alert and vehicle location devices, navigational technologies, adaptive cruise control, vision enhancement systems, and collision avoidance systems all have the potential to enable older adults to continue to drive safely later in life. In a survey of older drivers, Henk et al. *(2000)* found that respondents felt advance traveler information systems (ATIS) could be particularly important in helping them to decrease their travel-related stress, informing them about weather, and helping them to adjust their schedules and travel plans. Henk et al. *(2000)* identified cost, lack of awareness, and lack of understanding of technology as barriers to the use of ATIS. However, Okola et al. *(2003)* argued that discomfort with technology will not be the barrier for future older adults that it has been for previous generations as they aged, because the older adults of the future will have had opportunities to establish familiarity with technology earlier in life.

Another factor that may affect driving rates concerns development. Specifically, **changes in long-term development patterns may increase the proportion of older adults**

living in areas where their mobility and access to goods and services do not depend on their ability to drive a private vehicle, and thus increase transit demand. Nationally, according to the Transportation Research Board *(2005)*, planners and policy-makers are pushing to establish smart growth in their regions by: creating a range of housing opportunities and choices; making neighborhoods walkable; encouraging community and stakeholder collaboration; fostering distinctive, attractive places with a strong sense of place; making development decisions predictable, fair, and cost-effective; mixing land uses; preserving open space, farmland, natural beauty, and critical environmental areas; providing a variety of transportation choices; strengthening development and directing it toward existing communities; and taking advantage of compact building design.

In case studies of five metropolitan regions that had engaged in comprehensive planning efforts aimed at managing growth, Porter, ten Siethoff and colleagues *(2005)* found evidence that smart growth policies could increase transit mode shares and reduce vehicle travel. Notably, Logan *(2005)* observed that demand for better-located alternatives to conventional single-family detached housing is on the rise, both among the general market and among aging Baby Boomers, specifically. **If older adults of the future choose to age in more walkable, transit-oriented, densely-developed locations, this may reduce their need to drive** (although not necessarily their preference for driving) as the primary mode of travel **and/or shift demand from demand-responsive transit** (often a preferred option in dispersed or non-urban areas) **to fixed route transit**.

Recent research has not explored how technological advances may alter the driving behavior of people with disabilities or whether location preferences are changing for this population.

Programs and Recommendations to Shift Demand from Demand Response to Fixed Route Transit

Another factor that could not be taken into account in the demand estimates concerned efforts to shift demand from demand response transit to fixed route transit. **To encourage this shift, transit agencies will need to address some of the common barriers and service gaps** including: schedule and routes that do not cover all times and destinations, multiple transfers, long travel times, physical challenges (such as walking to/from stops, climbing stairs, or standing during travel), fear of crime, unreliable service, and difficulty obtaining and understanding information about using transit systems. **Compared to the general population, older adults and some people with disabilities want to travel at different times, require expanded routes and hours, and more strongly value**

schedule reliability and assistance from drivers (*Rosenbloom 2007)*. **Agencies must also ensure that their basic infrastructure and fleet are accessible,** a concern not always fully met by compliance with ADA standards. If the resources exist, targeted local research can be a crucial part of determining the specific reasons for transit underutilization by transportation-disadvantaged populations *(Beverly Foundation 2007)*.

To help transit agencies identify areas for improvement in their ability to serve older adults, the Beverly Foundation *(2008)* developed a *Senior Friendliness Calculator* based on *Five A's of Senior-Friendly Transportation*: *availability, acceptability, accessibility, adaptability,* and *affordability*. **Training of transit drivers is one way to enhance quality of service provided to people with disabilities and facilitate increased use of fixed route transit** *(Bagalog 1997).* **Another is prioritizing the improvement of fixed route stops that are most likely to be used by demand response riders** (for example, those located nearest the top 25% locations of origins and/or destinations of demand response trips; *Bagalog 1997*).

Travel training programs, of which Oregon has several, can increase transit use by transportation-disadvantaged populations. For example, Lane Transit District (LTD) sponsors a Travel Training and Transit Host program that includes one-on-one training for people who are eligible to use complementary paratransit and hosts at a key station to assist in transfers. The program has been in operation since 2001 and trained over 600 people in its first six years. LTD estimates that the program saved about $265,000 in 2006-07 *(Alternative Work Concepts and LTD, 2007)*. After older adults in a Walnut Creek, California, senior community viewed a travel training video, respondents who previously had negative perceptions of transit reported significantly more positive impressions and indicated that they were more likely to use transit to access the destinations specifically portrayed in the video, and that they were more likely to use the information sources demonstrated, such as the Internet (*Shaheen and Rodier 2007)*. However, the intervention was less successful in changing attitudes regarding physical challenges of transit use, such as reading schedules and climbing stairs, and respondents did not report increased likelihood to take transit to general destinations not portrayed in the video.

To better target travel training, **one suggestion is that transit agencies track the frequency of requests for different types of information and develop different travel training programs to meet the needs of specific user groups** *(Bagalog 1997)*. **Peer model training and travel training for the general population can also be helpful in shifting demand.** The Beverly Foundation *(2007)* described examples of different training interventions, such as Sarasota County Area Transit's Senior Ambassador program, in which senior volunteers provide information and travel training for their peers. Also, the

North Carolina Department of Transportation uses volunteer train hosts to provide guidance and assistance for rail passengers, thereby introducing some of the low-intensity supportive services helpful to people with seniors and disabilities, while increasing overall service provision to the general population *(Beverly Foundation 2007).* Bagalog *(1997)* developed a model to help transit agencies select the right kind of travel training program based on their needs and constraints; he also offered some recommendations on more effectively marketing fixed route transit.

New Forms of Service

The Beverly Foundation issued a series of reports on **supplemental transportation programs (STPs), or community-based programs to fill the gaps in existing transit and paratransit services** (see *Beverly Foundation and AAA Foundation for Traffic Safety 2001*; *Beverly Foundation and Community Transportation Association of America 2005*; and *Beverly Foundation 2007*). These programs often involve volunteers and partnerships with public and/or non-profit agencies and are tailored to fit the needs and constraints of their particular communities.

A national survey of STPs by the Beverly Foundation and the AAA Foundation for Traffic Safety *(2001)* described the arrays of systems and services provided by these organizations. Their study found that one-third of the STPs served rural communities, one-fifth served urban locations, one-tenth served suburban areas, and another third served a mix of locations. The majority of the STPs were non-profits housed under umbrella organizations, with 97% targeting seniors (with or without other populations) and 42% also targeting people with disabilities. Four-fifths of the STPs provided door-to-door service, with a majority offering single-passenger services and nearly half offering escort services. One-quarter reported that they accommodated same-day requests, and another third required only 24 hours' advance notice. Although a large portion of the STPs surveyed provided rides only to and from medical appointments, the majority helped riders meet a wider array of needs. Many operated only on weekdays and/or during daytime hours. Thirty-nine percent relied solely on volunteer drivers, with 36% paying all drivers and the rest using a mix of volunteer and paid drivers. Many of the STPs surveyed obtained funding from multiple sources, with two-thirds of the programs receiving grant funding, one-fifth receiving funding from tax revenue and only two-fifths getting funds from rider fees or donations.

There are some important limitations to STPs: they are meant to supplement other transportation options, not compete with them, and they must be designed to limit potential liability *(Kerschner and Harris 2007)*. Not all STPs provide transportation –

some focus on helping transportation-disadvantaged populations make better use of the options already in place. For example, the southern California pilot project *Getting Around: Alternatives for Seniors Who No Longer Drive* focused on helping seniors who had lost their licenses (or learned that they might lose their licenses) transition to other transportation options *(Kaplan and White 2007).* This project combined a transportation support and information network (including community partnerships and volunteer counselors) with a multi-media public education campaign. Participants reported high levels of satisfaction with the services they received *(Kaplan and White 2007*).

A variety of **additional successful tactics for providing transportation alternatives or helping transportation-disadvantaged populations use public transit** have been recommended, such as those by the *Beverly Foundation (2007):*

- **Develop STPs with outreach to and input from the target population**
- **Establish regular supplemental service between senior living areas and popular destinations to decrease demand for dial-a-ride/demand response services**
- **Create volunteer driver programs where public transit authorities provide vehicles, coordination, and training**
- **Form partnerships between public transit authorities, community service providers, and local businesses to organize transit orientation trips for seniors.**

The brochure *Innovations for Seniors* described different types of public and community transit services and suggested solutions for the specific mobility challenges that older adults experience *(Beverly Foundation and Community Transportation Association of America 2005)*. Exemplary STPs and detailed program reviews are described in a report by the Beverly Foundation and the AAA Foundation for Traffic Safety *(2001)*.

Innovative public sector approaches have included **multi-provider transportation voucher programs**, **streamlining administrative aspects of transportation benefit programs,** and **developing "hybrid" transit services that present new alternatives to paratransit and fixed route services**. For example, Espinosa and colleagues *(2002)* reported that ten states recently participated in piloting a transportation voucher program run by the Association of Programs for Rural Independent Living (APRIL), in which people with disabilities living in rural locations could arrange for transportation through any available provider (public, private, or volunteer) and fill out "checks" allowing that provider to obtain mileage reimbursements from the sponsoring agency. At the end of the four-year pilot project, the results were impressive: ten sites had funded 92,578 trips for 588 consumers at an average cost of $4.34 per ride, or $0.39 per mile. The vast majority of

these trips were employment-related and, over the four-year study period, 171 previously unemployed consumers were able to obtain jobs; in addition, a substantial portion of previously employed consumers reported that they had been able to maintain or improve their employment situation due to the program (Association of Programs for Rural Independent Living).

In a similar program, New Mexico's CRRAFT Program streamlined transportation reimbursement for rural social service clients receiving transportation benefits by using electronic benefits cards as transit passes *(Espinosa et al. 2002)*. This enabled sponsoring agencies and rural transit providers to handle reimbursement and monitor service utilization in an efficient, cost-effective manner.

Among the new forms of public transit being provided, Hardin *(2003)* identified three different "hybrid" alternatives to fixed route and demand responsive transit: deviated fixed route (where the vehicle follows a fixed route and timetable, but can leave the route to drop off or pick up riders), point-deviation services (where the vehicle travels to certain stops at certain times, but can otherwise travel anywhere to pick up or drop off riders), and service routes (where the vehicle travels a set route, but can stop at any point along that route to pick up or drop off riders). These three approaches aim to be more accessible than fixed route transit for older adults and people with disabilities, and more cost-effective than demand responsive transit.

It is clear that present and future transportation challenges will require creative solutions that move beyond traditional service models and funding sources to better utilize the service systems and funding services in place. In their assessment of the future transit needs in South Carolina, a state experiencing a mismatch between its limited transit options and a rapidly growing population of older adults, Boyles and colleagues *(2007)* recommended that the state **explore coordination with other transportation services** (such as Head Start), **plan at the regional level instead of the county level**, **levy development fees to fund transit**, and **link senior transportation to medical transportation**, which is often better funded.

Land Use and Travel Patterns for Older Adults and People with Disabilities – Recommendations

Land use policies can affect travel patterns for older adults and people with disabilities, and can be examined to determine changes needed to encourage use of transit. Giuliano *(2003)* found that the land use and travel relationships among older (aged 65+) and younger adults are largely the same when considering non-work trips.

When looking at density as it related to travel patterns among older adults, there were differences in mode split among identical age cohorts based on the density of their residence.

Giuliano *(2003)* also found that older adults in rural settings tended to travel fewer miles than younger adults, as a result of taking fewer trips than their counterparts in medium and high-density areas (500-10,000/square mile). However, the travel distances for each trip were, predictably, longer for those older adults living in a rural setting, due to the long distances separating attractions. Handy and Niemeier *(1997)* also found that overall accessibility influences trip distance and number of trips. **For both older adults and the general population, those living in low density communities, where services were located at long distances from one another and accessibility was decreased, the number of trips was lower and trip distance was higher than for their more urban counterparts** *(Handy and Niemeier 1997).*

In a similar study, Giuliano *(2003)* found that in communities with very high densities (greater than 10,000/square mile), trip distances and the number of trips taken by older adults were the lowest for both work and nonwork trips. People aged 65-74 showed very little difference in reliance upon personal occupancy vehicles when compared to their counterparts in denser communities. However, the share of walking trips made by this age cohort in lower density communities was lower than for those in high-density communities.

Taken together, **these findings indicate that there is little evidence that increasing density in otherwise rural communities will have much effect on older adults' reliance upon the personal occupancy vehicle.** In rural communities, specialized transit service, such as demand response transit, is more necessary for those older adults and people with disabilities who have no access to a vehicle. As walking is very often an unrealistic mode choice in rural or low density communities, a lack of access to a vehicle severely disadvantages individuals, as it would not in an otherwise densely populated community where services are either accessible through walking or through fixed route access *(Pucher and Renne 2005)*.

At the same time, these findings point to an opportunity in land-use planning for medium- to high-density communities to site housing for older adults in locations which offer increased accessibility, either through accessibility to public fixed route transit or services. **Overlay zoning, a tool of land use planning for older adults, may offer another bridge between transportation planning and the accessibility needs of elders**. Such zoning may allow for multi-unit housing in districts otherwise zoned for commercial uses

(Baggett, Chapman, and Howe 1994). As an example, a downtown district or corridor zoned exclusively for commercial use may have an overlay zoning, which permits multi-unit housing to be co-located with services. Mixed-use zoning and transit-oriented development in the Portland Metro Region offer examples of the integration of high-density development alongside transit and commercial opportunities as a way to promote accessibility for all.

A study of land use and transportation planning for older adults and people with disabilities undertaken by Lynn Peterson Consulting *(2004)* on behalf of TriMet reinforced the viability of such land use planning. Following analysis of housing case studies throughout the Portland Metro region, the study concluded with recommendations that housing for seniors and persons with disabilities be allowed along transit corridors. The study also called for mixed-use zoning, which provided for the needs of seniors and people with disabilities and for facilitating the development of large "aging in place" housing developments along fixed route transit. **Offering bonuses for universal design in transit-oriented development could address the particular accessibility needs of older adults** *(Lynn Peterson Consulting 2004).*

A search of the literature yielded little information on communities that actually have made specific land use decisions to address the needs of older adults. Baggett, Chapman, and Howe *(1994)* identified innovative practices linking land-use planning and transportation services for older adults; however, the most promising among them currently is not in practice. Specifically, Baggett et al. *(1994)* cited Clackamas County's zoning policy, which granted density bonuses to housing facilities oriented toward older adults if they were located in proximity to certain services. Points were given to a development if it was accessible by transit, close to health services, grocery store, pharmacies, etc. The density bonus granted to the housing development was determined based on the number of points awarded. However, a review of Clackamas County's current zoning policy found that this point system was no longer in use.

Although the existing literature recommends linking high-density housing for older adults and people with disabilities with access to transit through land-use planning, health considerations also must be taken into account. Transit corridors are often defined by high volumes of traffic, and epidemiological studies have found links between high volume corridors and higher rates of asthma and other adverse health effects *(Zhu 2002)*. Placing already vulnerable populations in areas with high toxin levels may put these individuals at an even greater disadvantage. Therefore, careful planning and mitigation efforts should be undertaken before building facilities for older adults and people with disabilities along high traffic transit corridors *(Bhatia 2007).*

Although transportation and transit accessibility requirements are mandated by the American with Disabilities Act, little research has linked travel patterns of disabled individuals with land use planning. Instead, the majority of research related to land use planning and disabilities has revolved around universal design or ensuring that all facilities are accessible to all individuals, despite special needs or impairments.

Other Gaps or Challenges to the Use of Transit

Many of the aspects of transit use considered to be nuisances by the general population also deter older adults and people with disabilities from using transit. Shaheen and Rodier *(2007, p. 6)* reviewed the existing literature and identified the following commonly-identified barriers to transit use by older adults:

- Lack of direct service to local destinations
- Limited transit service hours during off-peak periods and on weekends
- Multiple transit connections
- Transit service that is not prompt or reliable
- Physical discomfort related to climbing stairs, paying fares, walking to and standing at stops, and standing during bus rides
- Fear of crime, including while waiting for buses after dark, using park-and-ride lots, and riding on buses after dark
- Difficulty understanding how to use transit

Improvements to address these barriers have the potential to improve quality of service to all transit users and increase overall transit mode share.

In addition, **the subset of older adults and people with disabilities who experience significant mobility challenges and difficulties performing activities of daily living may need additional supportive services**, such as "door-through-door" transportation services provided by organizations such as Ride Connection (*Burkhardt and Kerschner 2007).* These services can range in intensity from opening doors and providing verbal instructions to assistance with putting on outdoor garments, completing out-of-home activities, and putting away purchases at the end of the trip. **Such services can enable some high-needs older adults and people with disabilities to continue to live independently instead of entering much more expensive assisted-living or other long-term care arrangements.** Unfortunately, door-through-door services are expensive

to provide, require more training and a higher personnel-to-rider ratio, and may introduce additional liability to service providers.

As noted by Kerschner and Hardin *(2006)*, residents of rural areas often have much more limited transit options than residents of more densely-populated areas; this can further limit mobility and accessibility for transportation-disadvantaged populations. In particular, Kerschner and Hardin *(2006)* identified three types of gaps in rural transportation:

- Needs/services gaps, such as schedules and destinations that do not meet customers' full needs
- Infrastructure/services gaps, such as limitations imposed by legislative requirements on the use of funding or insufficient inter-jurisdictional coordination
- Expectations/reality gaps, such as services that are not as supportive, reliable, or flexible as customers expect

Although these gaps are not exclusive to rural transit systems, they create particularly daunting obstacles in rural locations. Funding limitations contribute significantly to all three kinds of gaps *(Kerschner and Hardin 2006).*

Additional difficulties arise when older adults must transition from driving to alternative modes of transportation. The Beverly Foundation *(2007)* explored the experiences of older adults when they ceased driving and switched to alternate modes. Most participants indicated that their decision to stop driving had been prompted by a specific event (such as problems with their vehicle or a change in their health or financial situation), that planning had not preceded their decisions to stop driving, and that they had to take "emergency measures" to identify transportation options. The older adults in the study felt that driving was strongly linked to their freedom, independence, and mobility, and these perceptions discouraged them from exploring alternate modes of transportation, as they believed the alternatives to be inferior. Neal and colleagues' *(2008)* Oregon study of older drivers and individuals who had voluntarily stopped driving had similar findings, although the most commonly cited reason for ceasing to drive was vision-related problems. Another finding was that even individuals who had generally ceased to drive reported continuing to do so if necessary. **These studies suggest the value of public education campaigns to inform older adults about the benefits of switching to public transportation and the dangers of continuing to drive past their ability to do so safely. However, such campaigns could create discrimination or aggressive behaviors by younger drivers toward older ones, as older adults may already be perceived as inadequate drivers (e.g., too slow).**

Recommendations for Future Research

Research is recommended with respect to three general areas: (1) the need for comparable data across programs and providers; (2) research on the effectiveness of strategies to increase demand for fixed route and decrease demand for demand response transit; and (3) research to understand the effects of ***unmet need and*** service improvements on transit demand and the costs relative to long-term care costs and the effects on quality of life. Research recommendations are numbered in logical order; priority is assigned at the conclusion of this section.

The Need for Detailed, Comparable Data and Consistent Reporting

One of the biggest challenges of this analysis was the lack of data for some programs, particularly DHS services, and inconsistent or incomplete data for other transit services.

1. To facilitate the monitoring of costs and the accuracy of the projected cost estimates made here, standardization of data collection is needed. Common data collection forms for all ODOT transit providers and DHS brokerages would be helpful. Continued collaboration between ODOT Public Transit Division and DHS will aid in the development of data collection tools and procedures and is recommended.

The problem surrounding the lack of detailed and consistent data from transit agencies, human services agencies, Medicaid-related providers, and other entities is not unique to Oregon. In a 2005 report to the President, the Federal Coordinating Council on Access and Mobility (CCAM) noted the following:

> The regulatory review of the 62 human service transportation programs found little uniformity in program delivery, reporting, and eligibility requirements. Many of the programs cited by the 2003 GAO report support human service transportation have uniquely different primary missions such as the provision of employment or health care services. No single law or statute created federal human service transportation programs, meaning that there is no single or uniform requirement on how they are delivered, and each program developed its own idiosyncratic regulations, eligibility requirements, and operating procedures. (page 6)

The Transit Cooperative Research Program (TCRP) is currently working on a project to help address these problems (G-09 Human Services Transportation Cost Reporting to Facilitate Cost Sharing Agreements). That project noted that the "lack of information impedes the development and implementation of transportation coordination among

service providers and contractors."[18] A report from this project is expected within a few months.

Research on Strategies that Increase Demand for Fixed Route and Decrease Demand for Demand Response Transit

For individual, social, environmental, and economic reasons, it is crucial that the state be prepared not only to meet the growing demand for fixed route transit but to foster it.

2. Research is needed to identify the effectiveness of public programs, strategies, and policies developed to increase demand for fixed route transit. Examples include public education campaigns on how and why to use fixed route transit and land-use and housing development policies aimed at increasing proportion of older adults living in areas where their mobility and access to goods and services do not depend on their ability to drive a private vehicle.

Although the dominant trend is for older adults to age in place, most likely in the suburbs, there is some limited recent evidence that some older adults are now choosing to move to more transit accessible neighborhoods.

3. Research should be conducted to determine how the housing location decisions made by middle-aged and older adults influence demand for fixed route transit.

In addition, little research exists specifically concerning the transit needs and desires of tomorrow's older adults and people with disabilities. To reduce this population's reliance on private vehicles and increase its use of fixed route transit, better understanding of the transit service needs and preferences of this group is imperative.

4. Research is needed to identify the specific transportation service needs and preferences of the coming wave of older adults, the Baby Boomers.

Considerable effort is currently underway to identify ways to shift users from demand response to fixed route transit. Examples include travel training and related programs and infrastructure improvements. Other options could include "hybrid" transit services that present new alternatives to paratransit and fixed route services, and operational or pricing strategies to influence demand for fixed route versus demand response transit.

5. There is a clear need for research to identify the most effective programs and strategies aimed at shifting demand from demand response to fixed route transit.

[18] http://www.trb.org/TRBNet/ProjectDisplay.asp?ProjectID=1122

Efforts are also underway to develop strategies for improving public transportation efficiency. For example, multi-provider transportation voucher programs may be of assistance in streamlining administrative aspects of transportation benefit programs.

6. Research is needed to determine how efforts at improving transportation program administrative efficiency affect costs, particularly with respect to demand response transit.

Research on the Effects of Unmet Needs and Service Improvements on Future Transit Demand and Costs Relative to Long-Term Care Costs and Quality of Life

There is evidence of considerably high unmet travel needs (demand) on the part of today's older adults and people with disabilities. This report identified some existing pertinent but general studies, but more in-depth study is required.

7. Additional research is needed to develop quantitative estimates of unmet travel need among older adults and people with disabilities.
8. Similarly, further study is required to determine the *costs* of unmet travel needs among today's and tomorrow's older adults and people with disabilities. These may include health costs resulting from lack of access to services and human interaction.

Future transit demand and costs will also be determined by the extent to which service improvements are made. For example, several necessary service improvements to fixed route and demand response transit have been identified in order to best meet the needs of the subset of older adults and people with disabilities who experience significant mobility challenges and difficulties performing activities of daily living. Examples of such improvements in demand response transit include "door-through-door" transportation services, such as opening doors, providing verbal instructions, putting on outdoor garments, and putting away purchases.

9. Research is needed to identify how service improvements made with respect both to fixed route and demand response transit will influence demand on the part of older adults and people with disabilities.

Finally, many of the needed service improvements are likely to be expensive from a transit perspective. At the same time, they can enable some older adults and people with disabilities to continue to live independently and age in place, thus reducing the individual and societal burden associated with expensive long-term care arrangements such as assisted-living facilities and nursing homes. How these conflicting pressures can be balanced remains to be seen.

10. Research is needed to examine how the additional costs associated with making improvements in transit compare with the costs savings derived from lower long-term care costs, as well as higher quality of life for older adults and people with disabilities.

Priorities for Research

Priority should be given to research recommendation #1 (the need for comparable data and common data collection tools), since future research will be constrained by the lack of comparable and complete data. Following this, given the focus of this report on older adults and people with disabilities, the highest research priorities should be given to research recommendation #4 (identification of the specific transit needs and preferences of the Baby Boomers); research recommendations # 7 and 8 (estimates of the amount and costs of unmet demand on the part of older adults and people with disabilities); and research recommendations #9 and 10 (the effects of service improvements on demand and the cost savings derived from better transit with respect to reduced long-term care costs).

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APPENDICES

Appendix 1-1. ODOT/DHS Transportation Budget Note – Steering Committee Purpose and Membership

Appendix 1-2. Steering Committee Roster

Appendix 1-3. ODOT/DHS Transportation Budget Note – Work Group Purpose and Membership

Appendix 1-4. Working Group Roster

Appendix 1-5. ODOT/DHS Transportation Budget Note – Steering Committee Meetings

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Appendix 3-1. Clarification of Terms in the Americans with Disabilities Act of 1990: The 2002 Case of Toyota Motor Manufacturing, Kentucky Inc. v. Williams

Appendix 3-2. Definitions of Disability for DHS Programs

Appendix 3-3. Four Key Data Sources and Their Findings Regarding Rates of Disability

Appendix 3-4. Data Sources and Methods Used to Project the Number of Persons with Disabilities, by Age Group and Location in Oregon

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Appendix 3-6. Overview of Oregon and County Projections

Appendix 3-7. Oregon and County Projections 2010 to 2030

Appendix 3-8. Key Demographic and Social Trends and How They May Affect Public Transportation

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Appendix 4-2. Understanding Current Travel Patterns of Older Adults and People with Disabilities

Appendix 4-3. Literature Review on Unmet Travel Demand

Appendix 1-1. ODOT/DHS Transportation Budget Note – Steering Committee Description

The Purpose of the Steering Committee

The purpose of the Steering Committee was to represent the public's interest in transportation services for the older adults and people with disabilities by sharing information regarding local needs, barriers, and issues.

The Committee Members

The charge to committee members was to:

- Make diverse views known to decision-makers.
- Communicate local values during the recommendation and report drafting processes.
- Resolve conflict, if such exists, before the draft report is released.
- Provide feedback to the Budget Note Work Group and project consultants on the work plan, proposed scope of the report and the draft report.
- Represent the public and their constituency.

Organization of the Steering Committee

- ODOT and DHS recruited members representing key stakeholders interested in and impacted by the availability of transportation services for seniors and people with disabilities. Membership represented the following areas of interest: rural, urban/suburban, transit providers, aging and disability network providers, advocates for seniors, and advocates for people with disabilities (cross-disability).
- The members of committee(s) were to be a balanced representation of interests, including but not limited to: transit providers (cities, counties, others), aging and disability network providers, seniors and people with disabilities and their representatives, transportation users and their representatives, and rural and urban/suburban communities.

Appendix 1-2. Steering Committee Roster

Table 1-2 A: DHS/ODOT Transportation Budget Note Steering Committee Roster – Updated March 17, 2008

Name	Address	Phone #	E-mail	Affiliations
Armstrong, Frank	322 NE San Bayo Circle Newport, OR 97365-2234	541-265-9087	ol-frank@peak.org	Oregon Disabilities Commission (ODC), Commission for the Blind
Campbell, Jan	0320 SW Montgomery St., #416, Portland, OR 97201	503-504-1254	Janc988@aol.com	People with Disabilities Advisory Committee (PDAC), State Independent Living Center (SILC), ODC
Carpenter, Mary Jo	2810 Cedar Street Baker City, OR 97814	541-523-6591	maryjo@ccno.org	Oregon Transit Assn (OTA), Area Agency on Aging (AAA), rural
Christopherson, Teresa	Clackamas County Social Services PO Box 2950 Oregon City, OR 97045	503-650-5718	teresachr@co.clackamas.or.us	Clackamas County AAA
Girard, Lee	Multnomah County Aging and Disability Services Division 421 Oak Street Suite 510 Portland OR 97204	503-988-3768	Lee.girard@co.multnomah.or.us	Multnomah County Aging and Disability Services
Helm, John	PO Box R Scappoose, OR 97056	503-543-3121	johnchelm@msn.com	Governor's Commission on Senior Services (GCSS), PTAC, OTA, rural
Kendall, Sara	DHS, Office of Vocational Rehabilitation Services 500 Summer St NE Salem, OR 97301	503-945-5857	Sara.kendall@state.or.us	DHS Medicaid Infrastructure Grant
Lawson, Sally	NW Senior and Disability Services 3410 Cherry Ave NE Salem, OR 97309	503-304-3473	Sally.Lawson@state.or.us	AAA, PTAC
Lynch, Bill	Oregon Council on Development Disabilities 540 24th Place NE Salem, OR 97301-4517	503-945-9942	Bill.lynch@state.or.us	Executive Director of Oregon Council on Developmental Disabilities (OCDD), ODC

Appendix 1-2. Steering Committee Roster

Name	Address	Phone #	E-mail	Affiliations
Parker, Terry	Lane Transit District PO Box 7070 Eugene, OR 97401	541-682-3245	Terry.parker@ltd.org	OTA, PTAC, Project Action Easter Seal Board Member
Potter, Claire	TriMet 4012 SE 17th Ave. Portland, OR 97202		potterc@trimet.org	OTA, PTAC, TriMet
Volmert, Mark	Oregon Cascades West Council of Governments 1400 Queen Ave SE, Ste 205A Albany, OR 97322	541-967-8430	mvolmert@ocwcog.org	OTA, transit provider, rural
Young, Elaine	Seniors & People with Disabilities 676 Church St NE Salem, OR 97301	503-373-1726	elaine.young@state.or.us	SPD budget note lead
Ward, Michael	OR Dept. of Transportation 355 Capitol St. N.E. Salem, OR 97301-3871	503-986-3413	Michael.ward@state.or.us	ODOT budget note lead
Wenholz, John	290 West California Irrigon, OR 97844	541-922-3941	irrmotors@oregontrail.net	County Commissioner ,Association of Oregon Counties (AOC), PTAC, rural

Appendix 1-3. ODOT/DHS Transportation Budget Note – Work Group Description

The Purpose of the Work Group

The purpose of the Work Group was to advise the project staff.

The Members were to:

- Represent the DHS and ODOT interest in completing the objective of the budget note by September 2008.
- Provide data and other information to the AOC and consultants as necessary to fulfill the needs of the analysis.
- Make process decisions as requested.
- Manage the project progress.

Organization of the Work Group

- ODOT and DHS appointed staff and other individuals representing each agency's interests and the interest of primary stakeholders.

Appendix 1-4. Work Group Roster

Table 1-4 A: DHS/ODOT Transportation Budget Note Work Group Roster – Updated March 17, 2008

Name	Address	Phone #	E-mail	Affiliations
Cowling, Morgan	Assoc. of OR Counties PO Box 12729 Salem, OR 97309	503-585-8351	mcowling@aocweb.org	AOC
Deas, Aaron	Tri-Met 4012 SE 17th Ave. Portland, OR 97202	503-962-2455	deasa@trimet.org	OTA/ TriMet
Lawson, Sally	NW Senior and Disability Services 3410 Cherry Ave NE Salem, OR 97309	503-304-3473	sally.Lawson@state.or.us	O4AD
Lynch, Linda	2681 Garfield Eugene, OR 97405	541-343-4238 541-954-8607 (cell #)	Lindalynch28@gmail.com	OTA/LTD
Mauser, Carol	HSB 1st floor SPD Field Services 500 Summer Street NE Salem OR 97301	503-947-2321	Carol.s.mauser@state.or.us	DHS
Palmateer, Jean	OR Dept. of Transportation 355 Capitol St. N.E. Salem, OR 97301-3871	503-986-3472	jean.palmateer@state.or.us	ODOT
Van Der Hyde, Dinah	OR Dept. of Transportation 355 Capitol St. N.E. Salem, OR 97301-3871	503-986-3885	dinah.vanderhyde@state.or.us	ODOT
Ward, Michael	OR Dept. of Transportation 355 Capitol St. N.E. Salem, OR 97301-3871	503-986-3413	michael.ward@state.or.us	ODOT budget note lead
Wilson, Kelsey	OR Transit Association C/o Martin & Assoc PO Box 588 Lake Oswego, OR 97034	503-636-8188	OregonTransit2@aol.com	OTA
Woelke, Linda			Linda.j.woelke@state.or.us	DHS
Young, Elaine	Seniors & People with Disabilities 676 Church St NE Salem, OR 97301	503-373-1726	elaine.young@state.or.us	SPD budget note lead

Appendix 1-4. Work Group Roster

Name	Address	Phone #	E-mail	Affiliations
Burket, Jeanette	Seniors & People with Disabilities 500 Summer St. NE E-02 Salem, OR 97301	503-947-5064	jeanette.d.burket @state.or.us	DHS

Appendix 1-5. ODOT/DHS Transportation Budget Note – Steering Committee Meetings

Meetings of the Steering Committee were scheduled on the following dates:

- December 12, 2007
- March 12, 2008
- April 30, 2008
- August 18, 2008

Appendix 2-1. Oregon Transit Data

Data Sources

Data on existing public transit service costs and ridership came from two sources: (1) reports submitted to ODOT's Public Transit Division from providers receiving federal and state funds through ODOT (referred to as "ODOT Quarterly Report data"); (2) data submitted to the Federal Transit Administration's National Transit Database (referred to as "NTD data"). The NTD data include data only from urban areas. In Oregon's case, that includes TriMet, SMART (Wilsonville), Salem Mass Transit District, Rogue Valley Transit District, and Lane Transit District. ODOT staff provided information characterizing the type of service (e.g., demand response, fixed route, deviated fixed route, etc.) and the population served (e.g., older adults, people with disabilities, etc.).

In the Quarterly Report Data provided to ODOT, agencies indicate the total number of one-way rides (also known as unlinked passenger trips) and the number of rides taken by older adults and people with disabilities.

Data Cleaning

As is typical with any set of data, there were inconsistencies, errors, and missing data to address through a "data cleaning" process. Key aspects of this process are described below. Table 2-1 A, at the end of this appendix, lists all of the providers in the original dataset and the number of quarters of data available. To conserve space in that table, abbreviations are used for terms "older adults" (OA) and "people with disabilities" (PWD).

- Data were reported to ODOT quarterly. Numbers, particularly costs, sometimes varied significantly between quarters. Therefore, yearly totals were always used. In some cases, fewer than four quarters of data were available. If only one quarter of data was available, the provider was not included for that year. This was done because of the large differences in data from quarter to quarter. It was felt that a single quarter of data may not be representative of the whole year. If two or three quarters of data were available, a quarterly average was used to calculate the yearly total.
- The ODOT quarterly reports did not always include data for fixed route and complementary paratransit service provided by the larger transit systems in the urban areas, including Lane Transit District, Rogue Valley Transit District, Salem Area Transit, and TriMet. When possible, data from the National Transit Database (NTD) was

substituted. However, NTD data are reported for a calendar year, while the ODOT data are for the fiscal year. Therefore, NTD data for 2006 were used for FY 2005-06.

- In 2000-01 and 2001-02, City of Hermiston and Hermiston Transit both appear for some quarters, with the same ride count data, but different expense and revenue information. In such cases, the smaller number was used, which was consistent with the data for later years.
- There were several instances where the number of total rides was less than the number of rides provided for older adults and people with disabilities. The latter should be a subset of the former. In such cases, previous years were examined to try to correct the data. In some cases, the figures had been reversed. In other cases, one figure was a typo.
- Some of the cost data appeared to be inaccurate. In a few cases, cost data were entered as $0, which is unlikely. These cases were ignored. In other cases, cost data were suspiciously too high, resulting in per trip costs of over $100. These figures were also ignored. In some cases, costs varied year to year by factors of over 10. However, it was not possible to determine which year's data might be incorrect. Therefore, when possible, three-year averages were used.

Other Data Notes

The format of the ODOT Quarterly Report data provided for 2006-07 differed from previous years. Ride data for providers with both fixed route and complementary paratransit service were included separately, but cost data were a single field. In previous years, only a single set of ride data was included, sometimes without a clear distinction between fixed route and complementary paratransit rides.

Table 2-1 A: Special Transit Providers Included in Analysis

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
Abacus Program – Mental Health		4	4	4	4	4	3		Demand Response	PWD**	Rural	Yamhill County
Adolescent Day Treatment Center, Inc.						4	3	4	Demand Response	PWD	Rural	Douglas County
Albany Paratransit / Call-a-Ride	4	4	4	4	4	4	4	4	Demand Response	Complementary Paratransit	Rural	Linn County
Albany Transit System	4	4	4	4	4	4	4	4	Fixed Route*	General Public	Rural	Linn County
All Outdoors	3	4	4						Demand Response	PWD	Rural	Deschutes County Bend UA
Alternative Work Concepts				2	4	4	4	4	Demand Response	OA&PWD** Open	Rural	Lane County outside Eugene UA
American Red Cross – Oregon Trail Chapter / Yamhill	4	4	4	4					Demand Response	OA&PWD Open	Rural	Yamhill County
Arc of Benton County, Inc.				4	3	4	4	4	Demand Response	PWD	Urban	Salem UA & rest of Marion & Polk Counties
Ashland Supportive Housing / ASHCO								4	Demand Response	PWD	Urban	Medford UA+
Baker County				1	2				Demand Response	General Public	Rural	Baker, Union, Wallowa Counties PUMA
Basin Transit Service	4	4	4	4	4	4	4	4	Fixed Route*	General Public	Rural	Klamath County
Battle Mt. AmVets Ladies Auxiliary								4	Demand Response		Rural	
Bend, City Of / Dial-A-Ride	4	4	4	3	4	4	4		Demand Response	General Public	Urban	Deschutes County & Bend UA
Benton County	4				1	3		4	Demand Response	OA&PWD Open	Rural	Benton County
Benton County Senior Dial-A-Bus	4	3	4	4	4	4	3	4	Demand Response	OA&PWD Open	Urban	Benton County
Bethphage	4	2							Demand Response	PWD	Rural	Umatilla County
Bonney Enterprises, Inc.	4								Demand Response	Disabled	Rural	Benton County
Canby Area Transit – City of Canby						4	2	4	Fixed Route*	General Public	Rural	Portland UA & rest of 3 counties
Center Enterprises, Inc.	4	2	4	3	4	4	4	4	Demand Response	PWD	Rural	Linn County

Appendix 2-1. Oregon Transit Data

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
Center for Human Development	4	4	4	3	4	4	4	4	Demand Response	PWD	Rural	Baker, Union, Wallowa Counties PUMA
Central Oregon Council on Aging, Inc. (Deschutes)	4	3	4	4	4			4	Demand Response	OA&PWD Open	Urban	Deschutes County & Bend UA
Central Oregon Council on Aging, Inc. (Jefferson)	4	3	4	4	3	4	3	4	Demand Response	OA&PWD Open	Rural	North Central Counties PUMA
Central Oregon Intergovernmental Council								4	Demand Response		Rural	
Central Oregon Resources for Independent Living				2	4			4	Demand Response	PWD	Urban	Deschutes County & Bend UA
Chehalem Valley Senior Citizens Council	4	3	4	4	4	4	2		Demand Response	General Public	Rural	Yamhill
Chetco Senior Center, Inc. (Curry County)	4	4	4	4	4	4			Demand Response	General Public	Rural	Coos & Curry Counties
Clackamas County Social Services			3	4	3	2	3		Demand Response	OA&PWD Open	Rural	Portland UA & rest of 3 counties
Columbia Community Mental Health					3	1		4	Demand Response	PWD	Rural	Clatsop, Columbia, Lincoln & Tillamook Counties PUMA
Columbia County					4	4	4	4	Deviated fixed route*	General Public	Rural	Clatsop, Columbia, Lincoln & Tillamook Counties PUMA
Columbia County Senior Citizens Council (COLCO)	4	3	4	3	1				Demand Response	General Public	Rural	Clatsop, Columbia, Lincoln & Tillamook Counties PUMA
Community Connection / Baker County	4	4	4	4	4	4	4	4	Demand Response	General Public	Rural	Baker, Union, Wallowa Counties PUMA
Community Connection / Union County	4	4	4	4	4	4	4	4	Demand Response	General Public	Rural	Baker, Union, Wallowa Counties PUMA

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
Community Connection / Wallowa County	4	4	4	3	4	3	4	4	Demand Response	General Public	Rural	Baker, Union, Wallowa Counties PUMA
Community Partnership Team – Jefferson County		3							Demand Response	OA&PWD Open	Rural	North Central Counties PUMA
Confederated Tribes of Umatilla		1	3	4	4	4	4	4	Fixed Route*	General Public	Rural	Umatilla County
Confederated Tribes of Warm Springs				1					*Not enough data to include in analysis*			
Coos County Area Transit Services District						4	4	4	Deviated fixed route*	General Public	Rural	Coos & Curry Counties
Coquille Indian Tribe								4	Demand Response	OA&PWD Open	Rural	Coos & Curry Counties
Corvallis Transit System		1	1	3					Fixed Route	General Public	Urban	Benton County
Corvallis, City of	4	2	2						Fixed Route	General Public	Urban	Benton County
Crooked River Ranch Senior Group			4	4	3	3	3	4	Demand Response	OA&PWD Open	Rural	North Central Counties PUMA
Curry County							1		*Not enough data to include in analysis*			
Curry County Transit System							3	4	Deviated fixed route*	General Public	Rural	Coos & Curry Counties
Deschutes County				2					*Not enough data to include in analysis*			
DHS Volunteer Program – Baker / Union / Wallowa	4		2						Demand Response	OA&PWD Open	Rural	Baker, Union, Wallowa Counties PUMA
DHS Volunteer Program – Coos/Curry		4						3	Demand Response	OA&PWD Open	Rural	Coos & Curry Counties
DHS Volunteer Program – Crook / Jefferson				3	3	4	3	4	Demand Response	OA&PWD Open	Rural	North Central Counties PUMA
DHS Volunteer Program – Deschutes		2	1	4	4			4	Demand Response	OA&PWD Open	Rural	Deschutes County & Bend UA

Appendix 2-1. Oregon Transit Data

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
DHS Volunteer Program – Lincoln / Linn / Benton	4	1							Demand Response	OA&PWD Open	Rural	Clatsop, Columbia, Lincoln & Tillamook Counties PUMA
DHS Volunteer Program – Malheur			1	4	4	4	3	4	Demand Response	OA&PWD Open	Rural	Haney, Lake & Malheur Counties PUMA
DHS Volunteer Program – Marion / Polk / Yamhill	4	4							Demand Response	OA&PWD Open	Rural	Salem UA & rest of Marion & Polk Counties
Douglas County / Umpqua Transit								4	Fixed Route*	General Public	Rural	Douglas County
Douglas Resident Training Facilities	1	4	3	4	1	4	3	4	Demand Response	PWD	Rural	Douglas County
Gilliam County Special Transportation	4	4	4		3	4	4	4	Demand Response	OA&PWD Open	Rural	North Central Counties PUMA
Grant County Transportation District	4	4	4	3	4	4	3	4	Fixed Route*	General Public	Rural	North Central Counties PUMA
Handicap Awareness Support League	4	3	4	2	2	4	4	4	Demand Response	PWD	Rural	Josephine County
Harney County				2				4	Demand Response	General Public	Rural	Haney, Lake & Malheur Counties PUMA
Harney County Senior Center	4	4	4	2	3	4	4		Demand Response	General Public	Rural	Haney, Lake & Malheur Counties PUMA
HASL Rogue Valley T.D.								3	Demand Response	PWD	Urban	Medford UA+
Hermiston Senior Center	4	4	4	4	1	4	4	3	Demand Response	Elderly	Rural	Umatilla County
Hermiston Transit / City of Hermiston	3	3	2	4	2	2	4	4	Demand Response	OA&PWD Open	Rural	Umatilla County
Home Life, Inc.	4	4	4	4	4	4	3	4	Demand Response	PWD	Rural	Benton County
Hood River County Transportation District	4	3	4	4	4	4	4	4	Demand Response	General Public	Rural	North Central Counties PUMA
Horizon Project, Inc.	2								Other	OA&PWD Open	Rural	Umatilla County
Inter Court Family Center			4	4	3	3	4	2	Demand Response	PWD	Rural	Haney, Lake & Malheur Counties PUMA

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
Interfaith Volunteer Caregivers / Deschutes					4				Demand Response	Elderly	Urban	Deschutes County & Bend UA
Interfaith Volunteer Caregivers/ Linn	3	4	4	4	4	4	4	4	Demand Response	Elderly	Rural	Linn County
Interfaith Volunteer Caregivers / Wallowa				3					Demand Response	Elderly	Rural	Baker, Union, Wallowa Counties PUMA
Janus House, The	4	4	4	4	3	1	2	4	Demand Response	PWD	Rural	Benton County
Josephine County								4	Demand Response*	General Public	Rural	Josephine County
Josephine County Community Action	4	4	4	4	4	4	4		Demand Response	PWD	Rural	Josephine County
Josephine County Mental Health	2								Demand Response	PWD	Rural	Josephine County
Klamath Basin Senior Citizens Council	4	4	4	4	4	3	3	4	Demand Response	OA&PWD Open	Rural	Klamath County
Klamath County Mental Health						4	4	3	Demand Response	PWD	Rural	Klamath County
Lake Co. Mental Health / Lutheran Community Services				2	3	3	3		Demand Response	PWD	Rural	Haney, Lake & Malheur Counties PUMA
Lake County Mental Health / Lutheran Family Services	4			1	1		1	2	Demand Response	PWD	Rural	Haney, Lake & Malheur Co. Counties PUMA
Lake County Senior Citizens Association	4	4	1	4	3		1	2	Demand Response	OA&PWD Open	Rural	Haney, Lake & Malheur Counties PUMA
Lane Council of Government Senior & Disabled Outreach		1							Demand Response	PWD	Urban	Eugene UA
Lane County Mental Health	4	3							Demand Response	PWD	Urban	Eugene UA
Lane Transit District							NTD data used		Fixed Route	General Public	Urban	Eugene UA
Lebanon, City Of			4	4	3	4	3	4	General Public	Gen. Public	Rural	Linn County
Lebanon, City of, Dial-A-Bus	4	4			1		2		Demand Response	OA&PWD Open	Rural	Linn County
Lincoln City Senior Center	1								Demand Response	OA&PWD Open	Rural	Linn County
Lincoln County Transportation Service District	4	4	4	4	3	4	3	4	Deviated fixed route*	General Public	Rural	Clatsop, Columbia, Lincoln & Tillamook Counties PUMA

Appendix 2-1. Oregon Transit Data

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
Linn-Benton Loop Transit System / Linn	4	4	4	4	4	4	5	4	Fixed Route	General Public	Rural	Linn County
Living Opportunities, Inc.								4	Demand Response	PWD	Urban	Medford UA+
Malheur Council on Aging & Community Services					1	4	3	4	Demand Response	OA&PWD Open	Rural	Haney, Lake & Malheur Counties PUMA
Malheur County			4						Demand Response	OA&PWD Open	Rural	Haney, Lake & Malheur Counties PUMA
Malheur County Transportation Services			4	4	2				Demand Response	OA&PWD Open	Rural	Haney, Lake & Malheur Counties PUMA
Marie Mills Center, Inc.	4	3	4	3	4	4	4	4	Demand Response	PWD	Rural	Clatsop, Columbia, Lincoln & Tillamook Counties PUMA
Mercy Express / Mercy Medical Center			2	4	1	4	3	4	Demand Response	OA&PWD Open	Rural	Douglas County
Midcoast Enterprises	4	4							Demand Response	General Public	Rural	North Central Counties PUMA
Mid-Columbia Council of Governments	4	4	4	3			1		Demand Response	General Public	Rural	North Central Counties PUMA
Mid-Columbia Council of Governments / Wasco Co				2	2	4	2		Demand Response	PWD	Rural	Yamhill County
Mid-Valley Rehabilitation Inc.	4	4	4	4	4	4			Demand Response	PWD	Rural	Lane County outside Eugene UA
Milton-Freewater, City of	4	4	4	4	2	4	3	4	Fixed Route*	General Public	Rural	Umatilla County
Monument Senior Citizens Association	4	2							Demand Response	OA&PWD Open	Rural	North Central Counties PUMA
Morrow County	4							4	Demand Response	OA&PWD Open	Rural	North Central Counties PUMA
Nancy Devereux Center Inc., The						2			Demand Response	PWD	Rural	Coos & Curry Counties

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
New Day Enterprises, Inc.	4	1	1	2		1		4	Demand Response	PWD	Rural	Baker, Union, Wallowa Counties PUMA
North Lake Wellness Center		2	2						Demand Response	OA&PWD Open	Rural	Haney, Lake & Malheur Counties PUMA
Nyssa Senior Center			4	4	4	1			Demand Response	OA&PWD Open	Rural	Haney, Lake & Malheur Counties PUMA
Oakridge Diamond Express – SMS	4	4	4	4	4	4	2		Deviated fixed route*	General Public	Rural	Lane Co outside Eugene UA
OCWCOG Disability Services – Lincoln County								4	Demand Response	PWD	Rural	Clatsop, Columbia, Lincoln & Tillamook Counties PUMA
OCWCOG Disability Services – Benton County								4	Demand Response	PWD	Rural	Benton
OCWCOG Disability Services – Linn County								4	Demand Response	PWD	Rural	Linn
OHAS (Urban 103-21)	4		4	4	4				Demand Response	Complementary Paratransit	Urban	Salem UA & rest of Marion & Polk Counties
OHAS – Wheels		4	4		4	4	2		Demand Response	OA&PWD Open	Urban	Salem UA & rest of Marion & Polk Counties
OHAS (Polk 111-21)	3		4	4	4				Deviated fixed route*	General Public	Rural	Salem UA & rest of Marion & Polk Counties
OHAS (Rural 102-21)	4		4	4	4			4	Deviated fixed route*	General Public	Rural	Salem UA & rest of Marion & Polk Counties
Ontario, City of	4	4	4	4					Demand Response	General Public	Rural	Haney, Lake & Malheur Counties PUMA
Open Door, Inc.	4	4	4						Demand Response	PWD	Rural	Benton

Appendix 2-1. Oregon Transit Data

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
Opportunity Foundation – Crook	3	4	4	3	1				Demand Response	PWD	Rural	North Central Counties PUMA
Opportunity Foundation – Deschutes	4	4	4	3	4				Demand Response	PWD	Rural	Deschutes County & Bend UA
Opportunity Foundation – Jefferson	4	4	4	2	1				Demand Response	PWD	Rural	North Central Counties PUMA
Options for Southern Oregon	4	4	4	2	4	2	2		Demand Response	PWD	Rural	Josephine County
Oregon Mennonite Residential Services / Linn	1							4	Demand Response	PWD	Rural	Linn County
Pearl Buck Center	4	4							Demand Response	PWD	Urban	Eugene UA
Pendleton, City of	4	4	4	3	2	4	4	4	Demand Response	General Public	Rural	Umatilla County
Philomath, City of		4	4	4					Fixed Route	General Public	Urban	Benton County
Pilot Rock Lions Club	4	4	3	4	2	4	4	4	Demand Response	OA&PWD Open	Rural	Umatilla County
Reach, Inc.	3	4	4	4	4	4	4	4	Demand Response	PWD	Rural	Klamath County
Residential Assistance Program		4	3	4	4				Demand Response	PWD	Urban	Deschutes County & Bend UA
Retired & Senior Volunteer Program / Call-A-Ride								4	Demand Response	Elderly	Urban	Medford UA+
Retired Senior Volunteer Program	4		1						Demand Response	Elderly	Rural	Umatilla
Ride Connection, Inc.	3	4	4	2	4	3	4	4	Demand Response	OA&PWD Open	Urban	Portland UA & rest of 3 counties
River Cities Taxi / Rhody Express (Florence)	4	4	4	2	4	3	3	4	Fixed Route	General Public	Rural	Lane County outside Eugene UA
Rogue Valley Transportation District							NTD data used		Demand Response	Complementary Paratransit	Urban	Medford UA+
Rogue Valley Transportation District	4	3	3	4	2	4	4	4	Fixed Route*	General Public	Urban	Medford UA+
Salem Area Mass Transit District							NTD data used		Demand Response	Complementary Paratransit	Urban	Salem UA & rest of Marion & Polk Counties
									Fixed Route*	General Public	Urban	Salem UA & rest of Marion & Polk Counties

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
Sandy, City of	2	4	4	4	4	4	3	4	General Public	Gen. Public	Rural	Portland UA & rest of 3 counties
Senior Companion Program / Benton County				1	2	3	4	4	Demand Response	Elderly	Rural	Benton County
Senior Companion Program / Lincoln	3	1	2	2	2	2	3	4	Demand Response	Elderly	Rural	Clatsop, Columbia, Lincoln & Tillamook Counties PUMA
Senior Companion Program / Linn								4	Demand Response	Elderly	Rural	Linn County
Senior Companion Program / Douglas County				4	3	3	3	4	Demand Response	Elderly	Rural	Douglas County
Seniors Escorting Seniors				4	3	4	2	3	Demand Response	Elderly	Rural	Portland UA & rest of 3 counties
Silverton Hospital	4	4	1						Demand Response	OA&PWD Open	Rural	Salem UA & rest of Marion & Polk Counties
Silverton, City of		4	4	4	4	4	4	4	Demand Response	General Public	Rural	Salem UA & rest of Marion & Polk Counties
Siuslaw Area Womens Center	4	4							Demand Response	Elderly	Rural	Douglas County
Soroptomist International of Prineville	4	4	4	4	3	4	2		Demand Response	OA&PWD Open	Rural	North Central Counties PUMA
South Clackamas Transportation District	4	4	4	4	3	4	4	4	Fixed Route	General Public	Rural	Portland UA & rest of 3 counties
South Coast Business Employment Corporation	4	4	2	4	4				Demand Response	General Public	Rural	Coos & Curry Counties
South Lane Wheels	4	4	4	2	4	4	4	4	Demand Response	General Public	Rural	Lane County outside Eugene UA
Southern Oregon Transportation	4	3	4						Demand Response	PWD	Urban	Medford UA+
Special Mobility Services / Lane County RideSource		1			4	4	4	4	Demand Response	Complementary Paratransit	Urban	Eugene UA
Special Mobility Services / Multnomah	4	3							Demand Response	Complementary Paratransit	Urban	Portland UA & rest of 3 counties

Appendix 2-1. Oregon Transit Data

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
Special Mobility Services / Multnomah County							1	4	Demand Response	Complementary Paratransit	Rural	Lane County outside Eugene UA
Step Forward Activities, Inc. / Baker County	4								Demand Response	PWD	Rural	Baker, Union, Wallowa Counties PUMA
Sunset Empire Transportation District	4	4	4	4	3	4	2	4	Fixed Route*	General Public	Rural	Clatsop, Columbia, Lincoln & Tillamook Counties PUMA
Sutherlin, City of / Dial-A-Ride		3	4	4	3	4	3	4	Demand Response	OA&PWD Open	Rural	Douglas County
Sweet Home Senior Center / Dial a Bus						4	4	4	Demand Response	General Public	Rural	Linn County
Sweet Home Senior Center / Client Transp	2	1		3					Demand Response	PWD	Rural	Linn County
Sweet Home Senior Center/Linn Shuttle	4	4	4	3	3	4	4	4	Fixed Route*	General Public	Rural	Linn County
Sweet Home, City of		3	4	2					Demand Response	General Public	Rural	Linn County
The Klamath Tribes	4	4	4	4				4	Demand Response	OA&PWD Open	Rural	Klamath County
Three Rivers Transit		4	2	3	1	3	3	3	Demand Response	OA&PWD Open	Rural	North Central Counties PUMA
Tillamook County Transportation District	4	4	4	4	4	4	4	4	Fixed Route*	General Public	Rural	Clatsop, Columbia, Lincoln & Tillamook Counties PUMA
Tri-Met - Fixed Route								4	Fixed Route	General Public	Urban	Portland UA & rest of 3 counties
TriMet Lift								4	Demand Response	Complementary Paratransit	Urban	Portland UA & rest of 3 counties
Umatilla County Foster Grandparents / Senior Companions	4	1						4	Demand Response	Elderly	Rural	Umatilla County
Umpqua Homes for the Handicapped								3	Demand Response	PWD	Rural	Douglas County
Umpqua Regional Council of Government (URCOG)	4	4	4	4	3	4	3		Fixed Route*	General Public	Rural	Douglas County
Umpqua Valley Disability Networks								4	Demand Response	PWD	Rural	Douglas County

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
Upper Rogue Community Center, Inc.	4	3	4	3	2	3	2	4	Demand Response	OA&PWD Open	Rural	Medford UA+
Vale Senior Center			3	3	4	4	3	4	Demand Response	OA&PWD Open	Rural	Haney, Lake & Malheur Counties PUMA
Wallowa County				1					Demand Response	OA&PWD Open	Rural	Haney, Lake & Malheur Counties PUMA
Wallowa Valley Center for Wellness				1	1	4	4	3	Demand Response	PWD	Rural	Baker, Union, Wallowa Counties PUMA
Wasco County				1	1			4	Demand Response	General Public	Rural	North Central Counties PUMA
Weston, City of	2	4	4	3	2	4	4	4	Demand Response	OA&PWD Open	Rural	Umatilla County
Wheeler County				3	4	3	3	4	Demand Response	OA&PWD Open	Rural	North Central Counties PUMA
Wheeler County Community Transportation	4	4	4	1					Demand Response	OA&PWD Open	Rural	North Central Counties PUMA
Wheels - Mountain Express							2	4	Fixed Route	General Public	Rural	Portland UA & rest of 3 counties
Wheels of Joy – Linn County	3	1							Demand Response	PWD	Rural	Linn County
Wheels of Joy SAMTD (109-21)	4	3	4						Demand Response	PWD	Rural	Salem UA & rest of Marion & Polk Counties
White Bird Clinic	4	4			4	4	4	4	Demand Response	PWD	Urban	Eugene UA
Willamalane Senior/Adult Activity	4	3							Demand Response	PWD	Urban	Eugene UA
Wilsonville, City of (SMART)	4	4	4	3	3	4	3	4	Fixed Route*	General Public	Urban	Portland UA & rest of 3 counties
Winston, City of				1		4	3	4	Demand Response	OA&PWD Open	Rural	Douglas County
Woodburn, City of	4	4	4	4	4	4	4	4	Fixed Route*	General Public	Rural	Salem UA & rest of Marion & Polk Counties
Yamhill Community Action Program (YCAP)	4	4	4	4	4	4	3		Fixed Route	General Public	Rural	Yamhill County

Appendix 2-1. Oregon Transit Data

Provider	Number of Quarters of Data Provided By ODOT								Type of Service 1999-2005	Population Served	Urban or Rural	ACS Geography
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007				
Yamhill County							1	4	Fixed Route*	General Public	Rural	Yamhill County

** Fixed Route and Complimentary Paratransit combined in 2006-07** PWD = People with disabilities; OA = Older adults*

Appendix 3-1. Clarification of Terms in the Americans with Disabilities Act of 1990: The 2002 Case of Toyota Motor Manufacturing, Kentucky Inc. v. Williams

In the 2002 case of Toyota Motor Manufacturing, Kentucky Inc. v. Williams, the Supreme Court clarified the meaning of various terms included in the Americans with Disabilities Act of 1990 as follows:

- **Physical or Mental Impairment:** The Court cited this definition from the Rehabilitation Act of 1973 regulations: "…any psychological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems: neurological; musculoskeletal; special sense organs; respiratory, including speech organs; cardiovascular; reproductive, digestive, genitor-urinary; hemic and lymphatic; skin and endocrine" (Toyota Motor, 534 U.S. at 194-95 (citing 45 C.F.R. § 84.3 (j)(2)(i))).
- **Major Life Activity:** According to the Department of Justice, "major life activities" under the ADA include such activities as seeing, hearing, speaking, walking, breathing, performing manual tasks, learning, caring for oneself, and working (http://www.ada.gov/qandaeng.htm) The Supreme Court defined "major life activities" as those "that are of central importance to daily life" (Toyota Motor, 534 U.S. at 197).
- **Substantially Limits:** The Supreme Court used a definition of this term found in the Equal Employment Opportunity Commission's regulations, which defines "substantially limited" as "unable to perform a major life activity that the average person in the general population can perform" or "significantly restricted as to the condition, manner or duration under which an individual can perform a particular life activity as compared to the condition, manner or duration under which the average person in the general population can perform that same major life activity." (Toyota Motor, 534 U.S. at 195 (citing 29 C.F.R. § 1630.2 (j))

Furthermore, according to the Supreme Court, whether or not an impairment limits a major life activity is to be determined on a case-by-case basis depending on "the nature and severity of the impairment; the duration or expected duration of the impairment; and the permanent or long-term impact of or resulting from the impairment" (Toyota Motor, 534 U.S. at 195 (citing 29 C.F.R. § 1630.2 (j)(2)(i)-(iii)).

Appendix 3-2. Definitions of Disability for DHS Programs

The following definitions of disability were effective as of July 1, 2007, and apply to various DHS programs *(Mauser, 2008).*

461-01-15: Food Stamp Program, in Chapter 461

A ***disabled*** individual or an individual with a ***disability*** means an individual who meets any of the following requirements:

- Receives SSI benefits under title XVI of the Social Security Act
- Receives blindness or disability benefits under titles I, II, X, XIV, or XVI of the Social Security Act
- Receives OSIP or other state or federal supplement under section 1616(a) of the Social Security Act based on disability or blindness criteria under title XVI of the Social Security Act
- Receives state general assistance benefits based upon disability or blindness criteria under title XVI of the Social Security Act
- Receives interim assistance pending receipt of SSI or receives disability-related medical assistance under title XIX of the Social Security Act
- Receives a state or federally administered supplemental benefit under section 212(a) of Public Law 93-66
- Receives an annuity payment under Section 2(a)(1)(iv) of the Railroad Retirement Act of 1974 and is determined to be eligible for Medicare by the Railroad Retirement Board
- Receives an annuity payment under Section 2(a)(1)(v) of the Railroad Retirement Act of 1974 and meets the disability criteria used under title XVI of the Social Security Act
- Receives VA benefits for non-service or service-connected disability rated or paid as total under title 38 of the United States Code
- Receives disability retirement benefits from a governmental agency because of a disability considered permanent under section 221(i) of the Social Security Act
- Has a disability considered permanent under 221(i) of the Social Security Act section and is the surviving spouse or surviving child of a veteran and considered by the VA to

be entitled to compensation for a service-connected death or pension benefits for a non-service connected death under title 38 of the United States Code

- Is a veteran or surviving spouse of a veteran considered by the VA to be in need of Aid and Attendance benefits or permanently housebound under title 38 of the United States Code
- Is a surviving child of a veteran and considered permanently incapable of self-support under title 38 of the United States Code

Elderly means an individual 60 years of age or older.

Group living means a public or private nonprofit residential setting that serves no more than 16 residents and is certified by State of Oregon under regulations issued under section 1616(e) of the Social Security Act (42 U.SC. 1382e(e)). To be eligible for food stamps, a resident of such a group living arrangement must be blind or have a disability.

An individual is ***homeless*** if the individual does not have a fixed or regular nighttime residence or has a primary residence that is one of the following:

- A supervised shelter that provides temporary accommodations
- A halfway house or residence for individuals who may become institutionalized
- A temporary accommodation in another individual's or family's residence for 90 days or less
- A place not designed to be or ordinarily used as a place for individuals to sleep, such as a hallway, bus station, or similar place

A ***migrant farmworker*** is an individual who regularly travels away from their permanent residence overnight, usually with a group of laborers, to seek employment in an agriculturally related activity. If any member of an FS household fits the definition of migrant farmworker at any time during the redetermination period, the household is budgeted according to the policy on migrant farmworkers.

A ***primary person*** means:

- An adult in the ***filing group*** (see OAR 461-110-0370) who is designated by the group to serve as the primary person. Where there is no adult, the group can designate another responsible person in the filing group.
- Once the primary person has been designated, the filing group cannot choose a different individual to be the primary person during the same certification period (see OAR 461-

001-0000) or during an OFSET or job quit disqualification period, unless there is a change in the composition of the household group (see OAR 461-110-0210).

Seasonal farmworkers are individuals employed in agricultural employment of a seasonal or temporary nature. If any member of an FS household fits the definition of seasonal farmworker at any time during the redetermination period, the household is budgeted according to policy on seasonal farm workers. Seasonal farmworkers are not required to be absent overnight from their permanent residence when:

- Employed on a farm or ranch performing field work related to planting, cultivation, or harvesting operations; or
- Employed in a canning, packing, ginning, seed conditioning, or related research or processing operation, and transported to or from the place of employment by means of a day-haul operation.

461-125-0310 (Effective 04/01/08): Basis of Need, OSIP and OSIPM

In the OSIP and OSIPM programs, an individual must be one of the following:

- Blind (see OAR 461-125-0310) at any age (AB)
- Age 65 or over (see OAR 461-125-0350) (OAA)
- An individual with a disability (see OAR 461-125-0370) (AD). A *child* (see OAR 461-001-0000) with a disability is not eligible for the $1.70 SIP payment (see OAR 461-155-0250(4)).

461-125-0370 (Effective 04/01/07): Disability as the Basis of Need, OSIP and OSIPM

In the OSIP and OSIPM programs (except OSIP-EPD and OSIPM-EPD), an individual meets the eligibility requirement to have a disability if the requirements of one of the following subsections are met:

- The individual is receiving Social Security Disability Income (SSDI) or Supplemental Security Income (SSI) based on disability. Eligibility continues as long as the individual remains eligible for SSDI or SSI.
- The individual was eligible for and received Aid to the Disabled benefits in Oregon in December 1973. These grandfathered cases continue to be eligible as long as they are continuously disabled as defined by Oregon requirements that were in effect in 1973.

- The Department has determined the individual meets the listing of impairments found in 20 C.F.R. Part 404, Subpart P, Appendix 1; meets the medical vocational guidelines found in 20 C.F.R. Part 404, Subpart P, Appendix 2 for SSI; or meets the definition of disability in 20 C.F.R. §§404.1505 or 416.905.
- The Social Security Administration (SSA) has determined the individual meets the listing of impairments found in 20 C.F.R. Part 404, Subpart P, Appendix 1; meets the medical vocational guidelines found in 20 C.F.R. Part 404, Subpart P, Appendix 2; or meets the definition of disability in 20 C.F.R. §§404.1505 or 416.905.

If the Department finds the individual eligible for OSIPM in the absence of a disability determination by SSA, the individual remains eligible, provided that the individual continues to meet the disability criteria for eligibility for OSIPM, until SSA denies the disability claim in a final administrative decision.

For OSIP and OSIPM, a disability determination made by SSA that is unfavorable to an individual is binding on the Department unless the requirements of at least one of the following subsections are met (see 42 C.F.R. § 435.541(c)(1) and (c)(4)):

- SSA made the determination for a reason other than disability.
- The individual alleges a disabling condition different from, or in addition to, that considered by SSA in making its determination.
- More than 12 months after the most recent SSA determination denying disability, the individual alleges that his or her condition has changed or deteriorated since that SSA determination, and the individual has not made application to SSA based on these allegations.
- The individual alleges less than 12 months after the most recent SSA determination denying disability that the condition which SSA evaluated has changed or deteriorated since that SSA determination; and one or both of the following apply:
    - The individual has requested reconsideration or reopening of the most recent SSA determination denying disability and SSA has declined to consider the new allegations.
    - It is clear that the individual no longer meets SSI eligibility requirements unrelated to disability status but may satisfy comparable Medicaid eligibility requirements.

If a binding SSA disability determination is not in place, the determination of disability to qualify for OSIPM is made by the Presumptive Medicaid Disability Determination Team,

composed of a medical or psychological consultant and another individual who is qualified to interpret and evaluate medical reports, other evidence relating to the individual's physical or mental impairments, and (as necessary) to determine the capacities of the individual to perform substantial gainful activity, as specified in 20 C.F.R. Part 416, Subpart J (see 42 C.F.R. § 435.541(f)(2)).

The Presumptive Medicaid Disability Determination Team obtains and reviews medical reports and other non-medical evidence pertaining to the individual and the claimed disability. The medical report and non-medical evidence must include diagnosis and other information in accordance with the requirements for evidence applicable to disability determinations under the SSI program specified in 20 CFR Part 416, Subpart I. The Presumptive Medicaid Disability Determination Team then makes a decision about medical eligibility and whether and when a redetermination shall be made (see 42 C.F.R. § 435.541(f)(1) and (3)).

In the OSIP-EPD and OSIPM-EPD programs, an individual is ***disabled*** or has a ***disability*** if the individual has a physical or mental impairment, or a combination of these impairments, that meets the definition of disability used by SSA when determining eligibility for SSI or SSDI under 20 C.F.R. Part 404. The determination is made as follows:

- A determination by SSA that the individual is disabled or has a disability is accepted by the Department.
- If the individual was determined to have a disability by SSA and lost their SSDI eligibility due to their own income, the SSA determination remains effective for one year from the date that the individual loses eligibility for SSDI.
- If there is no currently effective SSA determination finding the individual has a disability, the case is referred to the Department's central office for a disability determination using the standards of 20 C.F.R. Parts 404 and 416 and considering all relevant medical and vocational information.

For OSIPM-EPD, an individual is engaging in ***substantial gainful activity*** (SGA) if the earnings of the individual are at or above the EPD Income Standard.

For OSIPM-EPD, any work activity engaged in during the OSIPM-EPD application process or certification period is not evaluated as ***past relevant work*** (PRW).

461-001-0000 (Effective 04/01/08): Definitions for Chapter 461

Disability means:

- In the FS program, see OAR 461-001-0015.
- In the REF, SFPSS, TA-DVS, and TANF programs, for purposes other than determining eligibility:
    - An individual with a physical or mental impairment that substantially limits the individual's ability to meet the requirements of the program; or
    - An individual with a physical or mental impairment that substantially limits one or more major life activities, a record of such impairment, or who is regarded as having such an impairment as defined by the Americans with Disabilities Act (42 USC 12102; 28 CFR 35.104).

Appendix 3-3. Four Key Data Sources and Their Findings Regarding Rates of Disability

Four national surveys have attempted to assess the number of people with disabilities and the extent of their disabilities: the *U.S. Decennial Census*, the *American Community Survey* (ACS), the *National Health Interview Survey* (NHIS), and the *National Long-Term Care Survey* (NLTCS). The rates of disability reported in each vary greatly, however, according to how disability was measured.

The American Community Survey and the U.S. Census

The definitions of disability found in the *American Community Survey* and the decennial census cast the largest net of the four major surveys. The *American Community Survey* is an annual survey conducted by the U.S. Census Bureau to supplement and update the information gathered in the decennial census. The ACS is conducted with a representative sample of 700,000 households in the civilian, non-institutionalized population.

Census 2000 asked two questions related to disability to gather information about long-lasting conditions among the U.S. population aged 5 and older (Figure 3-3 A). The questions relate both to the types of disabilities experienced and to the limitations resulting from those disabilities.

Figure 3-3 A: Questions on Disability from the American Community Survey and Census 2000

1. **Does this person have any of the following long-lasting conditions:**
    a. **Blindness, deafness, or a severe vision or hearing impairment?**
    b. **A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying?**
2. **Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities:**
    a. **Learning, remembering, or concentrating?**
    b. **Dressing, bathing, or getting around inside the home?**
    c. **Going outside the home alone to shop or visit a doctor's office?**
    d. **Working at a job or business?**

Thus, the data on disability that are available through the U.S. Census 2000 include the following types of disabilities, as defined below:

- **Sensory Disability:** A long-lasting impairment involving vision or hearing (Q1a).
- **Physical Disability:** A long-lasting condition that substantially limits one or more basic physical activities, such as difficulty walking, climbing stairs, reaching, lifting, or carrying (Q1b).
- **Mental Disability:** A physical, mental or emotional condition lasting 6 months or more that causes difficulty with cognitive tasks such as learning, remembering, and concentrating (Q2a).
- **Self-Care Disability:** A physical, mental or emotional condition lasting 6 months or more that causes difficulty with taking care of personal needs like dressing, bathing and getting around inside the home (Q2b).

For those aged 16 or over, Census 2000 also elicited information on two additional types of disability:

- **Go-Outside-the-Home Disability:** A disability due to which the person is unable to go outside the home alone to shop or visit a doctor's office (Q2c).
- **Employment Disability:** A disability due to which the person is unable to work at a job or business (Q2d).

Although the definitions of disability found in the *American Community Survey* and the decennial census cast the largest net of the four major surveys, the rates of disability found in each differ considerably. According to the 2000 Census, a total of 48.9 million people aged 5 or over living in housing units were identified as disabled (defined as experiencing any of the six types of disability); this represented 19.2% of that population in the U.S. *(Stern 2003)*. The *Census 2000 Supplementary Survey* (C2SS), which used the American Community Survey (ACS) design for its disability questions, revealed a lower overall rate of disability: 39.7 million people aged 5 or over living in housing units, representing 15.6% of that population in the U.S. *(Stern 2003)*.

A detailed discussion of the causes of the variation is presented in Appendix 3-4. In brief, changes in formatting were made in the ACS design to more clearly lay out the questions and instructions. Also, for follow-up with non-respondents, a computer-assisted interviewing system was used in which the appropriate skip patterns were built into the program, depending on the individual's response to earlier questions. In the Census 2000, some individuals and enumerators alike apparently misunderstood and marked the boxes indicating that the person had either employment or go-outside-the home disability when

actually the box had been marked only because the persons was aged 16 or over or because he or she was, in fact, in the labor force. Stern *(2003)* concluded that question design, survey administration, and interview training – which are important elements in the proper measurement of any variable, including disability rate – may have played a role in the disparities found the rates yielded by the two surveys. **The result is, however, that the ACS data are more accurate.** The ACS 2006 revealed that among the portion of the U.S. population between the ages of 16 and 64, 12.3% experienced at least one of the six types of disability, compared to 41% of those aged 65 or over.

The two other data sources that have been used to estimate disability rates are the *National Health Interview Survey* (NHIS) and the *National Long Term Care Survey*. These are described below.

The National Health Interview Survey (NHIS)

The *National Health Interview Survey* is conducted annually by the National Center for Health Statistics division of the Centers for Disease Control. It is a national cross-sectional household survey of the civilian, non-institutional population and is a major source of data about health and health trends for federal programs. In the NHIS, disability is defined as any long-term (three months or more) limitation in an individual's capacity to perform life activities as a result of a chronic condition, compared to the average kind and amount of activities for a person in his or her age group. The NHIS asks respondents about disabilities related to ADLs for those aged three and older, IADLs and work limitations for people age 18 and older, and limitations in walking and remembering for all age groups (see

Figure 3-3 B).

These more specific definitions yield smaller rates of disability. According to the 2006 *National Health Interview Survey*, 2.1% of the population between ages 18 and 64 experienced a limitation in one or more ADLs, and 4.4% experienced a limitation in one or more IADLs. Among the population aged 65 and over, 12.5% experienced a limitation in one or more ADLs, and 23.8% experienced a limitation in one or more IADLs.

Figure 3-3 B: Disability-Related Content in the Redesigned National Health Interview Survey

FOR EACH FAMILY MEMBER:

- **The need for help with personal care needs (such as eating, bathing, dressing, or getting around)**
- **The need for help with routine needs (such as everyday household chores or doing necessary business, shopping, or getting around for other purposes)**
- **Limitations because of difficulty remembering or confusion**
- **Difficulty waking without special equipment**
- **If a limitation, difficulty, or need for help is noted, the respondents were asked to select from a list of 18 health conditions the condition(s) that caused the limitation**

FOR ONE RANDOMLY SAMPLED ADULT:

- **Difficulty with physical functioning in a context that is not activity specific (e.g., the degree of difficulty experienced doing activities such as walking three city blocks, standing for 2 hours, or lifting or carrying something as heavy as 10 pounds, such as a bag of groceries)**
- **Difficulty engaging in social activities and recreation**
- **Mental distress**

FOR CHILDREN:

- **Receipt of special education or early intervention services**
- **Limitation in movement (such as walking, running, or playing)**
- **Whether the child has a health problem that requires prescription medicine**
- **Ever been told by a school official or healthcare provider that the child has a learning disability**
- **Mental disorders**

Source: The Future of Disability in America (Institute of Medicine of the National Academies: Committee on Disability in America 2007)

The National Long-Term Care Survey (NLTCS)

The *National Long-Term Care Survey* is a federally-sponsored survey focused specifically on functional limitations only in the population aged 65 and older. Data on younger age

groups are not collected. The NLTCS is a longitudinal survey of a nationally representative sample of older people residing both in the community and in institutions. The NLTCS considers a person to be disabled if: (a) he or she receives help from another person to perform any ADLs or IADLs; or (b) he or she is institutionalized in a nursing home; and (c) if any of these conditions have lasted or are expected to last 90 days or more" *(AARP 2004)*. According to the NLTCS data for 2004/05, the prevalence of chronic disability among the population 65 and older was 19.0% *(National Institute on Aging 2006)*.

Appendix 3-4. Data Sources and Methods Used to Project the Number of Persons with Disabilities, by Age Group and Location in Oregon

As a part of this study, a projection was required for the number of persons with disabilities, by age group, for communities within each of Oregon's 36 counties for five-year periods to 2030. The 37 pages that follow in Appendix 3-7 were developed using the methods described below.

Data Sources, Age and Geographic Categories, and Measures Used

The principal data sources, geographical areas, age classes, and measures used are listed below.

Main Data Resources

To identify the numbers of persons with disabilities and the population of places by age, data from the U.S. Census Bureau were used. Although other national data sources on disability are available (e.g., the *National Health Interview Survey*, the *National Long Term Care Survey*; see Section 1 of this report), the Census Bureau collects data with greater geographic and age detail. Thus, we investigated the use of the 2000 Census of Population and Housing data for disability rates, along with the more recent data available through the *American Community Survey* (2006), which is an annual survey conducted by the U.S. Census Bureau to supplement and update the information gathered in the decennial census. Ultimately, we rejected using the Census 2000 rates due to their inflated nature, as explained below in *Variations in Disability Rates*. For the present study, then, the disability rates used were derived from:

- The *2006 American Community Survey* (http://www.census.gov/acs/www/).

At the same time, because of the much greater geographic and age detail available in the U.S. decennial census, we explored the possibility of using the *2000 Census of Population and Housing* to refine the estimates (http://www.census.gov/main/www/cen2000.html). Unfortunately, our analyses revealed this approach to be unworkable (see the section below on *Disability Rates* details).

The current city and county population estimates used in developing the projections were those developed by:

- The Population Research Center (PRC) at Portland State University for 2000 to 2007 (http://www.pdx.edu/prc)
- The population forecasts for Oregon Counties by Age and Sex by the Office of Economic Analysis (http://www.oregon.gov/DAS/OEA/demographic.shtml)
- Coordinated population forecasts for Benton, Deschutes, Lane, Marion, and Jacksoncounties and population forecasts by Portland METRO

We used the city and county estimates from PRC from 2000 to 2007 to develop population trends. These trends were used to project each community's future share of the county population. For the *urbanized area* (UA) cities (Portland, Bend, Medford, etc.; see *Geographies* below) we inflated the population of the cities to that of the urbanized area. For example, the Bend UA is about 10% larger than the city of Bend, based on the numbers in the 2000 Census. The difference is due to the inclusion of an unincorporated area, or *Census Designated Place*, specifically Deschutes River Woods, in the urbanized area. Because there are no current estimates of populations in CDPs, we used the 2000 Census data (Bend UA/Bend PRC Estimate) for an inflation factor. This approach, while a bit imprecise, is best available option. It does not change the county projection, which is controlled by the OEA forecast, but increases the Bend UA's share of Deschutes County.

Geographies

The geographies used in each county projection included the following categories:

- Urbanized areas (UA), that is, those with populations 50,000 and over
- Cities with populations from 25,000 to 49,999
- Cities with populations from 2,500 to 24,999
- The remainder of each county, including smaller cities and unincorporated areas (Census Designated Places) with populations below 2,500

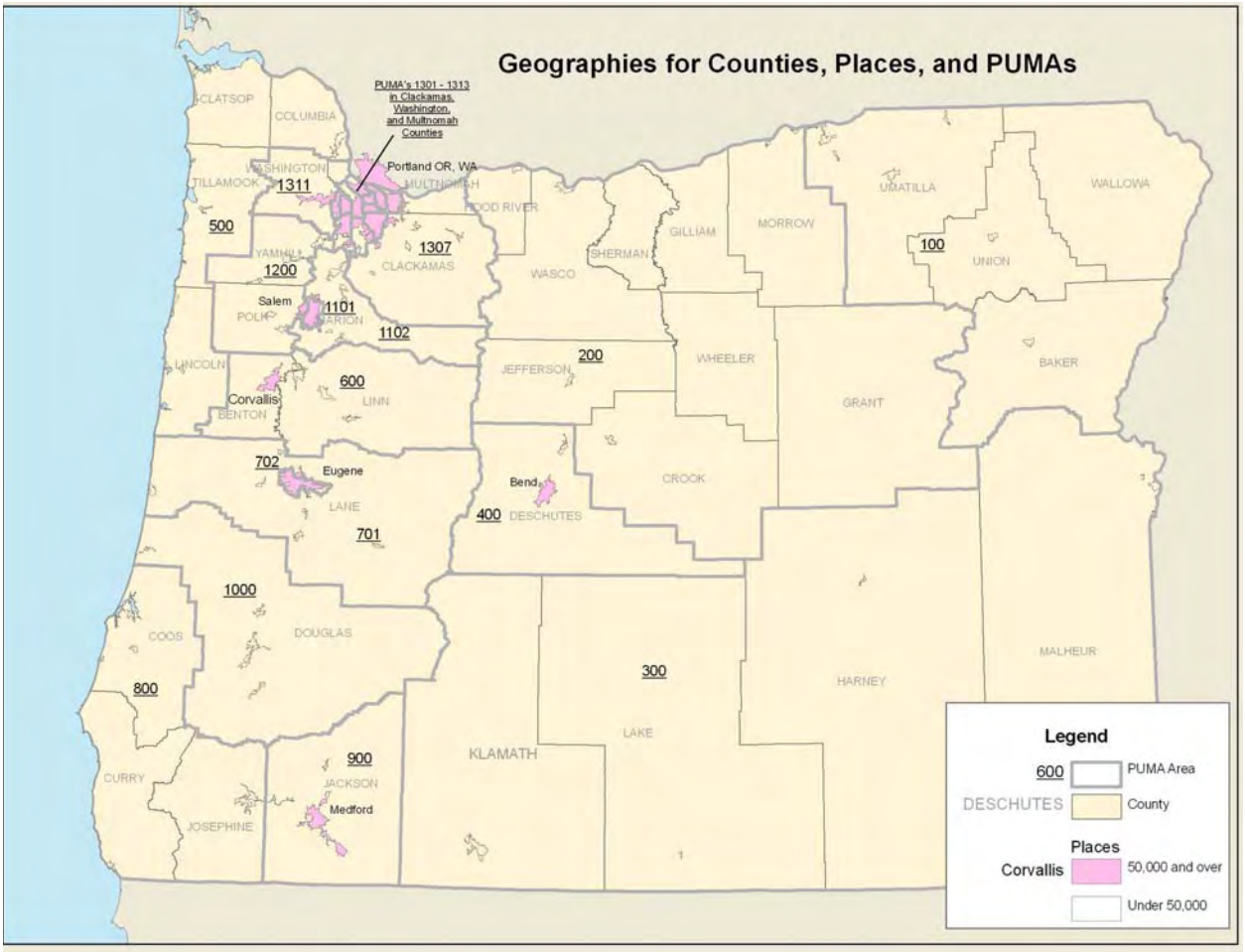
The study utilized data from the *2006 American Community Survey* (ACS) for several different geographies. For the ACS, data are published only for areas with populations of 65,000 persons or greater. This meant that there were no 2006 ACS data available separately for smaller Oregon counties, such as Wheeler, or for Corvallis, which is an urbanized area according to the U.S. Census definition, as it has a population greater than

50,000. Since it has fewer than 65,000 residents, however, Corvallis is too small to be reported separately in the ACS.

To be able to use the most current and unbiased data (see *Disability Rates* below), we used data for a special Census geography known as a *Public Use Micro-sample Area*, or "PUMA." There are 30 PUMAs in Oregon and all have populations over 65,000; thus, the 2006 ACS data are published for all of these areas. (The PUMA geography was originally created to permit release of the Public Use Micro-sample data, a 5% random selection of individual census questionnaire responses, without risking breaching the confidentiality of individual households. The PUMA geography has proven useful in working with the ACS data because the PUMAs generally exceed the 65,000-person threshold required for the ACS single-year data.)

In some cases, to achieve the 65,000-population threshold, several Oregon counties must be combined. PUMA boundaries follow county lines, but they are not coextensive with urbanized area boundaries. Thus, for some urbanized areas there are multiple PUMAs (for example, this is the case for the Portland urbanized area; see Figure 3-4 A for a depiction of Oregon by County and by PUMA divisions). *Urbanized areas* are defined by the Census based on a density criterion, and can include cities and contiguous urban agglomerations that meet the density criteria. For example, as noted above, the Bend Urbanized Area includes not only the city of Bend but also the Deschutes River Woods, an unincorporated area, or "Census Designated Place." Another example is the Portland Urbanized Area, which includes Vancouver, Washington; the 2006 ACS disability rates are reported for this two-state urbanized area, making it impossible to disaggregate for the purposes of determining disability rates in just the Oregon portion of the area using the 2006 ACS data. The Portland Urbanized Area includes not only a number of cities, but also unincorporated places, such as Aloha, a Census Designated Place. Although Corvallis is considered an Urbanized Area in the Census, it does not have the minimum population required by the ACS to be separately reported. Thus, only the Urbanized Areas of Bend, Eugene, Medford, Portland, and Salem can be reported separately when using the ACS 2006 data.

Figure 3-4 A: Oregon PUMA Divisions



Age Classes

The incidence of many types of disabilities increases with age. The *American Community Survey* (2006) reporting allowed us to show numbers and rates for the following age groups. Unfortunately, there is no separate breakdown in the ACS for persons aged 60 to 64, so data for this age group could not be disaggregated.

- Age 5 to 15
- Age 16 to 20
- Age 21 to 64
- Age 65 to 74

- Age 75 and over

Disability Measures

The 2006 American Community Survey (as did the U.S. Decennial Census, Census 2000) gathered data about six types of disabilities:

- **Sensory Disability:** A "long-lasting condition" involving "blindness, deafness, or a severe vision or hearing impairment"
- **Physical Disability:** "A condition that substantially limits one or more basic physical activities, such as difficulty walking, climbing stairs, reaching, lifting or carrying"
- **Mental Disability:** "A physical, mental or emotional condition lasting 6 months or more" that causes the person to have difficulty "learning, remembering, or concentrating"
- **Self-Care Disability:** "A physical, mental or emotional condition lasting 6 months or more" that causes the person to have difficulty dressing, bathing, or getting around inside the home"
- **Go-Outside-The-Home Disability** (asked for those aged 16 or over): "A physical, mental or emotional condition lasting 6 months or more" that causes the person to have difficulty "going outside the home alone to shop or visit a doctor's office"
- **Employment Disability** (asked for those aged 16 or over): "A physical, mental or emotional condition lasting 6 months or more" that causes the person to "have difficulty working at a job or business."

(Please note that "go-outside-the-home" disability was asked about only for those aged 16 and over. Those aged 65 and over and younger than 16 were not asked about "employment" disability.)

For the present study, it was not practical to use all measures. As a result, we decided to analyze and report on two disability measures, one a very broad measure and the other a much narrower one. This would enable us to provide a low estimate of the need for special transportation services and a high estimate. Specifically, we used the following two measures:

- **Any Disability:** Persons who responded that they suffered a long-lasting condition related to *any one or more* of the above six types of disability

- **Go-Outside-The-Home Disability:** This measure was chosen as the best proxy available of a condition that might require an individual to use special transportation services. There is precedent for this choice (REF)

Variations in Disability Rates by Data Source

According to Census 2000, a total of 48.9 million people aged 5 or over living in housing units had a disability; this represented 19.2% of that population in the U.S. *(Stern 2003)*. The *Census 2000 Supplementary Survey* (C2SS), which used the *American Community Survey* (ACS) design for its disability questions, revealed a lower rate of disability: 39.7 million people aged 5 or over living in housing units, representing 15.6% of that population in the U.S. *(Stern 2003)*.

Sharon Stern at the U.S. Census Bureau conducted research to investigate the cause of the difference in the disability estimates *(2003; Stern and Brault 2005).* Both the Census 2000 and C2SS defined a person as having a disability if he or she had any of the six types of disability elicited in the Census (sensory, physical, learning/memory, self-care, go-outside-the-home, employment), but the skip patterns and the complicated nature of the questions may have confused both the mail respondents and the Census 2000 enumerators who did follow-up interviews with non-respondents. The problems occurred particularly with respect to the last two of the six items (i.e., going outside the home disability and employment disability). Both of these items had an instruction that only persons aged 16 or over should answer these questions. On the mailed version of the survey, and on the paper copy used by the Census 2000 enumerators to follow up with non-respondents, some individuals and enumerators apparently misunderstood and marked the boxes indicating that the person had these types of disability when actually the box had been marked only because the persons was aged 16 or over or because he or she was, in fact, in the labor force. These problems were detected after the 2000 Census; and corrected in the 2003 ACS, and the C2SS, which used the ACS format for the questions. The ACS format more clearly laid out the questions and instructions, and for follow-up, used a computer-assisted interviewing system in which the appropriate skip patterns were built in to the program, depending on the individual's response to earlier questions. Stern *(2003)* concluded that question design, survey administration, and interview training are important elements in proper measurement of disability and may have played a role in the disparities found between the two surveys in disability rates.

For the purposes of the present study, we conducted numerous analyses in an attempt to determine which data source to use for reporting the current rate of disability among the

population and for projecting into the future (these analyses are available upon request from the authors). Data in the 2000 Census provide age-specific disability rates for all counties and nearly all urban areas in Oregon. The sample in the Census is approximately 15% of households, although larger than that in smaller communities. The ACS uses a smaller sample (approximately 3% of households), but more current data are available, through the ACS 2006, and the data are more accurate, at least in the aggregate, more accurate given the problems with the question format in the Census 2000 described above.

There are, however, two key disadvantages associated with the ACS 2006 data in general. As noted above, data are reported only for populations of 65,000 or greater, meaning that numbers are not available separately for the majority of Oregon's counties and are instead are reported by PUMAs *(Public Use Microdata Areas)*. Less densely populated counties are aggregated, as explained above in *Geographies*. Second, even when the data are aggregated in this way, there is considerable sampling error due to the relatively smaller sample size. As a result, the disability rates for smaller age groups (such as the 65 to 74 grouping) suffered so much sampling error that they were deemed unsuitable for these projections.

Thus, we decided to attempt a combined approach to achieve the most detailed results possible. This involved using the more geographically-detailed disability data from the 2000 Census, but adjusted by the disability rates derived from the 2006 ACS data. We were not confident of the results, however, due to sampling error associated with the ACS data and because the results of the finer geographic divisions were unstable. As a result, we did not use those rates in the projections. Instead, we applied the single statewide rate of disability derived from the 2006 ACS data.

How Disability Rates were Calculated for the Projections

The numbers of disabled persons ("any disability" and "going out disability") were calculated by multiplying the projected number of persons by age group (e.g., 21-64) times the disability rate for this group. *The disability rate that we used was that found by the 2006 American Community Survey (ACS) for the State of Oregon as a whole.*

The Population Forecast

Because of the strong linkage between age and the incidence of disabilities, a projection of the numbers of persons by age was required for the city size classes described above (see *Geographies*). It was beyond the scope of this project to independently develop such a projection, revealing the spatial dimensions of population growth in Oregon over the next

two decades. Instead, we made use of the county population projections by age and sex developed by the Office of Economic Analysis for the state of Oregon. These projections are used by Oregon state agencies for various long-range planning purposes. Some counties have developed their own population forecasts, which then can be evaluated by the state; if recognized, these are called "coordinated population forecasts." Where such coordinated forecasts were available, they were utilized and influenced our projection, although these forecasts often do not provide age detail.

We allocated population growth within counties according to recent (2000 to 2007) population trends as reported by the Center for Population Research at Portland State University. We examined each city's share of the county population over this time period and derived a trend. This trend was projected into the future for five-year periods until 2030. In some cases, this statistically-derived trend tended to attribute too much growth to growing urban centers; thus, we lowered the share over time.

For example, in the case of Deschutes County, if Bend were to increase its share at the rate that it has in the last seven years, it would occupy most of the county. Over time, then, we lowered Bend's share of the county growth so it would grow at the same rate as the county as a whole. Also, the Deschutes County Coordinated Population Forecast was used to adjust the shares of growth between Bend, Redmond, Sisters, and the remainder of the county. The projections of population growth by city then were aggregated into numbers of persons by age for the city size classes described above.

Advice to the User of These Projections

Projections are just projections of trends, not an assertion that the future can be predicted with certainty. The results of the model assume that the age-specific disability rates that were obtained in Oregon in 2006 will continue into the future. It may be that these rates will change over time, but we have no basis at the present time for making predictions about how they will change. As described in Section 2, the literature is mixed with respect to whether disability rates are likely to increase, decrease, or remain stable. Also, since the numbers of people with disabilities living in any one place vary considerably with the age structure of the population, especially the numbers of older persons, the accuracy of the age forecast is important. The county-level, age-specific forecast that we used was developed several years ago by the Oregon Office of Economic Analysis and likely will be revised. When this occurs, these forecasts of disabilities should be revisited.

Appendix 3-5. Oregon's Current Population by Age and Disability, 2006

Table 3-5 A: Individuals in Oregon, 2006 – Civilian Non-Institutionalized Population I

GEOGRAPHY	ALL	00-04[4]	05-15	16-20	21-64	65-74	75+
Portland Urbanized Area (UA)[1]	1,730,204	121,114	260,054	102,661	1,073,722	90,341	82,312
Portland metro counties minus Portland UA[2]	237,151	12,022	37,533	20,125	142,144	14,271	11,056
Eugene Urbanized Area	233,037	12,532	27,586	20,562	144,091	14,144	14,122
Lane County minus Eugene UA	101,210	5,659	15,068	5,015	58,917	9,128	7,423
Medford Urbanized Area	139,863	8,195	21,437	9,412	79,709	9,861	11,219
Jackson County minus Medford UA	56,275	2,652	4,735	3,979	34,242	5,473	5,194
Salem Urbanized Area	148,308	15,509	22,154	12,885	82,262	6,688	8,810
Marion + Polk Counties minus Salem UA	156,394	7,671	27,501	12,002	90,031	10,129	9,060
Bend Urbanized Area	70,899	4,704	8,075	4,180	45,752	3,942	4,246
Deschutes County minus Bend UA	78,136	3,731	11,897	4,664	45,927	7,164	4,753
Benton County	78,692	4,126	8,858	9,328	47,573	4,411	4,396
Douglas County	104,495	5,346	13,878	7,247	58,011	10,209	9,804
Josephine County	80,936	4,013	10,099	4,990	45,322	8,175	8,337
Klamath County	66,799	3,718	10,836	4,983	37,816	5,240	4,206
Linn County	111,019	6,624	15,934	8,254	64,222	7,873	8,112
Polk County	73,170	4,133	10,067	7,246	40,853	4,814	6,057
Umatilla County	72,360	5,362	12,113	4,772	37,973	4,159	2,981
Yamhill County	92,401	6,478	14,196	6,296	54,884	5,242	5,305
Baker, Union, Wallowa Counties	47,042	2,543	6,679	2,963	27,298	4,043	3,516
The Nine North Central Counties[3]	110,091	6,807	17,426	9,160	60,130	9,068	7,500
Harney, Lake, Malheur Counties	43,096	2,819	7,001	2,137	23,614	3,809	3,716
Clatsop, Columbia, Lincoln, Tillamook Counties	157,086	7,774	20,112	12,261	91,872	13,030	12,037
Coos, Curry Counties	85,251	4,278	9,898	4,942	47,401	9,479	9,253
Total for Oregon	**3,658,449**	**229,956**	**525,912**	**249,873**	**2,190,394**	**237,777**	**224,537**

Source: 2006 American Community Survey

[1] *Portland Urbanized Area (UA) includes part of Clark County, Washington.*

[2] *Portland metro counties include Clackamas, Multnomah, Washington Counties in Oregon, and Clark County Washington.*

[3] *The nine counties are Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, and Wasco*

[4] *The number for children aged 0-4 includes children who are institutionalized and in military families, as these data could not be disaggregated in the ACS 2006 data.*

Table 3-5 B: Individuals with Any Disability in Oregon, 2006 – Number

GEOGRAPHY	ALL	05-15	16-20	21-64	65-74	75+
Portland Urbanized Area (UA)[1]	223,637	13,985	7,859	133,100	24,724	43,969
Portland metro counties minus Portland UA[2]	30,732	2,041	706	18,046	3,954	5,985
Eugene Urbanized Area	36,687	1,302	994	11,704	2,498	4,681
Lane County minus Eugene UA	17,646	1,956	976	19,964	4,933	5,325
Medford Urbanized Area	22,981	1,265	1,402	11,609	2,969	5,736
Jackson County minus Medford UA	12,524	352	322	7,144	1,470	3,236
Salem Urbanized Area	24,460	2,109	627	14,808	2,485	4,431
Marion + Polk Counties minus Salem UA	23,053	2,097	663	12,720	2,163	5,410
Bend Urbanized Area	7,474	406	116	3,632	1,003	2,317
Deschutes County minus Bend UA	10,823	498	42	6,903	986	2,394
Benton County	9,029	582	478	4,441	610	2,918
Douglas County	24,399	1,782	1,568	12,219	3,628	5,202
Josephine County	15,127	668	114	7,859	2,219	4,267
Klamath County	11,912	969	327	7,148	1,332	2,136
Linn County	24,078	1,538	1,028	13,693	2,383	5,436
Polk County	11,823	600	249	6,572	1,351	3,051
Umatilla County	12,189	1,063	814	7,105	1,065	2,142
Yamhill County	14,393	1,171	318	7,691	1,700	3,513
Baker, Union, Wallowa Counties	8,828	532	224	4,391	1,689	1,992
The Nine North Central Counties[3]	18,008	1,317	1,220	8,795	2,844	3,832
Harney, Lake, Malheur Counties	7,756	419	338	3,468	1,059	2,472
Clatsop, Columbia, Lincoln, Tillamook Counties	28,408	1,183	964	15,253	4,036	6,972
Coos, Curry Counties	21,336	372	287	11,878	3,463	5,336
Total for Oregon	**559,876**	**33,936**	**19,327**	**317,010**	**66,900**	**122,703**

Source: 2006 American Community Survey

[1] *Portland Urbanized Area (UA) includes part of Clark County, Washington.*

[2] *Portland metro counties include Clackamas, Multnomah, Washington Counties in Oregon, and Clark County Washington.*

[3] *The nine counties are Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, and Wasco*

Table 3-5 C: Individuals with Any Disability in Oregon, 2006 – Percent

GEOGRAPHY	ALL	05-15	16-20	21-64	65-74	75+
Portland Urbanized Area (UA)[1]	13.9	5.4	7.7	12.4	27.4	53.4
Portland metro counties minus Portland UA[2]	13.7	5.4	3.5	12.7	27.7	54.1
Eugene Urbanized Area	16.6	4.7	4.8	8.1	17.7	33.1
Lane County minus Eugene UA	18.5	13.0	19.5	33.9	54.0	71.7
Medford Urbanized Area	17.5	5.9	14.9	14.6	30.1	51.1
Jackson County minus Medford UA	23.4	7.4	8.1	20.9	26.9	62.3
Salem Urbanized Area	18.4	9.5	4.9	18.0	37.2	50.3
Marion + Polk Counties minus Salem UA	15.5	7.6	5.5	14.1	21.4	59.7
Bend Urbanized Area	11.3	5.0	2.8	7.9	25.4	54.6
Deschutes County minus Bend UA	14.5	4.2	0.9	15.0	13.8	50.4
Benton County	12.1	6.6	5.1	9.3	13.8	66.4
Douglas County	24.6	12.8	21.6	21.1	35.5	53.1
Josephine County	19.7	6.6	2.3	17.3	27.1	51.2
Klamath County	18.9	8.9	6.6	18.9	25.4	50.8
Linn County	23.1	9.7	12.5	21.3	30.3	67.0
Polk County	17.1	6.0	3.4	16.1	28.1	50.4
Umatilla County	19.7	8.8	17.1	18.7	25.6	71.9
Yamhill County	16.8	8.2	5.1	14.0	32.4	66.2
Baker, Union, Wallowa Counties	19.8	8.0	7.6	16.1	41.8	56.7
The Nine North Central Counties[3]	17.4	7.6	13.3	14.6	31.4	51.1
Harney, Lake, Malheur Counties	19.3	6.0	15.8	14.7	27.8	66.5
Clatsop, Columbia, Lincoln, Tillamook Counties	19.0	5.9	7.9	16.6	31.0	57.9
Coos, Curry Counties	26.3	3.8	5.8	25.1	36.5	57.7
Total for Oregon	**16.3**	**6.5**	**7.7**	**14.5**	**28.1**	**54.6**

Source: 2006 American Community Survey

[1] *Portland Urbanized Area (UA) includes part of Clark County, Washington.*

[2] *Portland metro counties include Clackamas, Multnomah, Washington Counties in Oregon, and Clark County Washington.*

[3] *The nine counties are Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, and Wasco*

Table 3-5 D: Individuals with "Go-Outside-the-Home-Alone" Disability in Oregon, 2006 – Number

GEOGRAPHY	ALL	16-20	21-64	65-74	75+
Portland Urbanized Area (UA)[1]	68,778	1,719	33,645	9,084	24,330
Portland metro counties minus Portland UA[2]	7,979	387	3,261	1,313	3,018
Eugene Urbanized Area	6,007	264	2,623	348	2,772
Lane County minus Eugene UA	8,142	59	4,876	1,272	1,935
Medford Urbanized Area	2,540	78	1,193	236	1,033
Jackson County minus Medford UA	6,135	72	2,823	552	2,688
Salem Urbanized Area	5,543	77	2,653	1,073	1,740
Marion + Polk Counties minus Salem UA	7,099	205	3,330	520	3,044
Bend Urbanized Area	2,182	0	659	333	1,190
Deschutes County minus Bend UA	2,126	0	1,206	210	710
Benton County	1,812	0	720	182	910
Douglas County	5,772	369	2,724	1,018	1,661
Josephine County	3,737	0	1,080	675	1,982
Klamath County	2,654	0	1,767	229	658
Linn County	7,459	57	3,679	461	3,262
Polk County	4,098	0	2,090	660	1,348
Umatilla County	3,301	605	1,359	128	1,209
Yamhill County	3,552	118	1,713	515	1,206
Baker, Union, Wallowa Counties	2,415	61	1,233	221	900
The Nine North Central Counties[3]	4,441	149	2,320	577	1,395
Harney, Lake, Malheur Counties	2,418	0	755	158	1,505
Clatsop, Columbia, Lincoln, Tillamook Counties	7,551	269	3,640	801	2,841
Coos, Curry Counties	7,335	112	3,227	800	3,196
Total for Oregon	**156,724**	**3,974**	**74,932**	**19,179**	**58,639**

Source: 2006 American Community Survey

[1] *Portland Urbanized Area (UA) includes part of Clark County, Washington.*

[2] *Portland metro counties include Clackamas, Multnomah, Washington Counties in Oregon, and Clark County Washington.*

[3] *The nine counties are Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, and Wasco*

Table 3-5 E: Individuals with "Go-Outside-the-Home-Alone" Disability in Oregon, 2006 – Percent

GEOGRAPHY	ALL	16-20	21-64	65-74	75+
Portland Urban Area[1]	5.1	1.7	3.1	10.1	29.6
PDX - Portland UA[2]	4.3	1.9	2.3	9.2	27.3
Eugene Urban Area	4.9	1.7	3.0	4.2	28.2
Lane Co - Eugene UA	5.4	0.6	4.2	8.5	16.5
Medford Urban Area	4.6	1.3	2.9	6.0	21.8
Jackson Co - Medford UA	5.9	1.0	3.9	4.8	23.0
Salem Urban Area	5.0	0.6	3.2	16.0	19.8
Marion Co - Salem UA	5.9	1.7	3.7	5.1	33.6
Bend Urban Area	3.8	0.0	1.4	8.4	28.0
Deschutes Co -Bend UA	3.4	0.0	2.6	2.9	14.9
Benton County	2.8	0.0	1.5	4.1	20.7
Douglas County	6.8	5.1	4.7	10.0	16.9
Josephine County	5.6	0.0	2.4	8.3	23.8
Klamath County	5.1	0.0	4.7	4.4	15.6
Linn County	8.4	0.7	5.7	5.9	40.2
Polk County	6.9	0.0	5.1	13.7	22.3
Umatilla County	6.6	12.7	3.6	3.1	40.6
Yamhill County	5.0	1.9	3.1	9.8	22.7
Baker, Union, Wallowa Counties	6.4	2.1	4.5	5.5	25.6
The Nine North Central Counties[3]	5.2	1.6	3.9	6.4	18.6
Harney, Lake, Malheur Counties	7.3	0.0	3.2	4.1	40.5
Clatsop, Columbia, Lincoln, Tillamook Counties	5.8	2.2	4.0	6.1	23.6
Coos, Curry Counties	10.3	2.3	6.8	8.4	34.5
Total for Oregon	**5.4**	**1.6**	**3.4**	**8.1**	**26.1**

Source: 2006 American Community Survey

[1] *Portland Urban Area includes part of Clark County, Washington.*

[2] *PDX includes Clackamas, Multnomah, Washington, and Clark County Washington.*

[3] *The nine counties are Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, and Wasco*

[4] *Data on disability for children are not collected in the ACS.*

Appendix 3-6. Overview of Oregon and County Projections

On each of the 37 pages that follow in Appendix 3-7, the results of the projections conducted for each of Oregon's 36 counties are presented.

Each page contains four elements: (a) a table by time period; (b) a table by geographies; (c) a chart depicting number of people with any disability from 2010 to 2030; and (d) a chart depicting the number of people with "go-outside-the-home-alone" disability from 2010 to 2030.

The pages are arranged with the projections for the State of Oregon first, followed by pages for each county arranged alphabetically, beginning with Baker and ending with Yamhill County.

Appendix 3-7. Oregon and County Projections 2010 to 2030

For the following:

Oregon
Baker
Benton
Clackamas
Clatsop
Columbia
Coos
Crook
Curry
Deschutes
Douglas
Gilliam
Grant
Harney
Hood River
Jackson
Jefferson
Josephine
Klamath
Lake
Lane
Lincoln
Linn
Malheur
Marion
Morrow
Multnomah
Polk
Sherman
Tillamook
Umatilla
Union
Wallowa
Wasco
Washington
Wheeler
Yamhill

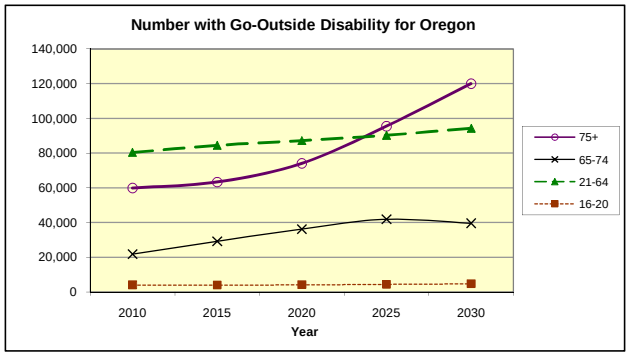
Oregon **Based on 2006 ACS Disability Rates by Time Period**

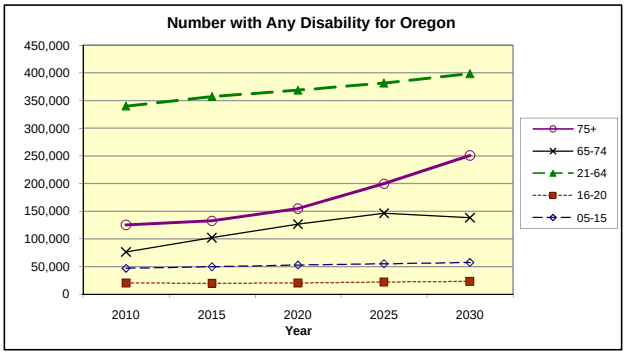
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
Oregon	725,946	257,494	2,350,885	271,361	229,380	3,835,066	46,844	19,916	340,237	76,349	125,349	608,696	4,095	80,422	21,888	59,904	166,309
Urban Areas 50K+	375,571	131,954	1,232,993	114,840	103,420	1,958,779	24,235	10,206	178,448	32,311	56,516	301,716	2,099	42,180	9,263	27,009	80,550
Urban 25-49K	25,220	9,569	75,100	8,097	9,039	127,026	1,627	740	10,869	2,278	4,940	20,455	152	2,569	653	2,361	5,735
Urban 2.5-24K	114,175	39,928	317,998	42,616	44,828	559,546	7,367	3,088	46,023	11,990	24,497	92,967	635	10,879	3,437	11,707	26,658
<2.5K	210,980	76,042	724,793	105,807	72,092	1,189,715	13,614	5,882	104,897	29,770	39,396	193,559	1,209	24,795	8,534	18,827	53,366
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
Oregon	767,590	252,167	2,470,344	362,968	242,637	4,095,708	49,531	19,504	357,527	102,123	132,594	661,280	4,010	84,509	29,277	63,366	181,162
Urban Areas 50K+	396,313	131,575	1,292,753	158,527	108,882	2,088,050	25,573	10,177	187,097	44,603	59,501	326,951	2,093	44,224	12,787	28,435	87,539
Urban 25-49K	39,071	13,151	116,951	15,386	12,673	197,233	2,521	1,017	16,926	4,329	6,926	31,719	209	4,001	1,241	3,310	8,761
Urban <2.5-25K	117,445	36,984	327,832	54,706	46,709	583,677	7,579	2,861	47,446	15,392	25,525	98,803	588	11,215	4,413	12,198	28,414
<2.5K	214,760	70,458	732,808	134,349	74,373	1,226,748	13,858	5,450	106,057	37,800	40,642	203,807	1,121	25,069	10,837	19,423	56,449
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
Oregon	815,450	259,791	2,550,261	450,077	283,679	4,359,258	52,619	20,094	369,093	126,632	155,022	723,460	4,132	87,243	36,303	74,084	201,762
Urban Areas 50K+	417,362	138,561	1,341,544	201,244	128,965	2,227,676	26,931	10,717	194,158	56,621	70,475	358,904	2,204	45,893	16,232	33,680	98,009
Urban 25-49K	48,733	15,307	142,583	21,912	17,080	245,615	3,145	1,184	20,636	6,165	9,334	40,463	243	4,878	1,767	4,461	11,349
Urban 2.5-24K	128,220	37,947	342,187	68,626	53,911	630,891	8,274	2,935	49,524	19,308	29,461	109,502	604	11,706	5,535	14,079	31,924
<2.5K	221,135	67,975	723,947	158,296	83,723	1,255,076	14,269	5,258	104,775	44,537	45,752	214,592	1,081	24,766	12,768	21,865	60,480
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
Oregon	854,369	279,558	2,638,310	520,130	365,640	4,658,007	55,131	21,623	381,836	146,342	199,812	804,743	4,446	90,255	41,953	95,489	232,143
Urban Areas 50K+	447,338	150,960	1,429,234	243,194	174,957	2,445,683	28,866	11,676	206,849	68,424	95,609	411,424	2,401	48,893	19,616	45,691	116,601
Urban 25-49K	52,444	17,751	155,970	26,173	22,183	274,521	3,384	1,373	22,573	7,364	12,122	46,817	282	5,336	2,111	5,793	13,522
Urban 2.5-24K	134,978	40,997	348,433	72,469	66,913	663,789	8,710	3,171	50,428	20,390	36,566	119,264	652	11,920	5,845	17,475	35,892
<2.5K	219,609	69,851	704,672	178,295	101,587	1,274,014	14,171	5,403	101,985	50,164	55,514	227,238	1,111	24,106	14,381	26,530	66,128
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
Oregon	886,664	297,397	2,756,241	491,504	459,418	4,891,225	57,215	23,003	398,904	138,288	251,059	868,468	4,730	94,289	39,644	119,980	258,643
Urban Areas 50K+	485,026	164,690	1,556,204	241,959	232,577	2,680,456	31,298	12,738	225,225	68,077	127,097	464,435	2,619	53,237	19,516	60,739	136,111
Urban 25-49K	49,003	17,542	145,550	21,174	24,263	257,533	3,162	1,357	21,065	5,957	13,259	44,801	279	4,979	1,708	6,336	13,303
Urban 2.5-24K	136,339	43,478	354,520	74,269	83,317	691,923	8,798	3,363	51,309	20,896	45,531	129,896	691	12,128	5,991	21,759	40,569
<2.5K	216,296	71,687	699,968	154,102	119,261	1,261,313	13,957	5,545	101,304	43,357	65,173	229,336	1,140	23,945	12,430	31,146	68,661

Oregon **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	725,946	257,494	2,350,885	271,361	229,380	3,835,066	46,844	19,916	340,237	76,349	125,349	608,696	4,095	80,422	21,888	59,904	166,309
2015	767,590	252,167	2,470,344	362,968	242,637	4,095,708	49,531	19,504	357,527	102,123	132,594	661,280	4,010	84,509	29,277	63,366	181,162
2020	815,450	259,791	2,550,261	450,077	283,679	4,359,258	52,619	20,094	369,093	126,632	155,022	723,460	4,132	87,243	36,303	74,084	201,762
2025	854,369	279,558	2,638,310	520,130	365,640	4,658,007	55,131	21,623	381,836	146,342	199,812	804,743	4,446	90,255	41,953	95,489	232,143
2030	886,664	297,397	2,756,241	491,504	459,418	4,891,225	57,215	23,003	398,904	138,288	251,059	868,468	4,730	94,289	39,644	119,980	258,643
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	375,571	131,954	1,232,993	114,840	103,420	1,958,779	24,235	10,206	178,448	32,311	56,516	301,716	2,099	42,180	9,263	27,009	80,550
2015	396,313	131,575	1,292,753	158,527	108,882	2,088,050	25,573	10,177	187,097	44,603	59,501	326,951	2,093	44,224	12,787	28,435	87,539
2020	417,362	138,561	1,341,544	201,244	128,965	2,227,676	26,931	10,717	194,158	56,621	70,475	358,904	2,204	45,893	16,232	33,680	98,009
2025	447,338	150,960	1,429,234	243,194	174,957	2,445,683	28,866	11,676	206,849	68,424	95,609	411,424	2,401	48,893	19,616	45,691	116,601
2030	485,026	164,690	1,556,204	241,959	232,577	2,680,456	31,298	12,738	225,225	68,077	127,097	464,435	2,619	53,237	19,516	60,739	136,111
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	25,220	9,569	75,100	8,097	9,039	127,026	1,627	740	10,869	2,278	4,940	20,455	152	2,569	653	2,361	5,735
2015	39,071	13,151	116,951	15,386	12,673	197,233	2,521	1,017	16,926	4,329	6,926	31,719	209	4,001	1,241	3,310	8,761
2020	48,733	15,307	142,583	21,912	17,080	245,615	3,145	1,184	20,636	6,165	9,334	40,463	243	4,878	1,767	4,461	11,349
2025	52,444	17,751	155,970	26,173	22,183	274,521	3,384	1,373	22,573	7,364	12,122	46,817	282	5,336	2,111	5,793	13,522
2030	49,003	17,542	145,550	21,174	24,263	257,533	3,162	1,357	21,065	5,957	13,259	44,801	279	4,979	1,708	6,336	13,303
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	114,175	39,928	317,998	42,616	44,828	559,546	7,367	3,088	46,023	11,990	24,497	92,967	635	10,879	3,437	11,707	26,658
2015	117,445	36,984	327,832	54,706	46,709	583,677	7,579	2,861	47,446	15,392	25,525	98,803	588	11,215	4,413	12,198	28,414
2020	128,220	37,947	342,187	68,626	53,911	630,891	8,274	2,935	49,524	19,308	29,461	109,502	604	11,706	5,535	14,079	31,924
2025	134,978	40,997	348,433	72,469	66,913	663,789	8,710	3,171	50,428	20,390	36,566	119,264	652	11,920	5,845	17,475	35,892
2030	136,339	43,478	354,520	74,269	83,317	691,923	8,798	3,363	51,309	20,896	45,531	129,896	691	12,128	5,991	21,759	40,569
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	210,980	76,042	724,793	105,807	72,092	1,189,715	13,614	5,882	104,897	29,770	39,396	193,559	1,209	24,795	8,534	18,827	53,366
2015	214,760	70,458	732,808	134,349	74,373	1,226,748	13,858	5,450	106,057	37,800	40,642	203,807	1,121	25,069	10,837	19,423	56,449
2020	221,135	67,975	723,947	158,296	83,723	1,255,076	14,269	5,258	104,775	44,537	45,752	214,592	1,081	24,766	12,768	21,865	60,480
2025	219,609	69,851	704,672	178,295	101,587	1,274,014	14,171	5,403	101,985	50,164	55,514	227,238	1,111	24,106	14,381	26,530	66,128
2030	216,296	71,687	699,968	154,102	119,261	1,261,313	13,957	5,545	101,304	43,357	65,173	229,336	1,140	23,945	12,430	31,146	68,661

Oregon - CHARTS





BAKER **Based on 2006 ACS Disability Rates by Time Period**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
BAKER	2,596	959	9,571	1,726	1,646	16,498	168	74	1,385	486	899	3,012	15	327	139	430	912
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,759	622	5,821	891	1,002	10,095	114	48	842	251	548	1,802	10	199	72	262	543
<2.5K	837	337	3,750	835	644	6,403	54	26	543	235	352	1,210	5	128	67	168	369
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
BAKER	2,643	824	9,641	1,893	1,716	16,717	171	64	1,395	533	938	3,100	13	330	153	448	944
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	1,842	550	6,061	1,014	1,077	10,544	119	43	877	285	589	1,913	9	207	82	281	579
<2.5K	801	274	3,580	879	638	6,173	52	21	518	247	349	1,187	4	122	71	167	364
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
BAKER	2,704	783	9,494	2,152	1,824	16,957	174	61	1,374	605	997	3,211	12	325	174	476	987
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,926	537	6,142	1,197	1,180	10,983	124	42	889	337	645	2,037	9	210	97	308	623
<2.5K	778	246	3,352	955	643	5,974	50	19	485	269	352	1,174	4	115	77	168	364
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
BAKER	2,651	842	9,324	2,349	2,024	17,190	171	65	1,349	661	1,106	3,352	13	319	189	529	1,050
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,929	593	6,178	1,286	1,349	11,335	125	46	894	362	737	2,163	9	211	104	352	677
<2.5K	722	249	3,146	1,063	675	5,855	47	19	455	299	369	1,189	4	108	86	176	374
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
BAKER	2,533	873	9,331	2,166	2,318	17,221	163	68	1,350	609	1,267	3,457	14	319	175	605	1,113
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,885	631	6,319	1,304	1,589	11,729	122	49	915	367	869	2,320	10	216	105	415	746
<2.5K	647	242	3,012	862	728	5,492	42	19	436	242	398	1,137	4	103	69	190	367

BAKER **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	2,596	959	9,571	1,726	1,646	16,498	168	74	1,385	486	899	3,012	15	327	139	430	912
2015	2,643	824	9,641	1,893	1,716	16,717	171	64	1,395	533	938	3,100	13	330	153	448	944
2020	2,704	783	9,494	2,152	1,824	16,957	174	61	1,374	605	997	3,211	12	325	174	476	987
2025	2,651	842	9,324	2,349	2,024	17,190	171	65	1,349	661	1,106	3,352	13	319	189	529	1,050
2030	2,533	873	9,331	2,166	2,318	17,221	163	68	1,350	609	1,267	3,457	14	319	175	605	1,113
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,759	622	5,821	891	1,002	10,095	114	48	842	251	548	1,802	10	199	72	262	543
2015	1,842	550	6,061	1,014	1,077	10,544	119	43	877	285	589	1,913	9	207	82	281	579
2020	1,926	537	6,142	1,197	1,180	10,983	124	42	889	337	645	2,037	9	210	97	308	623
2025	1,929	593	6,178	1,286	1,349	11,335	125	46	894	362	737	2,163	9	211	104	352	677
2030	1,885	631	6,319	1,304	1,589	11,729	122	49	915	367	869	2,320	10	216	105	415	746
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	837	337	3,750	835	644	6,403	54	26	543	235	352	1,210	5	128	67	168	369
2015	801	274	3,580	879	638	6,173	52	21	518	247	349	1,187	4	122	71	167	364
2020	778	246	3,352	955	643	5,974	50	19	485	269	352	1,174	4	115	77	168	364
2025	722	249	3,146	1,063	675	5,855	47	19	455	299	369	1,189	4	108	86	176	374
2030	647	242	3,012	862	728	5,492	42	19	436	242	398	1,137	4	103	69	190	367

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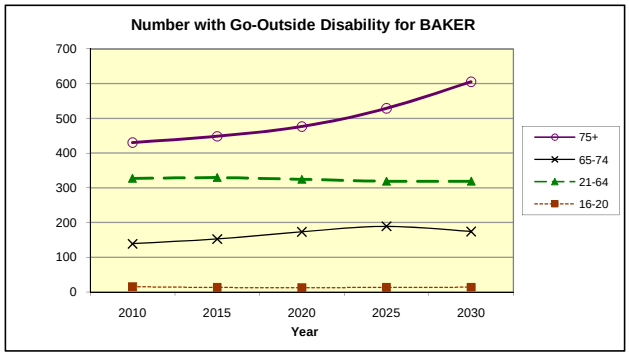
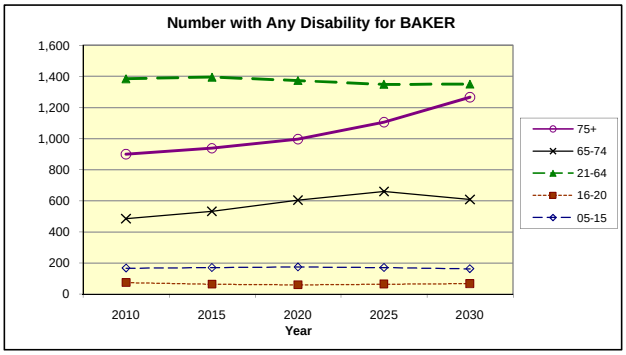




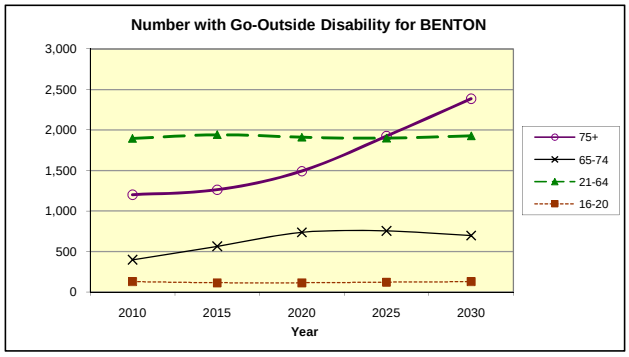
BENTON **Based on 2006 ACS Disability Rates by Time Period**

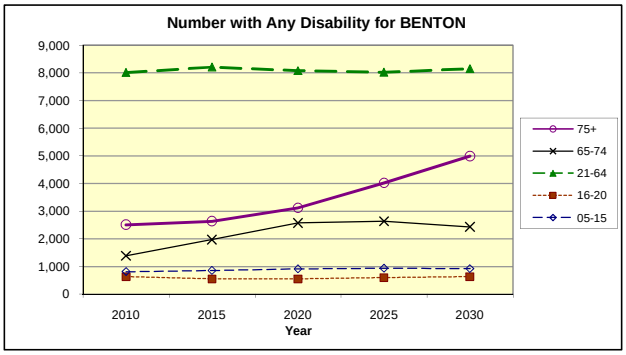
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
BENTON	12,626	8,165	55,402	4,934	4,595	85,721	815	632	8,018	1,388	2,511	13,363	130	1,895	398	1,200	3,623
Urban Areas 50K+	8,033	6,424	37,878	2,869	3,109	58,313	518	497	5,482	807	1,699	9,003	102	1,296	231	812	2,441
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,332	472	4,462	536	531	7,332	86	37	646	151	290	1,209	8	153	43	139	342
<2.5K	3,261	1,269	13,062	1,529	954	20,076	210	98	1,890	430	522	3,151	20	447	123	249	840
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
BENTON	13,258	7,128	56,767	7,013	4,829	88,995	855	551	8,216	1,973	2,639	14,235	113	1,942	566	1,261	3,882
Urban Areas 50K+	8,288	5,556	38,330	4,004	3,212	59,390	535	430	5,547	1,126	1,755	9,394	88	1,311	323	839	2,561
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	1,567	463	5,142	848	622	8,642	101	36	744	239	340	1,460	7	176	68	162	414
<2.5K	3,403	1,109	13,295	2,161	995	20,963	220	86	1,924	608	544	3,381	18	455	174	260	907
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
BENTON	14,162	7,119	55,845	9,145	5,710	91,982	914	551	8,082	2,573	3,120	15,240	113	1,910	738	1,491	4,252
Urban Areas 50K+	8,703	5,496	37,001	5,142	3,713	60,055	562	425	5,355	1,447	2,029	9,818	87	1,266	415	970	2,738
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,841	514	5,645	1,220	809	10,029	119	40	817	343	442	1,761	8	193	98	211	511
<2.5K	3,619	1,110	13,199	2,783	1,187	21,897	234	86	1,910	783	649	3,661	18	452	224	310	1,004
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
BENTON	14,478	7,681	55,460	9,365	7,365	94,349	934	594	8,027	2,635	4,025	16,215	122	1,897	755	1,923	4,698
Urban Areas 50K+	8,742	5,870	36,016	4,910	4,682	60,220	564	454	5,212	1,382	2,559	10,171	93	1,232	396	1,223	2,944
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,048	611	6,161	1,322	1,138	11,280	132	47	892	372	622	2,065	10	211	107	297	624
<2.5K	3,689	1,201	13,282	3,133	1,545	22,850	238	93	1,922	882	844	3,979	19	454	253	403	1,130
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
BENTON	14,272	8,136	56,328	8,647	9,134	96,517	921	629	8,152	2,433	4,992	17,127	129	1,927	697	2,385	5,139
Urban Areas 50K+	8,465	6,152	35,988	4,704	5,702	61,011	546	476	5,208	1,323	3,116	10,670	98	1,231	379	1,489	3,197
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,181	707	6,766	1,367	1,530	12,551	141	55	979	385	836	2,395	11	231	110	400	753
<2.5K	3,626	1,277	13,574	2,576	1,903	22,955	234	99	1,964	725	1,040	4,062	20	464	208	497	1,189

BENTON **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	12,626	8,165	55,402	4,934	4,595	85,721	815	632	8,018	1,388	2,511	13,363	130	1,895	398	1,200	3,623
2015	13,258	7,128	56,767	7,013	4,829	88,995	855	551	8,216	1,973	2,639	14,235	113	1,942	566	1,261	3,882
2020	14,162	7,119	55,845	9,145	5,710	91,982	914	551	8,082	2,573	3,120	15,240	113	1,910	738	1,491	4,252
2025	14,478	7,681	55,460	9,365	7,365	94,349	934	594	8,027	2,635	4,025	16,215	122	1,897	755	1,923	4,698
2030	14,272	8,136	56,328	8,647	9,134	96,517	921	629	8,152	2,433	4,992	17,127	129	1,927	697	2,385	5,139
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	8,033	6,424	37,878	2,869	3,109	58,313	518	497	5,482	807	1,699	9,003	102	1,296	231	812	2,441
2015	8,288	5,556	38,330	4,004	3,212	59,390	535	430	5,547	1,126	1,755	9,394	88	1,311	323	839	2,561
2020	8,703	5,496	37,001	5,142	3,713	60,055	562	425	5,355	1,447	2,029	9,818	87	1,266	415	970	2,738
2025	8,742	5,870	36,016	4,910	4,682	60,220	564	454	5,212	1,382	2,559	10,171	93	1,232	396	1,223	2,944
2030	8,465	6,152	35,988	4,704	5,702	61,011	546	476	5,208	1,323	3,116	10,670	98	1,231	379	1,489	3,197
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,332	472	4,462	536	531	7,332	86	37	646	151	290	1,209	8	153	43	139	342
2015	1,567	463	5,142	848	622	8,642	101	36	744	239	340	1,460	7	176	68	162	414
2020	1,841	514	5,645	1,220	809	10,029	119	40	817	343	442	1,761	8	193	98	211	511
2025	2,048	611	6,161	1,322	1,138	11,280	132	47	892	372	622	2,065	10	211	107	297	624
2030	2,181	707	6,766	1,367	1,530	12,551	141	55	979	385	836	2,395	11	231	110	400	753
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,261	1,269	13,062	1,529	954	20,076	210	98	1,890	430	522	3,151	20	447	123	249	840
2015	3,403	1,109	13,295	2,161	995	20,963	220	86	1,924	608	544	3,381	18	455	174	260	907
2020	3,619	1,110	13,199	2,783	1,187	21,897	234	86	1,910	783	649	3,661	18	452	224	310	1,004
2025	3,689	1,201	13,282	3,133	1,545	22,850	238	93	1,922	882	844	3,979	19	454	253	403	1,130
2030	3,626	1,277	13,574	2,576	1,903	22,955	234	99	1,964	725	1,040	4,062	20	464	208	497	1,189

BENTON - CHARTS





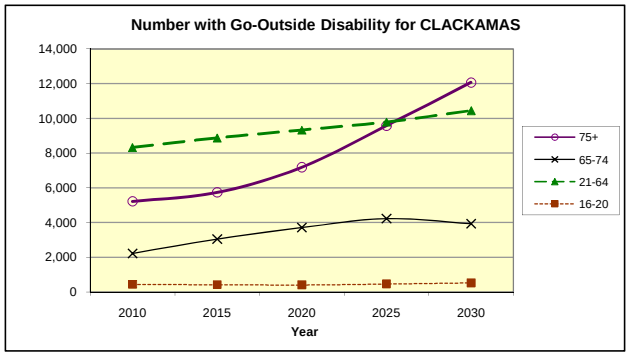
CLACKAMAS **Based on 2006 ACS Disability Rates by Time Period**

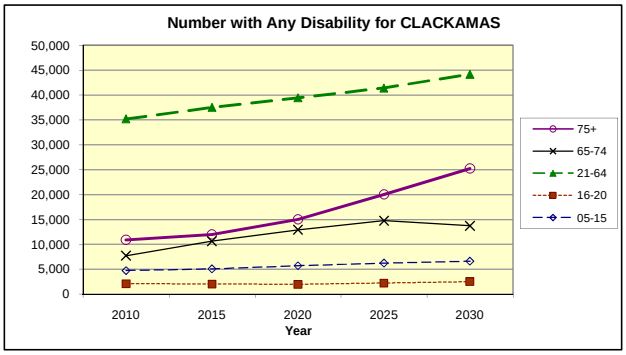
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CLACKAMAS	73,626	27,112	243,324	27,475	19,999	391,536	4,751	2,097	35,216	7,730	10,929	60,723	431	8,324	2,216	5,223	16,194
Urban Areas 50K+	33,309	12,101	112,613	12,621	10,530	181,174	2,149	936	16,298	3,551	5,754	28,689	192	3,852	1,018	2,750	7,813
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	8,030	2,666	20,519	2,148	2,011	35,373	518	206	2,970	604	1,099	5,397	42	702	173	525	1,443
<2.5K	32,287	12,346	110,192	12,707	7,458	174,989	2,083	955	15,948	3,575	4,075	26,637	196	3,770	1,025	1,948	6,938
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CLACKAMAS	79,141	26,373	259,331	37,822	21,981	424,648	5,107	2,040	37,532	10,641	12,012	67,332	419	8,872	3,051	5,740	18,082
Urban Areas 50K+	36,760	12,091	123,517	17,888	11,789	202,045	2,372	935	17,876	5,033	6,442	32,659	192	4,225	1,443	3,079	8,939
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	9,381	2,810	24,028	3,214	2,372	41,804	605	217	3,477	904	1,296	6,500	45	822	259	619	1,745
<2.5K	33,001	11,471	111,787	16,721	7,820	180,799	2,129	887	16,179	4,704	4,273	28,173	182	3,824	1,349	2,042	7,397
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CLACKAMAS	88,740	25,370	272,702	45,993	27,518	460,323	5,726	1,962	39,468	12,940	15,038	75,134	403	9,329	3,710	7,186	20,629
Urban Areas 50K+	42,050	11,890	132,945	22,325	14,951	224,161	2,713	920	19,241	6,281	8,170	37,325	189	4,548	1,801	3,905	10,442
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	11,300	2,912	27,420	4,238	3,160	49,031	729	225	3,968	1,192	1,727	7,842	46	938	342	825	2,152
<2.5K	35,390	10,567	112,337	19,430	9,407	187,131	2,284	817	16,258	5,467	5,140	29,966	168	3,843	1,567	2,457	8,035
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CLACKAMAS	97,111	28,727	286,100	52,471	36,657	501,066	6,266	2,222	41,407	14,763	20,032	84,690	457	9,787	4,232	9,573	24,050
Urban Areas 50K+	46,724	13,701	142,041	25,090	20,157	247,713	3,015	1,060	20,557	7,059	11,015	42,706	218	4,859	2,024	5,264	12,365
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	13,200	3,534	30,753	4,753	4,482	56,721	852	273	4,451	1,337	2,449	9,363	56	1,052	383	1,171	2,662
<2.5K	37,187	11,492	113,307	22,628	12,018	196,631	2,400	889	16,399	6,367	6,567	32,621	183	3,876	1,825	3,139	9,023
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CLACKAMAS	103,070	32,761	305,347	48,753	46,192	536,123	6,651	2,534	44,192	13,717	25,243	92,337	521	10,446	3,932	12,063	26,962
Urban Areas 50K+	50,669	15,799	153,182	24,466	25,725	269,841	3,270	1,222	22,170	6,884	14,058	47,603	251	5,240	1,973	6,718	14,183
Urban 25-49K	5,305	1,882	15,614	2,309	2,515	27,627	342	146	2,260	650	1,374	4,772	30	534	186	657	1,407
Urban 2.5-24K	8,689	2,476	19,986	2,980	3,483	37,615	561	192	2,893	839	1,903	6,387	39	684	240	910	1,873
<2.5K	38,406	12,603	116,565	18,998	14,469	201,040	2,478	975	16,870	5,345	7,907	33,575	200	3,988	1,532	3,779	9,499

CLACKAMAS **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	73,626	27,112	243,324	27,475	19,999	391,536	4,751	2,097	35,216	7,730	10,929	60,723	431	8,324	2,216	5,223	16,194
2015	79,141	26,373	259,331	37,822	21,981	424,648	5,107	2,040	37,532	10,641	12,012	67,332	419	8,872	3,051	5,740	18,082
2020	88,740	25,370	272,702	45,993	27,518	460,323	5,726	1,962	39,468	12,940	15,038	75,134	403	9,329	3,710	7,186	20,629
2025	97,111	28,727	286,100	52,471	36,657	501,066	6,266	2,222	41,407	14,763	20,032	84,690	457	9,787	4,232	9,573	24,050
2030	103,070	32,761	305,347	48,753	46,192	536,123	6,651	2,534	44,192	13,717	25,243	92,337	521	10,446	3,932	12,063	26,962
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	33,309	12,101	112,613	12,621	10,530	181,174	2,149	936	16,298	3,551	5,754	28,689	192	3,852	1,018	2,750	7,813
2015	36,760	12,091	123,517	17,888	11,789	202,045	2,372	935	17,876	5,033	6,442	32,659	192	4,225	1,443	3,079	8,939
2020	42,050	11,890	132,945	22,325	14,951	224,161	2,713	920	19,241	6,281	8,170	37,325	189	4,548	1,801	3,905	10,442
2025	46,724	13,701	142,041	25,090	20,157	247,713	3,015	1,060	20,557	7,059	11,015	42,706	218	4,859	2,024	5,264	12,365
2030	50,669	15,799	153,182	24,466	25,725	269,841	3,270	1,222	22,170	6,884	14,058	47,603	251	5,240	1,973	6,718	14,183
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	5,305	1,882	15,614	2,309	2,515	27,627	342	146	2,260	650	1,374	4,772	30	534	186	657	1,407
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	8,030	2,666	20,519	2,148	2,011	35,373	518	206	2,970	604	1,099	5,397	42	702	173	525	1,443
2015	9,381	2,810	24,028	3,214	2,372	41,804	605	217	3,477	904	1,296	6,500	45	822	259	619	1,745
2020	11,300	2,912	27,420	4,238	3,160	49,031	729	225	3,968	1,192	1,727	7,842	46	938	342	825	2,152
2025	13,200	3,534	30,753	4,753	4,482	56,721	852	273	4,451	1,337	2,449	9,363	56	1,052	383	1,171	2,662
2030	8,689	2,476	19,986	2,980	3,483	37,615	561	192	2,893	839	1,903	6,387	39	684	240	910	1,873
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	32,287	12,346	110,192	12,707	7,458	174,989	2,083	955	15,948	3,575	4,075	26,637	196	3,770	1,025	1,948	6,938
2015	33,001	11,471	111,787	16,721	7,820	180,799	2,129	887	16,179	4,704	4,273	28,173	182	3,824	1,349	2,042	7,397
2020	35,390	10,567	112,337	19,430	9,407	187,131	2,284	817	16,258	5,467	5,140	29,966	168	3,843	1,567	2,457	8,035
2025	37,187	11,492	113,307	22,628	12,018	196,631	2,400	889	16,399	6,367	6,567	32,621	183	3,876	1,825	3,139	9,023
2030	38,406	12,603	116,565	18,998	14,469	201,040	2,478	975	16,870	5,345	7,907	33,575	200	3,988	1,532	3,779	9,499

CLACKAMAS - CHARTS





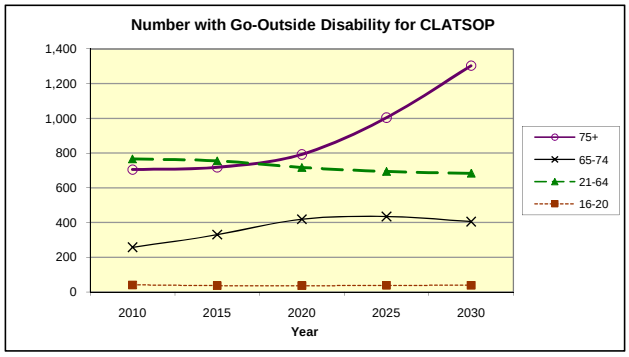
CLATSOP **Based on 2006 ACS Disability Rates by Time Period**

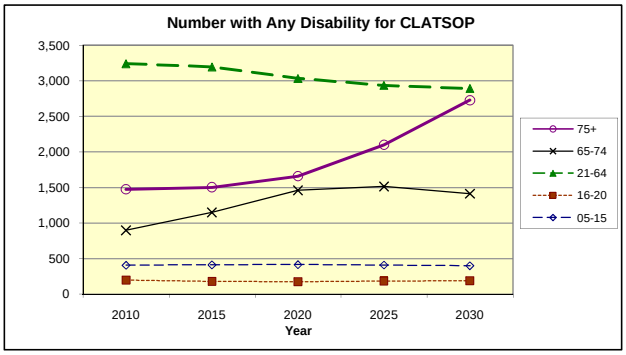
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CLATSOP	6,311	2,550	22,405	3,195	2,701	37,162	407	197	3,243	899	1,476	6,222	41	766	258	705	1,770
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,618	1,344	12,419	1,745	1,671	20,798	233	104	1,797	491	913	3,539	21	425	141	436	1,023
<2.5K	2,693	1,206	9,986	1,450	1,029	16,364	174	93	1,445	408	563	2,683	19	342	117	269	747
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CLATSOP	6,399	2,323	22,083	4,096	2,751	37,652	413	180	3,196	1,153	1,503	6,444	37	755	330	718	1,841
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	3,690	1,231	12,334	2,246	1,708	21,209	238	95	1,785	632	933	3,684	20	422	181	446	1,069
<2.5K	2,709	1,092	9,749	1,850	1,043	16,443	175	84	1,411	521	570	2,761	17	334	149	272	772
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CLATSOP	6,453	2,283	20,973	5,194	3,035	37,939	416	177	3,035	1,461	1,659	6,748	36	717	419	793	1,965
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,734	1,217	11,798	2,867	1,887	21,504	241	94	1,708	807	1,031	3,881	19	404	231	493	1,147
<2.5K	2,719	1,067	9,175	2,327	1,148	16,436	175	82	1,328	655	627	2,868	17	314	188	300	818
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CLATSOP	6,355	2,386	20,297	5,389	3,845	38,272	410	185	2,938	1,516	2,101	7,149	38	694	435	1,004	2,171
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,690	1,279	11,471	2,873	2,391	21,704	238	99	1,660	808	1,307	4,112	20	392	232	624	1,269
<2.5K	2,665	1,108	8,826	2,516	1,454	16,567	172	86	1,277	708	794	3,037	18	302	203	380	902
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CLATSOP	6,197	2,438	19,993	5,024	4,992	38,643	400	189	2,894	1,414	2,728	7,623	39	684	405	1,304	2,432
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,616	1,313	11,343	2,811	3,122	22,205	233	102	1,642	791	1,706	4,473	21	388	227	815	1,451
<2.5K	2,581	1,124	8,650	2,213	1,870	16,437	167	87	1,252	623	1,022	3,150	18	296	179	488	981

CLATSOP **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	6,311	2,550	22,405	3,195	2,701	37,162	407	197	3,243	899	1,476	6,222	41	766	258	705	1,770
2015	6,399	2,323	22,083	4,096	2,751	37,652	413	180	3,196	1,153	1,503	6,444	37	755	330	718	1,841
2020	6,453	2,283	20,973	5,194	3,035	37,939	416	177	3,035	1,461	1,659	6,748	36	717	419	793	1,965
2025	6,355	2,386	20,297	5,389	3,845	38,272	410	185	2,938	1,516	2,101	7,149	38	694	435	1,004	2,171
2030	6,197	2,438	19,993	5,024	4,992	38,643	400	189	2,894	1,414	2,728	7,623	39	684	405	1,304	2,432
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,618	1,344	12,419	1,745	1,671	20,798	233	104	1,797	491	913	3,539	21	425	141	436	1,023
2015	3,690	1,231	12,334	2,246	1,708	21,209	238	95	1,785	632	933	3,684	20	422	181	446	1,069
2020	3,734	1,217	11,798	2,867	1,887	21,504	241	94	1,708	807	1,031	3,881	19	404	231	493	1,147
2025	3,690	1,279	11,471	2,873	2,391	21,704	238	99	1,660	808	1,307	4,112	20	392	232	624	1,269
2030	3,616	1,313	11,343	2,811	3,122	22,205	233	102	1,642	791	1,706	4,473	21	388	227	815	1,451
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	2,693	1,206	9,986	1,450	1,029	16,364	174	93	1,445	408	563	2,683	19	342	117	269	747
2015	2,709	1,092	9,749	1,850	1,043	16,443	175	84	1,411	521	570	2,761	17	334	149	272	772
2020	2,719	1,067	9,175	2,327	1,148	16,436	175	82	1,328	655	627	2,868	17	314	188	300	818
2025	2,665	1,108	8,826	2,516	1,454	16,567	172	86	1,277	708	794	3,037	18	302	203	380	902
2030	2,581	1,124	8,650	2,213	1,870	16,437	167	87	1,252	623	1,022	3,150	18	296	179	488	981

CLATSOP - CHARTS





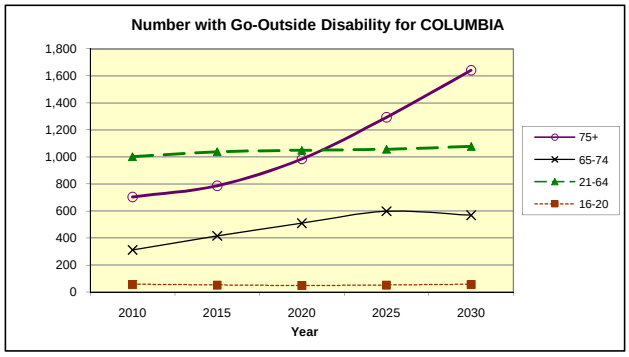
COLUMBIA **Based on 2006 ACS Disability Rates by Time Period**

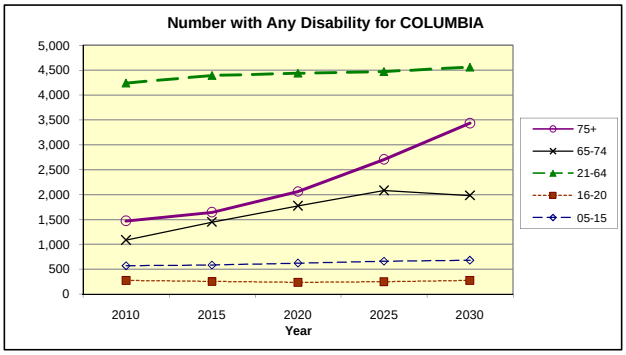
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
COLUMBIA	8,856	3,572	29,301	3,870	2,693	48,292	571	276	4,241	1,089	1,472	7,649	57	1,002	312	703	2,075
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,915	1,489	11,359	1,230	1,080	19,073	253	115	1,644	346	590	2,948	24	389	99	282	794
<2.5K	4,941	2,083	17,942	2,639	1,613	29,219	319	161	2,597	743	882	4,701	33	614	213	421	1,281
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
COLUMBIA	9,075	3,277	30,356	5,161	3,013	50,882	586	253	4,393	1,452	1,646	8,331	52	1,038	416	787	2,294
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	4,275	1,454	12,637	1,768	1,284	21,418	276	112	1,829	497	702	3,416	23	432	143	335	933
<2.5K	4,800	1,823	17,719	3,394	1,729	29,464	310	141	2,564	955	945	4,915	29	606	274	451	1,360
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
COLUMBIA	9,711	3,064	30,695	6,321	3,771	53,562	627	237	4,442	1,778	2,061	9,145	49	1,050	510	985	2,593
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	5,756	1,735	16,518	2,914	2,059	28,982	371	134	2,391	820	1,125	4,841	28	565	235	538	1,366
<2.5K	3,955	1,329	14,178	3,407	1,711	24,580	255	103	2,052	959	935	4,304	21	485	275	447	1,228
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
COLUMBIA	10,279	3,260	30,912	7,415	4,952	56,818	663	252	4,474	2,086	2,706	10,182	52	1,057	598	1,293	3,001
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	6,371	1,939	17,521	3,513	2,845	32,189	411	150	2,536	988	1,555	5,640	31	599	283	743	1,657
<2.5K	3,909	1,321	13,390	3,902	2,107	24,629	252	102	1,938	1,098	1,151	4,542	21	458	315	550	1,344
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
COLUMBIA	10,585	3,571	31,525	7,056	6,286	59,024	683	276	4,563	1,985	3,435	10,942	57	1,078	569	1,642	3,346
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	6,844	2,226	18,730	3,680	3,802	35,281	442	172	2,711	1,035	2,078	6,438	35	641	297	993	1,966
<2.5K	3,741	1,346	12,795	3,376	2,484	23,742	241	104	1,852	950	1,358	4,505	21	438	272	649	1,380

COLUMBIA **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	8,856	3,572	29,301	3,870	2,693	48,292	571	276	4,241	1,089	1,472	7,649	57	1,002	312	703	2,075
2015	9,075	3,277	30,356	5,161	3,013	50,882	586	253	4,393	1,452	1,646	8,331	52	1,038	416	787	2,294
2020	9,711	3,064	30,695	6,321	3,771	53,562	627	237	4,442	1,778	2,061	9,145	49	1,050	510	985	2,593
2025	10,279	3,260	30,912	7,415	4,952	56,818	663	252	4,474	2,086	2,706	10,182	52	1,057	598	1,293	3,001
2030	10,585	3,571	31,525	7,056	6,286	59,024	683	276	4,563	1,985	3,435	10,942	57	1,078	569	1,642	3,346
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,915	1,489	11,359	1,230	1,080	19,073	253	115	1,644	346	590	2,948	24	389	99	282	794
2015	4,275	1,454	12,637	1,768	1,284	21,418	276	112	1,829	497	702	3,416	23	432	143	335	933
2020	5,756	1,735	16,518	2,914	2,059	28,982	371	134	2,391	820	1,125	4,841	28	565	235	538	1,366
2025	6,371	1,939	17,521	3,513	2,845	32,189	411	150	2,536	988	1,555	5,640	31	599	283	743	1,657
2030	6,844	2,226	18,730	3,680	3,802	35,281	442	172	2,711	1,035	2,078	6,438	35	641	297	993	1,966
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	4,941	2,083	17,942	2,639	1,613	29,219	319	161	2,597	743	882	4,701	33	614	213	421	1,281
2015	4,800	1,823	17,719	3,394	1,729	29,464	310	141	2,564	955	945	4,915	29	606	274	451	1,360
2020	3,955	1,329	14,178	3,407	1,711	24,580	255	103	2,052	959	935	4,304	21	485	275	447	1,228
2025	3,909	1,321	13,390	3,902	2,107	24,629	252	102	1,938	1,098	1,151	4,542	21	458	315	550	1,344
2030	3,741	1,346	12,795	3,376	2,484	23,742	241	104	1,852	950	1,358	4,505	21	438	272	649	1,380

COLUMBIA - CHARTS





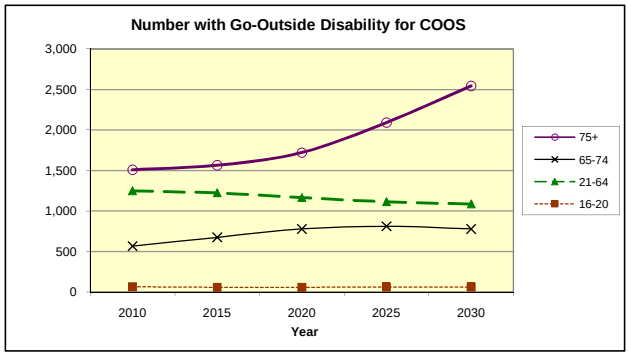
COOS **Based on 2006 ACS Disability Rates by Time Period**

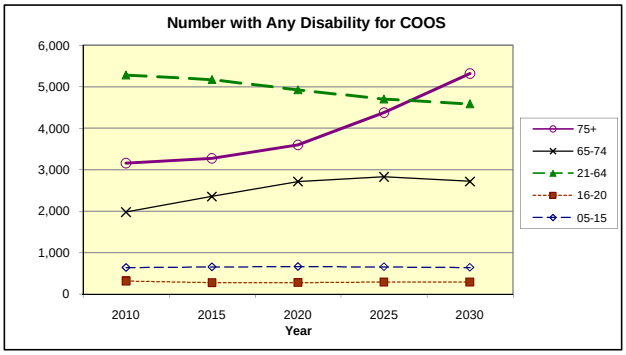
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
COOS	9,966	4,090	36,517	7,038	5,775	63,386	643	316	5,285	1,980	3,156	11,381	65	1,249	568	1,508	3,390
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	6,075	2,510	20,450	3,795	3,745	36,576	392	194	2,960	1,068	2,047	6,660	40	700	306	978	2,024
<2.5K	3,890	1,579	16,067	3,243	2,030	26,810	251	122	2,325	912	1,110	4,720	25	550	262	530	1,367
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
COOS	10,210	3,575	35,747	8,374	5,991	63,897	659	277	5,174	2,356	3,274	11,739	57	1,223	675	1,565	3,520
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	6,397	2,255	20,675	4,658	3,976	37,962	413	174	2,992	1,311	2,173	7,063	36	707	376	1,038	2,157
<2.5K	3,813	1,320	15,072	3,716	2,015	25,935	246	102	2,181	1,046	1,101	4,676	21	516	300	526	1,362
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
COOS	10,325	3,625	34,069	9,655	6,586	64,259	666	280	4,931	2,716	3,599	12,193	58	1,165	779	1,720	3,722
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	6,641	2,347	20,327	5,554	4,469	39,338	429	182	2,942	1,563	2,442	7,557	37	695	448	1,167	2,348
<2.5K	3,684	1,278	13,742	4,100	2,117	24,921	238	99	1,989	1,154	1,157	4,636	20	470	331	553	1,374
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
COOS	10,219	3,751	32,527	10,055	8,007	64,559	659	290	4,708	2,829	4,376	12,862	60	1,113	811	2,091	4,075
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	6,742	2,491	20,005	5,695	5,552	40,485	435	193	2,895	1,602	3,034	8,159	40	684	459	1,450	2,633
<2.5K	3,476	1,259	12,523	4,361	2,455	24,074	224	97	1,812	1,227	1,342	4,703	20	428	352	641	1,441
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
COOS	9,995	3,820	31,722	9,658	9,735	64,929	645	295	4,591	2,717	5,320	13,569	61	1,085	779	2,542	4,467
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	6,762	2,601	20,080	5,926	6,919	42,287	436	201	2,906	1,667	3,781	8,992	41	687	478	1,807	3,013
<2.5K	3,232	1,219	11,642	3,733	2,816	22,642	209	94	1,685	1,050	1,539	4,577	19	398	301	735	1,454

COOS **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	9,966	4,090	36,517	7,038	5,775	63,386	643	316	5,285	1,980	3,156	11,381	65	1,249	568	1,508	3,390
2015	10,210	3,575	35,747	8,374	5,991	63,897	659	277	5,174	2,356	3,274	11,739	57	1,223	675	1,565	3,520
2020	10,325	3,625	34,069	9,655	6,586	64,259	666	280	4,931	2,716	3,599	12,193	58	1,165	779	1,720	3,722
2025	10,219	3,751	32,527	10,055	8,007	64,559	659	290	4,708	2,829	4,376	12,862	60	1,113	811	2,091	4,075
2030	9,995	3,820	31,722	9,658	9,735	64,929	645	295	4,591	2,717	5,320	13,569	61	1,085	779	2,542	4,467
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	6,075	2,510	20,450	3,795	3,745	36,576	392	194	2,960	1,068	2,047	6,660	40	700	306	978	2,024
2015	6,397	2,255	20,675	4,658	3,976	37,962	413	174	2,992	1,311	2,173	7,063	36	707	376	1,038	2,157
2020	6,641	2,347	20,327	5,554	4,469	39,338	429	182	2,942	1,563	2,442	7,557	37	695	448	1,167	2,348
2025	6,742	2,491	20,005	5,695	5,552	40,485	435	193	2,895	1,602	3,034	8,159	40	684	459	1,450	2,633
2030	6,762	2,601	20,080	5,926	6,919	42,287	436	201	2,906	1,667	3,781	8,992	41	687	478	1,807	3,013
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,890	1,579	16,067	3,243	2,030	26,810	251	122	2,325	912	1,110	4,720	25	550	262	530	1,367
2015	3,813	1,320	15,072	3,716	2,015	25,935	246	102	2,181	1,046	1,101	4,676	21	516	300	526	1,362
2020	3,684	1,278	13,742	4,100	2,117	24,921	238	99	1,989	1,154	1,157	4,636	20	470	331	553	1,374
2025	3,476	1,259	12,523	4,361	2,455	24,074	224	97	1,812	1,227	1,342	4,703	20	428	352	641	1,441
2030	3,232	1,219	11,642	3,733	2,816	22,642	209	94	1,685	1,050	1,539	4,577	19	398	301	735	1,454

COOS - CHARTS





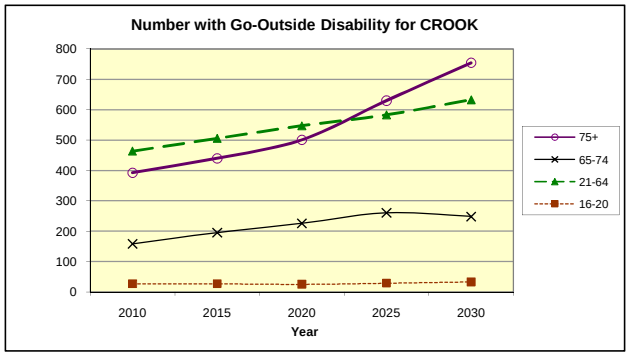
CROOK **Based on 2006 ACS Disability Rates by Time Period**

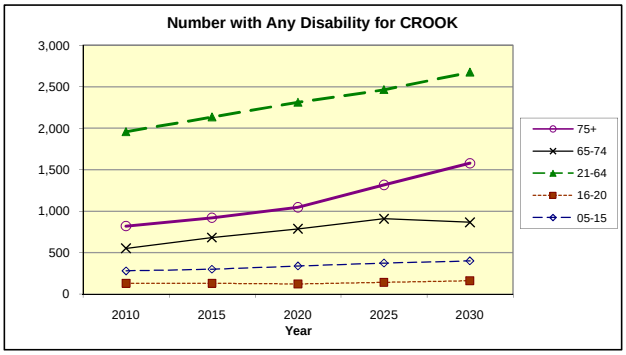
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CROOK	4,347	1,697	13,541	1,963	1,503	23,051	280	131	1,960	552	821	3,745	27	463	158	393	1,041
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,015	767	5,267	727	762	9,539	130	59	762	204	417	1,573	12	180	59	199	450
<2.5K	2,332	930	8,274	1,236	741	13,512	150	72	1,197	348	405	2,173	15	283	100	194	591
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CROOK	4,662	1,706	14,775	2,423	1,684	25,249	301	132	2,138	682	920	4,173	27	505	195	440	1,168
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	2,212	785	5,926	911	867	10,701	143	61	858	256	474	1,791	12	203	73	226	515
<2.5K	2,450	920	8,848	1,512	818	14,548	158	71	1,281	425	447	2,382	15	303	122	214	653
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CROOK	5,284	1,594	15,995	2,800	1,918	27,590	341	123	2,315	788	1,048	4,615	25	547	226	501	1,299
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,549	748	6,558	1,084	1,003	11,942	164	58	949	305	548	2,024	12	224	87	262	586
<2.5K	2,735	847	9,436	1,716	915	15,649	176	66	1,366	483	500	2,590	13	323	138	239	714
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CROOK	5,830	1,826	17,042	3,230	2,412	30,341	376	141	2,466	909	1,318	5,211	29	583	261	630	1,503
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,856	872	7,081	1,131	1,276	13,214	184	67	1,025	318	697	2,292	14	242	91	333	680
<2.5K	2,974	955	9,962	2,100	1,136	17,127	192	74	1,442	591	621	2,919	15	341	169	297	822
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CROOK	6,244	2,087	18,497	3,078	2,889	32,796	403	161	2,677	866	1,579	5,686	33	633	248	754	1,669
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,106	1,013	7,754	1,246	1,562	14,681	200	78	1,122	351	854	2,605	16	265	100	408	790
<2.5K	3,138	1,074	10,744	1,832	1,327	18,114	202	83	1,555	516	725	3,081	17	368	148	346	879

CROOK **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	4,347	1,697	13,541	1,963	1,503	23,051	280	131	1,960	552	821	3,745	27	463	158	393	1,041
2015	4,662	1,706	14,775	2,423	1,684	25,249	301	132	2,138	682	920	4,173	27	505	195	440	1,168
2020	5,284	1,594	15,995	2,800	1,918	27,590	341	123	2,315	788	1,048	4,615	25	547	226	501	1,299
2025	5,830	1,826	17,042	3,230	2,412	30,341	376	141	2,466	909	1,318	5,211	29	583	261	630	1,503
2030	6,244	2,087	18,497	3,078	2,889	32,796	403	161	2,677	866	1,579	5,686	33	633	248	754	1,669
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	2,015	767	5,267	727	762	9,539	130	59	762	204	417	1,573	12	180	59	199	450
2015	2,212	785	5,926	911	867	10,701	143	61	858	256	474	1,791	12	203	73	226	515
2020	2,549	748	6,558	1,084	1,003	11,942	164	58	949	305	548	2,024	12	224	87	262	586
2025	2,856	872	7,081	1,131	1,276	13,214	184	67	1,025	318	697	2,292	14	242	91	333	680
2030	3,106	1,013	7,754	1,246	1,562	14,681	200	78	1,122	351	854	2,605	16	265	100	408	790
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	2,332	930	8,274	1,236	741	13,512	150	72	1,197	348	405	2,173	15	283	100	194	591
2015	2,450	920	8,848	1,512	818	14,548	158	71	1,281	425	447	2,382	15	303	122	214	653
2020	2,735	847	9,436	1,716	915	15,649	176	66	1,366	483	500	2,590	13	323	138	239	714
2025	2,974	955	9,962	2,100	1,136	17,127	192	74	1,442	591	621	2,919	15	341	169	297	822
2030	3,138	1,074	10,744	1,832	1,327	18,114	202	83	1,555	516	725	3,081	17	368	148	346	879

CROOK - CHARTS





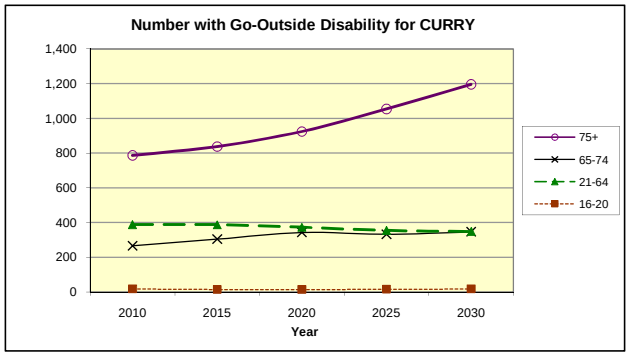
CURRY **Based on 2006 ACS Disability Rates by Time Period**

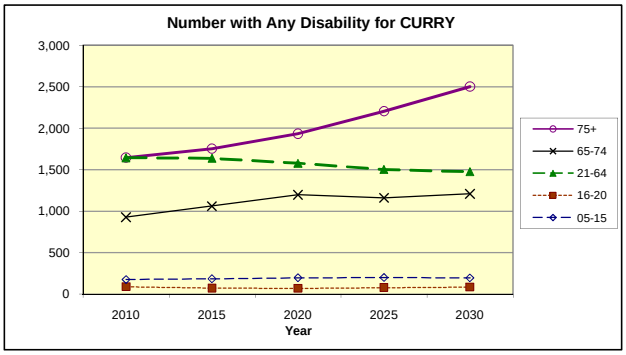
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CURRY	2,721	1,138	11,358	3,300	3,013	21,530	176	88	1,644	929	1,647	4,483	18	389	266	787	1,460
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,154	474	4,384	1,359	1,504	8,875	74	37	635	382	822	1,950	8	150	110	393	660
<2.5K	1,566	664	6,974	1,942	1,510	12,656	101	51	1,009	546	825	2,533	11	239	157	394	800
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CURRY	2,874	937	11,314	3,777	3,209	22,112	185	73	1,637	1,063	1,754	4,712	15	387	305	838	1,545
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	1,302	417	4,717	1,660	1,692	9,789	84	32	683	467	925	2,191	7	161	134	442	744
<2.5K	1,572	521	6,597	2,117	1,516	12,323	101	40	955	596	829	2,521	8	226	171	396	801
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CURRY	3,061	912	10,901	4,257	3,539	22,671	198	71	1,578	1,198	1,934	4,978	15	373	343	924	1,655
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,462	428	4,835	1,979	1,952	10,657	94	33	700	557	1,067	2,451	7	165	160	510	842
<2.5K	1,599	484	6,066	2,278	1,587	12,014	103	37	878	641	867	2,527	8	207	184	414	813
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CURRY	3,105	1,020	10,384	4,130	4,037	22,675	200	79	1,503	1,162	2,206	5,150	16	355	333	1,054	1,759
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,549	501	4,828	1,917	2,310	11,105	100	39	699	539	1,262	2,639	8	165	155	603	931
<2.5K	1,556	519	5,555	2,213	1,727	11,570	100	40	804	623	944	2,511	8	190	179	451	828
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
CURRY	3,041	1,104	10,197	4,304	4,579	23,225	196	85	1,476	1,211	2,502	5,471	18	349	347	1,196	1,909
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,573	563	4,910	2,181	2,706	11,934	102	44	711	614	1,479	2,948	9	168	176	707	1,060
<2.5K	1,467	541	5,288	2,123	1,873	11,291	95	42	765	597	1,023	2,522	9	181	171	489	850

CURRY **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	2,721	1,138	11,358	3,300	3,013	21,530	176	88	1,644	929	1,647	4,483	18	389	266	787	1,460
2015	2,874	937	11,314	3,777	3,209	22,112	185	73	1,637	1,063	1,754	4,712	15	387	305	838	1,545
2020	3,061	912	10,901	4,257	3,539	22,671	198	71	1,578	1,198	1,934	4,978	15	373	343	924	1,655
2025	3,105	1,020	10,384	4,130	4,037	22,675	200	79	1,503	1,162	2,206	5,150	16	355	333	1,054	1,759
2030	3,041	1,104	10,197	4,304	4,579	23,225	196	85	1,476	1,211	2,502	5,471	18	349	347	1,196	1,909
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,154	474	4,384	1,359	1,504	8,875	74	37	635	382	822	1,950	8	150	110	393	660
2015	1,302	417	4,717	1,660	1,692	9,789	84	32	683	467	925	2,191	7	161	134	442	744
2020	1,462	428	4,835	1,979	1,952	10,657	94	33	700	557	1,067	2,451	7	165	160	510	842
2025	1,549	501	4,828	1,917	2,310	11,105	100	39	699	539	1,262	2,639	8	165	155	603	931
2030	1,573	563	4,910	2,181	2,706	11,934	102	44	711	614	1,479	2,948	9	168	176	707	1,060
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,566	664	6,974	1,942	1,510	12,656	101	51	1,009	546	825	2,533	11	239	157	394	800
2015	1,572	521	6,597	2,117	1,516	12,323	101	40	955	596	829	2,521	8	226	171	396	801
2020	1,599	484	6,066	2,278	1,587	12,014	103	37	878	641	867	2,527	8	207	184	414	813
2025	1,556	519	5,555	2,213	1,727	11,570	100	40	804	623	944	2,511	8	190	179	451	828
2030	1,467	541	5,288	2,123	1,873	11,291	95	42	765	597	1,023	2,522	9	181	171	489	850

CURRY - CHARTS





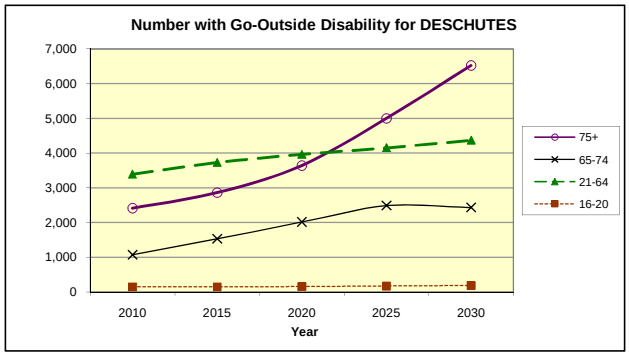
DESCHUTES **Based on 2006 ACS Disability Rates by Time Period**

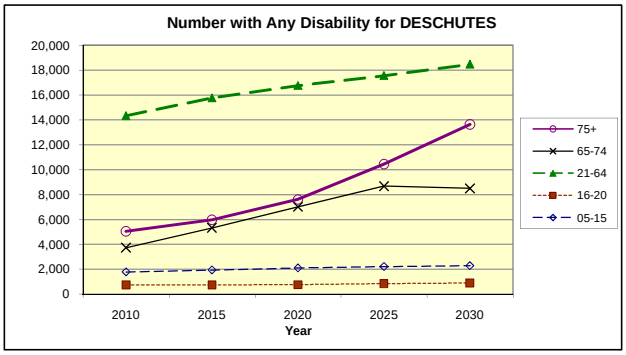
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
DESCHUTES	27,656	9,542	99,061	13,288	9,246	158,792	1,785	738	14,337	3,739	5,053	25,651	152	3,389	1,072	2,415	7,027
Urban Areas 50K+	14,093	4,886	47,519	5,668	4,928	77,095	909	378	6,877	1,595	2,693	12,453	78	1,626	457	1,287	3,448
Urban 25-49K	4,851	1,773	15,707	1,681	1,541	25,552	313	137	2,273	473	842	4,038	28	537	136	402	1,104
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	8,712	2,884	35,835	5,938	2,777	56,145	562	223	5,186	1,671	1,517	9,160	46	1,226	479	725	2,476
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
DESCHUTES	30,057	9,470	108,959	18,973	10,958	178,418	1,940	732	15,769	5,338	5,988	29,768	151	3,727	1,530	2,862	8,270
Urban Areas 50K+	14,552	4,621	49,984	7,737	5,502	82,395	939	357	7,234	2,177	3,007	13,714	73	1,710	624	1,437	3,844
Urban 25-49K	5,679	1,901	18,718	2,603	1,950	30,850	366	147	2,709	732	1,065	5,020	30	640	210	509	1,390
Urban <2.5-25K	1,117	300	3,299	726	465	5,906	72	23	477	204	254	1,031	5	113	59	121	297
<2.5K	8,710	2,648	36,959	7,908	3,042	59,266	562	205	5,349	2,225	1,662	10,003	42	1,264	638	794	2,739
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
DESCHUTES	32,573	9,789	115,871	24,977	13,940	197,150	2,102	757	16,770	7,027	7,618	34,274	156	3,964	2,015	3,641	9,775
Urban Areas 50K+	15,211	4,613	51,353	9,903	6,735	87,815	982	357	7,432	2,786	3,681	15,237	73	1,757	799	1,759	4,388
Urban 25-49K	6,582	2,104	21,289	3,692	2,644	36,310	425	163	3,081	1,039	1,445	6,152	33	728	298	691	1,750
Urban 2.5-24K	1,461	374	4,246	1,160	713	7,953	94	29	615	326	390	1,454	6	145	94	186	431
<2.5K	9,319	2,697	38,983	10,223	3,848	65,071	601	209	5,642	2,876	2,103	11,431	43	1,334	825	1,005	3,206
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
DESCHUTES	34,281	10,825	121,393	30,871	19,137	216,507	2,212	837	17,569	8,686	10,458	39,762	172	4,153	2,490	4,998	11,813
Urban Areas 50K+	16,338	5,207	55,177	11,833	9,392	97,948	1,054	403	7,986	3,329	5,133	17,905	83	1,888	954	2,453	5,378
Urban 25-49K	7,257	2,438	23,481	4,762	3,782	41,720	468	189	3,398	1,340	2,067	7,462	39	803	384	988	2,214
Urban 2.5-24K	1,794	483	5,214	1,583	1,140	10,213	116	37	755	445	623	1,976	8	178	128	298	611
<2.5K	8,892	2,697	37,521	12,694	4,822	66,625	574	209	5,430	3,571	2,635	12,419	43	1,284	1,024	1,259	3,610
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
DESCHUTES	35,374	11,629	127,767	30,188	24,974	229,933	2,283	899	18,491	8,494	13,648	43,815	185	4,371	2,435	6,522	13,513
Urban Areas 50K+	24,372	8,191	83,231	17,644	17,391	150,829	1,573	634	12,046	4,964	9,504	28,720	130	2,847	1,423	4,542	8,943
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,136	606	6,279	1,882	1,681	12,584	138	47	909	529	919	2,542	10	215	152	439	815
<2.5K	8,866	2,832	38,258	10,662	5,902	66,520	572	219	5,537	3,000	3,225	12,553	45	1,309	860	1,541	3,755

DESCHUTES **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	27,656	9,542	99,061	13,288	9,246	158,792	1,785	738	14,337	3,739	5,053	25,651	152	3,389	1,072	2,415	7,027
2015	30,057	9,470	108,959	18,973	10,958	178,418	1,940	732	15,769	5,338	5,988	29,768	151	3,727	1,530	2,862	8,270
2020	32,573	9,789	115,871	24,977	13,940	197,150	2,102	757	16,770	7,027	7,618	34,274	156	3,964	2,015	3,641	9,775
2025	34,281	10,825	121,393	30,871	19,137	216,507	2,212	837	17,569	8,686	10,458	39,762	172	4,153	2,490	4,998	11,813
2030	35,374	11,629	127,767	30,188	24,974	229,933	2,283	899	18,491	8,494	13,648	43,815	185	4,371	2,435	6,522	13,513
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	14,093	4,886	47,519	5,668	4,928	77,095	909	378	6,877	1,595	2,693	12,453	78	1,626	457	1,287	3,448
2015	14,552	4,621	49,984	7,737	5,502	82,395	939	357	7,234	2,177	3,007	13,714	73	1,710	624	1,437	3,844
2020	15,211	4,613	51,353	9,903	6,735	87,815	982	357	7,432	2,786	3,681	15,237	73	1,757	799	1,759	4,388
2025	16,338	5,207	55,177	11,833	9,392	97,948	1,054	403	7,986	3,329	5,133	17,905	83	1,888	954	2,453	5,378
2030	24,372	8,191	83,231	17,644	17,391	150,829	1,573	634	12,046	4,964	9,504	28,720	130	2,847	1,423	4,542	8,943
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	4,851	1,773	15,707	1,681	1,541	25,552	313	137	2,273	473	842	4,038	28	537	136	402	1,104
2015	5,679	1,901	18,718	2,603	1,950	30,850	366	147	2,709	732	1,065	5,020	30	640	210	509	1,390
2020	6,582	2,104	21,289	3,692	2,644	36,310	425	163	3,081	1,039	1,445	6,152	33	728	298	691	1,750
2025	7,257	2,438	23,481	4,762	3,782	41,720	468	189	3,398	1,340	2,067	7,462	39	803	384	988	2,214
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	1,117	300	3,299	726	465	5,906	72	23	477	204	254	1,031	5	113	59	121	297
2020	1,461	374	4,246	1,160	713	7,953	94	29	615	326	390	1,454	6	145	94	186	431
2025	1,794	483	5,214	1,583	1,140	10,213	116	37	755	445	623	1,976	8	178	128	298	611
2030	2,136	606	6,279	1,882	1,681	12,584	138	47	909	529	919	2,542	10	215	152	439	815
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	8,712	2,884	35,835	5,938	2,777	56,145	562	223	5,186	1,671	1,517	9,160	46	1,226	479	725	2,476
2015	8,710	2,648	36,959	7,908	3,042	59,266	562	205	5,349	2,225	1,662	10,003	42	1,264	638	794	2,739
2020	9,319	2,697	38,983	10,223	3,848	65,071	601	209	5,642	2,876	2,103	11,431	43	1,334	825	1,005	3,206
2025	8,892	2,697	37,521	12,694	4,822	66,625	574	209	5,430	3,571	2,635	12,419	43	1,284	1,024	1,259	3,610
2030	8,866	2,832	38,258	10,662	5,902	66,520	572	219	5,537	3,000	3,225	12,553	45	1,309	860	1,541	3,755

DESCHUTES - CHARTS





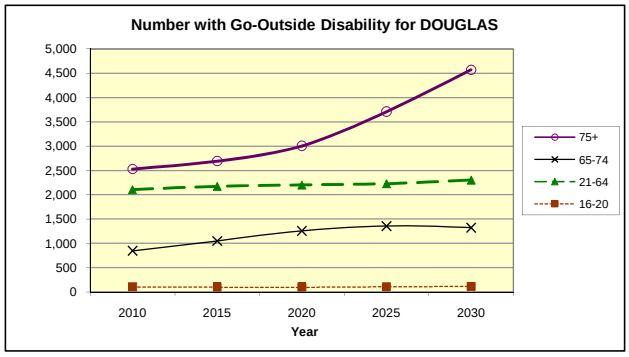
DOUGLAS **Based on 2006 ACS Disability Rates by Time Period**

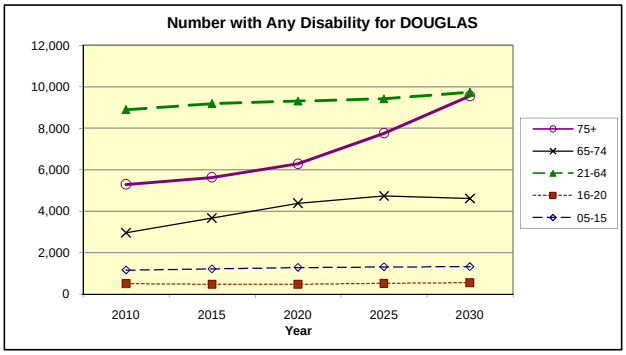
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
DOUGLAS	18,004	6,667	61,507	10,516	9,685	106,379	1,162	516	8,902	2,959	5,292	18,830	106	2,104	848	2,529	5,588
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	8,135	2,756	24,698	3,990	4,595	44,174	525	213	3,574	1,122	2,511	7,946	44	845	322	1,200	2,411
<2.5K	9,868	3,911	36,809	6,527	5,089	62,205	637	303	5,327	1,836	2,781	10,884	62	1,259	526	1,329	3,177
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
DOUGLAS	18,871	6,293	63,535	13,033	10,311	112,043	1,218	487	9,195	3,667	5,635	20,201	100	2,173	1,051	2,693	6,018
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	8,770	2,674	26,402	5,076	5,021	47,942	566	207	3,821	1,428	2,744	8,766	43	903	409	1,311	2,666
<2.5K	10,101	3,619	37,133	7,957	5,291	64,101	652	280	5,374	2,239	2,891	11,436	58	1,270	642	1,382	3,351
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
DOUGLAS	19,949	6,220	64,368	15,593	11,502	117,632	1,287	481	9,316	4,387	6,286	21,757	99	2,202	1,258	3,004	6,562
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	9,483	2,715	27,553	6,273	5,728	51,751	612	210	3,988	1,765	3,130	9,704	43	943	506	1,496	2,988
<2.5K	10,466	3,505	36,815	9,320	5,774	65,881	675	271	5,328	2,622	3,156	12,052	56	1,259	752	1,508	3,575
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
DOUGLAS	20,437	6,819	65,081	16,831	14,201	123,370	1,319	527	9,419	4,735	7,761	23,761	108	2,226	1,358	3,709	7,401
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	4,846	1,629	14,342	2,159	2,336	25,311	313	126	2,076	607	1,276	4,398	26	491	174	610	1,301
Urban 2.5-24K	5,640	1,699	16,078	3,995	4,540	31,952	364	131	2,327	1,124	2,481	6,427	27	550	322	1,186	2,085
<2.5K	9,952	3,491	34,662	10,676	7,326	66,106	642	270	5,016	3,004	4,003	12,936	56	1,186	861	1,913	4,016
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
DOUGLAS	20,615	7,235	67,311	16,413	17,488	129,062	1,330	560	9,742	4,618	9,557	25,806	115	2,303	1,324	4,567	8,309
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	4,936	1,749	14,983	2,118	2,915	26,701	319	135	2,168	596	1,593	4,811	28	513	171	761	1,472
Urban 2.5-24K	5,913	1,878	17,245	4,480	5,822	35,337	382	145	2,496	1,260	3,181	7,464	30	590	361	1,520	2,501
<2.5K	9,766	3,609	35,083	9,815	8,752	67,025	630	279	5,078	2,761	4,783	13,531	57	1,200	792	2,286	4,335

DOUGLAS **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	18,004	6,667	61,507	10,516	9,685	106,379	1,162	516	8,902	2,959	5,292	18,830	106	2,104	848	2,529	5,588
2015	18,871	6,293	63,535	13,033	10,311	112,043	1,218	487	9,195	3,667	5,635	20,201	100	2,173	1,051	2,693	6,018
2020	19,949	6,220	64,368	15,593	11,502	117,632	1,287	481	9,316	4,387	6,286	21,757	99	2,202	1,258	3,004	6,562
2025	20,437	6,819	65,081	16,831	14,201	123,370	1,319	527	9,419	4,735	7,761	23,761	108	2,226	1,358	3,709	7,401
2030	20,615	7,235	67,311	16,413	17,488	129,062	1,330	560	9,742	4,618	9,557	25,806	115	2,303	1,324	4,567	8,309
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	4,846	1,629	14,342	2,159	2,336	25,311	313	126	2,076	607	1,276	4,398	26	491	174	610	1,301
2030	4,936	1,749	14,983	2,118	2,915	26,701	319	135	2,168	596	1,593	4,811	28	513	171	761	1,472
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	8,135	2,756	24,698	3,990	4,595	44,174	525	213	3,574	1,122	2,511	7,946	44	845	322	1,200	2,411
2015	8,770	2,674	26,402	5,076	5,021	47,942	566	207	3,821	1,428	2,744	8,766	43	903	409	1,311	2,666
2020	9,483	2,715	27,553	6,273	5,728	51,751	612	210	3,988	1,765	3,130	9,704	43	943	506	1,496	2,988
2025	5,640	1,699	16,078	3,995	4,540	31,952	364	131	2,327	1,124	2,481	6,427	27	550	322	1,186	2,085
2030	5,913	1,878	17,245	4,480	5,822	35,337	382	145	2,496	1,260	3,181	7,464	30	590	361	1,520	2,501
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	9,868	3,911	36,809	6,527	5,089	62,205	637	303	5,327	1,836	2,781	10,884	62	1,259	526	1,329	3,177
2015	10,101	3,619	37,133	7,957	5,291	64,101	652	280	5,374	2,239	2,891	11,436	58	1,270	642	1,382	3,351
2020	10,466	3,505	36,815	9,320	5,774	65,881	675	271	5,328	2,622	3,156	12,052	56	1,259	752	1,508	3,575
2025	9,952	3,491	34,662	10,676	7,326	66,106	642	270	5,016	3,004	4,003	12,936	56	1,186	861	1,913	4,016
2030	9,766	3,609	35,083	9,815	8,752	67,025	630	279	5,078	2,761	4,783	13,531	57	1,200	792	2,286	4,335

DOUGLAS - CHARTS





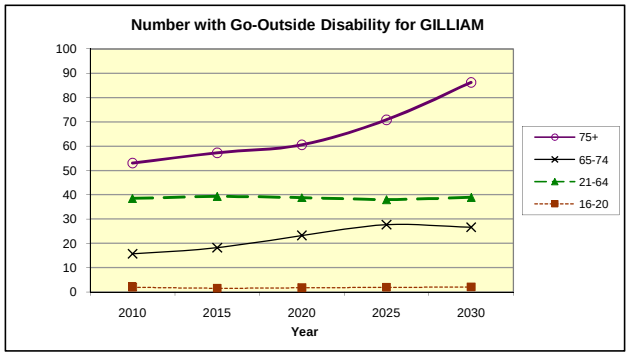
GILLIAM **Based on 2006 ACS Disability Rates by Time Period**

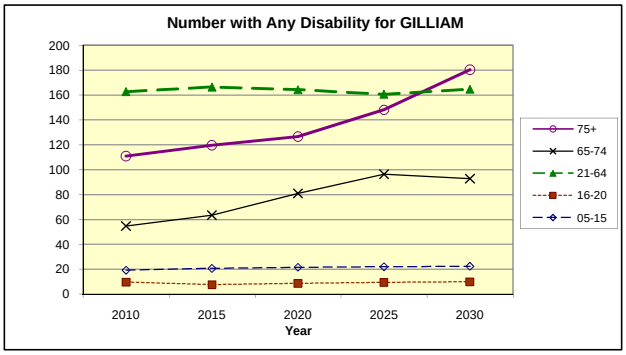
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
GILLIAM	298	124	1,125	195	203	1,946	19	10	163	55	111	358	2	38	16	53	109
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	298	124	1,125	195	203	1,946	19	10	163	55	111	358	2	38	16	53	109
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
GILLIAM	321	99	1,150	226	219	2,016	21	8	166	64	120	378	2	39	18	57	116
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	321	99	1,150	226	219	2,016	21	8	166	64	120	378	2	39	18	57	116
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
GILLIAM	335	110	1,136	288	232	2,101	22	9	164	81	127	402	2	39	23	61	124
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	335	110	1,136	288	232	2,101	22	9	164	81	127	402	2	39	23	61	124
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
GILLIAM	342	121	1,110	343	271	2,187	22	9	161	96	148	437	2	38	28	71	138
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	342	121	1,110	343	271	2,187	22	9	161	96	148	437	2	38	28	71	138
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
GILLIAM	349	128	1,138	330	330	2,275	22	10	165	93	180	470	2	39	27	86	154
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	349	128	1,138	330	330	2,275	22	10	165	93	180	470	2	39	27	86	154

GILLIAM **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	298	124	1,125	195	203	1,946	19	10	163	55	111	358	2	38	16	53	109
2015	321	99	1,150	226	219	2,016	21	8	166	64	120	378	2	39	18	57	116
2020	335	110	1,136	288	232	2,101	22	9	164	81	127	402	2	39	23	61	124
2025	342	121	1,110	343	271	2,187	22	9	161	96	148	437	2	38	28	71	138
2030	349	128	1,138	330	330	2,275	22	10	165	93	180	470	2	39	27	86	154
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	298	124	1,125	195	203	1,946	19	10	163	55	111	358	2	38	16	53	109
2015	321	99	1,150	226	219	2,016	21	8	166	64	120	378	2	39	18	57	116
2020	335	110	1,136	288	232	2,101	22	9	164	81	127	402	2	39	23	61	124
2025	342	121	1,110	343	271	2,187	22	9	161	96	148	437	2	38	28	71	138
2030	349	128	1,138	330	330	2,275	22	10	165	93	180	470	2	39	27	86	154

GILLIAM - CHARTS





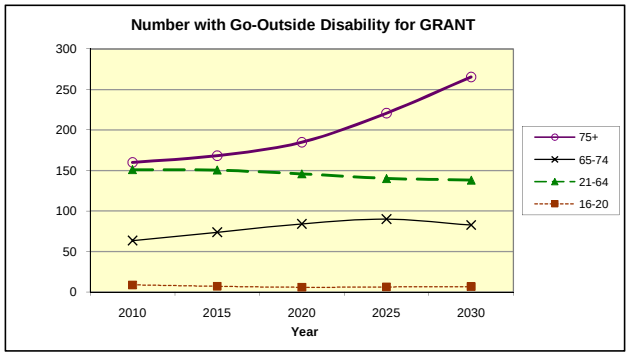
GRANT **Based on 2006 ACS Disability Rates by Time Period**

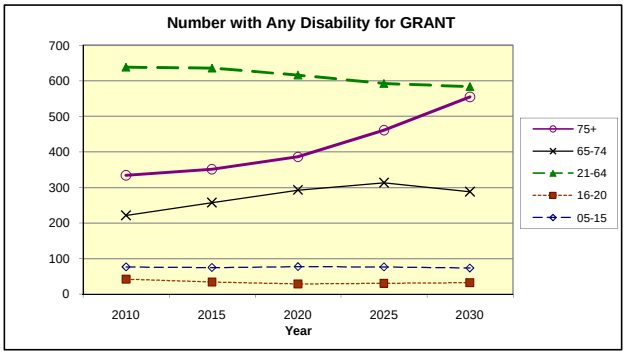
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
GRANT	1,194	547	4,414	787	612	7,553	77	42	639	222	334	1,314	9	151	64	160	383
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,194	547	4,414	787	612	7,553	77	42	639	222	334	1,314	9	151	64	160	383
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
GRANT	1,166	441	4,397	916	644	7,562	75	34	636	258	352	1,355	7	150	74	168	399
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,166	441	4,397	916	644	7,562	75	34	636	258	352	1,355	7	150	74	168	399
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
GRANT	1,203	370	4,261	1,042	707	7,583	78	29	617	293	386	1,402	6	146	84	185	420
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,203	370	4,261	1,042	707	7,583	78	29	617	293	386	1,402	6	146	84	185	420
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
GRANT	1,193	395	4,095	1,115	844	7,642	77	31	593	314	461	1,475	6	140	90	221	457
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,193	395	4,095	1,115	844	7,642	77	31	593	314	461	1,475	6	140	90	221	457
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
GRANT	1,143	419	4,035	1,024	1,016	7,637	74	32	584	288	555	1,533	7	138	83	265	493
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,143	419	4,035	1,024	1,016	7,637	74	32	584	288	555	1,533	7	138	83	265	493

GRANT **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,194	547	4,414	787	612	7,553	77	42	639	222	334	1,314	9	151	64	160	383
2015	1,166	441	4,397	916	644	7,562	75	34	636	258	352	1,355	7	150	74	168	399
2020	1,203	370	4,261	1,042	707	7,583	78	29	617	293	386	1,402	6	146	84	185	420
2025	1,193	395	4,095	1,115	844	7,642	77	31	593	314	461	1,475	6	140	90	221	457
2030	1,143	419	4,035	1,024	1,016	7,637	74	32	584	288	555	1,533	7	138	83	265	493
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,194	547	4,414	787	612	7,553	77	42	639	222	334	1,314	9	151	64	160	383
2015	1,166	441	4,397	916	644	7,562	75	34	636	258	352	1,355	7	150	74	168	399
2020	1,203	370	4,261	1,042	707	7,583	78	29	617	293	386	1,402	6	146	84	185	420
2025	1,193	395	4,095	1,115	844	7,642	77	31	593	314	461	1,475	6	140	90	221	457
2030	1,143	419	4,035	1,024	1,016	7,637	74	32	584	288	555	1,533	7	138	83	265	493

GRANT - CHARTS





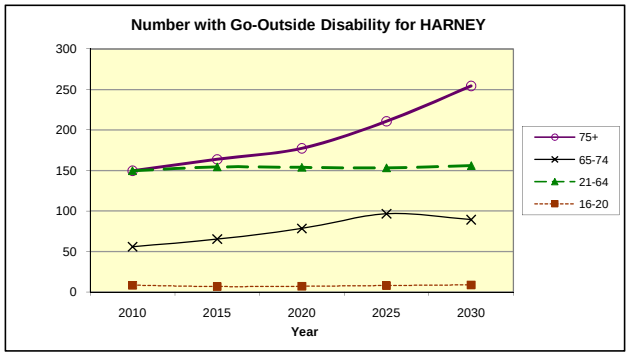
HARNEY **Based on 2006 ACS Disability Rates by Time Period**

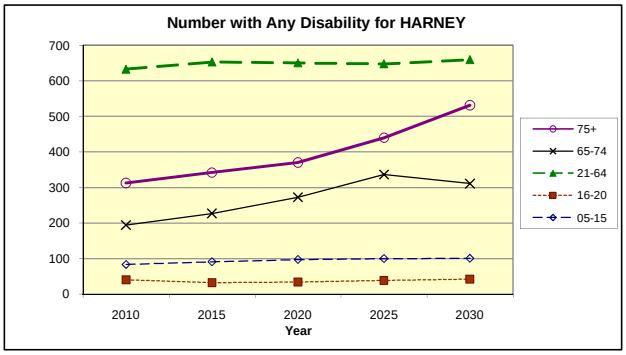
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
HARNEY	1,292	524	4,374	692	572	7,454	83	41	633	195	313	1,264	8	150	56	150	363
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	493	221	1,658	268	263	2,903	32	17	240	75	144	508	4	57	22	69	151
<2.5K	799	303	2,716	424	310	4,550	52	23	393	119	169	756	5	93	34	81	213
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
HARNEY	1,411	420	4,513	808	627	7,779	91	32	653	227	342	1,346	7	154	65	164	390
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	524	173	1,679	305	281	2,962	34	13	243	86	154	530	3	57	25	74	158
<2.5K	887	247	2,834	503	345	4,817	57	19	410	142	189	817	4	97	41	90	232
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
HARNEY	1,509	444	4,497	970	678	8,098	97	34	651	273	371	1,426	7	154	78	177	416
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	545	178	1,627	356	298	3,004	35	14	235	100	163	548	3	56	29	78	165
<2.5K	964	266	2,870	614	380	5,094	62	21	415	173	208	879	4	98	50	99	251
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
HARNEY	1,551	496	4,477	1,197	806	8,528	100	38	648	337	440	1,564	8	153	97	210	468
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	987	335	2,837	760	568	5,487	64	26	411	214	311	1,025	5	97	61	148	312
<2.5K	565	162	1,640	437	238	3,041	36	13	237	123	130	539	3	56	35	62	156
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
HARNEY	1,559	547	4,559	1,106	973	8,745	101	42	660	311	532	1,646	9	156	89	254	508
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	996	370	2,897	713	689	5,666	64	29	419	201	377	1,090	6	99	58	180	343
<2.5K	563	177	1,662	393	284	3,079	36	14	241	110	155	556	3	57	32	74	165

HARNEY **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,292	524	4,374	692	572	7,454	83	41	633	195	313	1,264	8	150	56	150	363
2015	1,411	420	4,513	808	627	7,779	91	32	653	227	342	1,346	7	154	65	164	390
2020	1,509	444	4,497	970	678	8,098	97	34	651	273	371	1,426	7	154	78	177	416
2025	1,551	496	4,477	1,197	806	8,528	100	38	648	337	440	1,564	8	153	97	210	468
2030	1,559	547	4,559	1,106	973	8,745	101	42	660	311	532	1,646	9	156	89	254	508
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	493	221	1,658	268	263	2,903	32	17	240	75	144	508	4	57	22	69	151
2015	524	173	1,679	305	281	2,962	34	13	243	86	154	530	3	57	25	74	158
2020	545	178	1,627	356	298	3,004	35	14	235	100	163	548	3	56	29	78	165
2025	987	335	2,837	760	568	5,487	64	26	411	214	311	1,025	5	97	61	148	312
2030	996	370	2,897	713	689	5,666	64	29	419	201	377	1,090	6	99	58	180	343
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	799	303	2,716	424	310	4,550	52	23	393	119	169	756	5	93	34	81	213
2015	887	247	2,834	503	345	4,817	57	19	410	142	189	817	4	97	41	90	232
2020	964	266	2,870	614	380	5,094	62	21	415	173	208	879	4	98	50	99	251
2025	565	162	1,640	437	238	3,041	36	13	237	123	130	539	3	56	35	62	156
2030	563	177	1,662	393	284	3,079	36	14	241	110	155	556	3	57	32	74	165

HARNEY - CHARTS





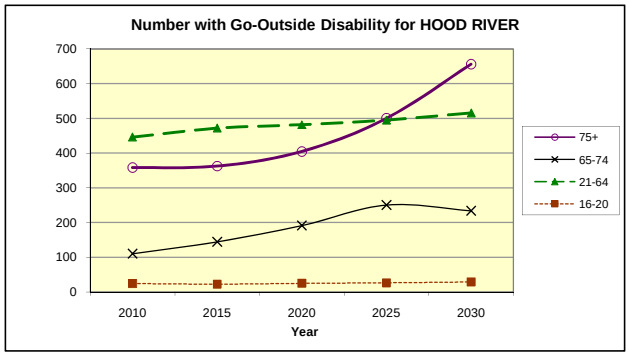
HOOD RIVER **Based on 2006 ACS Disability Rates by Time Period**

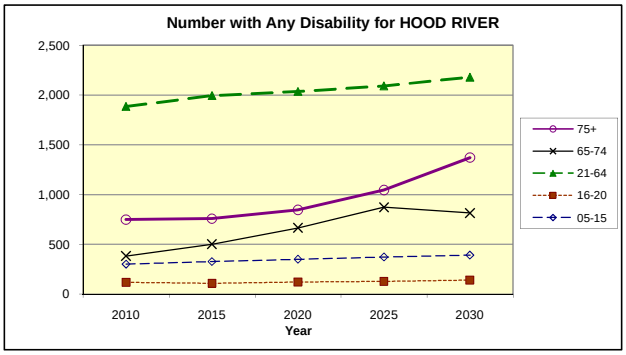
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
HOOD RIVER	4,690	1,534	13,039	1,364	1,371	21,998	303	119	1,887	384	749	3,441	24	446	110	358	938
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,444	482	4,171	376	510	6,983	93	37	604	106	278	1,118	8	143	30	133	314
<2.5K	3,246	1,051	8,868	988	861	15,016	209	81	1,284	278	471	2,323	17	303	80	225	625
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
HOOD RIVER	5,097	1,418	13,794	1,788	1,387	23,485	329	110	1,996	503	758	3,696	23	472	144	362	1,001
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	1,641	466	4,608	516	539	7,771	106	36	667	145	295	1,249	7	158	42	141	348
<2.5K	3,456	952	9,186	1,272	848	15,715	223	74	1,329	358	463	2,448	15	314	103	221	653
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
HOOD RIVER	5,456	1,568	14,084	2,372	1,548	25,027	352	121	2,038	667	846	4,025	25	482	191	404	1,102
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,833	538	4,911	716	618	8,616	118	42	711	201	338	1,410	9	168	58	161	396
<2.5K	3,623	1,030	9,173	1,656	931	16,412	234	80	1,328	466	509	2,615	16	314	134	243	707
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
HOOD RIVER	5,808	1,667	14,464	3,106	1,914	26,959	375	129	2,093	874	1,046	4,517	27	495	251	500	1,272
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,031	596	5,254	961	785	9,626	131	46	760	270	429	1,637	9	180	78	205	472
<2.5K	3,777	1,071	9,211	2,145	1,129	17,333	244	83	1,333	603	617	2,880	17	315	173	295	800
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
HOOD RIVER	6,096	1,824	15,076	2,896	2,512	28,404	393	141	2,182	815	1,372	4,904	29	516	234	656	1,434
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,216	678	5,692	954	1,063	10,604	143	52	824	268	581	1,869	11	195	77	278	560
<2.5K	3,880	1,146	9,383	1,942	1,448	17,800	250	89	1,358	546	791	3,035	18	321	157	378	874

HOOD RIVER **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	4,690	1,534	13,039	1,364	1,371	21,998	303	119	1,887	384	749	3,441	24	446	110	358	938
2015	5,097	1,418	13,794	1,788	1,387	23,485	329	110	1,996	503	758	3,696	23	472	144	362	1,001
2020	5,456	1,568	14,084	2,372	1,548	25,027	352	121	2,038	667	846	4,025	25	482	191	404	1,102
2025	5,808	1,667	14,464	3,106	1,914	26,959	375	129	2,093	874	1,046	4,517	27	495	251	500	1,272
2030	6,096	1,824	15,076	2,896	2,512	28,404	393	141	2,182	815	1,372	4,904	29	516	234	656	1,434
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,444	482	4,171	376	510	6,983	93	37	604	106	278	1,118	8	143	30	133	314
2015	1,641	466	4,608	516	539	7,771	106	36	667	145	295	1,249	7	158	42	141	348
2020	1,833	538	4,911	716	618	8,616	118	42	711	201	338	1,410	9	168	58	161	396
2025	2,031	596	5,254	961	785	9,626	131	46	760	270	429	1,637	9	180	78	205	472
2030	2,216	678	5,692	954	1,063	10,604	143	52	824	268	581	1,869	11	195	77	278	560
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,246	1,051	8,868	988	861	15,016	209	81	1,284	278	471	2,323	17	303	80	225	625
2015	3,456	952	9,186	1,272	848	15,715	223	74	1,329	358	463	2,448	15	314	103	221	653
2020	3,623	1,030	9,173	1,656	931	16,412	234	80	1,328	466	509	2,615	16	314	134	243	707
2025	3,777	1,071	9,211	2,145	1,129	17,333	244	83	1,333	603	617	2,880	17	315	173	295	800
2030	3,880	1,146	9,383	1,942	1,448	17,800	250	89	1,358	546	791	3,035	18	321	157	378	874

HOOD RIVER - CHARTS





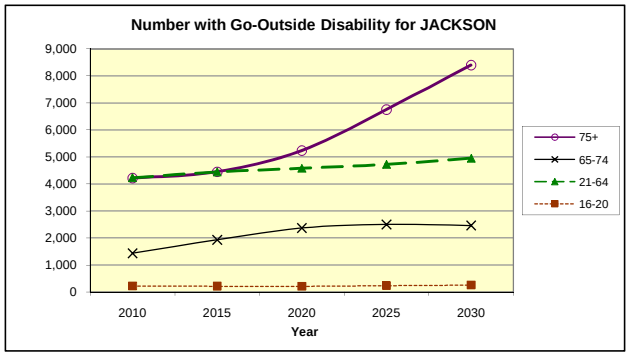
JACKSON **Based on 2006 ACS Disability Rates by Time Period**

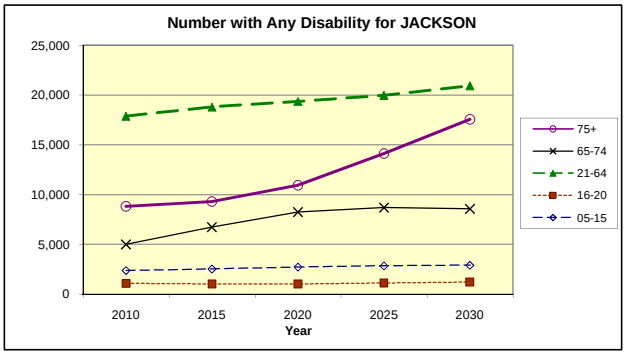
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JACKSON	36,865	14,043	123,541	17,789	16,131	208,370	2,379	1,086	17,880	5,005	8,815	35,165	223	4,226	1,435	4,213	10,097
Urban Areas 50K+	23,674	9,193	75,878	10,295	11,035	130,075	1,528	711	10,982	2,897	6,030	22,147	146	2,596	830	2,882	6,454
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,181	1,063	7,755	761	523	13,283	205	82	1,122	214	286	1,910	17	265	61	137	480
<2.5K	10,011	3,786	39,908	6,734	4,574	65,013	646	293	5,776	1,895	2,499	11,109	60	1,365	543	1,194	3,163
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JACKSON	39,235	13,347	129,896	23,956	17,031	223,464	2,532	1,032	18,800	6,740	9,307	38,411	212	4,444	1,932	4,448	11,036
Urban Areas 50K+	23,614	8,205	74,838	12,908	11,034	130,599	1,524	635	10,831	3,632	6,030	22,651	130	2,560	1,041	2,882	6,613
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	4,046	1,209	9,815	1,217	667	16,954	261	94	1,421	342	365	2,482	19	336	98	174	627
<2.5K	11,575	3,932	45,243	9,831	5,329	75,911	747	304	6,548	2,766	2,912	13,277	63	1,548	793	1,392	3,795
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JACKSON	42,319	13,270	133,892	29,343	20,040	238,865	2,731	1,026	19,378	8,256	10,951	42,342	211	4,580	2,367	5,233	12,392
Urban Areas 50K+	24,225	7,798	74,000	15,307	12,568	133,898	1,563	603	10,710	4,307	6,868	24,051	124	2,531	1,235	3,282	7,172
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	5,624	1,557	13,204	1,936	1,040	23,361	363	120	1,911	545	568	3,507	25	452	156	272	904
<2.5K	12,470	3,915	46,688	12,101	6,432	81,606	805	303	6,757	3,405	3,515	14,784	62	1,597	976	1,680	4,315
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JACKSON	44,189	14,692	138,072	30,957	25,850	253,760	2,851	1,136	19,983	8,710	14,126	46,807	234	4,723	2,497	6,751	14,205
Urban Areas 50K+	24,253	8,305	73,297	14,560	15,692	136,107	1,565	642	10,608	4,096	8,575	25,487	132	2,507	1,174	4,098	7,912
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	6,591	1,941	15,310	2,479	1,530	27,851	425	150	2,216	697	836	4,325	31	524	200	400	1,154
<2.5K	13,345	4,445	49,466	13,919	8,628	89,802	861	344	7,159	3,916	4,715	16,995	71	1,692	1,123	2,253	5,139
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JACKSON	45,115	15,944	144,708	30,462	32,155	268,385	2,911	1,233	20,943	8,571	17,572	51,230	254	4,950	2,457	8,398	16,059
Urban Areas 50K+	24,521	8,766	73,711	14,866	18,689	140,553	1,582	678	10,668	4,183	10,213	27,324	139	2,522	1,199	4,881	8,741
Urban 25-49K	4,713	1,730	14,597	2,020	2,311	25,371	304	134	2,113	568	1,263	4,382	28	499	163	603	1,293
Urban 2.5-24K	1,749	538	4,026	573	476	7,361	113	42	583	161	260	1,158	9	138	46	124	317
<2.5K	14,132	4,910	52,374	13,003	10,680	95,100	912	380	7,580	3,658	5,836	18,367	78	1,792	1,049	2,789	5,708

JACKSON **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	36,865	14,043	123,541	17,789	16,131	208,370	2,379	1,086	17,880	5,005	8,815	35,165	223	4,226	1,435	4,213	10,097
2015	39,235	13,347	129,896	23,956	17,031	223,464	2,532	1,032	18,800	6,740	9,307	38,411	212	4,444	1,932	4,448	11,036
2020	42,319	13,270	133,892	29,343	20,040	238,865	2,731	1,026	19,378	8,256	10,951	42,342	211	4,580	2,367	5,233	12,392
2025	44,189	14,692	138,072	30,957	25,850	253,760	2,851	1,136	19,983	8,710	14,126	46,807	234	4,723	2,497	6,751	14,205
2030	45,115	15,944	144,708	30,462	32,155	268,385	2,911	1,233	20,943	8,571	17,572	51,230	254	4,950	2,457	8,398	16,059
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	23,674	9,193	75,878	10,295	11,035	130,075	1,528	711	10,982	2,897	6,030	22,147	146	2,596	830	2,882	6,454
2015	23,614	8,205	74,838	12,908	11,034	130,599	1,524	635	10,831	3,632	6,030	22,651	130	2,560	1,041	2,882	6,613
2020	24,225	7,798	74,000	15,307	12,568	133,898	1,563	603	10,710	4,307	6,868	24,051	124	2,531	1,235	3,282	7,172
2025	24,253	8,305	73,297	14,560	15,692	136,107	1,565	642	10,608	4,096	8,575	25,487	132	2,507	1,174	4,098	7,912
2030	24,521	8,766	73,711	14,866	18,689	140,553	1,582	678	10,668	4,183	10,213	27,324	139	2,522	1,199	4,881	8,741
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	4,713	1,730	14,597	2,020	2,311	25,371	304	134	2,113	568	1,263	4,382	28	499	163	603	1,293
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,181	1,063	7,755	761	523	13,283	205	82	1,122	214	286	1,910	17	265	61	137	480
2015	4,046	1,209	9,815	1,217	667	16,954	261	94	1,421	342	365	2,482	19	336	98	174	627
2020	5,624	1,557	13,204	1,936	1,040	23,361	363	120	1,911	545	568	3,507	25	452	156	272	904
2025	6,591	1,941	15,310	2,479	1,530	27,851	425	150	2,216	697	836	4,325	31	524	200	400	1,154
2030	1,749	538	4,026	573	476	7,361	113	42	583	161	260	1,158	9	138	46	124	317
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	10,011	3,786	39,908	6,734	4,574	65,013	646	293	5,776	1,895	2,499	11,109	60	1,365	543	1,194	3,163
2015	11,575	3,932	45,243	9,831	5,329	75,911	747	304	6,548	2,766	2,912	13,277	63	1,548	793	1,392	3,795
2020	12,470	3,915	46,688	12,101	6,432	81,606	805	303	6,757	3,405	3,515	14,784	62	1,597	976	1,680	4,315
2025	13,345	4,445	49,466	13,919	8,628	89,802	861	344	7,159	3,916	4,715	16,995	71	1,692	1,123	2,253	5,139
2030	14,132	4,910	52,374	13,003	10,680	95,100	912	380	7,580	3,658	5,836	18,367	78	1,792	1,049	2,789	5,708

JACKSON - CHARTS





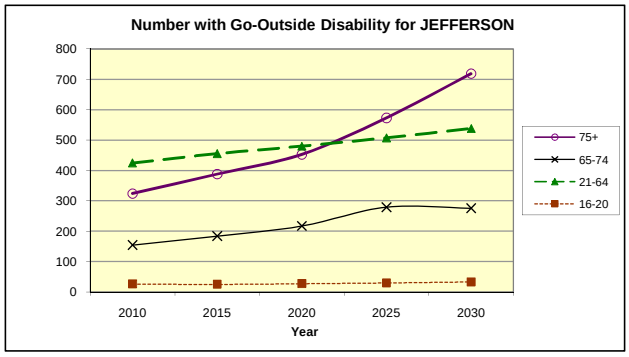
JEFFERSON **Based on 2006 ACS Disability Rates by Time Period**

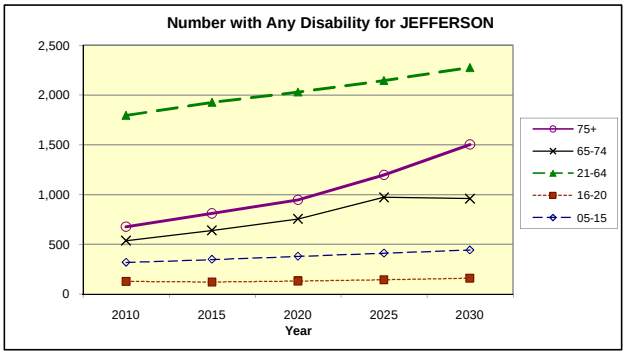
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JEFFERSON	4,948	1,657	12,410	1,913	1,241	22,168	319	128	1,796	538	678	3,460	26	425	154	324	929
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,707	537	3,486	382	406	6,517	110	42	505	107	222	985	9	119	31	106	265
<2.5K	3,241	1,120	8,924	1,531	835	15,651	209	87	1,292	431	456	2,474	18	305	123	218	665
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JEFFERSON	5,414	1,580	13,319	2,281	1,485	24,079	349	122	1,928	642	811	3,852	25	456	184	388	1,053
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	1,975	543	3,989	483	512	7,502	127	42	577	136	280	1,163	9	136	39	134	318
<2.5K	3,439	1,038	9,330	1,798	973	16,577	222	80	1,350	506	532	2,690	17	319	145	254	735
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JEFFERSON	5,890	1,717	14,035	2,690	1,734	26,065	380	133	2,031	757	947	4,248	27	480	217	453	1,177
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,263	622	4,440	613	635	8,574	146	48	643	173	347	1,356	10	152	49	166	377
<2.5K	3,627	1,095	9,595	2,077	1,099	17,492	234	85	1,389	584	601	2,892	17	328	168	287	800
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JEFFERSON	6,379	1,872	14,831	3,458	2,194	28,734	412	145	2,146	973	1,199	4,875	30	507	279	573	1,389
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,228	906	6,339	1,011	1,066	12,550	208	70	917	285	583	2,063	14	217	82	278	591
<2.5K	3,151	966	8,492	2,446	1,128	16,185	203	75	1,229	688	617	2,812	15	291	197	295	798
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JEFFERSON	6,861	2,074	15,732	3,413	2,751	30,831	443	160	2,277	960	1,503	5,344	33	538	275	718	1,565
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,681	1,067	7,197	1,211	1,430	14,587	238	83	1,042	341	782	2,484	17	246	98	373	734
<2.5K	3,180	1,006	8,535	2,201	1,321	16,243	205	78	1,235	619	722	2,859	16	292	178	345	831

JEFFERSON **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	4,948	1,657	12,410	1,913	1,241	22,168	319	128	1,796	538	678	3,460	26	425	154	324	929
2015	5,414	1,580	13,319	2,281	1,485	24,079	349	122	1,928	642	811	3,852	25	456	184	388	1,053
2020	5,890	1,717	14,035	2,690	1,734	26,065	380	133	2,031	757	947	4,248	27	480	217	453	1,177
2025	6,379	1,872	14,831	3,458	2,194	28,734	412	145	2,146	973	1,199	4,875	30	507	279	573	1,389
2030	6,861	2,074	15,732	3,413	2,751	30,831	443	160	2,277	960	1,503	5,344	33	538	275	718	1,565
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,707	537	3,486	382	406	6,517	110	42	505	107	222	985	9	119	31	106	265
2015	1,975	543	3,989	483	512	7,502	127	42	577	136	280	1,163	9	136	39	134	318
2020	2,263	622	4,440	613	635	8,574	146	48	643	173	347	1,356	10	152	49	166	377
2025	3,228	906	6,339	1,011	1,066	12,550	208	70	917	285	583	2,063	14	217	82	278	591
2030	3,681	1,067	7,197	1,211	1,430	14,587	238	83	1,042	341	782	2,484	17	246	98	373	734
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,241	1,120	8,924	1,531	835	15,651	209	87	1,292	431	456	2,474	18	305	123	218	665
2015	3,439	1,038	9,330	1,798	973	16,577	222	80	1,350	506	532	2,690	17	319	145	254	735
2020	3,627	1,095	9,595	2,077	1,099	17,492	234	85	1,389	584	601	2,892	17	328	168	287	800
2025	3,151	966	8,492	2,446	1,128	16,185	203	75	1,229	688	617	2,812	15	291	197	295	798
2030	3,180	1,006	8,535	2,201	1,321	16,243	205	78	1,235	619	722	2,859	16	292	178	345	831

JEFFERSON - CHARTS





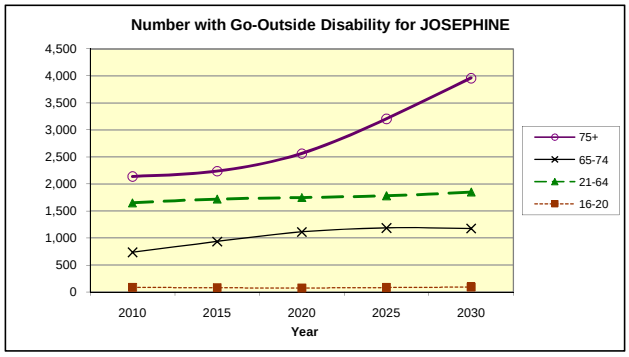
JOSEPHINE **Based on 2006 ACS Disability Rates by Time Period**

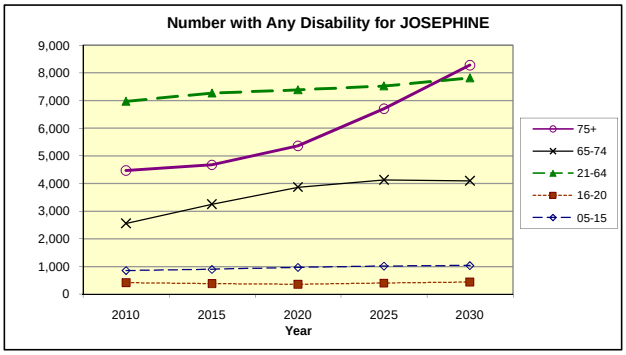
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JOSEPHINE	13,268	5,414	48,215	9,102	8,188	84,186	856	419	6,978	2,561	4,474	15,288	86	1,649	734	2,138	4,608
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	5,615	2,385	17,793	1,917	2,314	30,023	362	184	2,575	539	1,264	4,926	38	609	155	604	1,405
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	7,653	3,029	30,422	7,185	5,874	54,163	494	234	4,403	2,022	3,210	10,363	48	1,041	580	1,534	3,202
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JOSEPHINE	13,914	4,898	50,271	11,565	8,564	89,211	898	379	7,276	3,254	4,680	16,486	78	1,720	933	2,236	4,967
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	6,345	2,312	20,164	2,688	2,645	34,153	409	179	2,918	756	1,446	5,708	37	690	217	691	1,634
Urban <2.5-25K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	7,569	2,586	30,107	8,877	5,919	55,058	488	200	4,357	2,498	3,234	10,778	41	1,030	716	1,546	3,333
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JOSEPHINE	15,037	4,647	51,112	13,772	9,818	94,385	970	359	7,397	3,875	5,365	17,967	74	1,748	1,111	2,564	5,497
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	7,215	2,309	21,813	3,458	3,220	38,015	466	179	3,157	973	1,760	6,534	37	746	279	841	1,903
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	7,822	2,338	29,299	10,314	6,598	56,370	505	181	4,240	2,902	3,606	11,433	37	1,002	832	1,723	3,594
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JOSEPHINE	15,769	5,175	52,063	14,700	12,277	99,984	1,018	400	7,535	4,136	6,709	19,798	82	1,781	1,186	3,206	6,255
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	7,796	2,658	23,152	3,965	4,167	41,738	503	206	3,351	1,116	2,277	7,452	42	792	320	1,088	2,242
Urban 2.5-24K	450	133	1,225	325	489	2,623	29	10	177	92	267	576	2	42	26	128	198
<2.5K	7,523	2,384	27,686	10,409	7,621	55,623	485	184	4,007	2,929	4,164	11,770	38	947	840	1,990	3,815
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
JOSEPHINE	16,068	5,694	54,059	14,568	15,163	105,552	1,037	440	7,824	4,099	8,286	21,686	91	1,849	1,175	3,960	7,075
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	8,130	2,994	24,642	4,049	5,333	45,148	525	232	3,566	1,139	2,914	8,376	48	843	327	1,393	2,610
Urban 2.5-24K	487	155	1,348	417	650	3,057	31	12	195	117	355	711	2	46	34	170	252
<2.5K	7,450	2,545	28,069	10,102	9,180	57,347	481	197	4,062	2,842	5,016	12,599	40	960	815	2,397	4,213

JOSEPHINE **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	13,268	5,414	48,215	9,102	8,188	84,186	856	419	6,978	2,561	4,474	15,288	86	1,649	734	2,138	4,608
2015	13,914	4,898	50,271	11,565	8,564	89,211	898	379	7,276	3,254	4,680	16,486	78	1,720	933	2,236	4,967
2020	15,037	4,647	51,112	13,772	9,818	94,385	970	359	7,397	3,875	5,365	17,967	74	1,748	1,111	2,564	5,497
2025	15,769	5,175	52,063	14,700	12,277	99,984	1,018	400	7,535	4,136	6,709	19,798	82	1,781	1,186	3,206	6,255
2030	16,068	5,694	54,059	14,568	15,163	105,552	1,037	440	7,824	4,099	8,286	21,686	91	1,849	1,175	3,960	7,075
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	5,615	2,385	17,793	1,917	2,314	30,023	362	184	2,575	539	1,264	4,926	38	609	155	604	1,405
2015	6,345	2,312	20,164	2,688	2,645	34,153	409	179	2,918	756	1,446	5,708	37	690	217	691	1,634
2020	7,215	2,309	21,813	3,458	3,220	38,015	466	179	3,157	973	1,760	6,534	37	746	279	841	1,903
2025	7,796	2,658	23,152	3,965	4,167	41,738	503	206	3,351	1,116	2,277	7,452	42	792	320	1,088	2,242
2030	8,130	2,994	24,642	4,049	5,333	45,148	525	232	3,566	1,139	2,914	8,376	48	843	327	1,393	2,610
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	450	133	1,225	325	489	2,623	29	10	177	92	267	576	2	42	26	128	198
2030	487	155	1,348	417	650	3,057	31	12	195	117	355	711	2	46	34	170	252
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	7,653	3,029	30,422	7,185	5,874	54,163	494	234	4,403	2,022	3,210	10,363	48	1,041	580	1,534	3,202
2015	7,569	2,586	30,107	8,877	5,919	55,058	488	200	4,357	2,498	3,234	10,778	41	1,030	716	1,546	3,333
2020	7,822	2,338	29,299	10,314	6,598	56,370	505	181	4,240	2,902	3,606	11,433	37	1,002	832	1,723	3,594
2025	7,523	2,384	27,686	10,409	7,621	55,623	485	184	4,007	2,929	4,164	11,770	38	947	840	1,990	3,815
2030	7,450	2,545	28,069	10,102	9,180	57,347	481	197	4,062	2,842	5,016	12,599	40	960	815	2,397	4,213

JOSEPHINE - CHARTS





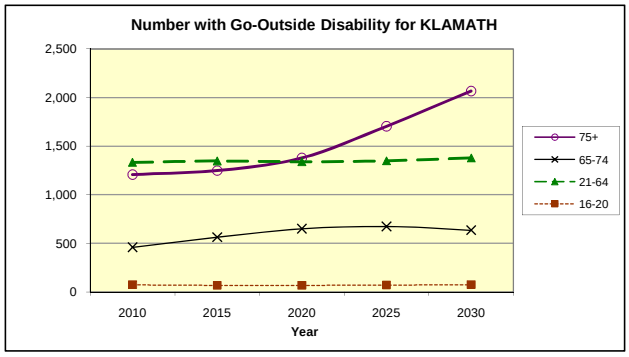
KLAMATH **Based on 2006 ACS Disability Rates by Time Period**

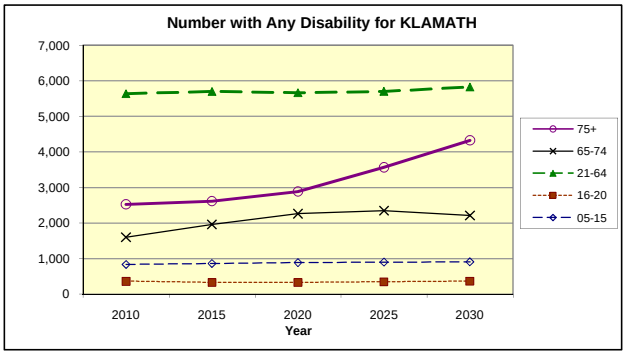
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
KLAMATH	12,967	4,695	38,979	5,702	4,625	66,968	837	363	5,641	1,604	2,528	10,973	75	1,333	460	1,208	3,076
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	4,264	1,829	12,806	1,385	1,480	21,764	275	141	1,853	390	809	3,469	29	438	112	387	965
<2.5K	8,703	2,867	26,173	4,316	3,145	45,204	562	222	3,788	1,214	1,719	7,504	46	895	348	821	2,110
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
KLAMATH	13,377	4,295	39,409	6,988	4,783	68,851	863	332	5,704	1,966	2,614	11,479	68	1,348	564	1,249	3,229
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	4,549	1,724	13,416	1,761	1,584	23,034	294	133	1,942	495	866	3,730	27	459	142	414	1,042
<2.5K	8,828	2,570	25,993	5,227	3,198	45,817	570	199	3,762	1,471	1,748	7,749	41	889	422	835	2,187
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
KLAMATH	13,789	4,297	39,178	8,054	5,279	70,595	890	332	5,670	2,266	2,885	12,043	68	1,340	650	1,379	3,437
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	4,841	1,776	13,764	2,112	1,798	24,291	312	137	1,992	594	983	4,019	28	471	170	470	1,139
<2.5K	8,948	2,520	25,414	5,942	3,480	46,304	577	195	3,678	1,672	1,902	8,024	40	869	479	909	2,298
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
KLAMATH	13,995	4,533	39,446	8,352	6,525	72,849	903	351	5,709	2,350	3,566	12,878	72	1,349	674	1,704	3,799
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	5,080	1,837	14,641	2,078	2,064	25,700	328	142	2,119	585	1,128	4,302	29	501	168	539	1,237
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	8,915	2,696	24,805	6,274	4,460	47,149	575	208	3,590	1,765	2,437	8,576	43	849	506	1,165	2,562
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
KLAMATH	14,123	4,730	40,285	7,873	7,913	74,924	911	366	5,830	2,215	4,324	13,647	75	1,378	635	2,067	4,155
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	5,285	1,972	15,404	2,022	2,601	27,284	341	153	2,229	569	1,421	4,713	31	527	163	679	1,401
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	8,838	2,758	24,881	5,850	5,313	47,640	570	213	3,601	1,646	2,903	8,934	44	851	472	1,387	2,754

KLAMATH **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	12,967	4,695	38,979	5,702	4,625	66,968	837	363	5,641	1,604	2,528	10,973	75	1,333	460	1,208	3,076
2015	13,377	4,295	39,409	6,988	4,783	68,851	863	332	5,704	1,966	2,614	11,479	68	1,348	564	1,249	3,229
2020	13,789	4,297	39,178	8,054	5,279	70,595	890	332	5,670	2,266	2,885	12,043	68	1,340	650	1,379	3,437
2025	13,995	4,533	39,446	8,352	6,525	72,849	903	351	5,709	2,350	3,566	12,878	72	1,349	674	1,704	3,799
2030	14,123	4,730	40,285	7,873	7,913	74,924	911	366	5,830	2,215	4,324	13,647	75	1,378	635	2,067	4,155
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	5,080	1,837	14,641	2,078	2,064	25,700	328	142	2,119	585	1,128	4,302	29	501	168	539	1,237
2030	5,285	1,972	15,404	2,022	2,601	27,284	341	153	2,229	569	1,421	4,713	31	527	163	679	1,401
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	4,264	1,829	12,806	1,385	1,480	21,764	275	141	1,853	390	809	3,469	29	438	112	387	965
2015	4,549	1,724	13,416	1,761	1,584	23,034	294	133	1,942	495	866	3,730	27	459	142	414	1,042
2020	4,841	1,776	13,764	2,112	1,798	24,291	312	137	1,992	594	983	4,019	28	471	170	470	1,139
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	8,703	2,867	26,173	4,316	3,145	45,204	562	222	3,788	1,214	1,719	7,504	46	895	348	821	2,110
2015	8,828	2,570	25,993	5,227	3,198	45,817	570	199	3,762	1,471	1,748	7,749	41	889	422	835	2,187
2020	8,948	2,520	25,414	5,942	3,480	46,304	577	195	3,678	1,672	1,902	8,024	40	869	479	909	2,298
2025	8,915	2,696	24,805	6,274	4,460	47,149	575	208	3,590	1,765	2,437	8,576	43	849	506	1,165	2,562
2030	8,838	2,758	24,881	5,850	5,313	47,640	570	213	3,601	1,646	2,903	8,934	44	851	472	1,387	2,754

KLAMATH - CHARTS





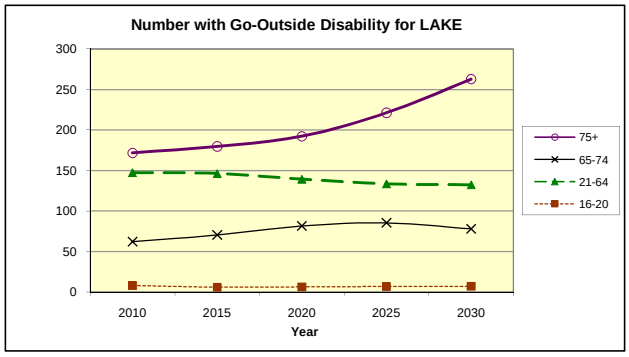
LAKE **Based on 2006 ACS Disability Rates by Time Period**

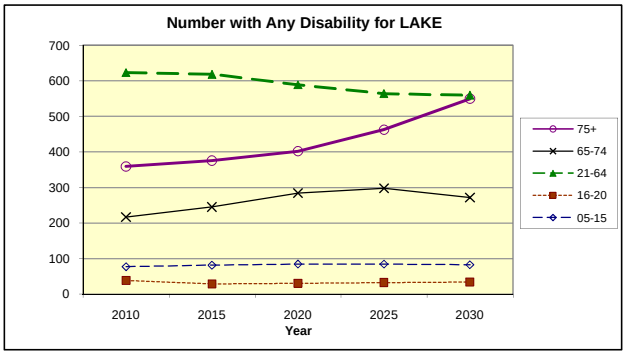
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LAKE	1,197	498	4,306	770	657	7,428	77	39	623	217	359	1,315	8	147	62	172	389
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	481	202	1,561	216	227	2,686	31	16	226	61	124	457	3	53	17	59	133
<2.5K	716	296	2,744	555	430	4,742	46	23	397	156	235	858	5	94	45	112	256
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LAKE	1,262	374	4,273	872	688	7,468	81	29	618	245	376	1,350	6	146	70	180	402
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	534	159	1,647	260	252	2,852	34	12	238	73	137	496	3	56	21	66	146
<2.5K	728	214	2,625	612	436	4,616	47	17	380	172	238	854	3	90	49	114	256
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LAKE	1,313	396	4,069	1,012	736	7,525	85	31	589	285	402	1,391	6	139	82	192	419
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	583	177	1,658	320	284	3,024	38	14	240	90	155	537	3	57	26	74	160
<2.5K	729	218	2,411	691	452	4,501	47	17	349	194	247	854	3	82	56	118	260
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LAKE	1,309	424	3,898	1,058	847	7,536	84	33	564	298	463	1,442	7	133	85	221	447
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	608	199	1,671	345	344	3,168	39	15	242	97	188	582	3	57	28	90	178
<2.5K	701	225	2,226	713	503	4,368	45	17	322	201	275	860	4	76	58	131	269
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LAKE	1,281	439	3,865	967	1,006	7,559	83	34	559	272	550	1,498	7	132	78	263	480
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	622	216	1,735	345	430	3,347	40	17	251	97	235	640	3	59	28	112	203
<2.5K	660	224	2,131	622	577	4,213	43	17	308	175	315	858	4	73	50	151	277

LAKE **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,197	498	4,306	770	657	7,428	77	39	623	217	359	1,315	8	147	62	172	389
2015	1,262	374	4,273	872	688	7,468	81	29	618	245	376	1,350	6	146	70	180	402
2020	1,313	396	4,069	1,012	736	7,525	85	31	589	285	402	1,391	6	139	82	192	419
2025	1,309	424	3,898	1,058	847	7,536	84	33	564	298	463	1,442	7	133	85	221	447
2030	1,281	439	3,865	967	1,006	7,559	83	34	559	272	550	1,498	7	132	78	263	480
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	481	202	1,561	216	227	2,686	31	16	226	61	124	457	3	53	17	59	133
2015	534	159	1,647	260	252	2,852	34	12	238	73	137	496	3	56	21	66	146
2020	583	177	1,658	320	284	3,024	38	14	240	90	155	537	3	57	26	74	160
2025	608	199	1,671	345	344	3,168	39	15	242	97	188	582	3	57	28	90	178
2030	622	216	1,735	345	430	3,347	40	17	251	97	235	640	3	59	28	112	203
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	716	296	2,744	555	430	4,742	46	23	397	156	235	858	5	94	45	112	256
2015	728	214	2,625	612	436	4,616	47	17	380	172	238	854	3	90	49	114	256
2020	729	218	2,411	691	452	4,501	47	17	349	194	247	854	3	82	56	118	260
2025	701	225	2,226	713	503	4,368	45	17	322	201	275	860	4	76	58	131	269
2030	660	224	2,131	622	577	4,213	43	17	308	175	315	858	4	73	50	151	277

LAKE - CHARTS





LANE **Based on 2006 ACS Disability Rates by Time Period**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LANE	57,632	24,264	216,417	26,027	23,153	347,494	3,719	1,877	31,321	7,323	12,653	56,893	386	7,403	2,099	6,047	15,935
Urban Areas 50K+	35,792	16,730	135,750	12,911	13,589	214,773	2,310	1,294	19,647	3,633	7,426	34,309	266	4,644	1,041	3,549	9,500
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	6,804	2,191	20,736	4,161	3,779	37,670	439	169	3,001	1,171	2,065	6,845	35	709	336	987	2,067
<2.5K	15,035	5,343	59,931	8,955	5,786	95,051	970	413	8,674	2,520	3,162	15,739	85	2,050	722	1,511	4,369
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LANE	59,759	23,392	222,929	35,049	24,510	365,639	3,856	1,809	32,264	9,861	13,394	61,185	372	7,626	2,827	6,401	17,226
Urban Areas 50K+	37,862	16,399	142,919	17,819	14,598	229,599	2,443	1,268	20,684	5,014	7,978	37,387	261	4,889	1,437	3,812	10,400
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	7,452	2,223	22,696	5,940	4,214	42,525	481	172	3,285	1,671	2,303	7,912	35	776	479	1,101	2,392
<2.5K	14,445	4,770	57,313	11,290	5,698	93,515	932	369	8,295	3,176	3,114	15,886	76	1,961	911	1,488	4,435
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LANE	63,903	23,140	228,044	43,796	28,690	387,574	4,124	1,790	33,004	12,322	15,678	66,918	368	7,801	3,533	7,493	19,194
Urban Areas 50K+	41,243	16,488	149,498	22,875	17,293	247,397	2,661	1,275	21,636	6,436	9,450	41,459	262	5,114	1,845	4,516	11,738
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	8,385	2,308	24,442	7,887	5,192	48,215	541	179	3,537	2,219	2,837	9,314	37	836	636	1,356	2,865
<2.5K	14,275	4,344	54,104	13,035	6,204	91,962	921	336	7,830	3,667	3,391	16,145	69	1,851	1,051	1,620	4,592
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LANE	66,890	25,132	234,418	44,985	37,288	408,712	4,316	1,944	33,927	12,657	20,377	73,220	400	8,019	3,628	9,738	21,785
Urban Areas 50K+	43,959	18,193	156,629	23,960	22,748	265,489	2,837	1,407	22,668	6,741	12,431	46,085	289	5,358	1,933	5,941	13,521
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	9,211	2,624	26,417	7,683	7,088	53,023	594	203	3,823	2,162	3,873	10,655	42	904	620	1,851	3,416
<2.5K	13,720	4,314	51,372	13,342	7,452	90,200	885	334	7,435	3,754	4,072	16,480	69	1,757	1,076	1,946	4,848
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LANE	68,823	26,959	244,583	43,218	46,871	430,454	4,441	2,085	35,398	12,160	25,613	79,697	429	8,367	3,486	12,241	24,522
Urban Areas 50K+	46,052	19,821	166,529	23,733	29,128	285,263	2,972	1,533	24,101	6,677	15,918	51,201	315	5,697	1,914	7,607	15,533
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	9,923	2,940	28,897	8,683	9,294	59,738	640	227	4,182	2,443	5,079	12,572	47	989	700	2,427	4,163
<2.5K	12,848	4,198	49,157	10,801	8,448	85,453	829	325	7,114	3,039	4,617	15,924	67	1,682	871	2,206	4,826

LANE **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	57,632	24,264	216,417	26,027	23,153	347,494	3,719	1,877	31,321	7,323	12,653	56,893	386	7,403	2,099	6,047	15,935
2015	59,759	23,392	222,929	35,049	24,510	365,639	3,856	1,809	32,264	9,861	13,394	61,185	372	7,626	2,827	6,401	17,226
2020	63,903	23,140	228,044	43,796	28,690	387,574	4,124	1,790	33,004	12,322	15,678	66,918	368	7,801	3,533	7,493	19,194
2025	66,890	25,132	234,418	44,985	37,288	408,712	4,316	1,944	33,927	12,657	20,377	73,220	400	8,019	3,628	9,738	21,785
2030	68,823	26,959	244,583	43,218	46,871	430,454	4,441	2,085	35,398	12,160	25,613	79,697	429	8,367	3,486	12,241	24,522
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	35,792	16,730	135,750	12,911	13,589	214,773	2,310	1,294	19,647	3,633	7,426	34,309	266	4,644	1,041	3,549	9,500
2015	37,862	16,399	142,919	17,819	14,598	229,599	2,443	1,268	20,684	5,014	7,978	37,387	261	4,889	1,437	3,812	10,400
2020	41,243	16,488	149,498	22,875	17,293	247,397	2,661	1,275	21,636	6,436	9,450	41,459	262	5,114	1,845	4,516	11,738
2025	43,959	18,193	156,629	23,960	22,748	265,489	2,837	1,407	22,668	6,741	12,431	46,085	289	5,358	1,933	5,941	13,521
2030	46,052	19,821	166,529	23,733	29,128	285,263	2,972	1,533	24,101	6,677	15,918	51,201	315	5,697	1,914	7,607	15,533
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	6,804	2,191	20,736	4,161	3,779	37,670	439	169	3,001	1,171	2,065	6,845	35	709	336	987	2,067
2015	7,452	2,223	22,696	5,940	4,214	42,525	481	172	3,285	1,671	2,303	7,912	35	776	479	1,101	2,392
2020	8,385	2,308	24,442	7,887	5,192	48,215	541	179	3,537	2,219	2,837	9,314	37	836	636	1,356	2,865
2025	9,211	2,624	26,417	7,683	7,088	53,023	594	203	3,823	2,162	3,873	10,655	42	904	620	1,851	3,416
2030	9,923	2,940	28,897	8,683	9,294	59,738	640	227	4,182	2,443	5,079	12,572	47	989	700	2,427	4,163
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	15,035	5,343	59,931	8,955	5,786	95,051	970	413	8,674	2,520	3,162	15,739	85	2,050	722	1,511	4,369
2015	14,445	4,770	57,313	11,290	5,698	93,515	932	369	8,295	3,176	3,114	15,886	76	1,961	911	1,488	4,435
2020	14,275	4,344	54,104	13,035	6,204	91,962	921	336	7,830	3,667	3,391	16,145	69	1,851	1,051	1,620	4,592
2025	13,720	4,314	51,372	13,342	7,452	90,200	885	334	7,435	3,754	4,072	16,480	69	1,757	1,076	1,946	4,848
2030	12,848	4,198	49,157	10,801	8,448	85,453	829	325	7,114	3,039	4,617	15,924	67	1,682	871	2,206	4,826

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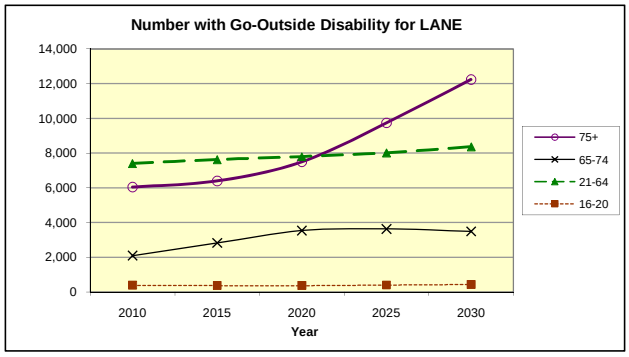

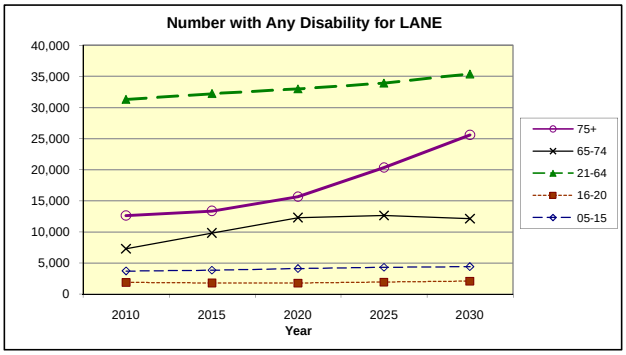

LINCOLN **Based on 2006 ACS Disability Rates by Time Period**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LINCOLN	6,953	2,576	27,913	5,118	4,385	46,945	449	199	4,040	1,440	2,396	8,524	41	955	413	1,145	2,554
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,840	1,376	13,677	2,068	2,036	22,998	248	106	1,979	582	1,112	4,028	22	468	167	532	1,188
<2.5K	3,113	1,200	14,235	3,050	2,349	23,947	201	93	2,060	858	1,284	4,496	19	487	246	614	1,366
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LINCOLN	7,205	2,326	28,139	6,558	4,548	48,776	465	180	4,073	1,845	2,486	9,048	37	963	529	1,188	2,716
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	4,117	1,287	14,345	2,769	2,202	24,720	266	100	2,076	779	1,203	4,424	20	491	223	575	1,310
<2.5K	3,088	1,039	13,795	3,789	2,346	24,056	199	80	1,996	1,066	1,282	4,624	17	472	306	613	1,407
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LINCOLN	7,333	2,374	27,584	8,092	4,996	50,379	473	184	3,992	2,277	2,730	9,656	38	944	653	1,305	2,939
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	4,322	1,359	14,597	3,576	2,511	26,365	279	105	2,113	1,006	1,372	4,875	22	499	288	656	1,465
<2.5K	3,011	1,015	12,987	4,515	2,485	24,014	194	79	1,880	1,270	1,358	4,781	16	444	364	649	1,474
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LINCOLN	7,274	2,509	27,466	8,307	6,341	51,896	469	194	3,975	2,337	3,465	10,441	40	940	670	1,656	3,305
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	4,770	1,608	16,415	4,258	3,626	30,678	308	124	2,376	1,198	1,982	5,988	26	562	343	947	1,878
<2.5K	2,503	901	11,051	4,049	2,715	21,219	162	70	1,599	1,139	1,483	4,453	14	378	327	709	1,428
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LINCOLN	7,143	2,595	27,926	8,063	7,984	53,710	461	201	4,042	2,269	4,363	11,335	41	955	650	2,085	3,732
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	4,822	1,714	17,222	4,320	4,741	32,819	311	133	2,493	1,216	2,591	6,743	27	589	348	1,238	2,203
<2.5K	2,321	881	10,703	3,743	3,243	20,891	150	68	1,549	1,053	1,772	4,592	14	366	302	847	1,529

LINCOLN **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	6,953	2,576	27,913	5,118	4,385	46,945	449	199	4,040	1,440	2,396	8,524	41	955	413	1,145	2,554
2015	7,205	2,326	28,139	6,558	4,548	48,776	465	180	4,073	1,845	2,486	9,048	37	963	529	1,188	2,716
2020	7,333	2,374	27,584	8,092	4,996	50,379	473	184	3,992	2,277	2,730	9,656	38	944	653	1,305	2,939
2025	7,274	2,509	27,466	8,307	6,341	51,896	469	194	3,975	2,337	3,465	10,441	40	940	670	1,656	3,305
2030	7,143	2,595	27,926	8,063	7,984	53,710	461	201	4,042	2,269	4,363	11,335	41	955	650	2,085	3,732
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,840	1,376	13,677	2,068	2,036	22,998	248	106	1,979	582	1,112	4,028	22	468	167	532	1,188
2015	4,117	1,287	14,345	2,769	2,202	24,720	266	100	2,076	779	1,203	4,424	20	491	223	575	1,310
2020	4,322	1,359	14,597	3,576	2,511	26,365	279	105	2,113	1,006	1,372	4,875	22	499	288	656	1,465
2025	4,770	1,608	16,415	4,258	3,626	30,678	308	124	2,376	1,198	1,982	5,988	26	562	343	947	1,878
2030	4,822	1,714	17,222	4,320	4,741	32,819	311	133	2,493	1,216	2,591	6,743	27	589	348	1,238	2,203
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,113	1,200	14,235	3,050	2,349	23,947	201	93	2,060	858	1,284	4,496	19	487	246	614	1,366
2015	3,088	1,039	13,795	3,789	2,346	24,056	199	80	1,996	1,066	1,282	4,624	17	472	306	613	1,407
2020	3,011	1,015	12,987	4,515	2,485	24,014	194	79	1,880	1,270	1,358	4,781	16	444	364	649	1,474
2025	2,503	901	11,051	4,049	2,715	21,219	162	70	1,599	1,139	1,483	4,453	14	378	327	709	1,428
2030	2,321	881	10,703	3,743	3,243	20,891	150	68	1,549	1,053	1,772	4,592	14	366	302	847	1,529

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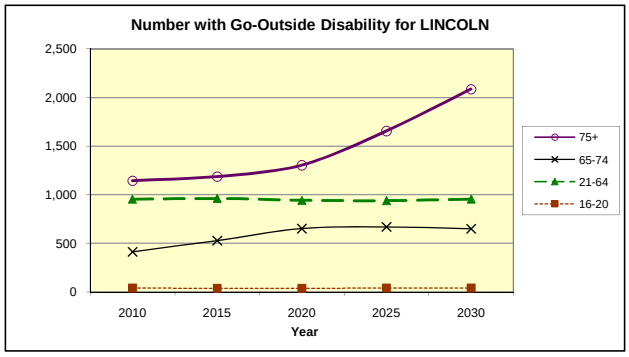

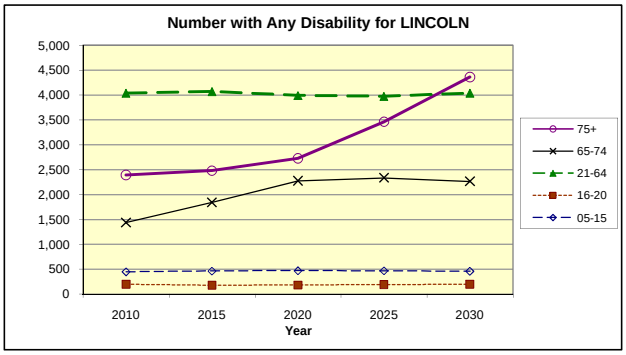

LINN **Based on 2006 ACS Disability Rates by Time Period**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LINN	21,967	7,655	63,763	8,949	7,788	110,123	1,417	592	9,228	2,518	4,256	18,012	122	2,181	722	2,034	5,059
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	8,402	2,970	23,656	2,638	2,850	40,515	542	230	3,424	742	1,557	6,495	47	809	213	744	1,813
Urban 2.5-24K	5,925	1,948	15,069	2,375	2,376	27,692	382	151	2,181	668	1,298	4,680	31	515	192	620	1,358
<2.5K	7,640	2,738	25,039	3,936	2,563	41,916	493	212	3,624	1,107	1,401	6,837	44	857	317	669	1,887
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LINN	22,841	7,586	65,384	11,188	8,157	115,156	1,474	587	9,463	3,148	4,458	19,129	121	2,237	902	2,130	5,390
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	8,933	3,009	24,904	3,394	3,035	43,275	576	233	3,604	955	1,659	7,027	48	852	274	793	1,966
Urban <2.5-25K	6,434	2,016	16,226	3,121	2,588	30,385	415	156	2,348	878	1,414	5,212	32	555	252	676	1,515
<2.5K	7,475	2,561	24,254	4,673	2,534	41,497	482	198	3,510	1,315	1,385	6,890	41	830	377	662	1,909
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LINN	24,100	7,551	66,366	13,067	9,381	120,465	1,555	584	9,605	3,677	5,126	20,547	120	2,270	1,054	2,450	5,894
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	9,795	3,119	26,455	4,176	3,608	47,153	632	241	3,829	1,175	1,972	7,849	50	905	337	942	2,234
Urban 2.5-24K	7,059	2,091	17,252	3,844	3,085	33,331	456	162	2,497	1,082	1,686	5,882	33	590	310	806	1,739
<2.5K	7,246	2,342	22,659	5,047	2,687	39,982	468	181	3,279	1,420	1,469	6,817	37	775	407	702	1,921
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LINN	25,156	8,078	67,576	14,685	11,487	126,981	1,623	625	9,780	4,132	6,277	22,437	128	2,312	1,184	3,000	6,625
Urban Areas 50K+	9,743	3,409	29,256	4,701	4,119	51,228	629	264	4,234	1,323	2,251	8,700	54	1,001	379	1,076	2,510
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	8,107	2,355	17,755	4,242	4,172	36,631	523	182	2,570	1,194	2,280	6,748	37	607	342	1,089	2,076
<2.5K	7,306	2,314	20,565	5,741	3,196	39,123	471	179	2,976	1,615	1,747	6,989	37	704	463	835	2,038
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
LINN	26,069	8,636	69,729	13,888	13,811	132,133	1,682	668	10,092	3,907	7,547	23,897	137	2,385	1,120	3,607	7,250
Urban Areas 50K+	10,424	3,775	31,514	4,692	5,076	55,480	673	292	4,561	1,320	2,774	9,619	60	1,078	378	1,326	2,842
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	9,807	2,950	21,614	5,240	5,811	45,422	633	228	3,128	1,474	3,176	8,639	47	739	423	1,518	2,727
<2.5K	5,838	1,911	16,600	3,956	2,924	31,230	377	148	2,403	1,113	1,598	5,638	30	568	319	764	1,681

LINN **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	21,967	7,655	63,763	8,949	7,788	110,123	1,417	592	9,228	2,518	4,256	18,012	122	2,181	722	2,034	5,059
2015	22,841	7,586	65,384	11,188	8,157	115,156	1,474	587	9,463	3,148	4,458	19,129	121	2,237	902	2,130	5,390
2020	24,100	7,551	66,366	13,067	9,381	120,465	1,555	584	9,605	3,677	5,126	20,547	120	2,270	1,054	2,450	5,894
2025	25,156	8,078	67,576	14,685	11,487	126,981	1,623	625	9,780	4,132	6,277	22,437	128	2,312	1,184	3,000	6,625
2030	26,069	8,636	69,729	13,888	13,811	132,133	1,682	668	10,092	3,907	7,547	23,897	137	2,385	1,120	3,607	7,250
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	9,743	3,409	29,256	4,701	4,119	51,228	629	264	4,234	1,323	2,251	8,700	54	1,001	379	1,076	2,510
2030	10,424	3,775	31,514	4,692	5,076	55,480	673	292	4,561	1,320	2,774	9,619	60	1,078	378	1,326	2,842
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	8,402	2,970	23,656	2,638	2,850	40,515	542	230	3,424	742	1,557	6,495	47	809	213	744	1,813
2015	8,933	3,009	24,904	3,394	3,035	43,275	576	233	3,604	955	1,659	7,027	48	852	274	793	1,966
2020	9,795	3,119	26,455	4,176	3,608	47,153	632	241	3,829	1,175	1,972	7,849	50	905	337	942	2,234
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	5,925	1,948	15,069	2,375	2,376	27,692	382	151	2,181	668	1,298	4,680	31	515	192	620	1,358
2015	6,434	2,016	16,226	3,121	2,588	30,385	415	156	2,348	878	1,414	5,212	32	555	252	676	1,515
2020	7,059	2,091	17,252	3,844	3,085	33,331	456	162	2,497	1,082	1,686	5,882	33	590	310	806	1,739
2025	8,107	2,355	17,755	4,242	4,172	36,631	523	182	2,570	1,194	2,280	6,748	37	607	342	1,089	2,076
2030	9,807	2,950	21,614	5,240	5,811	45,422	633	228	3,128	1,474	3,176	8,639	47	739	423	1,518	2,727
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	7,640	2,738	25,039	3,936	2,563	41,916	493	212	3,624	1,107	1,401	6,837	44	857	317	669	1,887
2015	7,475	2,561	24,254	4,673	2,534	41,497	482	198	3,510	1,315	1,385	6,890	41	830	377	662	1,909
2020	7,246	2,342	22,659	5,047	2,687	39,982	468	181	3,279	1,420	1,469	6,817	37	775	407	702	1,921
2025	7,306	2,314	20,565	5,741	3,196	39,123	471	179	2,976	1,615	1,747	6,989	37	704	463	835	2,038
2030	5,838	1,911	16,600	3,956	2,924	31,230	377	148	2,403	1,113	1,598	5,638	30	568	319	764	1,681

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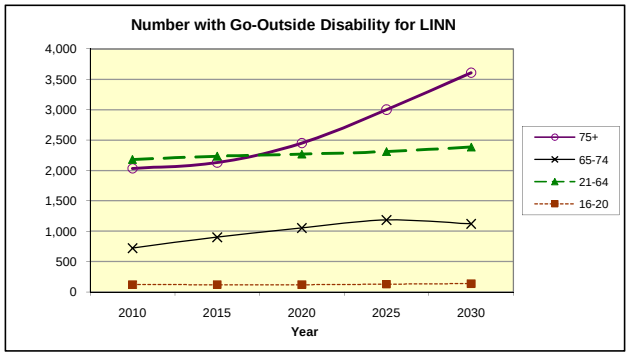
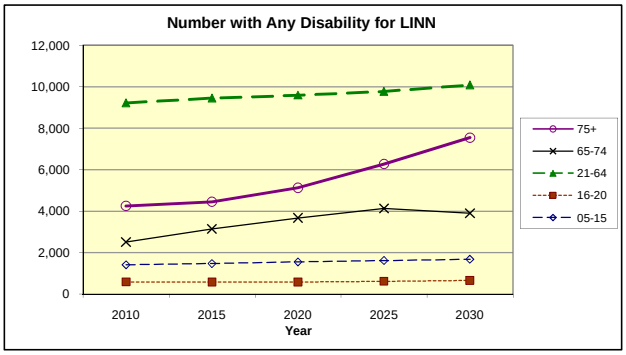




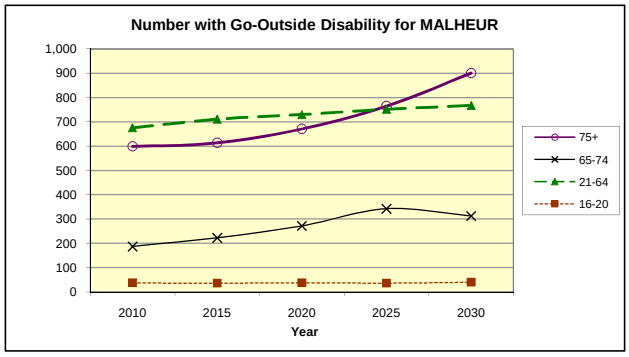
MALHEUR **Based on 2006 ACS Disability Rates by Time Period**

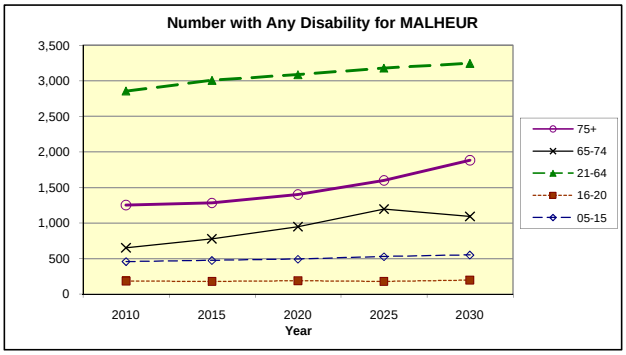
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MALHEUR	7,100	2,370	19,742	2,320	2,295	33,826	458	183	2,857	653	1,254	5,405	38	675	187	599	1,499
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,855	1,143	8,301	1,031	1,259	15,589	249	88	1,201	290	688	2,517	18	284	83	329	714
<2.5K	3,246	1,226	11,441	1,289	1,036	18,237	209	95	1,656	363	566	2,889	20	391	104	271	785
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MALHEUR	7,351	2,308	20,780	2,763	2,350	35,552	474	179	3,007	777	1,284	5,722	37	711	223	614	1,584
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	4,065	1,136	8,912	1,254	1,312	16,679	262	88	1,290	353	717	2,710	18	305	101	343	767
<2.5K	3,286	1,172	11,868	1,509	1,038	18,873	212	91	1,718	424	567	3,012	19	406	122	271	817
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MALHEUR	7,628	2,407	21,335	3,373	2,569	37,312	492	186	3,088	949	1,404	6,119	38	730	272	671	1,711
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	4,301	1,209	9,331	1,563	1,454	17,858	278	93	1,350	440	795	2,956	19	319	126	380	844
<2.5K	3,327	1,199	12,004	1,810	1,115	19,454	215	93	1,737	509	609	3,163	19	411	146	291	867
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MALHEUR	8,170	2,331	21,967	4,251	2,926	39,645	527	180	3,179	1,196	1,599	6,682	37	751	343	764	1,896
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	5,230	1,356	11,359	2,180	1,876	22,002	337	105	1,644	613	1,025	3,725	22	389	176	490	1,076
<2.5K	2,940	975	10,608	2,070	1,050	17,643	190	75	1,535	582	574	2,957	16	363	167	274	820
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MALHEUR	8,549	2,548	22,427	3,883	3,447	40,854	552	197	3,246	1,092	1,884	6,971	41	767	313	900	2,021
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	5,560	1,512	11,860	2,161	2,243	23,336	359	117	1,717	608	1,226	4,026	24	406	174	586	1,190
<2.5K	2,989	1,037	10,567	1,722	1,204	17,518	193	80	1,529	484	658	2,944	16	361	139	314	831

MALHEUR **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	7,100	2,370	19,742	2,320	2,295	33,826	458	183	2,857	653	1,254	5,405	38	675	187	599	1,499
2015	7,351	2,308	20,780	2,763	2,350	35,552	474	179	3,007	777	1,284	5,722	37	711	223	614	1,584
2020	7,628	2,407	21,335	3,373	2,569	37,312	492	186	3,088	949	1,404	6,119	38	730	272	671	1,711
2025	8,170	2,331	21,967	4,251	2,926	39,645	527	180	3,179	1,196	1,599	6,682	37	751	343	764	1,896
2030	8,549	2,548	22,427	3,883	3,447	40,854	552	197	3,246	1,092	1,884	6,971	41	767	313	900	2,021
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,855	1,143	8,301	1,031	1,259	15,589	249	88	1,201	290	688	2,517	18	284	83	329	714
2015	4,065	1,136	8,912	1,254	1,312	16,679	262	88	1,290	353	717	2,710	18	305	101	343	767
2020	4,301	1,209	9,331	1,563	1,454	17,858	278	93	1,350	440	795	2,956	19	319	126	380	844
2025	5,230	1,356	11,359	2,180	1,876	22,002	337	105	1,644	613	1,025	3,725	22	389	176	490	1,076
2030	5,560	1,512	11,860	2,161	2,243	23,336	359	117	1,717	608	1,226	4,026	24	406	174	586	1,190
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,246	1,226	11,441	1,289	1,036	18,237	209	95	1,656	363	566	2,889	20	391	104	271	785
2015	3,286	1,172	11,868	1,509	1,038	18,873	212	91	1,718	424	567	3,012	19	406	122	271	817
2020	3,327	1,199	12,004	1,810	1,115	19,454	215	93	1,737	509	609	3,163	19	411	146	291	867
2025	2,940	975	10,608	2,070	1,050	17,643	190	75	1,535	582	574	2,957	16	363	167	274	820
2030	2,989	1,037	10,567	1,722	1,204	17,518	193	80	1,529	484	658	2,944	16	361	139	314	831

MALHEUR - CHARTS





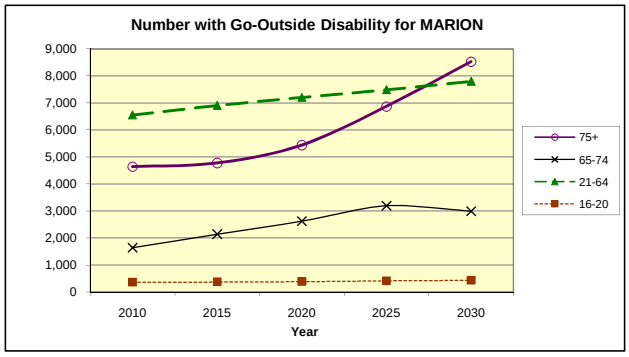
MARION **Based on 2006 ACS Disability Rates by Time Period**

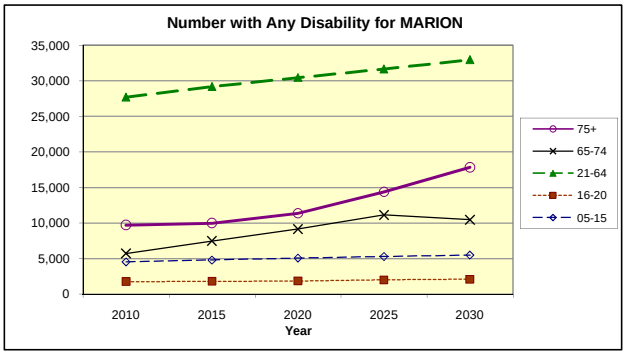
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MARION	70,532	22,899	191,529	20,381	17,787	323,128	4,551	1,771	27,719	5,734	9,720	49,497	364	6,552	1,644	4,645	13,205
Urban Areas 50K+	41,297	13,499	117,224	11,095	10,010	193,126	2,665	1,044	16,966	3,122	5,470	29,266	215	4,010	895	2,614	7,734
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	13,685	4,297	29,499	3,753	4,221	55,454	883	332	4,269	1,056	2,307	8,847	68	1,009	303	1,102	2,483
<2.5K	15,550	5,102	44,806	5,533	3,557	74,548	1,003	395	6,485	1,557	1,944	11,383	81	1,533	446	929	2,989
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MARION	74,417	23,279	201,855	26,595	18,297	344,443	4,802	1,801	29,214	7,483	9,999	53,298	370	6,905	2,145	4,778	14,199
Urban Areas 50K+	44,058	13,762	122,093	14,721	10,591	205,224	2,843	1,064	17,670	4,142	5,788	31,507	219	4,177	1,187	2,766	8,349
Urban 25-49K	5,489	1,840	16,188	1,793	1,324	26,635	354	142	2,343	505	723	4,067	29	554	145	346	1,073
Urban <2.5-25K	9,246	2,775	19,498	3,149	2,822	37,490	597	215	2,822	886	1,542	6,061	44	667	254	737	1,702
<2.5K	15,624	4,903	44,075	6,932	3,560	75,094	1,008	379	6,379	1,950	1,945	11,662	78	1,508	559	930	3,075
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MARION	78,854	24,139	210,647	32,548	20,830	367,018	5,088	1,867	30,486	9,158	11,383	57,982	384	7,206	2,625	5,440	15,655
Urban Areas 50K+	46,585	14,245	127,299	18,030	12,011	218,170	3,006	1,102	18,424	5,073	6,564	34,168	227	4,355	1,454	3,137	9,172
Urban 25-49K	5,981	1,962	17,393	2,261	1,545	29,142	386	152	2,517	636	844	4,535	31	595	182	403	1,212
Urban 2.5-24K	10,189	2,992	21,180	4,035	3,314	41,710	657	231	3,065	1,135	1,811	6,900	48	725	325	865	1,963
<2.5K	16,099	4,939	44,775	8,221	3,960	77,995	1,039	382	6,480	2,313	2,164	12,378	79	1,532	663	1,034	3,308
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MARION	82,112	25,950	218,825	39,600	26,314	392,801	5,299	2,007	31,670	11,142	14,380	64,497	413	7,486	3,194	6,872	17,965
Urban Areas 50K+	48,361	15,277	132,213	21,867	15,072	232,791	3,121	1,182	19,135	6,153	8,237	37,826	243	4,523	1,764	3,936	10,466
Urban 25-49K	6,393	2,166	18,613	2,917	1,993	32,081	413	168	2,694	821	1,089	5,183	34	637	235	520	1,427
Urban 2.5-24K	11,613	3,523	24,126	4,751	4,540	48,553	749	272	3,492	1,337	2,481	8,332	56	825	383	1,186	2,450
<2.5K	15,745	4,985	43,873	10,065	4,709	79,376	1,016	386	6,350	2,832	2,573	13,156	79	1,501	812	1,230	3,622
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MARION	85,172	27,095	227,959	37,149	32,649	410,022	5,496	2,096	32,992	10,452	17,842	68,877	431	7,798	2,996	8,526	19,752
Urban Areas 50K+	50,024	15,912	137,713	20,614	18,588	242,852	3,228	1,231	19,931	5,800	10,158	40,348	253	4,711	1,663	4,854	11,481
Urban 25-49K	6,801	2,320	19,959	2,736	2,529	34,346	439	179	2,889	770	1,382	5,659	37	683	221	661	1,601
Urban 2.5-24K	13,043	3,984	27,258	5,516	6,098	55,900	842	308	3,945	1,552	3,333	9,979	63	932	445	1,593	3,033
<2.5K	15,303	4,878	43,028	8,282	5,433	76,924	987	377	6,227	2,330	2,969	12,891	78	1,472	668	1,419	3,636

MARION **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	70,532	22,899	191,529	20,381	17,787	323,128	4,551	1,771	27,719	5,734	9,720	49,497	364	6,552	1,644	4,645	13,205
2015	74,417	23,279	201,855	26,595	18,297	344,443	4,802	1,801	29,214	7,483	9,999	53,298	370	6,905	2,145	4,778	14,199
2020	78,854	24,139	210,647	32,548	20,830	367,018	5,088	1,867	30,486	9,158	11,383	57,982	384	7,206	2,625	5,440	15,655
2025	82,112	25,950	218,825	39,600	26,314	392,801	5,299	2,007	31,670	11,142	14,380	64,497	413	7,486	3,194	6,872	17,965
2030	85,172	27,095	227,959	37,149	32,649	410,022	5,496	2,096	32,992	10,452	17,842	68,877	431	7,798	2,996	8,526	19,752
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	41,297	13,499	117,224	11,095	10,010	193,126	2,665	1,044	16,966	3,122	5,470	29,266	215	4,010	895	2,614	7,734
2015	44,058	13,762	122,093	14,721	10,591	205,224	2,843	1,064	17,670	4,142	5,788	31,507	219	4,177	1,187	2,766	8,349
2020	46,585	14,245	127,299	18,030	12,011	218,170	3,006	1,102	18,424	5,073	6,564	34,168	227	4,355	1,454	3,137	9,172
2025	48,361	15,277	132,213	21,867	15,072	232,791	3,121	1,182	19,135	6,153	8,237	37,826	243	4,523	1,764	3,936	10,466
2030	50,024	15,912	137,713	20,614	18,588	242,852	3,228	1,231	19,931	5,800	10,158	40,348	253	4,711	1,663	4,854	11,481
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	5,489	1,840	16,188	1,793	1,324	26,635	354	142	2,343	505	723	4,067	29	554	145	346	1,073
2020	5,981	1,962	17,393	2,261	1,545	29,142	386	152	2,517	636	844	4,535	31	595	182	403	1,212
2025	6,393	2,166	18,613	2,917	1,993	32,081	413	168	2,694	821	1,089	5,183	34	637	235	520	1,427
2030	6,801	2,320	19,959	2,736	2,529	34,346	439	179	2,889	770	1,382	5,659	37	683	221	661	1,601
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	13,685	4,297	29,499	3,753	4,221	55,454	883	332	4,269	1,056	2,307	8,847	68	1,009	303	1,102	2,483
2015	9,246	2,775	19,498	3,149	2,822	37,490	597	215	2,822	886	1,542	6,061	44	667	254	737	1,702
2020	10,189	2,992	21,180	4,035	3,314	41,710	657	231	3,065	1,135	1,811	6,900	48	725	325	865	1,963
2025	11,613	3,523	24,126	4,751	4,540	48,553	749	272	3,492	1,337	2,481	8,332	56	825	383	1,186	2,450
2030	13,043	3,984	27,258	5,516	6,098	55,900	842	308	3,945	1,552	3,333	9,979	63	932	445	1,593	3,033
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	15,550	5,102	44,806	5,533	3,557	74,548	1,003	395	6,485	1,557	1,944	11,383	81	1,533	446	929	2,989
2015	15,624	4,903	44,075	6,932	3,560	75,094	1,008	379	6,379	1,950	1,945	11,662	78	1,508	559	930	3,075
2020	16,099	4,939	44,775	8,221	3,960	77,995	1,039	382	6,480	2,313	2,164	12,378	79	1,532	663	1,034	3,308
2025	15,745	4,985	43,873	10,065	4,709	79,376	1,016	386	6,350	2,832	2,573	13,156	79	1,501	812	1,230	3,622
2030	15,303	4,878	43,028	8,282	5,433	76,924	987	377	6,227	2,330	2,969	12,891	78	1,472	668	1,419	3,636

MARION - CHARTS





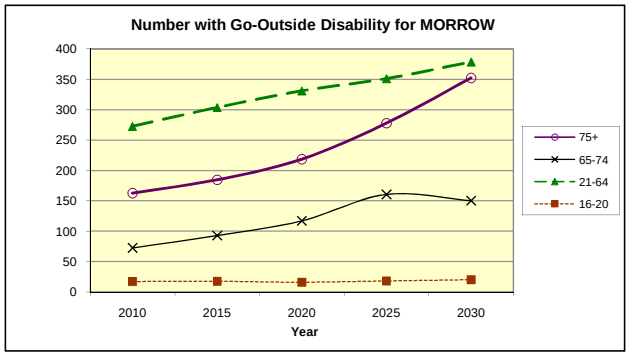
MORROW **Based on 2006 ACS Disability Rates by Time Period**

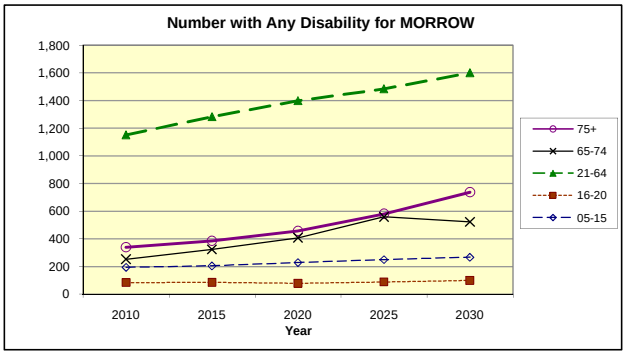
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MORROW	3,013	1,082	7,965	900	622	13,581	194	84	1,153	253	340	2,024	17	272	73	163	525
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,048	321	2,044	132	76	3,621	68	25	296	37	42	467	5	70	11	20	106
<2.5K	1,965	761	5,921	768	546	9,960	127	59	857	216	298	1,557	12	203	62	143	419
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MORROW	3,176	1,106	8,870	1,152	707	15,011	205	86	1,284	324	386	2,285	18	303	93	185	599
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	1,124	331	2,305	170	87	4,016	72	26	334	48	48	527	5	79	14	23	121
<2.5K	2,052	776	6,565	982	619	10,994	132	60	950	276	338	1,757	12	225	79	162	478
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MORROW	3,551	1,007	9,673	1,452	837	16,520	229	78	1,400	409	457	2,573	16	331	117	219	683
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,263	303	2,542	216	105	4,429	82	23	368	61	57	591	5	87	17	27	137
<2.5K	2,288	704	7,131	1,236	732	12,091	148	54	1,032	348	400	1,982	11	244	100	191	546
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MORROW	3,879	1,143	10,264	1,989	1,064	18,339	250	88	1,485	560	581	2,965	18	351	160	278	808
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,386	347	2,713	308	136	4,889	89	27	393	87	74	670	6	93	25	35	159
<2.5K	2,493	796	7,551	1,682	928	13,450	161	62	1,093	473	507	2,296	13	258	136	242	649
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MORROW	4,147	1,280	11,066	1,860	1,349	19,703	268	99	1,602	523	737	3,229	20	379	150	352	901
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,490	391	2,917	282	173	5,254	96	30	422	79	95	723	6	100	23	45	174
<2.5K	2,658	889	8,149	1,578	1,176	14,449	171	69	1,179	444	642	2,506	14	279	127	307	727

MORROW **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,013	1,082	7,965	900	622	13,581	194	84	1,153	253	340	2,024	17	272	73	163	525
2015	3,176	1,106	8,870	1,152	707	15,011	205	86	1,284	324	386	2,285	18	303	93	185	599
2020	3,551	1,007	9,673	1,452	837	16,520	229	78	1,400	409	457	2,573	16	331	117	219	683
2025	3,879	1,143	10,264	1,989	1,064	18,339	250	88	1,485	560	581	2,965	18	351	160	278	808
2030	4,147	1,280	11,066	1,860	1,349	19,703	268	99	1,602	523	737	3,229	20	379	150	352	901
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,048	321	2,044	132	76	3,621	68	25	296	37	42	467	5	70	11	20	106
2015	1,124	331	2,305	170	87	4,016	72	26	334	48	48	527	5	79	14	23	121
2020	1,263	303	2,542	216	105	4,429	82	23	368	61	57	591	5	87	17	27	137
2025	1,386	347	2,713	308	136	4,889	89	27	393	87	74	670	6	93	25	35	159
2030	1,490	391	2,917	282	173	5,254	96	30	422	79	95	723	6	100	23	45	174
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,965	761	5,921	768	546	9,960	127	59	857	216	298	1,557	12	203	62	143	419
2015	2,052	776	6,565	982	619	10,994	132	60	950	276	338	1,757	12	225	79	162	478
2020	2,288	704	7,131	1,236	732	12,091	148	54	1,032	348	400	1,982	11	244	100	191	546
2025	2,493	796	7,551	1,682	928	13,450	161	62	1,093	473	507	2,296	13	258	136	242	649
2030	2,658	889	8,149	1,578	1,176	14,449	171	69	1,179	444	642	2,506	14	279	127	307	727

MORROW - CHARTS





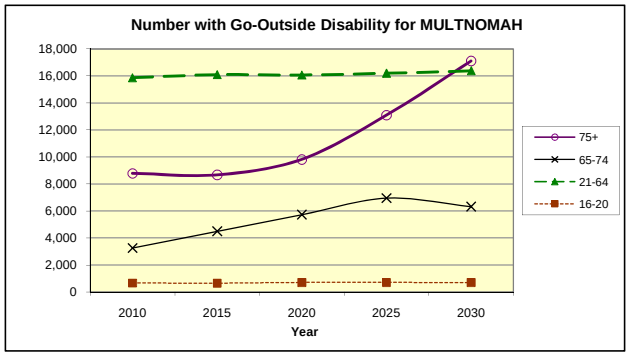
MULTNOMAH **Based on 2006 ACS Disability Rates by Time Period**

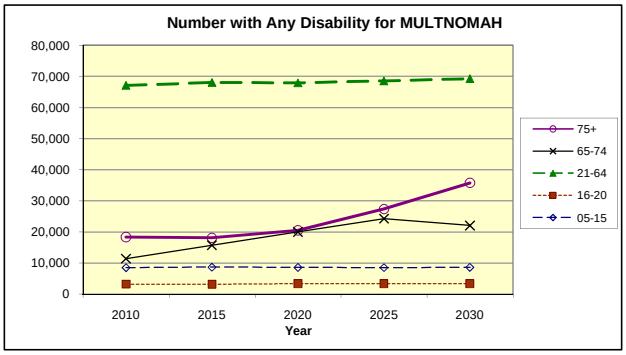
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MULTNOMAH	132,209	41,723	463,834	40,507	33,636	711,909	8,531	3,227	67,130	11,397	18,381	108,666	664	15,867	3,267	8,784	28,582
Urban Areas 50K+	129,912	41,038	455,601	39,609	33,113	699,273	8,383	3,174	65,938	11,144	18,095	106,735	653	15,586	3,195	8,648	28,081
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	2,297	685	8,234	898	523	12,637	148	53	1,192	253	286	1,931	11	282	72	136	501
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MULTNOMAH	134,987	40,965	470,430	55,858	33,205	735,445	8,710	3,169	68,084	15,716	18,146	113,825	652	16,093	4,505	8,672	29,922
Urban Areas 50K+	132,839	40,352	462,717	54,726	32,732	723,366	8,572	3,121	66,968	15,398	17,887	111,945	642	15,829	4,414	8,548	29,433
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	2,148	613	7,713	1,132	474	12,079	139	47	1,116	318	259	1,880	10	264	91	124	489
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MULTNOMAH	133,693	44,267	469,695	71,140	37,595	756,390	8,627	3,424	67,978	20,016	20,545	120,589	704	16,068	5,738	9,818	32,328
Urban Areas 50K+	131,773	43,670	462,694	69,847	37,105	745,089	8,503	3,378	66,965	19,652	20,277	118,774	695	15,828	5,634	9,690	31,847
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,921	597	7,000	1,293	490	11,301	124	46	1,013	364	268	1,815	10	239	104	128	481
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MULTNOMAH	132,841	44,282	473,681	86,256	50,123	787,182	8,572	3,425	68,555	24,269	27,391	132,211	704	16,204	6,957	13,090	36,956
Urban Areas 50K+	131,142	43,749	467,376	84,710	49,534	776,510	8,462	3,384	67,642	23,834	27,069	130,391	696	15,989	6,833	12,936	36,453
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,699	533	6,305	1,546	589	10,672	110	41	913	435	322	1,820	8	216	125	154	503
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
MULTNOMAH	133,888	43,780	478,905	78,485	65,507	800,565	8,639	3,386	69,311	22,082	35,798	139,216	696	16,383	6,331	17,108	40,517
Urban Areas 50K+	132,387	43,317	473,323	77,373	64,835	791,236	8,543	3,350	68,503	21,769	35,431	137,596	689	16,192	6,241	16,932	40,054
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,500	462	5,582	1,112	672	9,329	97	36	808	313	367	1,620	7	191	90	175	463

MULTNOMAH **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	132,209	41,723	463,834	40,507	33,636	711,909	8,531	3,227	67,130	11,397	18,381	108,666	664	15,867	3,267	8,784	28,582
2015	134,987	40,965	470,430	55,858	33,205	735,445	8,710	3,169	68,084	15,716	18,146	113,825	652	16,093	4,505	8,672	29,922
2020	133,693	44,267	469,695	71,140	37,595	756,390	8,627	3,424	67,978	20,016	20,545	120,589	704	16,068	5,738	9,818	32,328
2025	132,841	44,282	473,681	86,256	50,123	787,182	8,572	3,425	68,555	24,269	27,391	132,211	704	16,204	6,957	13,090	36,956
2030	133,888	43,780	478,905	78,485	65,507	800,565	8,639	3,386	69,311	22,082	35,798	139,216	696	16,383	6,331	17,108	40,517
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	129,912	41,038	455,601	39,609	33,113	699,273	8,383	3,174	65,938	11,144	18,095	106,735	653	15,586	3,195	8,648	28,081
2015	132,839	40,352	462,717	54,726	32,732	723,366	8,572	3,121	66,968	15,398	17,887	111,945	642	15,829	4,414	8,548	29,433
2020	131,773	43,670	462,694	69,847	37,105	745,089	8,503	3,378	66,965	19,652	20,277	118,774	695	15,828	5,634	9,690	31,847
2025	131,142	43,749	467,376	84,710	49,534	776,510	8,462	3,384	67,642	23,834	27,069	130,391	696	15,989	6,833	12,936	36,453
2030	132,387	43,317	473,323	77,373	64,835	791,236	8,543	3,350	68,503	21,769	35,431	137,596	689	16,192	6,241	16,932	40,054
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	2,297	685	8,234	898	523	12,637	148	53	1,192	253	286	1,931	11	282	72	136	501
2015	2,148	613	7,713	1,132	474	12,079	139	47	1,116	318	259	1,880	10	264	91	124	489
2020	1,921	597	7,000	1,293	490	11,301	124	46	1,013	364	268	1,815	10	239	104	128	481
2025	1,699	533	6,305	1,546	589	10,672	110	41	913	435	322	1,820	8	216	125	154	503
2030	1,500	462	5,582	1,112	672	9,329	97	36	808	313	367	1,620	7	191	90	175	463

MULTNOMAH - CHARTS





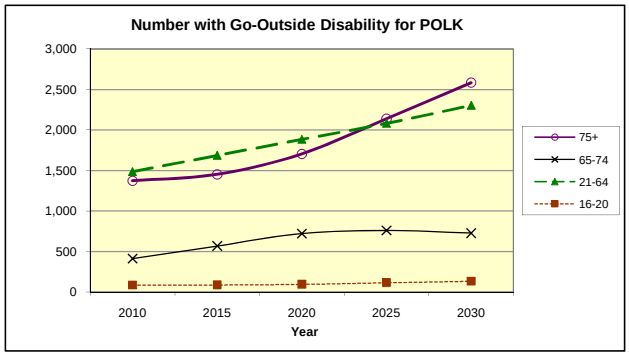
POLK **Based on 2006 ACS Disability Rates by Time Period**

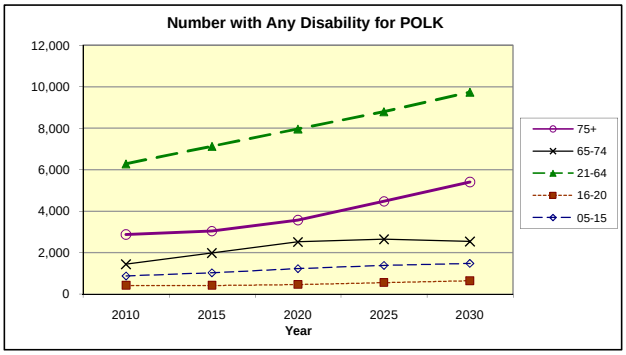
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
POLK	13,582	5,448	43,424	5,133	5,258	72,845	876	421	6,285	1,444	2,873	11,900	87	1,486	414	1,373	3,359
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	7,477	2,469	21,012	2,515	3,228	36,700	482	191	3,041	707	1,764	6,186	39	719	203	843	1,804
<2.5K	6,106	2,979	22,412	2,618	2,030	36,145	394	230	3,244	737	1,109	5,714	47	767	211	530	1,555
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
POLK	15,965	5,483	49,285	7,046	5,559	83,338	1,030	424	7,133	1,982	3,038	13,607	87	1,686	568	1,452	3,793
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	9,494	2,724	26,204	3,757	3,636	45,814	613	211	3,792	1,057	1,987	7,660	43	896	303	950	2,192
<2.5K	6,472	2,759	23,081	3,289	1,923	37,524	418	213	3,340	925	1,051	5,948	44	790	265	502	1,601
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
POLK	19,065	5,962	55,088	8,953	6,526	95,594	1,230	461	7,973	2,519	3,566	15,749	95	1,885	722	1,704	4,406
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	5,098	1,457	15,457	1,974	1,595	25,582	329	113	2,237	556	871	4,106	23	529	159	416	1,128
Urban 2.5-24K	6,832	1,771	16,994	3,003	2,711	31,312	441	137	2,459	845	1,482	5,364	28	581	242	708	1,560
<2.5K	7,134	2,734	22,637	3,975	2,220	38,701	460	211	3,276	1,118	1,213	6,280	43	774	321	580	1,718
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
POLK	21,438	7,215	60,838	9,418	8,187	107,097	1,383	558	8,805	2,650	4,474	17,870	115	2,081	760	2,138	5,094
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	6,060	1,897	18,224	2,256	2,101	30,538	391	147	2,638	635	1,148	4,958	30	623	182	549	1,384
Urban 2.5-24K	8,233	2,336	20,233	3,182	3,606	37,591	531	181	2,928	895	1,971	6,506	37	692	257	942	1,928
<2.5K	7,145	2,982	22,381	3,980	2,480	38,968	461	231	3,239	1,120	1,355	6,406	47	766	321	648	1,782
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
POLK	22,969	8,332	67,337	9,023	9,896	117,557	1,482	644	9,746	2,539	5,408	19,819	133	2,304	728	2,584	5,748
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	6,845	2,347	21,346	2,280	2,664	35,482	442	182	3,089	642	1,456	5,810	37	730	184	696	1,647
Urban 2.5-24K	9,411	2,925	23,952	3,570	4,630	44,487	607	226	3,466	1,004	2,530	7,834	47	819	288	1,209	2,363
<2.5K	6,713	3,060	22,039	3,173	2,602	37,588	433	237	3,190	893	1,422	6,174	49	754	256	680	1,738

POLK **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	13,582	5,448	43,424	5,133	5,258	72,845	876	421	6,285	1,444	2,873	11,900	87	1,486	414	1,373	3,359
2015	15,965	5,483	49,285	7,046	5,559	83,338	1,030	424	7,133	1,982	3,038	13,607	87	1,686	568	1,452	3,793
2020	19,065	5,962	55,088	8,953	6,526	95,594	1,230	461	7,973	2,519	3,566	15,749	95	1,885	722	1,704	4,406
2025	21,438	7,215	60,838	9,418	8,187	107,097	1,383	558	8,805	2,650	4,474	17,870	115	2,081	760	2,138	5,094
2030	22,969	8,332	67,337	9,023	9,896	117,557	1,482	644	9,746	2,539	5,408	19,819	133	2,304	728	2,584	5,748
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	5,098	1,457	15,457	1,974	1,595	25,582	329	113	2,237	556	871	4,106	23	529	159	416	1,128
2025	6,060	1,897	18,224	2,256	2,101	30,538	391	147	2,638	635	1,148	4,958	30	623	182	549	1,384
2030	6,845	2,347	21,346	2,280	2,664	35,482	442	182	3,089	642	1,456	5,810	37	730	184	696	1,647
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	7,477	2,469	21,012	2,515	3,228	36,700	482	191	3,041	707	1,764	6,186	39	719	203	843	1,804
2015	9,494	2,724	26,204	3,757	3,636	45,814	613	211	3,792	1,057	1,987	7,660	43	896	303	950	2,192
2020	6,832	1,771	16,994	3,003	2,711	31,312	441	137	2,459	845	1,482	5,364	28	581	242	708	1,560
2025	8,233	2,336	20,233	3,182	3,606	37,591	531	181	2,928	895	1,971	6,506	37	692	257	942	1,928
2030	9,411	2,925	23,952	3,570	4,630	44,487	607	226	3,466	1,004	2,530	7,834	47	819	288	1,209	2,363
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	6,106	2,979	22,412	2,618	2,030	36,145	394	230	3,244	737	1,109	5,714	47	767	211	530	1,555
2015	6,472	2,759	23,081	3,289	1,923	37,524	418	213	3,340	925	1,051	5,948	44	790	265	502	1,601
2020	7,134	2,734	22,637	3,975	2,220	38,701	460	211	3,276	1,118	1,213	6,280	43	774	321	580	1,718
2025	7,145	2,982	22,381	3,980	2,480	38,968	461	231	3,239	1,120	1,355	6,406	47	766	321	648	1,782
2030	6,713	3,060	22,039	3,173	2,602	37,588	433	237	3,190	893	1,422	6,174	49	754	256	680	1,738

POLK - CHARTS





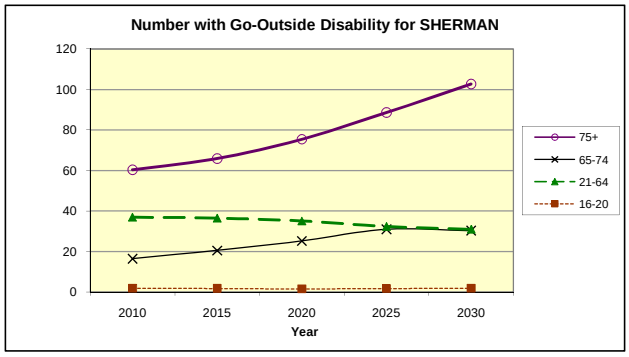
SHERMAN **Based on 2006 ACS Disability Rates by Time Period**

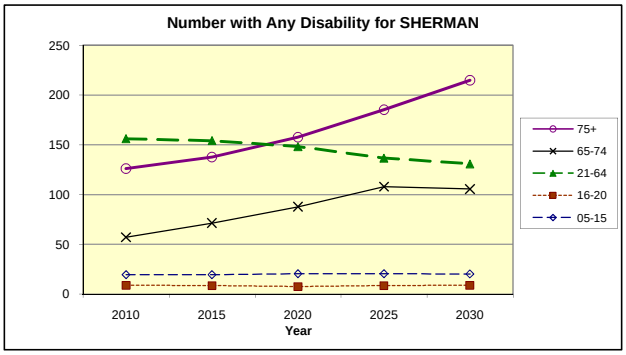
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
SHERMAN	304	115	1,079	204	231	1,933	20	9	156	57	126	368	2	37	16	60	116
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	304	115	1,079	204	231	1,933	20	9	156	57	126	368	2	37	16	60	116
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
SHERMAN	304	110	1,066	254	252	1,986	20	8	154	71	138	392	2	36	20	66	125
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	304	110	1,066	254	252	1,986	20	8	154	71	138	392	2	36	20	66	125
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
SHERMAN	319	98	1,025	312	289	2,043	21	8	148	88	158	422	2	35	25	75	137
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	319	98	1,025	312	289	2,043	21	8	148	88	158	422	2	35	25	75	137
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
SHERMAN	319	109	945	384	339	2,097	21	8	137	108	185	459	2	32	31	89	154
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	319	109	945	384	339	2,097	21	8	137	108	185	459	2	32	31	89	154
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
SHERMAN	315	114	905	376	393	2,102	20	9	131	106	215	481	2	31	30	103	166
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	315	114	905	376	393	2,102	20	9	131	106	215	481	2	31	30	103	166

SHERMAN **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	304	115	1,079	204	231	1,933	20	9	156	57	126	368	2	37	16	60	116
2015	304	110	1,066	254	252	1,986	20	8	154	71	138	392	2	36	20	66	125
2020	319	98	1,025	312	289	2,043	21	8	148	88	158	422	2	35	25	75	137
2025	319	109	945	384	339	2,097	21	8	137	108	185	459	2	32	31	89	154
2030	315	114	905	376	393	2,102	20	9	131	106	215	481	2	31	30	103	166
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	304	115	1,079	204	231	1,933	20	9	156	57	126	368	2	37	16	60	116
2015	304	110	1,066	254	252	1,986	20	8	154	71	138	392	2	36	20	66	125
2020	319	98	1,025	312	289	2,043	21	8	148	88	158	422	2	35	25	75	137
2025	319	109	945	384	339	2,097	21	8	137	108	185	459	2	32	31	89	154
2030	315	114	905	376	393	2,102	20	9	131	106	215	481	2	31	30	103	166

SHERMAN - CHARTS





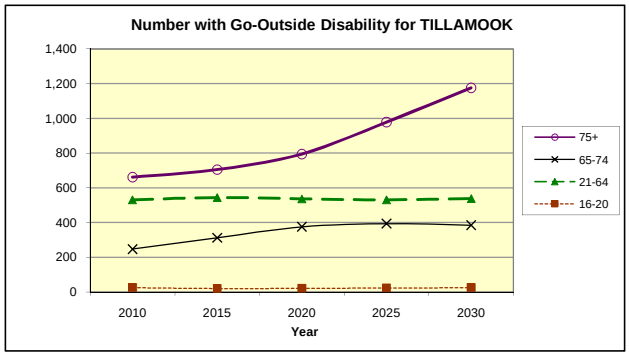
TILLAMOOK **Based on 2006 ACS Disability Rates by Time Period**

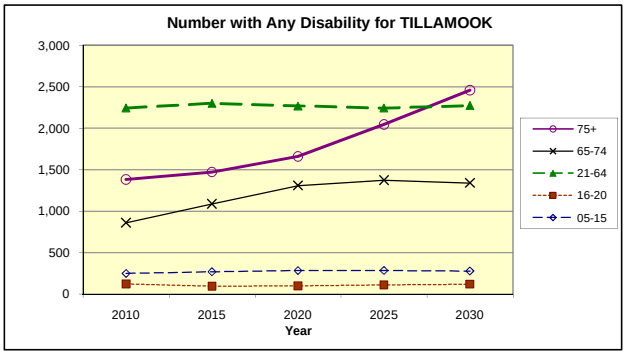
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
TILLAMOOK	3,883	1,597	15,515	3,064	2,530	26,589	251	124	2,245	862	1,383	4,864	25	531	247	661	1,464
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	957	356	2,676	329	366	4,684	62	28	387	93	200	769	6	92	27	96	219
<2.5K	2,926	1,241	12,838	2,735	2,164	21,905	189	96	1,858	769	1,183	4,095	20	439	221	565	1,245
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
TILLAMOOK	4,197	1,242	15,892	3,870	2,697	27,897	271	96	2,300	1,089	1,474	5,229	20	544	312	704	1,580
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	1,044	279	2,795	419	394	4,932	67	22	405	118	216	827	4	96	34	103	237
<2.5K	3,153	962	13,096	3,451	2,302	22,965	203	74	1,895	971	1,258	4,402	15	448	278	601	1,343
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
TILLAMOOK	4,418	1,308	15,675	4,656	3,040	29,097	285	101	2,269	1,310	1,661	5,626	21	536	376	794	1,726
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,104	297	2,794	511	447	5,153	71	23	404	144	244	887	5	96	41	117	258
<2.5K	3,314	1,011	12,881	4,145	2,593	23,944	214	78	1,864	1,166	1,417	4,739	16	441	334	677	1,468
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
TILLAMOOK	4,435	1,463	15,503	4,885	3,744	30,031	286	113	2,244	1,374	2,046	6,064	23	530	394	978	1,925
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,113	335	2,789	522	552	5,312	72	26	404	147	302	950	5	95	42	144	287
<2.5K	3,322	1,128	12,714	4,363	3,192	24,719	214	87	1,840	1,227	1,745	5,114	18	435	352	834	1,638
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
TILLAMOOK	4,334	1,568	15,718	4,765	4,503	30,887	280	121	2,275	1,341	2,461	6,477	25	538	384	1,176	2,123
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	1,098	363	2,848	537	673	5,519	71	28	412	151	368	1,030	6	97	43	176	322
<2.5K	3,236	1,205	12,869	4,228	3,829	25,368	209	93	1,863	1,190	2,093	5,447	19	440	341	1,000	1,801

TILLAMOOK **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	3,883	1,597	15,515	3,064	2,530	26,589	251	124	2,245	862	1,383	4,864	25	531	247	661	1,464
2015	4,197	1,242	15,892	3,870	2,697	27,897	271	96	2,300	1,089	1,474	5,229	20	544	312	704	1,580
2020	4,418	1,308	15,675	4,656	3,040	29,097	285	101	2,269	1,310	1,661	5,626	21	536	376	794	1,726
2025	4,435	1,463	15,503	4,885	3,744	30,031	286	113	2,244	1,374	2,046	6,064	23	530	394	978	1,925
2030	4,334	1,568	15,718	4,765	4,503	30,887	280	121	2,275	1,341	2,461	6,477	25	538	384	1,176	2,123
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	957	356	2,676	329	366	4,684	62	28	387	93	200	769	6	92	27	96	219
2015	1,044	279	2,795	419	394	4,932	67	22	405	118	216	827	4	96	34	103	237
2020	1,104	297	2,794	511	447	5,153	71	23	404	144	244	887	5	96	41	117	258
2025	1,113	335	2,789	522	552	5,312	72	26	404	147	302	950	5	95	42	144	287
2030	1,098	363	2,848	537	673	5,519	71	28	412	151	368	1,030	6	97	43	176	322
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	2,926	1,241	12,838	2,735	2,164	21,905	189	96	1,858	769	1,183	4,095	20	439	221	565	1,245
2015	3,153	962	13,096	3,451	2,302	22,965	203	74	1,895	971	1,258	4,402	15	448	278	601	1,343
2020	3,314	1,011	12,881	4,145	2,593	23,944	214	78	1,864	1,166	1,417	4,739	16	441	334	677	1,468
2025	3,322	1,128	12,714	4,363	3,192	24,719	214	87	1,840	1,227	1,745	5,114	18	435	352	834	1,638
2030	3,236	1,205	12,869	4,228	3,829	25,368	209	93	1,863	1,190	2,093	5,447	19	440	341	1,000	1,801

TILLAMOOK - CHARTS





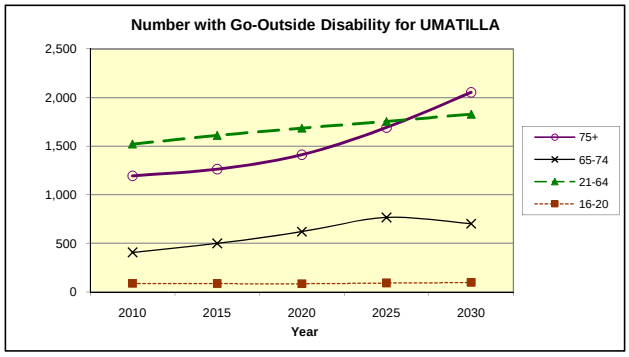
UMATILLA **Based on 2006 ACS Disability Rates by Time Period**

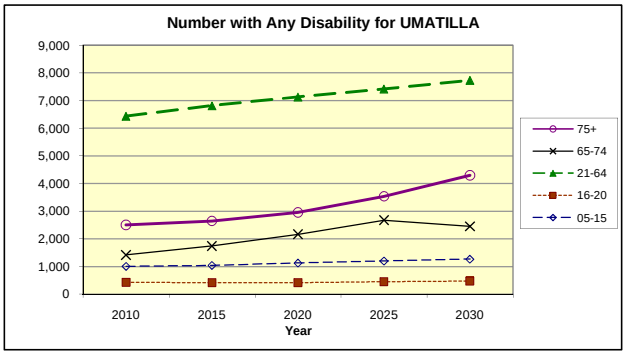
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
UMATILLA	15,605	5,569	44,473	5,048	4,576	75,271	1,007	431	6,436	1,420	2,501	11,795	89	1,521	407	1,195	3,212
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	10,069	3,596	28,211	2,892	2,992	47,759	650	278	4,083	814	1,635	7,459	57	965	233	781	2,037
<2.5K	5,536	1,973	16,262	2,157	1,584	27,512	357	153	2,354	607	865	4,336	31	556	174	414	1,175
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
UMATILLA	16,149	5,430	47,083	6,198	4,841	79,701	1,042	420	6,814	1,744	2,645	12,666	86	1,611	500	1,264	3,461
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	11,335	3,811	32,539	3,924	3,429	55,038	731	295	4,709	1,104	1,874	8,714	61	1,113	316	896	2,386
<2.5K	4,814	1,619	14,544	2,275	1,411	24,663	311	125	2,105	640	771	3,952	26	498	183	369	1,075
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
UMATILLA	17,496	5,364	49,277	7,696	5,408	85,242	1,129	415	7,132	2,165	2,955	13,796	85	1,686	621	1,412	3,804
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	12,594	3,860	34,986	5,030	3,923	60,392	813	299	5,063	1,415	2,144	9,733	61	1,197	406	1,024	2,688
<2.5K	4,902	1,504	14,291	2,667	1,485	24,849	316	116	2,068	750	812	4,063	24	489	215	388	1,116
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
UMATILLA	18,633	5,818	51,271	9,513	6,476	91,710	1,202	450	7,420	2,677	3,539	15,288	93	1,754	767	1,691	4,305
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	13,988	4,367	38,000	6,403	4,888	67,646	903	338	5,500	1,801	2,671	11,213	69	1,300	516	1,276	3,162
<2.5K	4,645	1,451	13,271	3,110	1,588	24,064	300	112	1,921	875	868	4,075	23	454	251	415	1,143
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
UMATILLA	19,673	6,123	53,466	8,716	7,867	95,844	1,269	474	7,738	2,452	4,299	16,232	97	1,829	703	2,054	4,684
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	15,034	4,682	40,371	6,152	6,046	72,284	970	362	5,843	1,731	3,304	12,210	74	1,381	496	1,579	3,531
<2.5K	4,638	1,441	13,095	2,563	1,821	23,559	299	111	1,895	721	995	4,022	23	448	207	476	1,153

UMATILLA **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	15,605	5,569	44,473	5,048	4,576	75,271	1,007	431	6,436	1,420	2,501	11,795	89	1,521	407	1,195	3,212
2015	16,149	5,430	47,083	6,198	4,841	79,701	1,042	420	6,814	1,744	2,645	12,666	86	1,611	500	1,264	3,461
2020	17,496	5,364	49,277	7,696	5,408	85,242	1,129	415	7,132	2,165	2,955	13,796	85	1,686	621	1,412	3,804
2025	18,633	5,818	51,271	9,513	6,476	91,710	1,202	450	7,420	2,677	3,539	15,288	93	1,754	767	1,691	4,305
2030	19,673	6,123	53,466	8,716	7,867	95,844	1,269	474	7,738	2,452	4,299	16,232	97	1,829	703	2,054	4,684
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	10,069	3,596	28,211	2,892	2,992	47,759	650	278	4,083	814	1,635	7,459	57	965	233	781	2,037
2015	11,335	3,811	32,539	3,924	3,429	55,038	731	295	4,709	1,104	1,874	8,714	61	1,113	316	896	2,386
2020	12,594	3,860	34,986	5,030	3,923	60,392	813	299	5,063	1,415	2,144	9,733	61	1,197	406	1,024	2,688
2025	13,988	4,367	38,000	6,403	4,888	67,646	903	338	5,500	1,801	2,671	11,213	69	1,300	516	1,276	3,162
2030	15,034	4,682	40,371	6,152	6,046	72,284	970	362	5,843	1,731	3,304	12,210	74	1,381	496	1,579	3,531
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	5,536	1,973	16,262	2,157	1,584	27,512	357	153	2,354	607	865	4,336	31	556	174	414	1,175
2015	4,814	1,619	14,544	2,275	1,411	24,663	311	125	2,105	640	771	3,952	26	498	183	369	1,075
2020	4,902	1,504	14,291	2,667	1,485	24,849	316	116	2,068	750	812	4,063	24	489	215	388	1,116
2025	4,645	1,451	13,271	3,110	1,588	24,064	300	112	1,921	875	868	4,075	23	454	251	415	1,143
2030	4,638	1,441	13,095	2,563	1,821	23,559	299	111	1,895	721	995	4,022	23	448	207	476	1,153

UMATILLA - CHARTS





UNION **Based on 2006 ACS Disability Rates by Time Period**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
UNION	4,906	2,060	14,655	2,086	1,889	25,596	317	159	2,121	587	1,032	4,216	33	501	168	493	1,196
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,426	1,162	7,496	912	1,059	13,055	157	90	1,085	257	579	2,167	18	256	74	277	625
<2.5K	2,480	898	7,159	1,173	830	12,541	160	69	1,036	330	454	2,049	14	245	95	217	571
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
UNION	5,390	1,981	14,606	2,571	1,997	26,545	348	153	2,114	723	1,091	4,430	32	500	207	522	1,260
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	2,664	1,117	7,503	1,122	1,119	13,524	172	86	1,086	316	611	2,271	18	257	90	292	657
<2.5K	2,726	864	7,103	1,449	878	13,021	176	67	1,028	408	480	2,158	14	243	117	229	603
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
UNION	5,823	2,127	14,354	3,023	2,224	27,551	376	165	2,077	851	1,215	4,684	34	491	244	581	1,349
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,873	1,198	7,390	1,323	1,242	14,025	185	93	1,069	372	679	2,398	19	253	107	324	703
<2.5K	2,950	928	6,964	1,701	982	13,526	190	72	1,008	479	537	2,285	15	238	137	256	647
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
UNION	6,055	2,357	14,530	2,632	2,682	28,257	391	182	2,103	741	1,466	4,882	37	497	212	700	1,447
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,983	1,327	7,493	1,093	1,491	14,387	192	103	1,084	308	815	2,502	21	256	88	389	755
<2.5K	3,073	1,030	7,037	1,539	1,191	13,870	198	80	1,018	433	651	2,380	16	241	124	311	692
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
UNION	6,169	2,573	15,128	2,478	3,178	29,525	398	199	2,189	697	1,736	5,220	41	518	200	830	1,588
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,037	1,448	7,824	1,088	1,771	15,167	196	112	1,132	306	968	2,714	23	268	88	462	841
<2.5K	3,132	1,124	7,305	1,390	1,407	14,358	202	87	1,057	391	769	2,506	18	250	112	367	747

UNION **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	4,906	2,060	14,655	2,086	1,889	25,596	317	159	2,121	587	1,032	4,216	33	501	168	493	1,196
2015	5,390	1,981	14,606	2,571	1,997	26,545	348	153	2,114	723	1,091	4,430	32	500	207	522	1,260
2020	5,823	2,127	14,354	3,023	2,224	27,551	376	165	2,077	851	1,215	4,684	34	491	244	581	1,349
2025	6,055	2,357	14,530	2,632	2,682	28,257	391	182	2,103	741	1,466	4,882	37	497	212	700	1,447
2030	6,169	2,573	15,128	2,478	3,178	29,525	398	199	2,189	697	1,736	5,220	41	518	200	830	1,588
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	2,426	1,162	7,496	912	1,059	13,055	157	90	1,085	257	579	2,167	18	256	74	277	625
2015	2,664	1,117	7,503	1,122	1,119	13,524	172	86	1,086	316	611	2,271	18	257	90	292	657
2020	2,873	1,198	7,390	1,323	1,242	14,025	185	93	1,069	372	679	2,398	19	253	107	324	703
2025	2,983	1,327	7,493	1,093	1,491	14,387	192	103	1,084	308	815	2,502	21	256	88	389	755
2030	3,037	1,448	7,824	1,088	1,771	15,167	196	112	1,132	306	968	2,714	23	268	88	462	841
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	2,480	898	7,159	1,173	830	12,541	160	69	1,036	330	454	2,049	14	245	95	217	571
2015	2,726	864	7,103	1,449	878	13,021	176	67	1,028	408	480	2,158	14	243	117	229	603
2020	2,950	928	6,964	1,701	982	13,526	190	72	1,008	479	537	2,285	15	238	137	256	647
2025	3,073	1,030	7,037	1,539	1,191	13,870	198	80	1,018	433	651	2,380	16	241	124	311	692
2030	3,132	1,124	7,305	1,390	1,407	14,358	202	87	1,057	391	769	2,506	18	250	112	367	747

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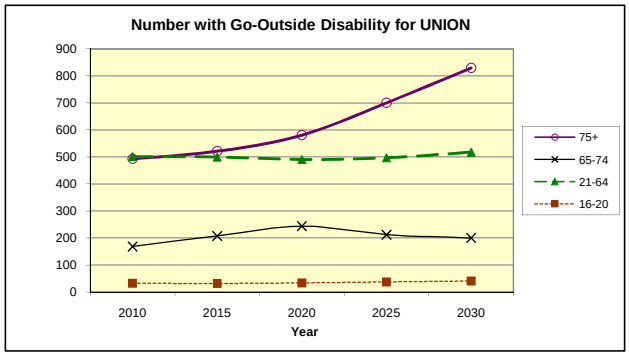
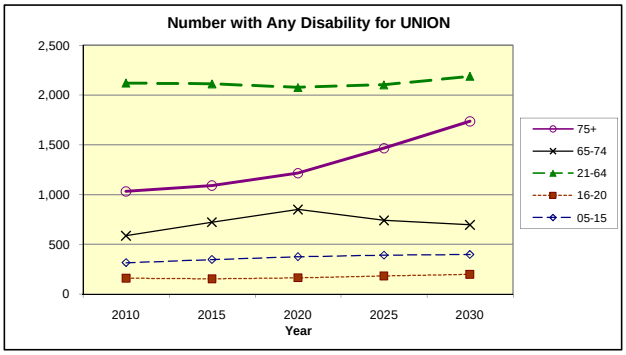




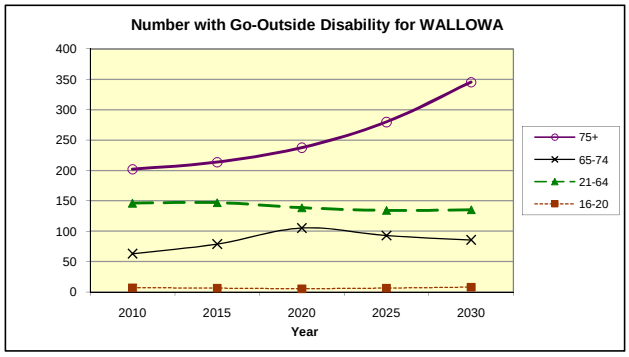
WALLOWA **Based on 2006 ACS Disability Rates by Time Period**

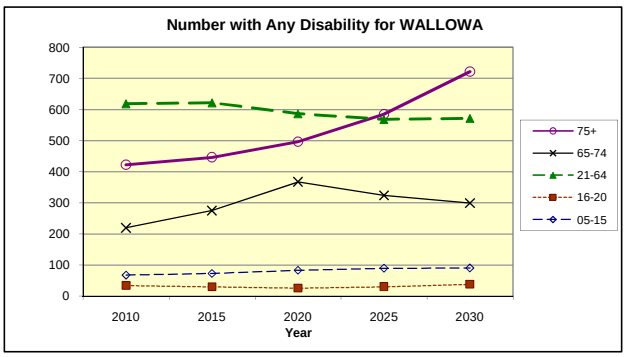
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WALLOWA	1,044	441	4,275	781	774	7,315	67	34	619	220	423	1,363	7	146	63	202	418
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,044	441	4,275	781	774	7,315	67	34	619	220	423	1,363	7	146	63	202	418
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WALLOWA	1,125	393	4,295	980	818	7,611	73	30	622	276	447	1,447	6	147	79	214	446
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,125	393	4,295	980	818	7,611	73	30	622	276	447	1,447	6	147	79	214	446
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WALLOWA	1,285	338	4,053	1,307	909	7,892	83	26	587	368	497	1,560	5	139	105	237	487
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,285	338	4,053	1,307	909	7,892	83	26	587	368	497	1,560	5	139	105	237	487
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WALLOWA	1,390	397	3,925	1,151	1,071	7,934	90	31	568	324	585	1,597	6	134	93	280	513
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	1,390	397	3,925	1,151	1,071	7,934	90	31	568	324	585	1,597	6	134	93	280	513
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WALLOWA	1,399	497	3,950	1,064	1,322	8,232	90	38	572	299	722	1,722	8	135	86	345	574
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	481	169	1,254	241	343	2,488	31	13	181	68	188	481	3	43	19	90	155
<2.5K	918	328	2,696	823	978	5,743	59	25	390	232	535	1,241	5	92	66	255	419

WALLOWA **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,044	441	4,275	781	774	7,315	67	34	619	220	423	1,363	7	146	63	202	418
2015	1,125	393	4,295	980	818	7,611	73	30	622	276	447	1,447	6	147	79	214	446
2020	1,285	338	4,053	1,307	909	7,892	83	26	587	368	497	1,560	5	139	105	237	487
2025	1,390	397	3,925	1,151	1,071	7,934	90	31	568	324	585	1,597	6	134	93	280	513
2030	1,399	497	3,950	1,064	1,322	8,232	90	38	572	299	722	1,722	8	135	86	345	574
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	481	169	1,254	241	343	2,488	31	13	181	68	188	481	3	43	19	90	155
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	1,044	441	4,275	781	774	7,315	67	34	619	220	423	1,363	7	146	63	202	418
2015	1,125	393	4,295	980	818	7,611	73	30	622	276	447	1,447	6	147	79	214	446
2020	1,285	338	4,053	1,307	909	7,892	83	26	587	368	497	1,560	5	139	105	237	487
2025	1,390	397	3,925	1,151	1,071	7,934	90	31	568	324	585	1,597	6	134	93	280	513
2030	918	328	2,696	823	978	5,743	59	25	390	232	535	1,241	5	92	66	255	419

WALLOWA - CHARTS





WASCO **Based on 2006 ACS Disability Rates by Time Period**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WASCO	4,647	1,626	13,597	2,044	1,839	23,753	300	126	1,968	575	1,005	3,974	26	465	165	480	1,136
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,471	891	7,050	1,042	1,197	12,651	159	69	1,020	293	654	2,196	14	241	84	313	652
<2.5K	2,175	736	6,546	1,002	643	11,102	140	57	947	282	351	1,778	12	224	81	168	484
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WASCO	4,749	1,612	13,496	2,611	1,830	24,297	306	125	1,953	735	1,000	4,119	26	462	211	478	1,176
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	2,535	885	7,032	1,328	1,191	12,971	164	68	1,018	374	651	2,274	14	241	107	311	673
<2.5K	2,215	727	6,464	1,283	639	11,326	143	56	935	361	349	1,845	12	221	103	167	503
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WASCO	4,963	1,552	13,333	3,079	1,969	24,896	320	120	1,930	866	1,076	4,312	25	456	248	514	1,243
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,764	889	7,279	1,651	1,318	13,901	178	69	1,053	464	720	2,485	14	249	133	344	741
<2.5K	2,198	663	6,055	1,428	651	10,995	142	51	876	402	355	1,827	11	207	115	170	503
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WASCO	5,114	1,653	13,191	3,270	2,512	25,740	330	128	1,909	920	1,373	4,660	26	451	264	656	1,397
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	2,939	976	7,455	1,691	1,713	14,773	190	75	1,079	476	936	2,756	16	255	136	447	854
<2.5K	2,175	677	5,736	1,579	799	10,967	140	52	830	444	437	1,904	11	196	127	209	543
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WASCO	5,228	1,750	13,412	3,076	3,097	26,563	337	135	1,941	865	1,693	4,972	28	459	248	809	1,544
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	3,099	1,064	7,827	1,768	2,171	15,929	200	82	1,133	498	1,186	3,099	17	268	143	567	994
<2.5K	2,129	686	5,585	1,308	926	10,634	137	53	808	368	506	1,873	11	191	105	242	549

WASCO **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	4,647	1,626	13,597	2,044	1,839	23,753	300	126	1,968	575	1,005	3,974	26	465	165	480	1,136
2015	4,749	1,612	13,496	2,611	1,830	24,297	306	125	1,953	735	1,000	4,119	26	462	211	478	1,176
2020	4,963	1,552	13,333	3,079	1,969	24,896	320	120	1,930	866	1,076	4,312	25	456	248	514	1,243
2025	5,114	1,653	13,191	3,270	2,512	25,740	330	128	1,909	920	1,373	4,660	26	451	264	656	1,397
2030	5,228	1,750	13,412	3,076	3,097	26,563	337	135	1,941	865	1,693	4,972	28	459	248	809	1,544
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	2,471	891	7,050	1,042	1,197	12,651	159	69	1,020	293	654	2,196	14	241	84	313	652
2015	2,535	885	7,032	1,328	1,191	12,971	164	68	1,018	374	651	2,274	14	241	107	311	673
2020	2,764	889	7,279	1,651	1,318	13,901	178	69	1,053	464	720	2,485	14	249	133	344	741
2025	2,939	976	7,455	1,691	1,713	14,773	190	75	1,079	476	936	2,756	16	255	136	447	854
2030	3,099	1,064	7,827	1,768	2,171	15,929	200	82	1,133	498	1,186	3,099	17	268	143	567	994
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	2,175	736	6,546	1,002	643	11,102	140	57	947	282	351	1,778	12	224	81	168	484
2015	2,215	727	6,464	1,283	639	11,326	143	56	935	361	349	1,845	12	221	103	167	503
2020	2,198	663	6,055	1,428	651	10,995	142	51	876	402	355	1,827	11	207	115	170	503
2025	2,175	677	5,736	1,579	799	10,967	140	52	830	444	437	1,904	11	196	127	209	543
2030	2,129	686	5,585	1,308	926	10,634	137	53	808	368	506	1,873	11	191	105	242	549

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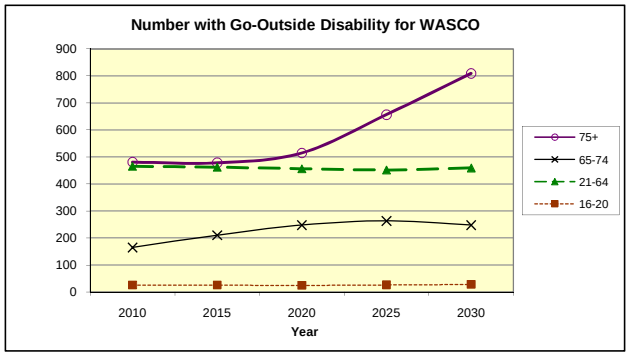
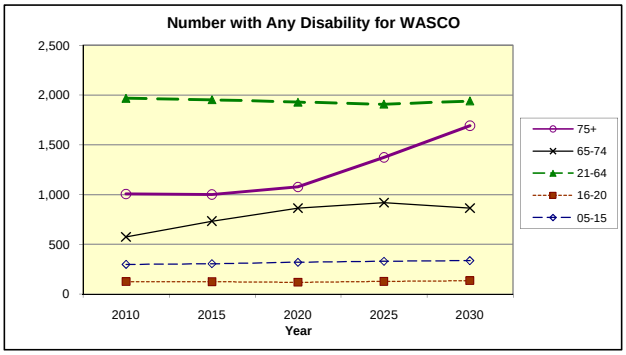




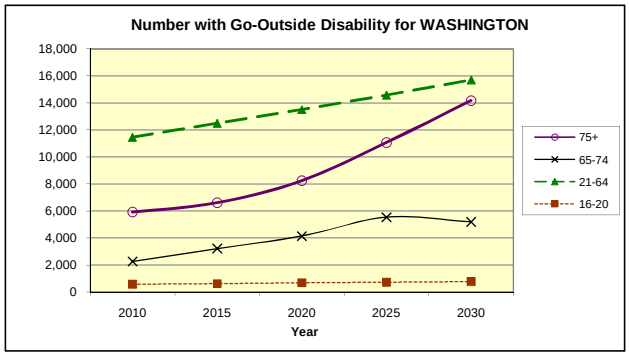
WASHINGTON **Based on 2006 ACS Disability Rates by Time Period**

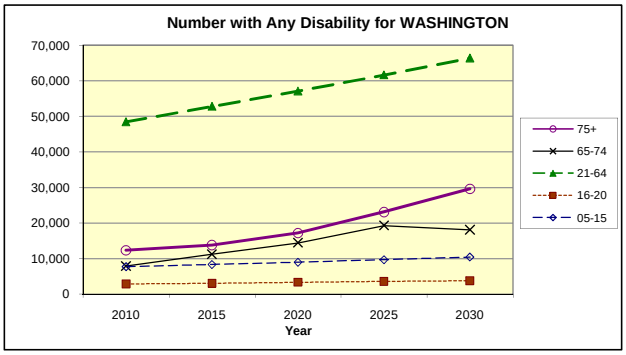
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WASHINGTON	120,244	36,786	334,907	28,069	22,672	542,678	7,759	2,845	48,470	7,897	12,389	79,361	585	11,457	2,264	5,921	20,227
Urban Areas 50K+	89,461	28,083	250,530	19,772	17,106	404,951	5,773	2,172	36,259	5,563	9,348	59,114	447	8,570	1,595	4,467	15,079
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	30,783	8,703	84,377	8,297	5,566	137,727	1,986	673	12,212	2,334	3,041	20,247	138	2,886	669	1,453	5,148
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WASHINGTON	129,677	39,362	365,141	39,886	25,311	599,377	8,368	3,045	52,846	11,222	13,832	89,312	626	12,491	3,217	6,610	22,945
Urban Areas 50K+	98,341	30,587	278,354	28,726	19,423	455,432	6,346	2,366	40,286	8,082	10,614	67,693	486	9,522	2,317	5,072	17,398
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	31,336	8,774	86,786	11,160	5,888	143,945	2,022	679	12,560	3,140	3,218	21,619	140	2,969	900	1,538	5,546
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WASHINGTON	139,186	43,454	394,831	51,348	31,547	660,367	8,981	3,361	57,143	14,447	17,239	101,172	691	13,507	4,142	8,239	26,578
Urban Areas 50K+	107,572	34,361	306,753	37,816	24,588	511,089	6,941	2,658	44,396	10,640	13,437	78,071	546	10,494	3,050	6,421	20,512
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	31,614	9,094	88,078	13,533	6,959	149,278	2,040	703	12,747	3,807	3,803	23,101	145	3,013	1,092	1,817	6,067
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WASHINGTON	149,963	46,309	426,095	68,606	42,364	733,338	9,677	3,582	61,668	19,303	23,151	117,380	737	14,576	5,534	11,064	31,910
Urban Areas 50K+	118,076	37,248	337,231	51,563	33,560	577,678	7,619	2,881	48,807	14,508	18,340	92,154	592	11,536	4,159	8,764	25,052
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	31,887	9,061	88,865	17,043	8,804	155,660	2,058	701	12,861	4,795	4,811	25,226	144	3,040	1,375	2,299	6,858
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WASHINGTON	161,574	49,003	458,977	64,374	54,232	788,162	10,426	3,790	66,427	18,112	29,636	128,391	779	15,701	5,192	14,163	35,836
Urban Areas 50K+	129,564	40,065	369,852	49,444	43,692	632,618	8,361	3,099	53,528	13,911	23,876	102,775	637	12,652	3,988	11,410	28,688
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	538	174	1,474	319	293	2,799	35	13	213	90	160	511	3	50	26	76	155
<2.5K	31,472	8,764	87,651	14,611	10,248	152,745	2,031	678	12,685	4,111	5,600	25,105	139	2,998	1,178	2,676	6,993

WASHINGTON **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	120,244	36,786	334,907	28,069	22,672	542,678	7,759	2,845	48,470	7,897	12,389	79,361	585	11,457	2,264	5,921	20,227
2015	129,677	39,362	365,141	39,886	25,311	599,377	8,368	3,045	52,846	11,222	13,832	89,312	626	12,491	3,217	6,610	22,945
2020	139,186	43,454	394,831	51,348	31,547	660,367	8,981	3,361	57,143	14,447	17,239	101,172	691	13,507	4,142	8,239	26,578
2025	149,963	46,309	426,095	68,606	42,364	733,338	9,677	3,582	61,668	19,303	23,151	117,380	737	14,576	5,534	11,064	31,910
2030	161,574	49,003	458,977	64,374	54,232	788,162	10,426	3,790	66,427	18,112	29,636	128,391	779	15,701	5,192	14,163	35,836
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	89,461	28,083	250,530	19,772	17,106	404,951	5,773	2,172	36,259	5,563	9,348	59,114	447	8,570	1,595	4,467	15,079
2015	98,341	30,587	278,354	28,726	19,423	455,432	6,346	2,366	40,286	8,082	10,614	67,693	486	9,522	2,317	5,072	17,398
2020	107,572	34,361	306,753	37,816	24,588	511,089	6,941	2,658	44,396	10,640	13,437	78,071	546	10,494	3,050	6,421	20,512
2025	118,076	37,248	337,231	51,563	33,560	577,678	7,619	2,881	48,807	14,508	18,340	92,154	592	11,536	4,159	8,764	25,052
2030	129,564	40,065	369,852	49,444	43,692	632,618	8,361	3,099	53,528	13,911	23,876	102,775	637	12,652	3,988	11,410	28,688
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	538	174	1,474	319	293	2,799	35	13	213	90	160	511	3	50	26	76	155
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	30,783	8,703	84,377	8,297	5,566	137,727	1,986	673	12,212	2,334	3,041	20,247	138	2,886	669	1,453	5,148
2015	31,336	8,774	86,786	11,160	5,888	143,945	2,022	679	12,560	3,140	3,218	21,619	140	2,969	900	1,538	5,546
2020	31,614	9,094	88,078	13,533	6,959	149,278	2,040	703	12,747	3,807	3,803	23,101	145	3,013	1,092	1,817	6,067
2025	31,887	9,061	88,865	17,043	8,804	155,660	2,058	701	12,861	4,795	4,811	25,226	144	3,040	1,375	2,299	6,858
2030	31,472	8,764	87,651	14,611	10,248	152,745	2,031	678	12,685	4,111	5,600	25,105	139	2,998	1,178	2,676	6,993

WASHINGTON - CHARTS





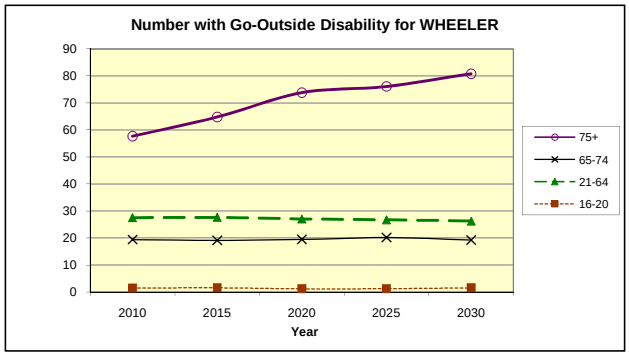
WHEELER **Based on 2006 ACS Disability Rates by Time Period**

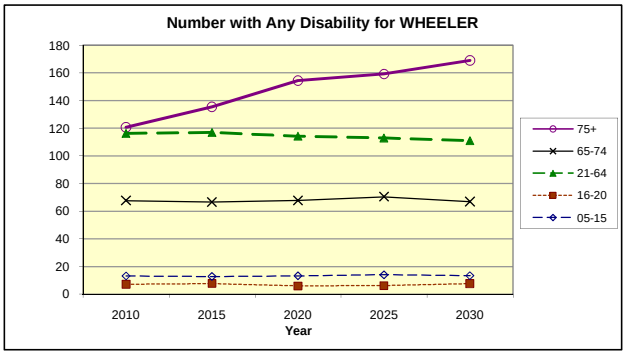
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WHEELER	204	93	804	241	221	1,563	13	7	116	68	121	325	1	27	19	58	106
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	204	93	804	241	221	1,563	13	7	116	68	121	325	1	27	19	58	106
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WHEELER	199	100	808	237	248	1,591	13	8	117	67	135	340	2	28	19	65	113
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban <2.5-25K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	199	100	808	237	248	1,591	13	8	117	67	135	340	2	28	19	65	113
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WHEELER	206	77	790	241	283	1,597	13	6	114	68	154	356	1	27	19	74	121
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	206	77	790	241	283	1,597	13	6	114	68	154	356	1	27	19	74	121
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WHEELER	217	79	781	250	291	1,619	14	6	113	70	159	363	1	27	20	76	124
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	217	79	781	250	291	1,619	14	6	113	70	159	363	1	27	20	76	124
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
WHEELER	208	99	767	238	309	1,622	13	8	111	67	169	368	2	26	19	81	128
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	208	99	767	238	309	1,622	13	8	111	67	169	368	2	26	19	81	128

WHEELER **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	204	93	804	241	221	1,563	13	7	116	68	121	325	1	27	19	58	106
2015	199	100	808	237	248	1,591	13	8	117	67	135	340	2	28	19	65	113
2020	206	77	790	241	283	1,597	13	6	114	68	154	356	1	27	19	74	121
2025	217	79	781	250	291	1,619	14	6	113	70	159	363	1	27	20	76	124
2030	208	99	767	238	309	1,622	13	8	111	67	169	368	2	26	19	81	128
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	204	93	804	241	221	1,563	13	7	116	68	121	325	1	27	19	58	106
2015	199	100	808	237	248	1,591	13	8	117	67	135	340	2	28	19	65	113
2020	206	77	790	241	283	1,597	13	6	114	68	154	356	1	27	19	74	121
2025	217	79	781	250	291	1,619	14	6	113	70	159	363	1	27	20	76	124
2030	208	99	767	238	309	1,622	13	8	111	67	169	368	2	26	19	81	128

WHEELER - CHARTS





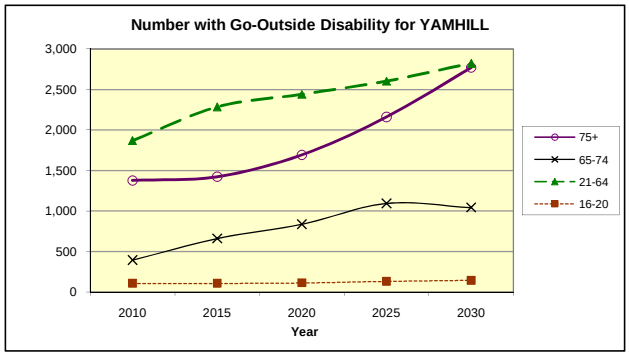
YAMHILL **Based on 2006 ACS Disability Rates by Time Period**

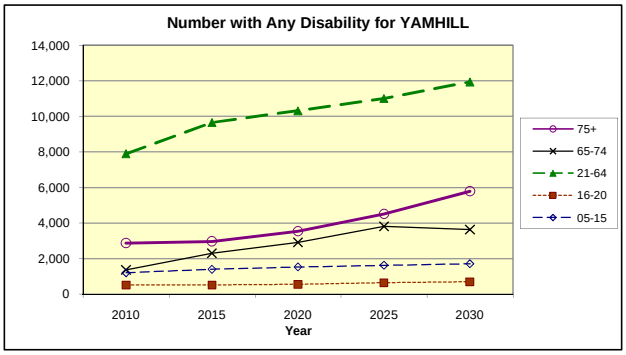
	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
2010	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
YAMHILL	18,694	6,664	54,602	4,871	5,266	90,098	1,206	515	7,902	1,371	2,878	13,873	106	1,868	393	1,375	3,742
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	6,353	2,442	17,945	1,861	2,335	30,936	410	189	2,597	524	1,276	4,995	39	614	150	610	1,413
Urban 2.5-24K	8,014	2,746	21,410	1,601	1,931	35,702	517	212	3,099	451	1,055	5,334	44	732	129	504	1,409
<2.5K	4,327	1,476	15,247	1,409	1,001	23,460	279	114	2,207	396	547	3,544	23	522	114	261	920
2015	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
YAMHILL	21,710	6,717	66,755	8,190	5,441	108,812	1,401	520	9,661	2,304	2,973	16,859	107	2,284	661	1,421	4,472
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	12,626	4,089	36,977	4,908	3,719	62,320	815	316	5,352	1,381	2,033	9,896	65	1,265	396	971	2,697
Urban <2.5-25K	4,115	1,187	11,402	1,091	795	18,590	266	92	1,650	307	434	2,749	19	390	88	208	705
<2.5K	4,969	1,441	18,375	2,190	926	27,902	321	111	2,659	616	506	4,214	23	629	177	242	1,070
2020	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
YAMHILL	23,812	7,046	71,316	10,364	6,474	119,011	1,537	545	10,321	2,916	3,538	18,856	112	2,440	836	1,691	5,078
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	14,063	4,356	40,175	6,351	4,468	69,413	907	337	5,814	1,787	2,442	11,287	69	1,374	512	1,167	3,123
Urban 2.5-24K	4,691	1,294	12,754	1,445	974	21,159	303	100	1,846	407	532	3,188	21	436	117	254	828
<2.5K	5,058	1,396	18,386	2,568	1,031	28,439	326	108	2,661	722	563	4,381	22	629	207	269	1,128
2025	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
YAMHILL	25,199	8,222	76,057	13,555	8,266	131,299	1,626	636	11,008	3,814	4,517	21,601	131	2,602	1,093	2,159	5,985
Urban Areas 50K+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban 25-49K	15,013	5,126	43,517	8,036	5,739	77,432	969	397	6,298	2,261	3,136	13,061	82	1,489	648	1,499	3,717
Urban 2.5-24K	5,691	1,732	15,751	2,206	1,420	26,800	367	134	2,280	621	776	4,177	28	539	178	371	1,115
<2.5K	4,495	1,364	16,789	3,313	1,107	27,068	290	105	2,430	932	605	4,362	22	574	267	289	1,152
2030	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
YAMHILL	26,484	8,993	82,509	12,921	10,598	141,505	1,709	696	11,941	3,635	5,791	23,773	143	2,823	1,042	2,768	6,776
Urban Areas 50K+	8,548	2,892	31,159	4,422	3,751	50,772	552	224	4,510	1,244	2,050	8,579	46	1,066	357	980	2,448
Urban 25-49K	6,987	2,548	19,005	3,638	3,396	35,573	451	197	2,751	1,024	1,856	6,278	41	650	293	887	1,871
Urban 2.5-24K	6,538	2,125	16,895	2,320	2,075	29,953	422	164	2,445	653	1,134	4,818	34	578	187	542	1,341
<2.5K	4,411	1,428	15,450	2,541	1,377	25,207	285	110	2,236	715	752	4,098	23	529	205	359	1,116

YAMHILL **Based on 2006 ACS Disability Rates by Geography**

	Population Age:						Number of persons with any disability						Number of persons with "go-outside" disability				
County	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	18,694	6,664	54,602	4,871	5,266	90,098	1,206	515	7,902	1,371	2,878	13,873	106	1,868	393	1,375	3,742
2015	21,710	6,717	66,755	8,190	5,441	108,812	1,401	520	9,661	2,304	2,973	16,859	107	2,284	661	1,421	4,472
2020	23,812	7,046	71,316	10,364	6,474	119,011	1,537	545	10,321	2,916	3,538	18,856	112	2,440	836	1,691	5,078
2025	25,199	8,222	76,057	13,555	8,266	131,299	1,626	636	11,008	3,814	4,517	21,601	131	2,602	1,093	2,159	5,985
2030	26,484	8,993	82,509	12,921	10,598	141,505	1,709	696	11,941	3,635	5,791	23,773	143	2,823	1,042	2,768	6,776
Urban Areas 50K+	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	8,548	2,892	31,159	4,422	3,751	50,772	552	224	4,510	1,244	2,050	8,579	46	1,066	357	980	2,448
Urban 25-49K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	6,353	2,442	17,945	1,861	2,335	30,936	410	189	2,597	524	1,276	4,995	39	614	150	610	1,413
2015	12,626	4,089	36,977	4,908	3,719	62,320	815	316	5,352	1,381	2,033	9,896	65	1,265	396	971	2,697
2020	14,063	4,356	40,175	6,351	4,468	69,413	907	337	5,814	1,787	2,442	11,287	69	1,374	512	1,167	3,123
2025	15,013	5,126	43,517	8,036	5,739	77,432	969	397	6,298	2,261	3,136	13,061	82	1,489	648	1,499	3,717
2030	6,987	2,548	19,005	3,638	3,396	35,573	451	197	2,751	1,024	1,856	6,278	41	650	293	887	1,871
Urban 2.5-24K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	8,014	2,746	21,410	1,601	1,931	35,702	517	212	3,099	451	1,055	5,334	44	732	129	504	1,409
2015	4,115	1,187	11,402	1,091	795	18,590	266	92	1,650	307	434	2,749	19	390	88	208	705
2020	4,691	1,294	12,754	1,445	974	21,159	303	100	1,846	407	532	3,188	21	436	117	254	828
2025	5,691	1,732	15,751	2,206	1,420	26,800	367	134	2,280	621	776	4,177	28	539	178	371	1,115
2030	6,538	2,125	16,895	2,320	2,075	29,953	422	164	2,445	653	1,134	4,818	34	578	187	542	1,341
<2.5K	05-15	16-20	21-64	65-74	75+	Total	05-15	16-20	21-64	65-74	75+	Total	16-20	21-64	65-74	75+	Total
2010	4,327	1,476	15,247	1,409	1,001	23,460	279	114	2,207	396	547	3,544	23	522	114	261	920
2015	4,969	1,441	18,375	2,190	926	27,902	321	111	2,659	616	506	4,214	23	629	177	242	1,070
2020	5,058	1,396	18,386	2,568	1,031	28,439	326	108	2,661	722	563	4,381	22	629	207	269	1,128
2025	4,495	1,364	16,789	3,313	1,107	27,068	290	105	2,430	932	605	4,362	22	574	267	289	1,152
2030	4,411	1,428	15,450	2,541	1,377	25,207	285	110	2,236	715	752	4,098	23	529	205	359	1,116

YAMHILL - CHARTS





Appendix 3-8. Key Demographic and Social Trends and How They May Affect Public Transportation

Key Demographic and Social Trends and How They May Affect Public Transportation

A number of demographic and social trends will affect the transportation needs and demands of the coming generation of older adults – the Baby Boomers. Of central importance are the sheer, vast numbers of this generation and the large proportion of the population that Baby Boomers comprise. Other important characteristics of this generation are: increased proportions of elders who are female and elders from racial and ethnic minority groups; increases in the level of education and in income and wealth; later retirement; increased aging in place (e.g., staying in one's current residence for as long as possible) or, for those who do move, increased migration to the suburbs; better health status; increased use of technology and access to information; and increased home ownership and occupancy of single-family homes.

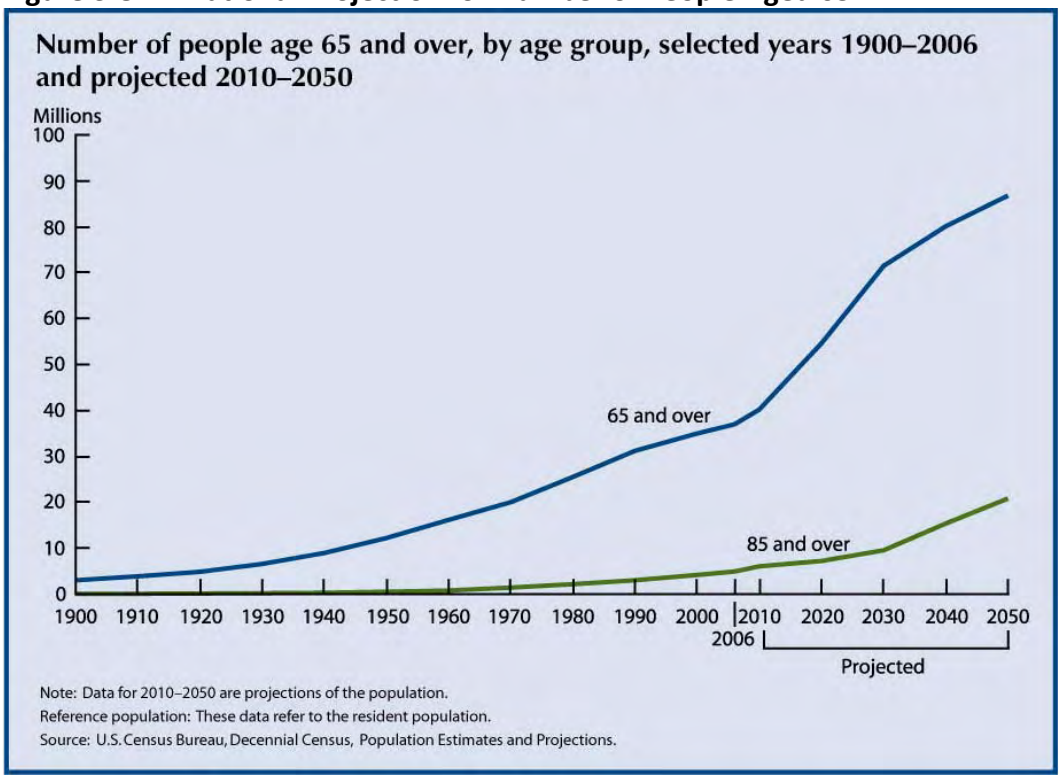
A major reason for examining trends over time is to attempt to predict the future and thereby be able to plan for the transportation needs that will exist. In this section, key demographic, social, and economic trends are presented that may impact the types and amount of public transportation needed in the future. A cautionary note is warranted, nonetheless. As Tremain *(n.d.)* noted, using data from previous generations to predict the behavior of the Baby Boom generation, in particular, is difficult:

No one doubts the significance of the demographic bulge moving inexorably toward retirement age, but CNU market researcher Todd Zimmerman *(2001)* argues that predicting how an entire cohort will act is perilous. "Who would have predicted that the 60s generation, which protested the Vietnam War and gave us the environmental movement, would move to tract houses in the suburbs and drive around in cars the size of World War II assault vehicles? If we try to predict what they will do based on their predecessors, we will be wrong," he said, adding that while the Boomers have fueled the segmented production pattern, what they will do in retirement won't start to be known for another seven to ten years *(p. 3)*.

The Aging Population

Over the next 40 years, the age profile of the United States will undergo a dramatic shift that will have far-reaching implications for our society. Today's "pre-seniors," defined as those who will be between the ages of 55 and 64 between 2000 and 2010 *(Frey 2007)*, are the group widely known as the "Baby Boomers" (those born between 1946 and 1964). In 2011, the first members of this cohort will hit age 65, the traditional retirement age, and start a "senior tsunami," the effects of which will be felt until at least 2050 (Figure 3-8 A). The number of older persons (those aged 65 and over) will swell, increasing from 12% of the total population in 2000 to 20% by 2030 *(Frey 2007, p. 25)*. In absolute numbers, the population aged 65 and over will increase from about 35 million to about 71 million between 2000 and 2030, a 104% increase *(Frey 2007, p. 25)*.

Figure 3-8 A: National Projection for Number of People Aged 65+



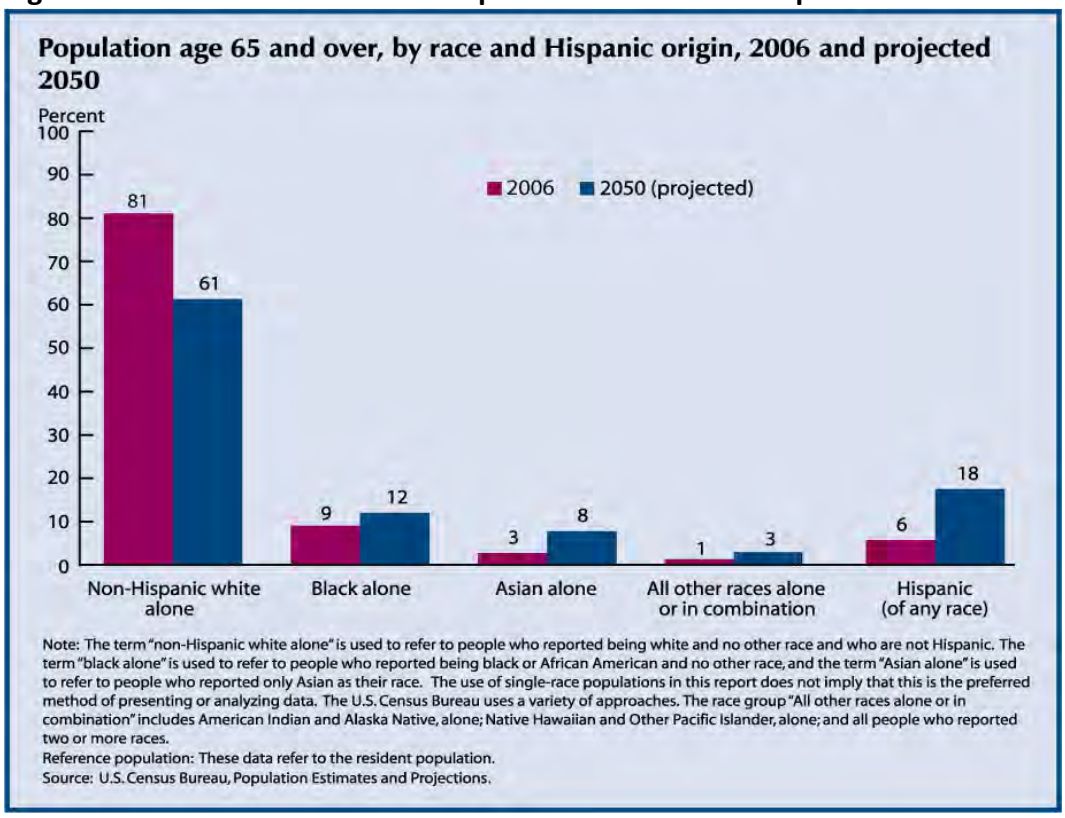
Source: (Federal Interagency Forum on Aging Related Statistics 2008)

Even within the 65+ segment of the population, the age profile will see a dramatic change over the next several decades. The "oldest old," those aged 85 and older, comprise the fastest growing segment of the U.S. population *(He et al. 2005)*. It is this group that tends to

be the most frail physically and cognitively *(AOA 2007)*, and thus presents some unique challenges. The 85+ population is expected to increase from 4.2 million in 2000 to 6.1 million in 2010, to 7.3 million in 2020 *(AOA 2007)*, to 10 million in 2030, and to 21 million by 2050 *(He et al. 2005)*. These oldest-old elders accounted for 12.1% of the older population in the U.S. in 2000. Although still rapid, growth in the proportion of oldest old in the first few decades of the century will be slower than that which will occur after 2030, when the Baby Boomers will begin arriving in that age category. By 2050, the oldest old will account for nearly 1 out of every 4 older persons (24%; *He et al. 2005*).

Figure 3-8 B shows the projected change in the racial and ethnic composition of the population aged 65 and over.

Figure 3-8 B: Racial and Ethnic Composition of the Older Population



Source: (Federal Interagency Forum on Aging Related Statistics 2008)

While the older population grows over the next 30 years, its racial and ethnic composition will undergo a substantial shift. In 2006, 81% of the population aged 65 and over was classified as non-Hispanic white, 9% was black, 6% was Hispanic, 3% was Asian, and 1%

was of combined racial background. By 2050, the U.S. Census Bureau projects that only 61% of the population aged 65 and over will be non-Hispanic white, while 18% will be Hispanic *(Federal Interagency Forum on Aging Related Statistics 2008)*.

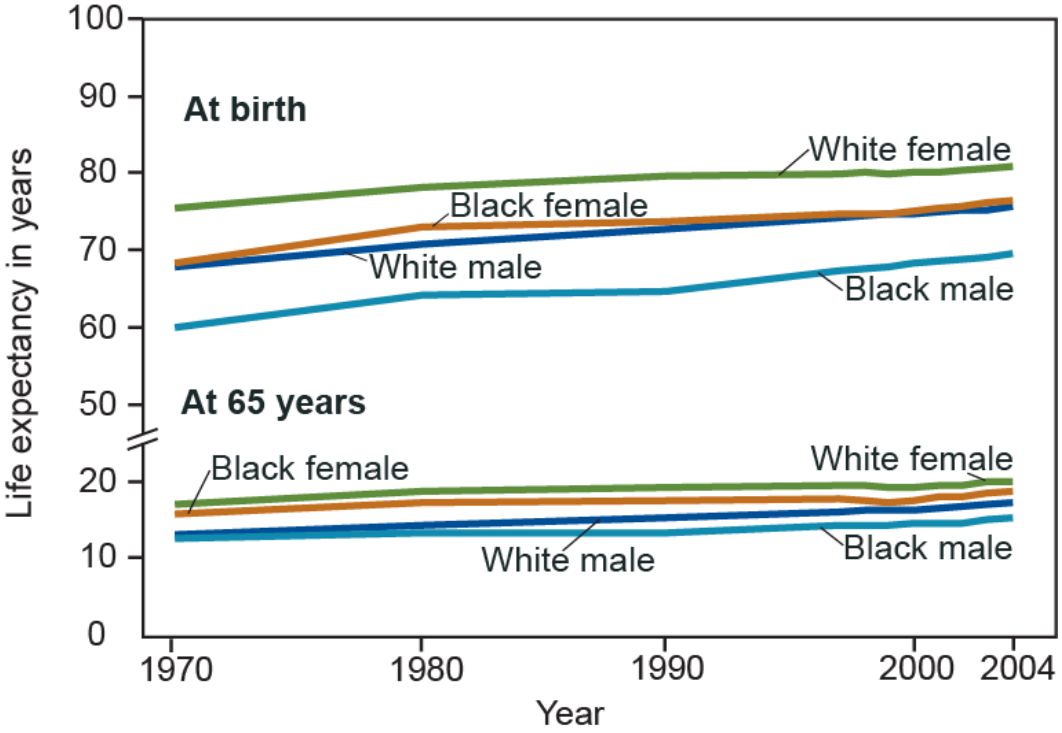
Socioeconomic and cultural differences between racial and ethnic groups have important implications for how the care and travel needs of older persons in these populations will and should be addressed in the future.

Life Expectancy

Life expectancy is a key factor in predicting the size of the population of older adults in the coming decades. **Life expectancy at birth in the United States has increased dramatically,** from 47.3 years in 1900, to 68.2 years in 1950, to 77.8 years in 2004 *(National Center for Health Statistics [NCHS] 2008)*. Life expectancy for people aged 65 or older in 2004 was 19.7 years (17.1 for men and 20.0 for women); for people aged 75 and older it was 11.9 years (10.7 for men and 12.8 for women) *(NCHS 2008)*.

These figures represent averages for all demographic groups; it is important to note that there are differences by subgroup. For example, the difference between men and women is significant; average life expectancy at birth in 2004 was 75.2 for men and 80.4 for women. Life expectancy also differs dramatically between whites (including Hispanics) and blacks. In 2004, the average life expectancy for white males was 79.7 years; for black males it was 69.5 years, a 10.2- year difference. For white women, average life expectancy in 2004 was 80.8 years; for black women it was 76.3 years, a 4.5-year difference. In 2004, racial and gender differences persisted for life expectancy at 65 years. Figure 3-8 C summarizes the life expectancy trends and racial differences in the United States between 1970 and 2004.

Figure 3-8 C: Life Expectancy by Race and Sex



SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, *Health, United States, 2007*, Figure 18. Data from the National Vital Statistics System.

Although many researchers have predicted a continued increase in life expectancy based on past trends, others predict that gains in life expectancy will flatten out or even decline. According to the Population Reference Bureau's Research Highlights, "Scholarly opinion diverges…as to whether these increases will continue or whether human longevity is approaching its limit *(2006, p. 1)*. As Jay Olshansky warned, "Forecasting life expectancy by extrapolating from the past is like forecasting the weather on the basis of its history…Looking out the window, we see a threatening storm — obesity —that will, if unchecked, have a negative effect on life expectancy" *(NIH 2005)*. Dr. Richard Suzman of the National Institute on Aging said, "This work paints a disturbing portrait of the potential effect that life styles of Baby Boomers and the next generation could have on life expectancy" *(NIH 2005)*.

Recent evidence has shown that life expectancy for disadvantaged populations is not increasing as fast, or is declining, compared to that for the U.S. population overall *(Ezzati et al. 2008)*. Gender differences, however, are shrinking. The reason is not simply because

men are becoming healthier, but because mortality rates are increasing among females, particularly in disadvantaged areas *(Ezzati et al. 2008)*.

There was a steady increase in mortality inequality across counties in the U.S. between 1983 and 1999, resulting from stagnation or increase in mortality among the worst-off segments of the population. Female mortality increased in a large number of counties, primarily because of chronic diseases related to smoking, overweight and obesity, and high blood pressure. Among the elderly, however, other studies have concluded that obesity does not affect longevity the same way it does among young and middle-aged populations *(Lakdawalla, Goldman, and Shang 2005)*.

Although previous research has found that obesity is associated with increased mortality among young and middle-aged populations (see, for example the work of Jay Olshansky and colleagues), it also suggests that there may be little, or even a negative, relationship between obesity and mortality among the elderly. Still, as Olshansky noted, "Our results are consistent with…earlier findings: Obese elderly people live about as long as their nonobese peers, but they experience a poorer quality of life and face higher medical spending" *(NIH 2005)*. These results indicate that for the elderly, in particular, obesity has even more important implications for health and functional ability than for lifespan. **For transportation planning, increased obesity rates may indicate an increasing need for special transportation and for seating on fixed transit that accommodates people of larger physical sizes.**

The U.S. Census Bureau and the Population Division of the United Nations projected that life expectancy in the U.S. will continue to rise, reaching an average of 86 by 2075 *(Population Reference Bureau 2006, p. 5)*. The actual number depends on many factors, including the success of policies designed to increase activity levels and curb the obesity epidemic and its related health complications. Most public policy decisions appear to be based on the assumption that life expectancy will continue to rise, albeit at a slower rate than earlier in the 20th century; this will further increase the ranks of the older adult population as Baby Boomers live longer.

"Active life expectancy" or "disability-free life expectancy" is a more refined indicator of life expectancy, measuring the average number of years in life free from the need for assistance with routine activities and other limitations or impairments *(He et al. 2005)*. According to Crimmins, Saito and Ingegneri *(1997)*, gains in life expectancy in the 1970s were accompanied by increases in years spent with disability. During the 1980s, however, growth in life expectancy was concentrated in years spent without disability, in which

older Americans were living longer and healthier lives. Reasons for the increase overall in disability-free life expectancy include the decrease in disability among community-dwelling adults in their 50s and 60s, who experienced medical advances, higher educational attainment, higher labor force participation and socioeconomic gains. Future older populations, including Baby Boomers, are likely to be better educated than the current older population *(He et al. 2005)*. Since higher levels of education have been linked to better health, higher income, more wealth, and a higher standard of living in retirement *(He et al. 2005)*, more Baby Boomers than previous elders could expect to experience these positive outcomes. However, as discussed throughout this report, there is increasing concern about the negative effects of unhealthy lifestyle choices on future disability rates and "active life expectancy."

Sex Ratio

There are gender differences in life expectancy, and these have a significant effect on the sex ratio of our aging population. In 2004, life expectancy for people who were 65 years old was 17.1 years for men and 20.0 years for women *(NCHS 2008)*. Using U.S. Census data, Gist and Hetzel *(2004)* found that the sex ratio (number of males per 100 females) is much lower among older cohorts. In 2000, for the entire population there were 96.1 males for every 100 females in the U.S. The ratio differed by age group, however, becoming more disparate as age increased: the ratio was 82.4 males for every 100 females for those aged 65 to 74, 64.4 to 100 among those aged 75-84, and 40.7 to 100 among those aged 85 and older. This is of particular interest because of **key socioeconomic differences that exist between men and women.** For example, Gist and Hetzel (2004) found that, compared to men, women are less prepared for retirement, receive less retirement income, are more likely to be in poverty (13% compared to 7% for men), less likely to be married (41% compared to 71%), and more likely to be widowed (44% compared to 14%). **Thus, older women are even more at risk than older men for having unmet travel needs.**

Dependency Ratio

Another measure of a society's age structure is the dependency ratio, which is the ratio of the traditional non-working age population (those aged 0-19 and those aged 65 or over) per 100 people in the working-age population. Presumably, it is the working population that supports the non-working population, so a higher ratio means a greater burden on the working population. Between 1980 and 2000, the old age dependency ratio, in particular, increased from 19.9 older persons per 100 workers to 21.1 older persons per 100 workers

(AARP 2007). By 2020, this ratio is expected to be 28.4 to 100, and by 2030, 36.2 to 100 *(He et al. 2005)*.

The old age dependency ratio has important implications for the provision and financing of services for the older population. Relatively fewer workers paying taxes to support relatively more dependent elders suggests that workers either will have to pay more to support services or services will have to be reduced. This situation will have the greatest impact on large federal entitlement programs such as Medicare and Social Security, but it will also affect the provision of other services at the federal, state and local levels. For example, public transit is supported by tax revenues at several levels of government. In the Portland area, TriMet receives part of its revenue from local payroll taxes, which will be lower as a result of fewer workers even as the demand for services increases among older persons who no longer pay payroll taxes. **Transportation policy will have to account for these expected reductions in local payroll taxes.**

At the same time, the effects of the projected increase in the traditional dependency ratio for older persons may be mitigated by the countervailing trend toward later retirement among the Baby Boomer population. For a variety of economic and lifestyle reasons, many Baby Boomers plan to continue working beyond the traditional retirement age *(Gordon, Keegan, and Fisher 2006)*, albeit often at reduced hours or wages, casting doubt on the conventional wisdom of the dependency ratio. According to Kingson *(2007)*, "We may well be at the beginning of a significant turn-around in labor force participation of retirees that seems to be taking place, with fewer early retirements and more post-retirement employment in new full- and part-time positions." **More years of participation in the labor force may result in lower reductions than predicted in payroll taxes generated, but increased demand for transportation services.**

Socio-Economic Situation

By 2030, the last of the Baby-Boom generation will have reached the traditional retirement age of 65, and fully 20% of the nation's population will be 65 or older. Although the Baby Boomer retirees are expected to have a profound impact on the country, there is little consensus about what trends this massive group may follow or initiate. It is clear, however, that the coming generation of older adults will differ socio-economically from past generations of seniors. These differences will affect many aspects of their lives as they age, including their finances, lifestyle, location choices, health status, and needs for public services. These differences also will have profound implications for public policy and long-term planning for public services, including transportation.

These trends represent averages across a widely heterogeneous population. According to Kingson *(2007 p. 109)*,

> Whether discussing education, housing assets, race, values, earnings, pension coverage or virtually any descriptor of baby boomers, there is far more variability among 78 million baby boomers than stereotypes imply. And this variability has important implications for how problems associated with the economic status of the baby boomers are defined and the policy solutions that follow.

It is especially important to note that there is a significant disparity between the "advantaged" at the higher end of the socio-economic scale and the "frail fraction" at the lower end *(Feldman et al. 2004)*. Kingson *(2007 p. 99)* warned,

> Very importantly, awareness of this diversity should also highlight that while the retirement security of many baby boomers is all but certain, the retirement years for many others such as the currently poor, single parents, low-wage workers, those closed out of homeownership, or those currently lacking adequate pension coverage are likely to be bleak. Failure to focus on the needs of those at greatest risk will likely result in greater inequality of retirement circumstances than is currently the case for today's elderly persons.

Residents of dangerous neighborhoods and the "oldest old" are also likely to be among the disadvantaged, joining the ranks of single women, minorities, the less educated, the disabled and health impaired *(Feldman et al. 2004; Schafer 2000)*.

Educational Attainment and Occupation

In 2005, the 55-to-64 year-old cohort (primarily the Baby Boomers) had almost three times as many college graduates as the corresponding 55-to-64 year-old cohort did in 1980. In 1980, the proportion of 55 to 64 year-olds with a college degree was 10.9%, while in 2005 it was 28.5% *(Frey 2007, p. 4)*.

There has also been a shift toward more professional and managerial positions during that time period. In 1980, 23.3% of men and 23.6% of women aged 55 to 64 were in professional or managerial positions; but, in 2005, 39.2% of men and 40.2% of women were in professional or managerial positions *(Frey 2007, p. 4)*.

Upward educational attainment and occupation trends have implications not only for improved financial well-being in retirement, but for health and activity level as well. Recent studies have correlated higher educational attainment and occupational

status with better physical and cognitive health in old age *(National Institutes of Health 2008; U.S. Census Bureau News 2006)*. **Higher levels of physical and cognitive health are, in turn, associated with higher functional abilities to engage in activities that preserve autonomy and quality of life *(Wadley et al. 2007)*, including independent use of transportation modes, such as driving and public transportation.**

Income and Wealth

Increased educational attainment and occupational status, along with more working years among women and other economic factors, have led to improved financial status of pre-seniors compared to previous generations. According to the U.S. Census Bureau, real median household income for householders aged 65 and over almost doubled over the past 40 years, from $14,238 in 1967 to $27,798 in 2006 *(U.S. Census Bureau 2008*; in 2006 dollars). During the same period, poverty rates among older adults declined. The percent of older adults at or below the federal poverty rate decreased from 28.5% in 1966 to 9.4% in 2006 *(U.S. Census Bureau 2008)*. This decline is widely attributed to the implementation of Medicare and the automatic annual cost of living adjustments in Social Security benefits *(Summer et al. 2004)*.

Despite the overall reductions in poverty rates, significant gender, racial, and ethnic differences persist. In 2007, 11.5% of women 65 or older lived below the poverty level, compared to 6.6% of men *(U.S. Census Bureau 2008)*. The difference is even greater for older women living alone, with 18.6 of these women living below the poverty level compared to 12.4% of men living alone *(U.S. Census Bureau 2008)*. In 2006, older blacks and Hispanics were far more likely to live in poverty than older, non-Hispanic whites – 23% of older blacks and 19% of older Hispanics, compared to 7% of non-Hispanic whites *(Federal Interagency Forum on Aging Related Statistics 2008)*. Older black women are at the highest risk, with 26.7% living in poverty *(Federal Interagency Forum on Aging Related Statistics 2008)*.

According to a recent AARP report *(2007, p. 16)*, median financial assets (excluding real estate, vehicles, and business property) for those aged 50-64 increased from $31,968 in 1995 to an estimated $57,310 in 2005 (in constant 2005 dollars) – an 80% jump. People aged 65 and over also made significant, but smaller, gains of about 55% between 1995 and 2005. For those aged 65-74, median financial assets increased from $22,471 to $35,004 between 1995 and 2005, and for those 75 and older, median financial assets increased from $23,588 to $36,320. However, for older adults without a pension, the AARP report concluded that this amount of wealth will not be adequate for retirement. Also, the median

amount does not show the increased inequity in the distribution of wealth. According to a 2007 AARP report, "From 1989 and 2004, the share of wealth held by the top 1% of boomer wealth holders increased from 25% to 30%" *(p. 16).*

The median financial assets figures reported in the AARP study cited above do not account for home equity, which is a major source of wealth for many Americans. According to a study by Summer and colleagues *(2004)*, overall median wealth among people aged 65 and older was $108,885 in 2000, with most of this wealth being in the form of home equity. For net worth among households aged 65 or older, the bottom 20% have 92% of their wealth in the form of home equity, the middle 60% have well over half, while the top 20% have only about one-third of their wealth in the form of home equity *(Summer et al. 2004)*. This illustrates the unequal distribution of wealth among retirees, indicating limitations on the types of resources available to many retirees at the lower end of the economic scale.

Median household net worth provides another measure of financial well-being that includes debt but excludes private pension and Social Security entitlements. Net worth equals all financial assets minus all outstanding debt. This figure shows stark differences between socioeconomic groups. Between 1984 and 2005, the real median net worth of households headed by whites aged 65 and over increased by 81%, from $125,000 to $226,900 *(Federal Interagency Forum on Aging Related Statistics 2008)*. During the same period, net worth for older black households increased by only 34%, from $28,200 in 1984 to $37,800 in 2005 *(Federal Interagency Forum on Aging Related Statistics 2008)*. Thus, in 2005, older white households had six times the net worth of older black families. Similar disparities exist by marital status, educational attainment and health status. Among older households in 2005, married couples had over three times the net worth of single householders, and households headed by a person with some college or more had over six times the net worth of people without a high school diploma *(Federal Interagency Forum on Aging Related Statistics 2008)*. These gaps are likely to widen as households with fewer resources deplete relatively more of their wealth as they age.

Health status has a major impact on income and wealth. According to the Health and Retirement Study conducted by the National Institute on Aging *(2007)*, among Americans aged 50 and over, poor health was strongly correlated with lower income and lower wealth in older households. In addition to out-of-pocket medical expenses, unexpected health events such as cancer, stroke and the onset of chronic diseases caused significant, persistent loss of income; moreover, those in low-income households were much more likely to not return to work after such an event *(National Institute on Aging 2007)*. According to the Health and Retirement Study data, a major health event (such as cancer or

stroke) reduced household net worth an average of 7% over the 8-year study period, and presumably more over time for a persistent condition *(National Institute on Aging 2007)*. Less severe health events (such as the onset of chronic disease) caused a smaller, but still negative, long-term impact on income and wealth *(National Institute on Aging 2007)*. The financial impact of a health event was even greater for women over 50 because this group is less likely to have disability insurance to replace lost income *(National Institute on Aging 2007)*.

The overall trends of higher education, occupation and income levels among Baby Boomers could create a challenge for transit providers. Tomorrow's seniors likely will want to travel more often and within a wider range than the generation before them *(Burkhardt et al. 2002)*. **Also, they are more likely to have been drivers throughout their entire adult lives, and are therefore accustomed to the flexibility and convenience that driving offers. As a result, their expectations for transit services are likely to be quite high and may be especially difficult to meet, given that a large share of these seniors will live in the suburbs, which are more difficult to serve with public transit.** Low-income suburban elders could experience problems in meeting their travel needs due to the distance between destinations in suburban areas *(Burkhardt et al. 2002)*.

Retirement Age and Retirement Income

For most people, income in retirement comes primarily from Social Security, pensions, health insurance, private savings including home equity, and income from continued employment *(GAO 2007, p. 24)*. Although it is difficult to know how secure tomorrow's seniors actually will be in retirement, there are many recent trends that have implications for their traditional sources of retirement security.

One major trend is the postponement of traditional retirement. Gordon, Keegan & Fisher *(2006)* surveyed Baby Boomers and found that 37% expect to continue working indefinitely. The Center for Health Communications study *(2004)* found similar results, asserting that the connection between retirement and age 65 is eroding. There are a variety of factors that contribute to Boomers' postponement of retirement, including changes to Social Security (full benefits not distributed until after age 67), fewer defined benefit pension plans, higher debt, and the expectation that more retirement income will be needed due to increased longevity *(Center for Health Communication 2004)*. **Later retirement could** change the timing or likelihood of making a "pre-retirement" move and **also influence travel patterns because of continued work-related trips.**

Recent trends in employment benefits will have a significant impact on future retirees. According to the GAO *(2007)*, the proportion of private sector workers who were covered by a defined benefit plan dropped from 35% in 1980 to only 18.5% in 2003. More workers are now enrolled in defined contribution plans such as 401(k) accounts, which shift the burden of retirement savings and investment risk to employees. Many employers also have eliminated or reduced health benefits for retirees, creating an additional source of financial insecurity *(GAO 2007).*

There is no consensus on whether the Baby-Boom generation as a whole will have adequate retirement income. VanDerhei and Copeland *(2001)* calculated the retirement income of Oregonians and found that the average retirement income is $80,000 per year for men, $70,000 for families, and just under $50,000 for women. These figures, however, are means (i.e., averages), and thus are highly influenced by extremes (such as people who have unusually high or unusually low incomes); median incomes (i.e., the figure at which half the group under study has an income above and half has an income below that amount) would be a better estimate. In 2006, the median income for Baby Boomers who had turned or would turn 60 that year (retired and not) was $66,260, and **the median income for all Baby Boomers (again, retired or not) was $64,817** *(Gordon, Keegan, and Fisher 2006)*. **What is not known is the total debt held by the Baby-Boom generation.** Some assert that while the income assets of Baby Boomers are greater than those of their parents, so is their overall level of debt *(Center for Health Communication 2004)*.

Labor Force Participation by Women

Another trend affecting transportation demand is the increased workforce participation by women. Having more women in the workforce may lead to reductions in the amount of informal care provided for elders, including less ability to provide transportation.

Labor force participation rates for women have risen dramatically over the past decades, increasing their overall financial well-being. Among those aged 55-64, 41.6% of women were in the labor force in 1980, compared to 71.4% of men. By 2005, 56.8% of women were in the workforce compared to 69.9% of men *(Frey 2007, p. 4)*. But while women are closing the gap in labor force participation, significant disparities remain. Women are more likely to work part-time, and on average earn less per hour than men, even when education and experience are held constant *(GAO 2007).* Compared to men, women's lifetime earnings are more likely to be reduced by their roles as the primary caregiver for

children and elderly relatives, and retirement earnings are generally based on lifetime earnings *(GAO 2007)*. Women's financial status and retirement income are significantly more likely to be negatively affected by divorce *(GAO 2007)*. Additionally, older women are twice as likely as men to live alone (due to widowhood and higher rates of divorce without remarriage) which further reduces their financial status *(Federal Interagency Forum on Aging Related Statistics 2008)*.

Because they earn less and work fewer years on average, women are likely to have fewer retirement resources than men, and lower income from these resources. Social Security benefits are calculated using the number of years in the labor force and the amount of total contribution to the system, minus the lowest paid year. According to Dailey *(1998, 2000)*, while more baby boom women were in the paid workforce than previous generations of women, their Social Security retirement benefit still may be less than their spousal benefit. By 2030, when all Baby Boomers reach retirement age, only 25% of Baby-Boom women will have worked fulltime for 35 years or more, and 60% of Baby-Boom women will have had multiple years with no income *(Dailey 1998, 2000)*.

According to the GAO *(2007)*, median Social Security income for women was 70% of that for men. Women are likely to have less income from interest, dividends and other types of assets; women are less likely to have pensions, and when they do, their pension income is likely to be smaller; finally, women who continue to work past age 65 earn about 50% of what men earn *(GAO 2007)*. These disparities are compounded by the fact that women tend to live longer than men, are more likely to be widowed, to live alone, to be frail, and to need expensive long-term care *(GAO 2007; Federal Interagency Forum on Aging Related Statistics 2008)*.

In the larger population, the trend of increased workforce participation by women likely will affect how the needs of seniors are met. Women, traditionally, have been the caregivers for family members, but with more women in the workforce, families will be less able to provide assistance, necessitating more paid assistance *(Summer et al. 2004, p. 59)*, negatively impacting some seniors' access to transportation and increasing their living and care expenses.

Household Size and Structure

Older adults' access to transportation provided informally by family members may also be affected by trends pertaining to household size and composition. These trends include the increase in the number of households headed by people aged 65 or over,

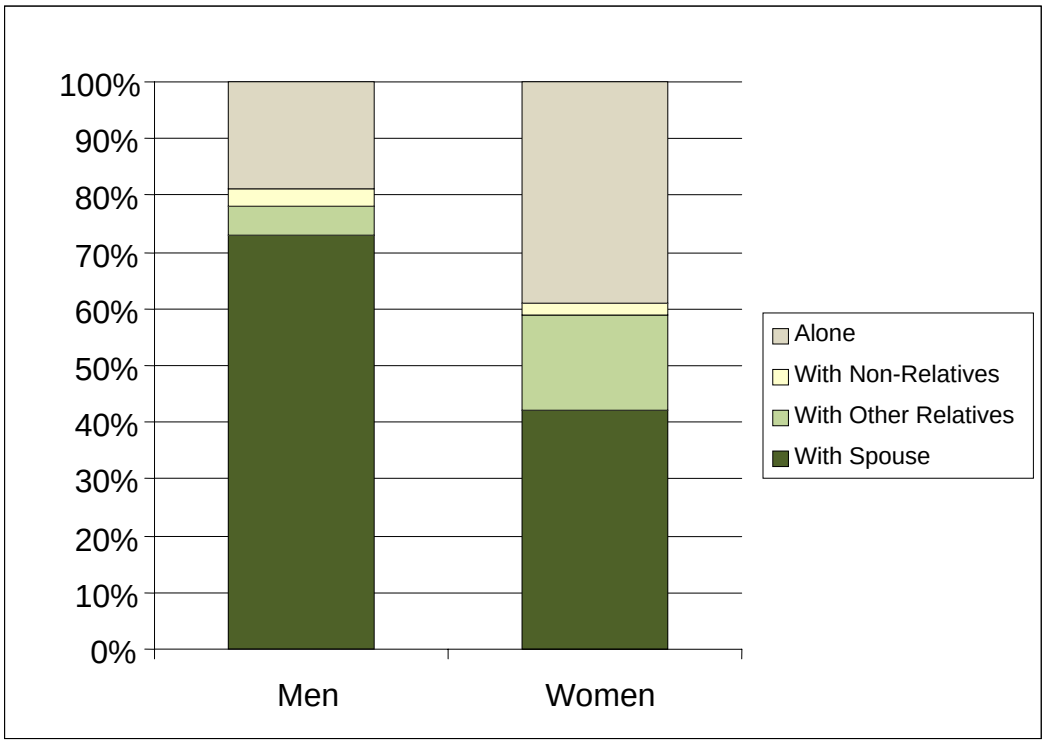
the decrease in household size, and other social changes that have occurred with the Baby Boomers, such as increasing divorce rates, later marriage, decreased fertility, all of which can reduce the availability of informal care.

The proportion of households headed by older adults will increase dramatically in the coming years *(Jiang and O'Neill 2007, p. 581)*. In addition, older adults are most likely to live in just one- or two-person households. A report by the Joint Center for Housing Studies of Harvard University estimated that 75% of the increase in single-person households over the next 10 years will occur among those aged 60 and over *(2006)*. Household size and living arrangements are a key determinant of elders' needs for socioeconomic, physical, and emotional assistance. Elders who live alone are more likely to be poor than those who live with their spouses, and to have great needs for healthcare *(Jiang and O'Neill 2007)*.

On average, the Baby-Boom generation has experienced dramatically higher divorce rates, lower marriage rates, later age at marriage, higher rates of cohabitation in place of marriage, and lower fertility than previous generations *(Frey 2007; Hughes and Waite 2007)*. Among the pre-senior age group, the percentage living in a married-couple family decreased from 65.8 in 1980 to 62.8% in 1990, to 57.6 in 2005 *(Frey 2007, p. 4)*. These demographic trends among Baby Boomers raise concerns about physical and mental well-being in later life, as spouse and family connections are important factors in maintaining physical and mental health *(NIA 2007)*.

Figure 3-8 D shows the percentage of the population 65 and over in various living arrangements and highlights the differences between men and women. At present, only 42% of women aged 65 or over live with their spouse, compared to 73% of men *(Federal Interagency Forum on Aging Related Statistics 2008)*. By contrast, 39% of women and only 19% of men aged 65 or over live alone. Women also are much more likely than men to live with other relatives, primarily grown children.

Figure 3-8 D: Living Arrangements of the Population Aged 65 and Older, By Sex



Source: (Federal Interagency Forum on Aging Related Statistics 2008)

At the same time, there is increasing diversity and complexity of household structures compared to the "traditional" nuclear family structure, and there are important differences in between racial and ethnic groups *(Hughes and Waite 2007, p. 190)*. According to Hughes and Waite (2007),

> …native and immigrant Hispanics show no decline in the likelihood of living as part of a married couple in a complex household…[and]…immigrant Hispanics and immigrant Asians show no increase in the likelihood of living alone. Blacks are especially likely to be living alone with children. These differences, which are due to both economic and cultural conventions, add an additional dimension to family diversity.

The GAO estimated that in 2003, 79% of older Asian women and 76% of older Hispanic women lived with family (their spouse, children or other relatives), compared with 57% of older non-Hispanic white women *(2007).*

Changes in family structure may translate to decreased financial well-being for many *(Frey 2007, p. 4)* due to the high economic costs of divorce, particularly for women, the relatively

higher cost of maintaining a household alone, and, if childless, the lack of support from adult children. Those without a spouse or children also may have fewer and more expensive options for care in old age. Older women are more likely than men to be frail, poor, and living alone, and less likely to remain independent as they age. **All of these factors can lead to problems in meeting transportation needs** *(Burkhardt et al. 2002)*.

The full socioeconomic implications of changing household structures are difficult to predict, because they are only now beginning to unfold. Hughes and Waite *(2007)* pointed out the possibility, even, that adaptation to family "losses" can actually have positive results for well-being, given the potential for greater investment in friendships and other voluntary associations as possible beneficial alternatives to family connections.

Meeting the transportation needs of older adults who are adversely affected by changes in the traditional household structure – for example divorced or widowed women living alone or childless seniors – **will be critical to their well-being throughout old age. This is true both because these older adults may have fewer transportation resources when they can no longer drive and because they are at much greater risk of social isolation, which is detrimental to mental and physical health.** As Tremain *(n.d.)* noted, **when people lose mobility, especially when there are also spatial barriers to an active social life, a "downward spiral" can be provoked. Social isolation increases the danger of depression, disease and decline, particularly for the surviving members of marriages and long-term relationships.**

Health Status and Disability Rates

Health status and transportation are interdependent in a number of ways. **Lack of access to transportation can affect the ability to seek timely medical care, including preventive healthcare, the ability to engage in health-sustaining physical and social activities, and even the ability to shop for fresh food, which is essential to a healthy diet** *(Center for the Advancement of Health 2006)*. **At the same time, the connection between transportation and health is not readily apparent to all.** For example, a recent report by the International Longevity Center – USA, titled *Redesigning Health Care for an Older America (2006)* did not address transportation issues in its eight guiding principles for restructuring healthcare in America.

Older Adults and Disability

On average, tomorrow's seniors are predicted to live healthier lives longer into old age. The prevalence of disability and functional limitations among the elderly population has been declining over the past century, with significant reductions occurring since at least 1982; moreover, the annual rate of decline is accelerating *(Manton 2008)*. The rate of chronic disability among the elderly decreased from 26.5% in 1982 to 19.0% in 2004 (adjusted for age), a 7.5% drop *(Manton 2008)*. These declines have been seen in cognitive, as well as physical, impairment. Among people aged 70 and over, the rate of cognitive disability (including Alzheimer's disease and other age-related cognitive declines) decreased from 12.2% in 1993 to 8.7% in 2002 *(National Institute on Aging 2008)*. Interestingly, a strong positive correlation has been found between cognitive health in the elderly and income and education levels. Because future elderly populations are expected to be more educated than their predecessors *(Frey 2007; Summer et al. 2004)*, this trend is likely to continue, or even improve. Better care for cognitive impairment risk factors – such as high blood pressure, high cholesterol, and smoking – also was cited as a reason for the reduced rates of cognitive impairment.

Freedman, Martin, Schoeni, and Cornman *(2008)* pointed out that disability rates among the elderly would have declined even further had it not been for an increase in chronic conditions among the elderly. Manton *(2008)*, Lakdawalla, Goldman and Shang *(2005),* and Freedman, Schoeni, Martin and Cornman *(2007)* all warned that the alarming increase in obesity in recent years, which can lead to a number of disabling chronic conditions, may threaten the positive trend in disability rates. Noticeably absent in the literature at this time, however, are estimates of how strong this effect will be.

Despite the decline in disability rates, according to U.S. Census Bureau data, **about 80% of seniors have at least one chronic health condition, and 50% have more than one** *(He et al. 2005)*. Chronic health conditions such as arthritis, hypertension, heart disease, diabetes, and respiratory disorders are disabilities that can lead to functional limitations. Sensory impairments also can cause functional limitations. In 2006, 48% of men and 35% of women over 65 reported having trouble hearing, while 16% of men and 18% of women reported having trouble with their vision *(Federal Interagency Forum on Aging Related Statistics 2008)*.

Functional limitations are typically categorized by "Activities of Daily Living" (ADLs) and "Instrumental Activities of Daily Living" (IADLs). ADLs include eating, bathing, dressing, toileting, getting around inside the house, and getting in and out of bed. IADLs include preparing meals, going outside the home, managing money, using the telephone, taking

prescription medicines, and doing housework. The percentage of Medicare enrollees aged 65 and over with functional limitations remained fairly stable from 1997 to 2005. About 12% experienced IADL limitations, and about 17% experienced one to two ADL limitations *(Federal Interagency Forum on Aging Related Statistics 2008)*. A study by He, Sengupta, Velkoff and DeBarros *(2005)* summarized several national surveys and concluded that 20% of seniors have a chronic disability, 7% to 8% have severe cognitive impairments, and about 30% have mobility limitations (e.g., inability to go outside the home alone).

The high obesity rates among all segments of the population will have important implications for future disability rates. The prevalence of obesity among those aged 50 to 64 years increased from 14.4% in 1982 to 36.1% in 2004, a 151% increase; for those aged 65 to 74, obesity rates increased from 12.6% in 1982 to 38.4%, a 205% increase; and for those aged 75 and older, obesity rates increased from 11.8% in 1982 to 22.0% in 2004, an 86% increase. Obesity is an important risk factor for a number of debilitating conditions, including adult-onset diabetes, cardio-vascular disease, stroke, cancer, and related physical and cognitive disabilities *(Manton 2008)*. According to Manton *(2008 p. 100)*,

> Because obesity…has been linked to diabetes mellitus type II and, consequently, to increased CVD [cardio-vascular disease] and stroke risks and certain cancers…, speculation suggests that disability prevalence in the elderly may begin to increase around 2012 because of increases in CVD morbidity and related physical and cognitive disability.

According to Lakdawalla, Goldman and Shang *(2005)*, individuals who are obese at age seventy experience many fewer disability-free years of life and a considerably higher prevalence of disease than their peers whose weight is normal. On average, obese 70-year-olds will suffer from diabetes for 41% of their lives compared to 17% for normal-weight people, and they will face 2.8 additional years of disability that will affect their ability to perform activities of daily living (ADLs); in two of these 2.8 years they will experience limitations in three or more ADLs *(Lakdawalla et al. 2005, p. 38)*.

Thus, although disability rates appear to have fallen among today's older adults, **the future of this trend is uncertain as today's non-elderly adults (the Baby Boom generation) age into older adulthood, primarily due to the unknown effects of increased obesity rates.** In any case, the sheer number of older adults in the next three decades means a large increase in the actual number of disabled older adults. **Various studies, using various disability definitions, survey data and assumptions, have put the number of disabled older adults at between 28 and 38 million in 2030, compared to 12 to 14 million in 2005** *(Institute of Medicine 2007, p. 97)*.

Non-Elderly Adults and Disability

Demographic trends related to disability for the adult population under age 65 are even more ambiguous than those for the population aged 65 and older. Reasons for this include countervailing trends, inconsistencies in definitions of disability, increased diagnosis rates over time, and the inadequacy of data collection. Compared to the number of studies of disability rates and trends in the elderly population, there are relatively few for younger cohorts. It appears, however, that **disability rates among non-elderly adults are rising overall.** According to the Institute of Medicine's Committee on Disability in America, "On balance, such studies that do exist suggest that the rates of disability are rising among America's non-elderly adults, at least in part because of increases in the rates of obesity" *(2007, p. 82)*.

It is important to note that these rates of change apply to relatively small initial incidence. According to the Institute of Medicine *(2007)*, the percentage of those aged 45 to 64 needing assistance with ADLs rose, but only from 1.09 to 1.37%. Between 1997 and 2004, rates of ADL limitations for those aged 18-44 remained flat, at just under 0.5%.

Martin, Schoeni, Freedman and Andreski *(2007)* analyzed self-reported health assessments, rather than disability measures such as ADLs. The authors considered this to be a more comprehensive view of health, including mental, physical and other aspects of well-being. For rates of those reporting poor or fair health, as opposed to a better health status, their study found declines for those aged 18-29 (a positive outcome), no significant change for people aged 30-39 and 60-69, and increased reports of poor or fair health for those aged 40-59. In addition, the authors found that the rate gains in health status experienced by the 18-29 cohort were smaller than those for the gains experienced by oldest cohorts.

Children under Age 18 and Disability

Between 1960 and 2004, the rate of children under 18 with "activity limitations" more than tripled, from 1.8 in 1960 to 7.0% in 2004. However, it is unclear how much of the increase was due to higher prevalence and how much was due to increased awareness and diagnosis of existing conditions *(Institute of Medicine 2007).* Additional factors in the increased disability rate are the increased survival rate of high-risk births, which is a risk factor for a number of disabilities, and the increase in obesity, which is a risk factor for diabetes and several related disabilities *(Institute of Medicine 2007, pp. 73-82)*. However, the Institute of Medicine *(2007, p. 96)* could identify no source of projections for future disability rates among children.

Because of these inconclusive findings in the literature with respect to disability rate, **for the purposes of the cost projections in the present study, we elected to take a conservative approach and hold constant the rate of disability by age over the period of study, from 2010 to 2030.**

Physical Activity

Physical activity is an important safeguard against a number of chronic, debilitating conditions such as cardiovascular disease, diabetes, arthritis, cancer, and depression *(Federal Interagency Forum on Aging Related Statistics 2008; He et al. 2005)*. It also improves brain health, physical functioning and strength, independence, and overall quality of life *(He et al. 2005; Federal Interagency Forum on Aging Related Statistics 2008)*. Furthermore, even among the most frail and elderly populations, physical activity can improve mobility and functioning *(Federal Interagency Forum on Aging Related Statistics 2008)*.

Unfortunately, physical activity levels among older adults are low and historically have declined with age. The recent data on physical activity levels have shown no change in this pattern over the past decade; activity levels remain alarmingly low. In 2005-2006, the percentage of people who engaged in regular leisure time physical activity was less than 30% for those aged 45-64, about 25% for those between 65 and 74, 20% for those aged 75 to 84, and only about 10% for those 85 and older. Those aged 65 or older are five times more likely never to be physically active than 18 to 24 year-olds, and older women are less likely to be active than older men *(He et al. 2005)*. There is some good news for Oregon, however: in 2002, Oregon ranked 14th in the nation for physically active seniors *(Summer et al. 2004)*.

Higher educational and income levels are associated with higher levels of physical activity, and since Baby Boomers tend to be higher on these socioeconomic measures, they may in turn be more likely than past generations to maintain their activity levels as they age. A recent study by Oregon State University *(2007)*, titled *Outdoor Recreation and an Aging Oregon Population*, surveyed Baby Boomers about their current and future recreation activities and concluded:

> Evaluations of past changes in overall recreation participation and comparisons across age groups within the sample support the traditional concept that recreation participation declines with age. However, respondents clearly expect their participation to increase over the next 10 years, both overall and, on average, with respect to individual activities. Only time will tell whether these expectations are realized, but

> they are consistent with the conventional wisdom that boomers will remain physically active *(p.75).*

These findings on physical activity have at least two important implications for future transportation needs. First, ensuring transportation access to recreational and other physical activities is critical to the health of the elderly population. Second, Baby Boomers may be more likely to take advantage of these opportunities than previous generations of seniors, so their transportation demands may be greater.

Patterns of Housing Ownership, Type and Costs

Home Ownership

Of the 22.2 million households that were headed by people aged 65 or over in 2005, 80% were owners and 20% were renters *(U.S. Census Bureau American Housing Survey 2005)*. Rates of homeownership varied by race, income, and household composition. About 68% of older black households, 63% of Hispanic households, and 63% of poverty-level households (less than $10,000 per year) were owner-occupied (*U.S. Census Bureau American Housing Survey 2005)*. The 65-74 year old cohort had the highest rate of ownership, at 83% (Wylde 2008). Married older people had a homeownership rate of 92.1%, while single older people living alone had a home ownership rate of just under 70% (*U.S. Census Bureau American Housing Survey 2005)*. Older (aged 62+) renters (5 million people) tended to be poorer, women, minorities, and those living alone in urban communities. Although the median family income of older homeowners was $26,899, that for renters was $13,377 *(AOA 2007)*.

Housing Types and Living Arrangements

As shown in Table 3-8 A, between 1989 and 2003, about 76% of people aged 55 and over lived in single-family detached homes. This compares to 70% in 1986, although the population surveyed in 1986 included only those aged 60 and over *(AARP 2003)*. The percentages choosing multi-unit buildings, mobile homes, and semi-detached homes remained steady over that time. Fader *(2000, as cited by Myers and Gearin 2001)*, however, stated that older households may become a niche market for large luxury townhouses. A report by the Joint Center for Housing Studies of Harvard University *(2006)* elaborated, stating, "…older empty-nest households will fuel demand for higher-end, trade-up homes requiring little maintenance" *(p. 11)*.

Table 3-8 A: Type of Housing for Those Aged 55+, 1986-2003

Housing Type	1986*	1989	1992	1996	2000	2003
Single-Family Detached Home	70%	76%	75%	74%	77%	77%
Multi-Unit Building	10%	13%	12%	12%	10	10
Mobile Home	7%	6%	6%	6%	7	6
Semi-Detached Home	6%	5%	6%	7%	5	6
Other (boat, RV, van, etc.)	7%	1%	>.05%	1%	>.05%	>.05%

Source: Understanding Senior Housing, 1986, 1989, 1992, and 1996; Fixing to Stay, 2000; and These Four Walls, AARP, May 2003

** The population surveyed in 1986 included only those aged 60 and older.*

Base: Respondents age 55 and older (1986 n=1,500; 1989 n=1,511; 1992 n=1,503; 1996 n=1,026; 2000 n=1,204; 2003 n=1,202)

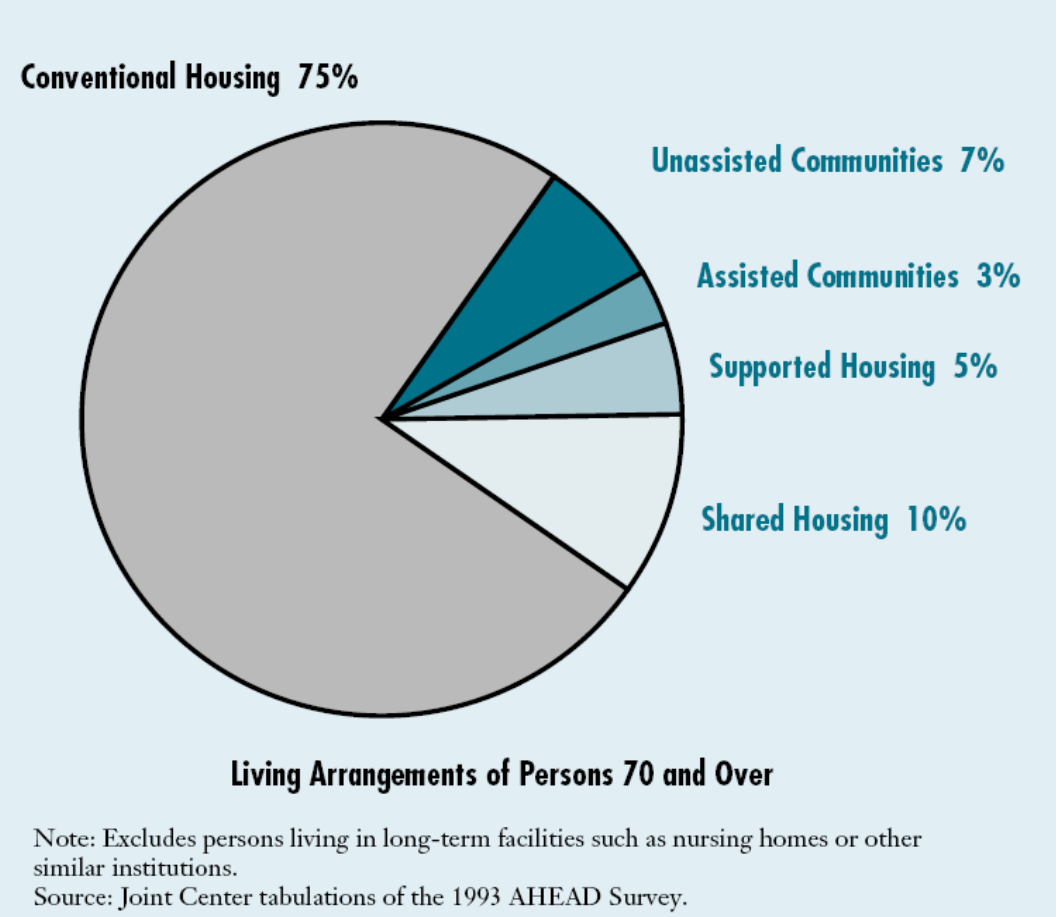
This same report concluded that Baby Boomers will have growing levels of second-home ownership between 2005 and 2015 (including time-shares and vacation homes; *Joint Center for Housing Studies of Harvard University 2006)*. Already, between 1995 and 2005, second-home ownership rates increased from 9.4% to 11.0% among those aged 50-59, from 6.9% to 11.6% among those aged 60 and 69, and from 4.4% to 7.3% among those aged 70 and older *(Joint Center for Housing Studies of Harvard University 2006)*. **This trend provides further evidence of the increased affluence and propensity to travel among the Baby Boomer population, and also points to the increased complexity of their likely transportation needs and expectations.**

The vast majority (75%) of older adults aged 70 and over live in "conventional" housing rather than age-segregated or supportive housing (see Figure 3-8 E; *Schafer 2000)*. These patterns may change somewhat as the housing choices designed specifically for older populations become more diverse *(Reigner 2003)*. Regnier *(2003)* reported that he expects more integration between homes in the community and purpose-built structures for older adults, with outreach of services to private homes. He noted that housing options, such as co-housing (combining independent living with voluntary shared spaces and activities) and housing on college campuses for elders, are developing.

According to Schafer *(2000)*, living arrangements are not strongly influenced by education, income, net worth or gender. Instead, certain household characteristics play a larger role. Not surprisingly, conventional housing is chosen more often by seniors who are younger, married, healthy, and have children nearby. Non-conventional housing arrangements (assisted and unassisted communities, supported housing, and shared housing) are chosen

more often by older and more functionally limited seniors, those without children living nearby, and those without a driver in the household.

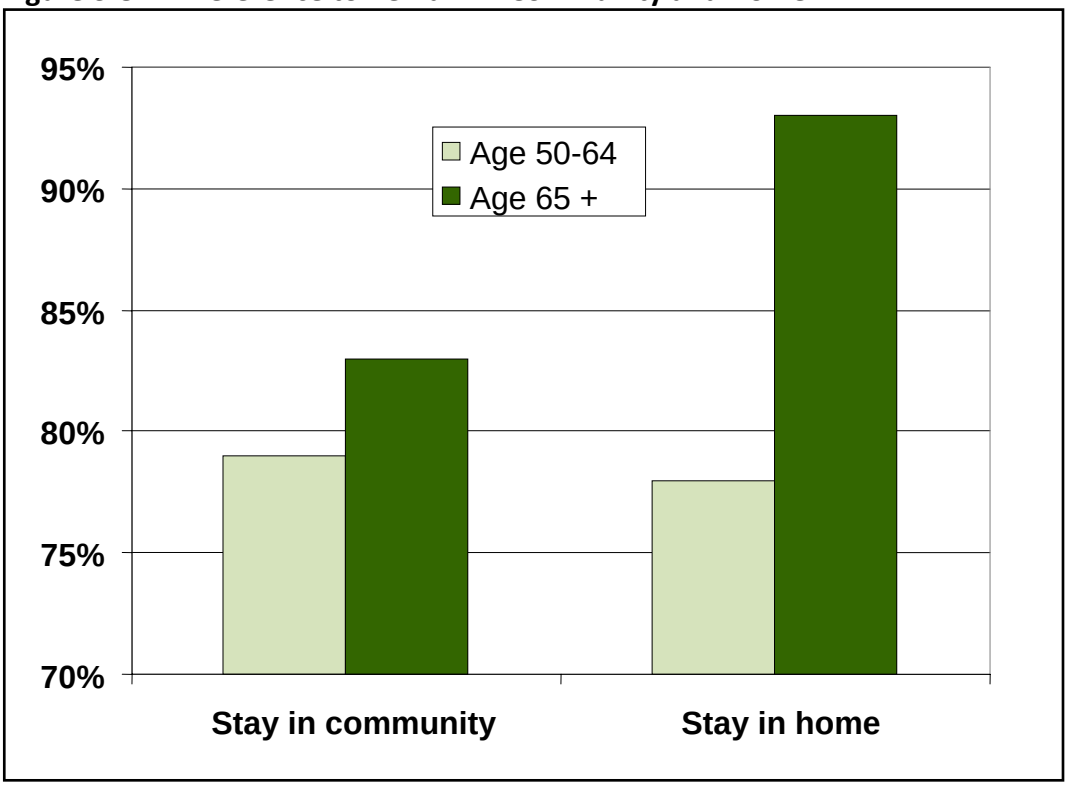
Figure 3-8 E: Housing Types for Seniors Aged 70+



Aging in Place

The vast majority of adults aged 50 and over would prefer to "age in place," that is, stay where they are currently living; this is especially true among those aged 65 and older *(AARP 2005; Frey 2007; U.S. Government Accountability Office 2007; Schafer 2000)*. AARP *(2005)* reported that older Americans plan to stay in their current community for at least 5 years (about 79% of those aged 50-64 and 83% of those aged 65 and over), and wish to stay in their own homes "as long as possible" (77% of those aged 50-64 and fully 93% of those aged 65+; see Figure 3-8 F).

Figure 3-8 F: Preference to Remain In Community and Home



Source: AARP (2005)

Another estimate comes from the AdvantAge survey, which found that 93% of those 65 and older wanted to remain in their home and neighborhood *(Feldman et al. 2004)*. **The viability of this** preference to age in place depends on many factors, including the type of housing that one is living in, the support systems that are available, and one's ability to remain independent based on mobility options and access to services. In its 2007 report *Forces That Will Shape America's Future*, **the GAO concluded that in order to deal with this major "aging-in-place" phenomenon, all sectors – public, private, and nonprofit – will need to address the issue of how best keep older adults involved in their communities as well as provide needed transportation, social and health services** *(p. 21)*.

For the majority of seniors who will age in place, that will mean staying in the suburbs. Census 2000 revealed that about 70% of all Baby Boomers in large metro areas lived in the suburbs, and that they made up 31% of the suburban population *(Frey 2003)*. As the proportion of older adults living in the suburbs continues to grow, the proportion living in rural areas and central cities is shrinking (although in most areas their

absolute numbers are still growing due to the sheer size of the Baby-Boom cohort), and this pattern is expected to continue over time *(Burkhardt et al. 2002)*. Even those who decide to move from their current home are most likely to choose a nearby location in the suburbs *(Schafer 2000)*.

Unfortunately, aging in place in the suburbs creates significant problems for serving the transportation needs of the aging population, **despite efforts to increase suburban density.** According to Burkhardt *(2002 p. 21)*:

> The late 1990s have seen a large increase in activities designed to limit suburban sprawl and to increase densities of development in residential areas and their supporting services. Greater densities in suburban areas would certainly make these areas more readily serviced by transit operations in their current configurations. But because seniors tend to age in place, the new developments at higher densities are not likely to attract an overwhelming proportion of seniors. Therefore, **although higher density developments are seen as an aid to public transportation, current densification trends cannot be expected to play a large role in addressing the future transportation needs of the elderly** (*emphasis added*).

Housing Costs

The affordability of housing has become an increasing concern over the past several years. The number of households with severe housing cost burdens (defined as those spending more than 50% of their household income on housing) increased by nearly 13% between 2001 and 2004, and the number with at least moderate housing cost burdens (those spending 30 to 50% of their household income on housing) increased by 12% during that period *(Joint Center for Housing Studies of Harvard University 2006)*. Increased housing costs have affected most households, but renters and low-income households have been hardest hit. Slow growth in household income and an increase in low-paying and part-time jobs combined with dramatically escalating property values in metropolitan areas to cause serious affordability problems for many segments of the population, including disadvantaged and middle-income Baby Boomers and seniors *(Joint Center for Housing Studies of Harvard University 2006).*

Even among the more advantaged homeowners, housing costs as a percentage of household income have increased over the past thirty years *(Neidermeyer, Wesley, and Riley 2006).* One reason for this is that higher levels of housing debt have become more acceptable over time. Historically low interest rates have also encouraged refinancing and home-equity loans that further encumber homeowners. According to the Joint Center for

Housing Studies *(2006)*, the combination of higher incomes, greater wealth, and historically low interest rates have increased the willingness of American households to take on increased mortgage debt and carry it later in life: "Each successive generation now has more mortgage debt than the previous one at the same age. This willingness has allowed households to spend more on remodeling and/or buy more expensive homes…" *(p. 14)*.

U.S. Census data for the past three decades show a sharp increase in the number of older households with first and second mortgages (this does not include reverse mortgages, which are still relatively rare; *Neidermeyer et al. 2006)*. Table 3-8 B shows the dramatic increases in mortgages between 1980 and 2000.

Table 3-8 B: Percent of Older Census Respondents Reporting First and Second Mortgages

Age Group	50-59		60-69		70 and Older	
Mortgage Type	1st	2nd	1st	2nd	1st	2nd
1980	59.2%	9.6%	34.0%	7.0%	19.9%	7.9%
2000	68.8%	24.4%	44.6%	19.9%	25.1%	17.8%
Percent Change	**16%**	**154%**	**31%**	**184%**	**26%**	**125%**

Source: Neidermeyer, Wesley and Riley 2006.

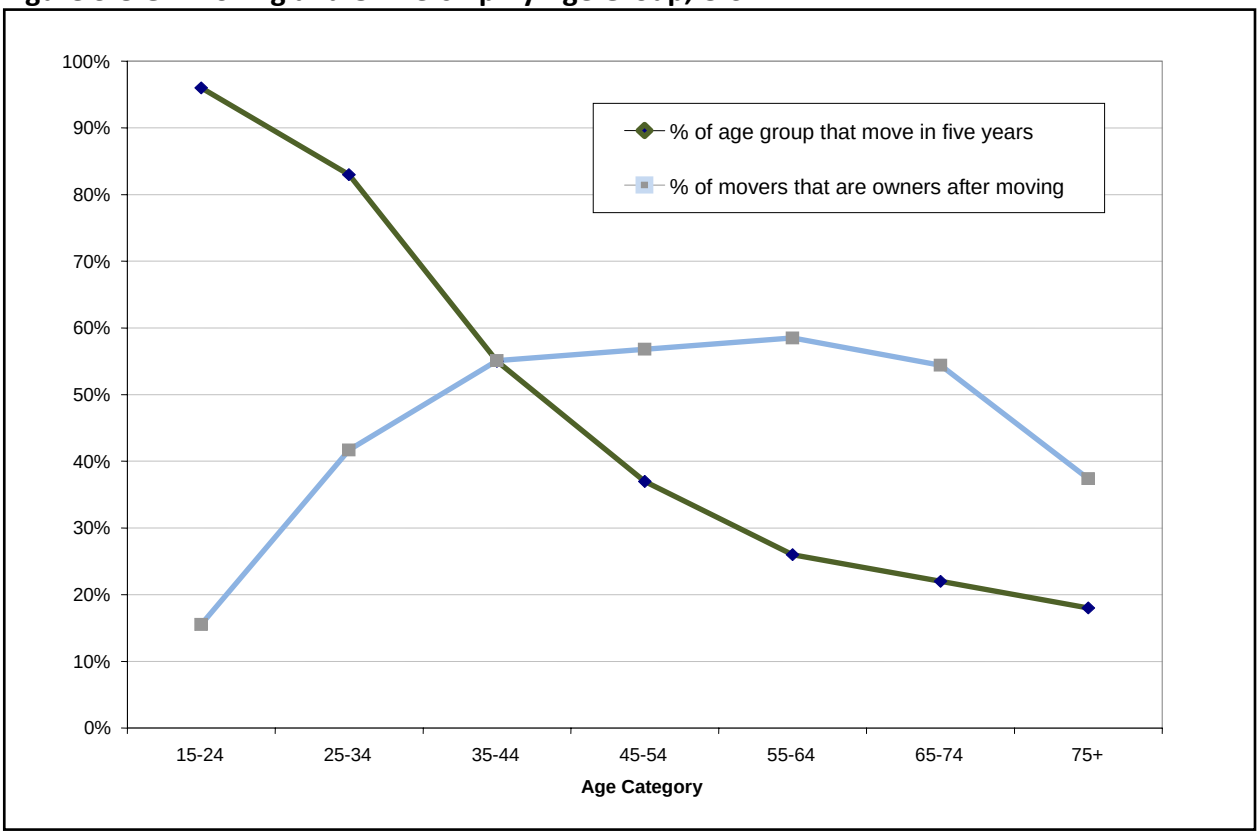
This trend has several negative implications. First, many Baby Boomers will not have their mortgages paid off when they reach retirement age, as conventional wisdom recommends, leaving them with fewer assets at the same time that their income typically decreases *(Lahey, Newman, and Kim 2006; Neidermeyer et al. 2006).* Second, tomorrow's seniors will need greater retirement savings and/or income in retirement than previous generations to meet their relatively larger housing cost burdens *(Neidermeyer et al. 2006)*. How well tomorrow's seniors will be able to handle these challenges remains to be seen, especially given the uncertainty in today's housing market.

Likelihood of Moving

Wolf and Longino *(2005)* provided evidence that the notion of "our increasingly mobile society" is a widespread, but false, belief. They found that mobility rates, both within and between states, have been falling among all age groups since about 1950. The only increase in interstate mobility occurred in the 45 to 64 age group. Myers and Gearin *(2001)* found that, between 1990 and 2000, and projected to 2010, the fraction of the population in each age group that would move within a five-year period declined from a high at ages

15-24 to a low among those aged 75+ (see Figure 3-8 G). Figure 3-8 G also shows that the percentage who would be owners following the move increased up until the age of 55, then fell among the older age groups.

Figure 3-8 G: Moving and Ownership By Age Group, U.S.



Sources: Joint Center for Housing Studies (2000 and 2010 data) cited in Masnick and Di 2000; U.S. Bureau of the Census 1993 (summary Tape file 1 for 1990: Public Use Microdata Samples 1990 for moving data). Adapted from Myers & Gearin 2001.

Although the flocking of retirees to Sunbelt cities or other "retirement magnet" areas is well publicized, the number of retirees who actually do this is not large. According to Frey *(2003)*, **"Aging in place dwarfs net migration as a driver of future senior growth"** *(p. 13)*. For those seniors who do move, 80% relocate locally, and for most the decision is driven primarily by age, the need for assistance and the availability of children to help provide care, rather than discretionary lifestyle choices *(Schafer 2000)*.

Future Preferences for Housing and Location

Blake and Simic *(2005)* explored historical patterns and projected trends in elderly housing consumption. They argued that homeownership rates will continue to increase through 2030, partly because Baby Boomers have the highest home ownership rate of any cohort. Thus, the proportion of older adults who live in apartments is expected to decline, while the proportion of those living in single family attached housing likely will decrease slightly until 2030 (for those aged 45-54 and 55-61) or show rises that increase with age for the 62-74, 75-84, and 85+ age groups. **The continuing trend toward "aging in place" is likely to mean that the majority of older adults will continue to live in single-family homes and in the suburbs.**

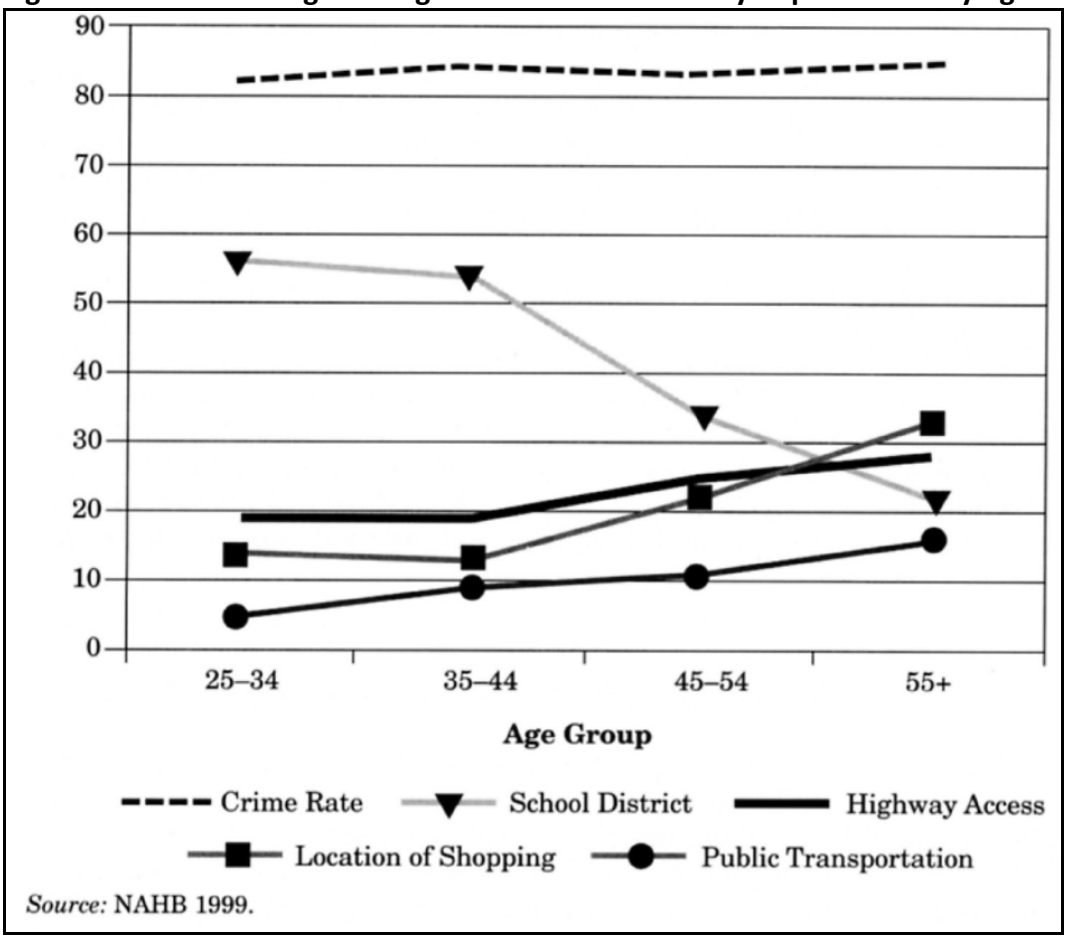
Still, there are a number of indications that Baby Boomers are more likely than younger adults to have a preference for more walkable locations, access to public transit, and higher density living.

AARP's report *These Four Walls…Americans 45+ Talk about Home and Community (2003)* presented statistics on preferred housing and community characteristics among those aged 45 and older. More than 80% of respondents preferred to have services close to their homes or dwellings, with highest preferences for being near a hospital, shopping, grocery store, and place to worship. Another 78% of those surveyed said sidewalks and availability of door-to-door transit were very or somewhat important characteristics to have in a neighborhood. Moderate gaps (at least a 20% difference), however, were found between what respondents preferred and what they currently experienced with respect to their location near a grocery store, doctor's office, drug store, and hospital. These findings are consistent with a recent local study conducted by Peterson *(2006)* for TriMet, which found that seniors in the tri-county area served by TriMet prefer to live in communities with a level of housing density that provides good sidewalks and amenities, and services that are within walking distance.

Myers and Gearin *(2001)* also uncovered trends in housing preferences that led them to believe that households with residents aged 45 and older may have a particular interest in more densely configured homes in central locations. Although Myers and Gearin *(2001)* noted that data from the National Association of Home Builders survey showed that 83% of respondents prefer single family detached homes in the suburbs, they concluded that the age 45 and older population may be a market segment that can be targeted by policy makers and developers for higher density living. Those aged 45 and older are considerably more likely than younger adults to prefer a townhouse in the city to a larger detached home in the suburbs if asked to choose between the two.

Myers and Gearin *(2001)* also conducted subgroup analyses of the NAHB data (N = 1,180) to identify age differences in factors that would be important to respondents if they were to buy a new home. As shown in Figure 3-8 H, preferences for nearby shopping, highway access, and public transit increased with age, while the school district receded as an important factor.

Figure 3-8 H: Percentage Calling a Particular Factor Very Important if Buying a Home Today



Source: Myers and Gearin (2001)

Based on these data, Myers and Gearin *(2001 p. 652)* concluded that the Baby-Boom cohort may demand denser, more walkable neighborhoods. They argued that this demand will grow among the 45+ population in two particular target market populations: "lifestyle renters" (those likely to move to rental units for persons aged 25 and older with at least $40,000 in income) and "compact-city home buyers" (those who prefer denser,

more central, accessible, and compact residential locations). They projected that lifestyle renters aged 45 and over will represent one-fifth of all rental growth in the future and that compact-city home buyers will double, from 15.4% in the 1990s to 31% in the 2000s, among those 45 years of age and older. **Other trends also may increase the future demand for denser environments, including mounting traffic congestion, decreased crime, immigration and enhanced urban vitality, growth of a café culture, the fashionable design of higher density development for the middle class, and positive examples created by growing densification** *(Myers and Gearin 2001)*.

Critical Timing for Housing Decisions

According to Harvard's Joint Center for Housing Studies (Shafer 2000), **most seniors make their final housing choice before they reach the age of 60.** This finding was reinforced by research recently completed for Metro in Portland by the authors of the present study. The report to Metro, titled "Age-Related Shifts in Housing and Transportation Demand" *(Neal et al. 2006)* stated,

> A central conclusion of this study is that baby boomers must be reached before the age of 60, or even 50, if they are to be enticed to choose higher density living and proximity to transit. Nationally and locally, most seniors lock in their housing choice before they reach the age of 60. The likelihood of moving declines with age; older (70+) householders are much more likely to be moved into the home they occupy before the age of 50 than after that age. When householders do move, they are more likely to move into higher density housing than middle-age adults.

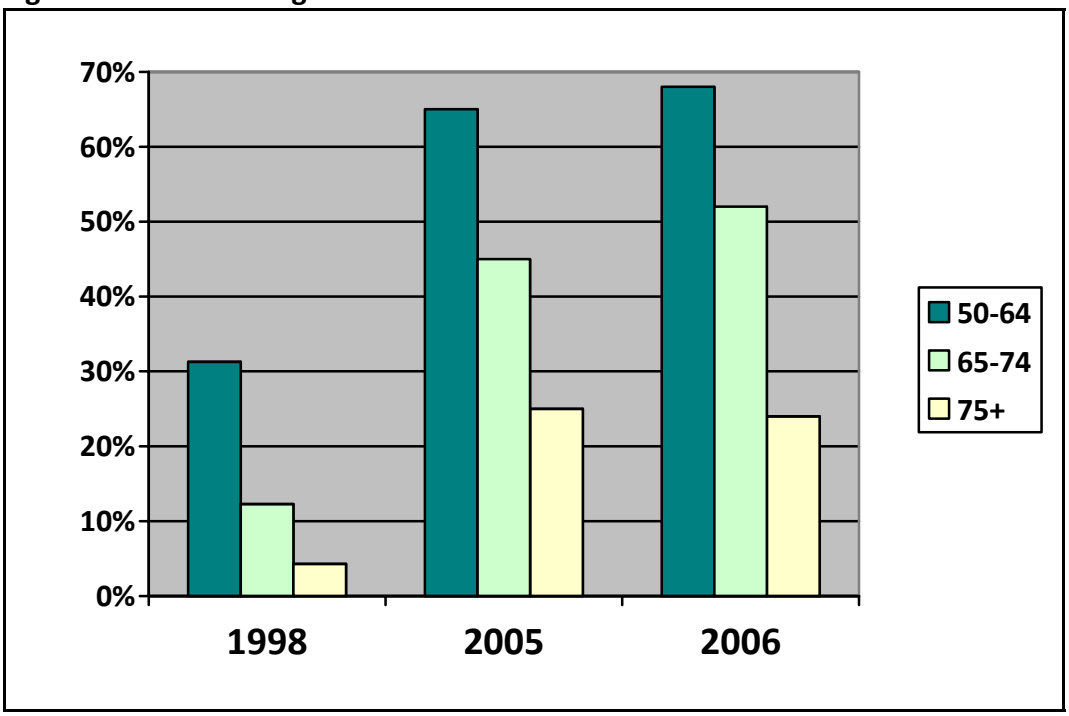
Another key conclusion of the Metro study was that Baby Boomers' preference for suburban living must be acknowledged and incorporated into planning *(Neal et al. 2006)*. Since it is clear that most seniors will choose to age in place in the suburbs, homes, pedestrian environments, and transportation systems should be designed or retrofitted to better address their needs.

Internet and Technology Use

As the Baby-Boom generation moves into old age, its members will be much more technologically savvy than previous generations of seniors. Figure 3-8 I shows that between 1998 and 2006, the percentage of the population aged 50 to 64 that used the Internet (from any location) increased from 31.3% to 68% *(AARP 2007, p. 35)*. Even among those aged 75 or over, Internet use increased from 4.3% to 24% of the population *(AARP*

2007, p. 35). However, low-income seniors and seniors in rural areas are less likely to use the Internet *(Summer et al. 2004)*.

Figure 3-8 I: Percentage of Older Adults Who Use the Internet



Source: AARP (2007)

Increased use of the Internet has important implications for the well-being of the senior and disabled populations in the future. According to Summer and colleagues *(2004)*, access to the Internet can improve people's lives by helping them to keep in touch with others and providing access to information. **The Internet allows those with mobility or transportation limitations access to a number of important resources,** including: employment, both in terms of job searching and working from home; public services, such as applying for and receiving public assistance, and finding and utilizing senior or disabled services; commercial services, such as banking and shopping; and distance-learning opportunities *(Summer et al. 2004)*. **Individuals can also find out about fixed route transit options and schedules, as well as other special transportation services.**

Another important trend in the application of technology is "telemedicine," which allows in-home monitoring, counseling and even diagnosis of some types of medical conditions by a remote provider. According to the AARP *(2007)* report titled *The State of 50+ America*,

home healthcare is a viable option for consumers with a broadband connection with monitoring devices and interactive video; this can be especially important for people who have limited mobility or who are not well enough to travel. **Telemedicine services may help seniors and people with disabilities to reduce the number of medical trips they need to take, and possibly to reallocate their transportation resources to more mentally and physically stimulating activities.** The U.S. Department of Health and Human Services Health Resources and Services Administration currently is working to improve quality and access for these services for rural, low-income and uninsured patients.

Ensuring adequate access to and competence with the Internet for seniors and disabled persons may be an important strategy for dealing with the future needs of this burgeoning population, for example, identifying appropriate transportation options. However, as Summer and colleagues *(2004)* point out, "[a]s policymakers consider what states can do to promote the use of technology, it is important to note that some oversight will be needed to prevent Internet scams and other misuses of technology" *(p. 93)*.

Summary

In summary, this review of the literature revealed a variety of important socio-economic trends. On average, compared to previous generations, tomorrow's older adults will be:

- More educated
- More ethnically and racially diverse
- More likely to occupy professional or managerial positions
- For women, likely to have more years in the labor force
- More likely to work at least part-time into their seventies
- Wealthier, but with the majority of their wealth in the form of home equity
- More likely to own their own homes
- Less likely to be below the federal poverty level and far less likely to be on public assistance
- More likely to be single or divorced
- More likely to live alone
- More likely to have fewer children or no children

- More likely to live in suburban areas
- Much more likely to "age in place" than to migrate
- If they migrate, more likely to migrate from a city to a suburb than from a suburb to a city
- Less likely to be disabled in ways that limit their independence
- More likely to have chronic diseases such as obesity and diabetes
- More likely to use the Internet and other forms of technology
- More likely to have **high standards** for quality of service

It is important to note that the above general trends obscure the economic disparities and racial and cultural differences and preferences that will exist among the older adults of tomorrow. Also, these trends do not point to a single set of solutions with respect to transportation planning for the future. There are some conclusions that can be drawn, however.

First, there is no question, that the number and proportion of older adults will be larger than ever before in history. Although there is no consensus concerning whether disability rates will hold constant, decrease, or increase, the sheer numbers of individuals likely to need special transportation services will increase.

Meeting the transportation needs of older adults who are adversely affected by changes in the traditional household structure, for example divorced or widowed women living alone or childless seniors, will be critical to these elders' well-being, both because these older adults may have fewer transportation resources when they can no longer drive and because they are at much greater risk of social isolation, which is detrimental to mental and physical health.

Health status and transportation are interdependent in a number of ways; ensuring transportation access to recreational and other physical activities is critical to the health of older adults and people with disabilities. Lack of access to transportation can negatively affect the ability to seek timely medical care, including preventive healthcare, the ability to engage in health-sustaining physical and social activities, and even the ability to shop for fresh food, which is essential to a healthy diet. Baby Boomers indicate that they plan to be more physically active than previous generations of seniors, so their transportation demands may be greater. At the same time, the higher levels of physical and cognitive health that are expected, on average, for this population should facilitate independent use of transportation modes including both driving and public transportation.

How much, how and where both fixed and special transit are provided will be affected. The continuing trend toward "aging in place" is likely to mean that the majority of older adults will continue to live in single-family homes and in the suburbs, where destinations are more spread out, making transit service more difficult and expensive. At the same time, there are some indications that the next generation of older adults is more likely than younger adults to have a preference for more walkable locations, higher density living, and access to public transit, signaling the possibility of increased demand for transit.

Tomorrow's older adults have traveled more and farther and likely will have higher expectations for mobility than previous generations. They also are more accustomed to driving and the flexibility and convenience offered by that travel mode, which likely will contribute to high expectations for transit service.

The trend toward later retirement could increase transportation demand because of continued work-related trips. Increased workforce participation by women may lead to reduced ability to provide private transportation, resulting in increased demand for special public transportation.

Increased access to information through technology means that individuals can more easily find out about fixed route transit options and schedules, as well as other special transportation services. Another way in which technology will impact transportation services is through telemedicine services, which may help seniors and people with disabilities reduce the number of medical trips they need to take, and possibly reallocate their transportation resources to more mentally and physically stimulating activities.

These are but a few of the ways in which the trends described here will impact public transportation. Clearly, however, they signal changes in both the amount of fixed route and special transportation service needed and demanded, and the nature of the transportation services provided.

Appendix 4-1. Demand Response Rates

The rate for complementary paratransit is based upon the number of people 16 and older with go-outside-the-home disability (Table 4-1 A).

Table 4-1 A: Demand Response Trip Rates Used in Level of Service Method Estimates

County	Disaggregated Rates by Service Type (trips per person)					Combined Rate
	People with Disabilities	Comple-mentary Paratransit	Older Adults	Older Adults & People with Disabilities	General Public	
Non-Urbanized and New Urbanized Areas (UA)						
Baker, Union, Wallowa Counties	13.32				8.74	12.37
Deschutes County (including Bend UA)	3.13			1.31	4.67	6.60
Benton County (including Corvallis UA)	20.00		0.18	10.12		14.09
Clatsop, Columbia, Lincoln, Tillamook Counties	6.06	25.23	0.62			8.69
Coos, Curry Counties	1.61	5.5		0.07	1.87	4.29
Douglas County	8.67		0.5	0.92	.	3.52
Harney, Lake, Malheur Counties	1.41			2.57	6.66	9.64
Josephine County	32.59	6.15				8.23
Klamath County	2.12	7.33		1.3		3.54
Lane Co outside Eugene UA		3.01		0.48	0.76	2.02
Linn County	9.10	6.31	0.32	0.46	1.13	7.67
North Central Counties (Crook, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wheeler, Wasco)		1.22		1.5	2.39	4.18
Umatilla County		5.08	0.34	6.38	3.81	14.70
Yamhill County	20.46	21.43			2.67	14.69
Older Urbanized Areas						
Eugene-Springfield	0.31	23.46				6.78
Medford UA and rest of Jackson Co.	4.1	10.64	0.13	0.17		3.84
Portland and rest of three counties		18.93	0.02	1.96		8.09
Salem-Keizer (including the rest of Marion and Polk Counties)	0.26	9.65		5.26	0.17	8.51

Appendix 4-2. Understanding Current Travel Patterns of Older Adults and People with Disabilities

Overview

To develop an estimate using a travel demand approach, it is necessary to first understand the current travel patterns of older adults and people with disabilities. Three primary sources of data were used to do so: (1) the 2001 National Household Travel Survey (NHTS), which collected household, demographic, vehicle, and trip-making information for over 160,000 people in the United States; (2) the 2002 National Transportation Availability and Use Survey (NTAUS); and (3) the Oregon Mobility Needs (OMNS) General Population Survey conducted in 1998 for ODOT. The NHTS provides information for both older adults and people with disabilities. The OMNS sample focuses on people of all ages with disabilities.[19] These sources are described in more detail in Appendix 6. In both cases, we obtained the original survey data and conducted the analyses.

Number of trips

Figure 4-2 A displays the average number of trips made per day according to disability status[20], driver status[21], age, and location.

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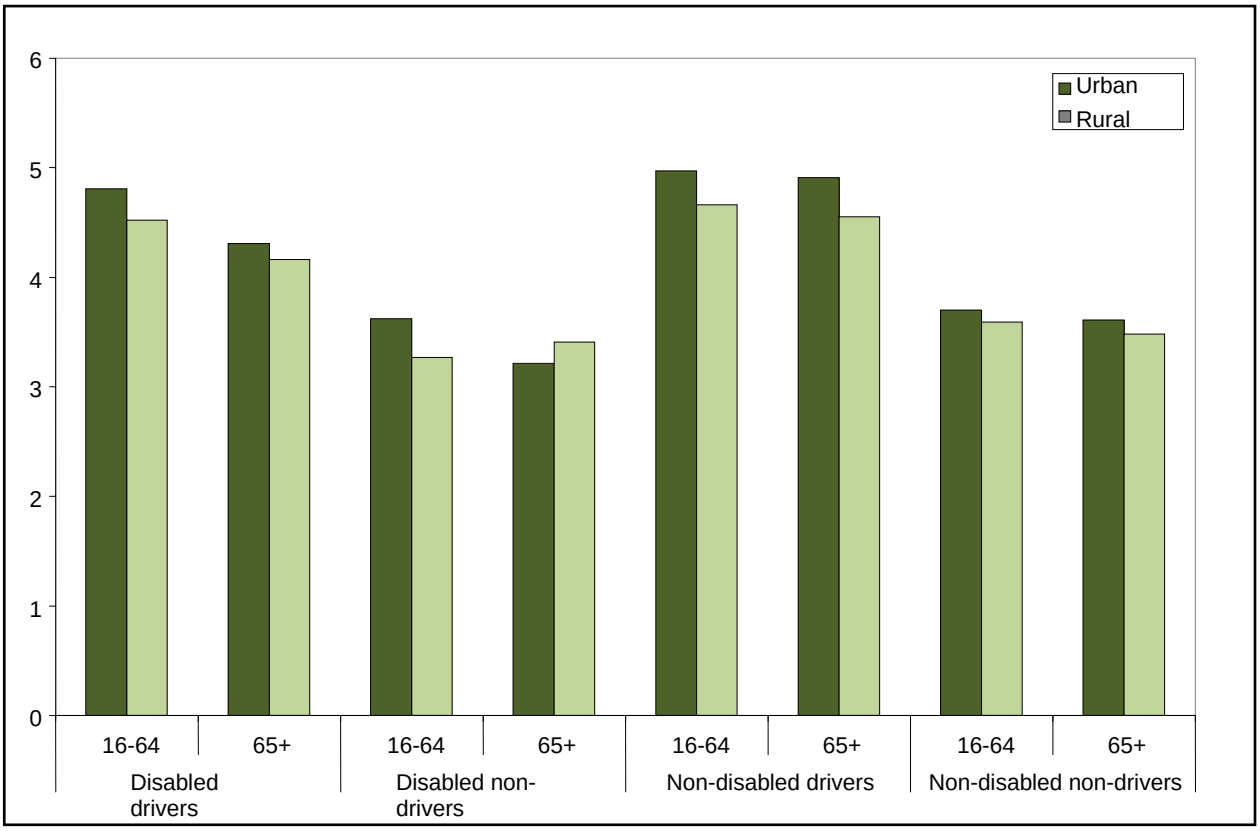
[19] The OMNS included a small number of low-income older adults who were defined as mobility impaired. Because non-low-income older adults without disabilities are not included in the sample, we are only using the data to describe people with disabilities.

[20] The NHTS survey did not ask about disability status in the same way as the Census. We identify respondents as disabled if they indicated that they had a medical condition making travel difficult.

[21] For the NHTS data, we have defined a driver as someone who both identified him/herself as a driver and reported having driven over 50 miles total in the last twelve months (to screen out people who possessed driver's licenses but did not drive).

Figure 4-2 A: Mean number of trips per day, National, by disability status, driver status, age, and location



Source: 2001 National Household Travel Survey

In general, the largest differences can be attributed to driver status, with disability status accounting for the second largest difference in overall trip-taking; location [22] and age had roughly equal impacts on mean number of trips, as shown in Table 4-2 A.

[22] Urban or rural location is determined according to the census categorization of the tract in which respondents lived.

Table 4-2 A: Difference in Mean Number of Trips per Day

Driver	Difference In Daily Trips Taken
Age (65+ versus 16-64):	-0.22
Disability status (disability vs. no disability)	-0.58
Driver status (driver vs. non-driver)	-1.10
Location (rural vs. urban)	-0.24

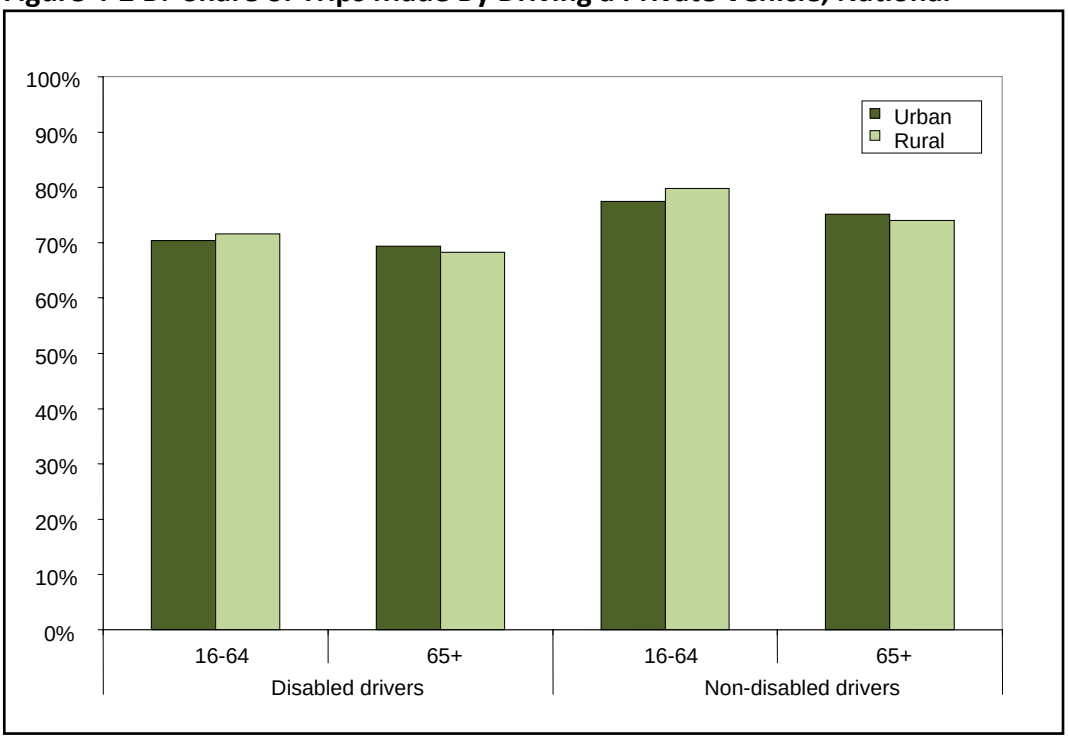
Source: 2001 National Household Travel Survey

** All differences significant at the p < .001 level*

Mode split

On average, drivers, regardless of age and disability status, made at least 69% of their trips by driving a private vehicle (see Figure 4-2 B). Older drivers and drivers with disabilities made a smaller share of trips by driving than did drivers under the age of 65 or drivers who did not have disabilities. The effect of location on driving mode share appears mixed: rural drivers under 65 made a slightly larger share of trips by driving than their urban counterparts, but the pattern was reversed for drivers aged 65 and older.

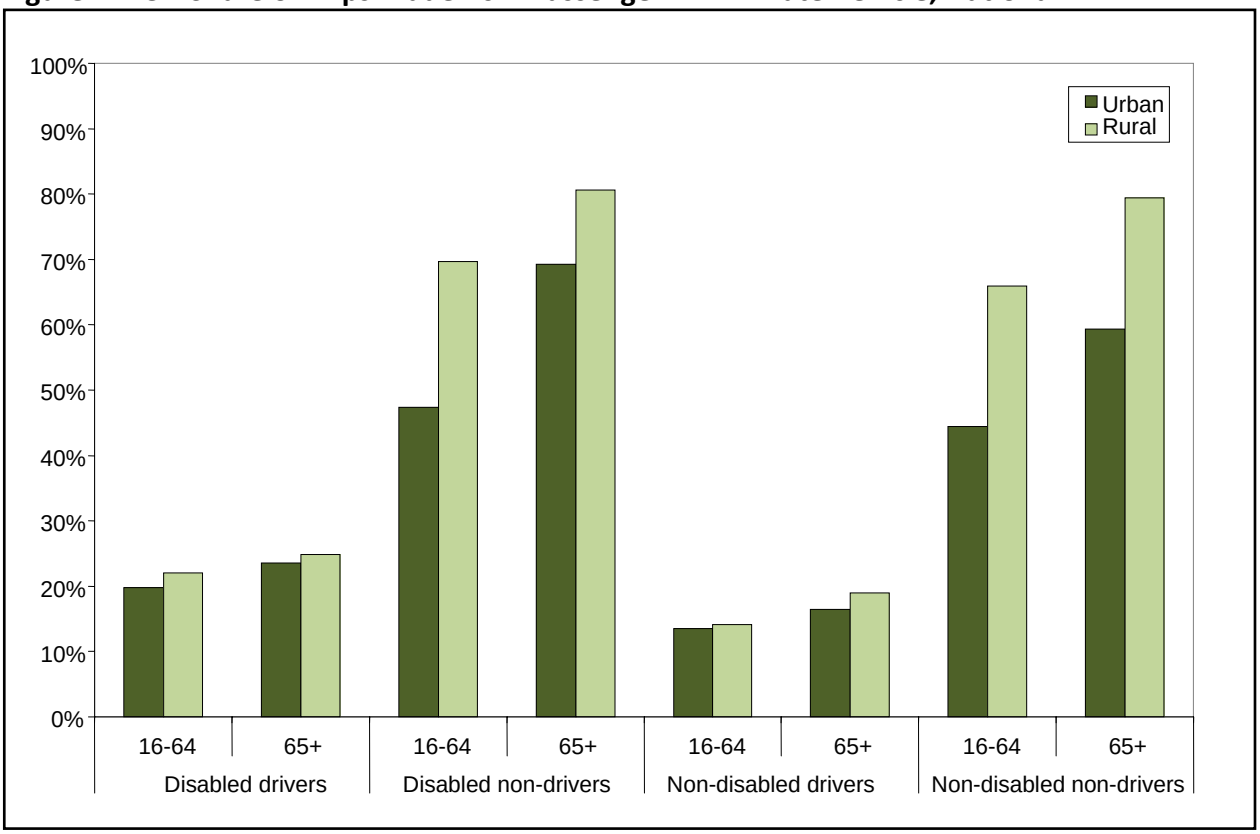
Figure 4-2 B: Share of Trips Made By Driving a Private Vehicle, National



Source: 2001 National Household Travel Survey

The share of trips made as a passenger in a private vehicle varied more widely by disability status, driver status, age, and location, as shown in Figure 4-2 C. Non-drivers made a significantly larger share of their trips as passengers than did drivers, and passenger mode share varied much more widely according to age and location among non-drivers than it did among drivers. Rural drivers and non-drivers alike made a greater share of trips as a passenger than did urban drivers and non-drivers.

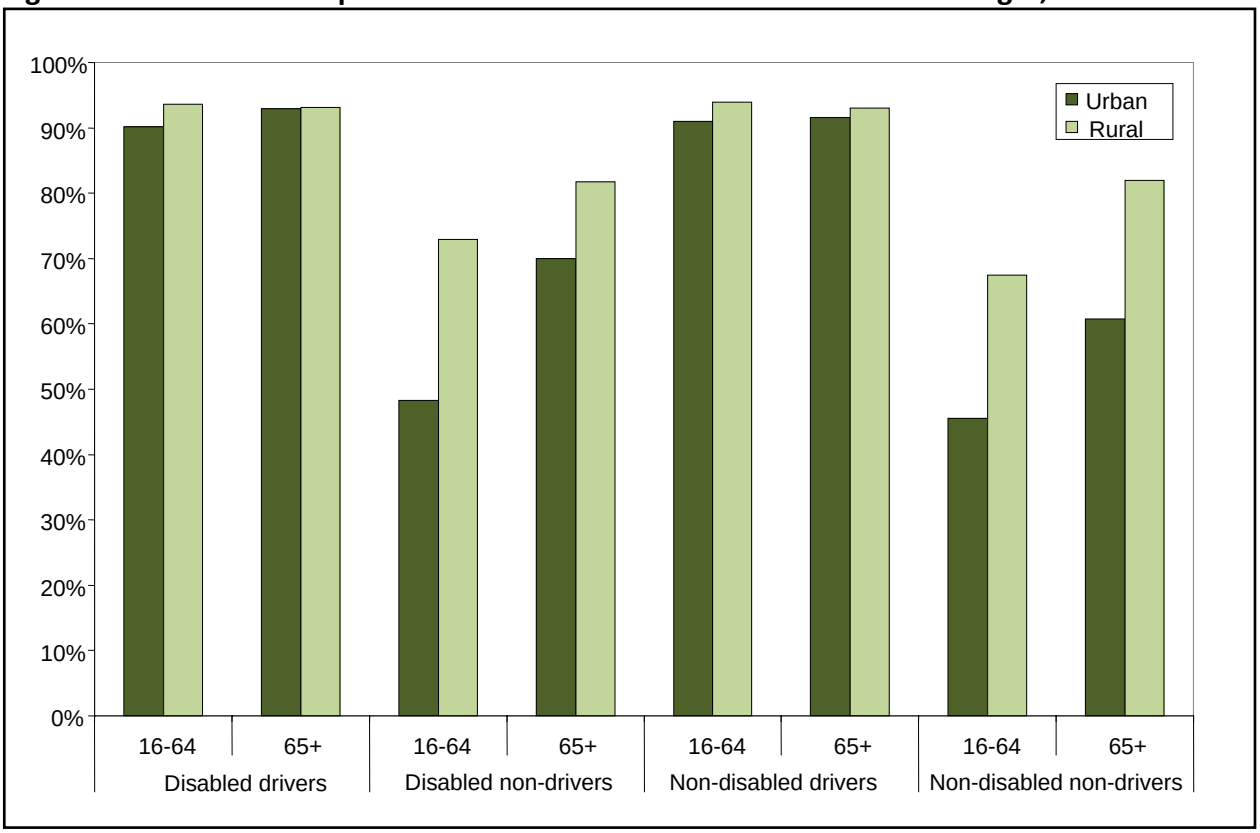
Figure 4-2 C: Share of Trips Made As A Passenger In A Private Vehicle, National



Source: 2001 National Household Travel Survey

Regardless of age, disability status, or location, travel by private vehicle (either as a driver or a passenger) accounted for at least 90% of all trips taken by people who could drive, as shown in Figure 4-2 D. Among non-drivers, private vehicle mode share was much lower, with rural location and older adult status both increasing the proportion of trips made by private vehicle.

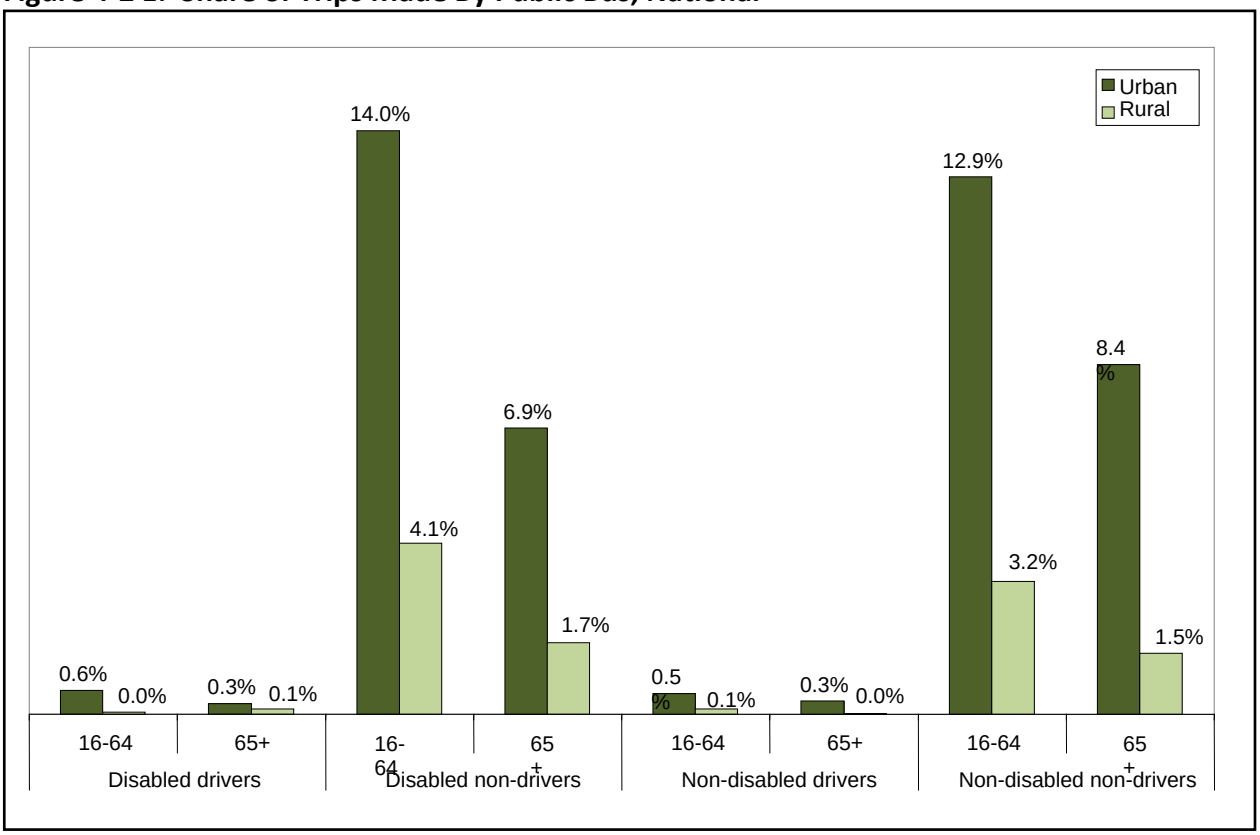
Figure 4-2 D: Share of Trips Made In a Private Vehicle as a Driver or Passenger, National



Source: 2001 National Household Travel Survey

On average, drivers were highly unlikely to make trips by public bus, as depicted in Figure 4-2 E. Urban disabled non-drivers under the age of 65 made the largest share of their trips by bus, followed by urban non-drivers under the age of 65 who did not have travel disabilities, urban older adults who did not drive and had no travel disabilities, and urban older adults who had a travel disability and did not drive. Bus mode share was much lower for non-drivers who lived in rural locations, likely due to the lower levels of transit service provided there.

Figure 4-2 E: Share of Trips Made By Public Bus, National



Source: 2001 National Household Travel Survey

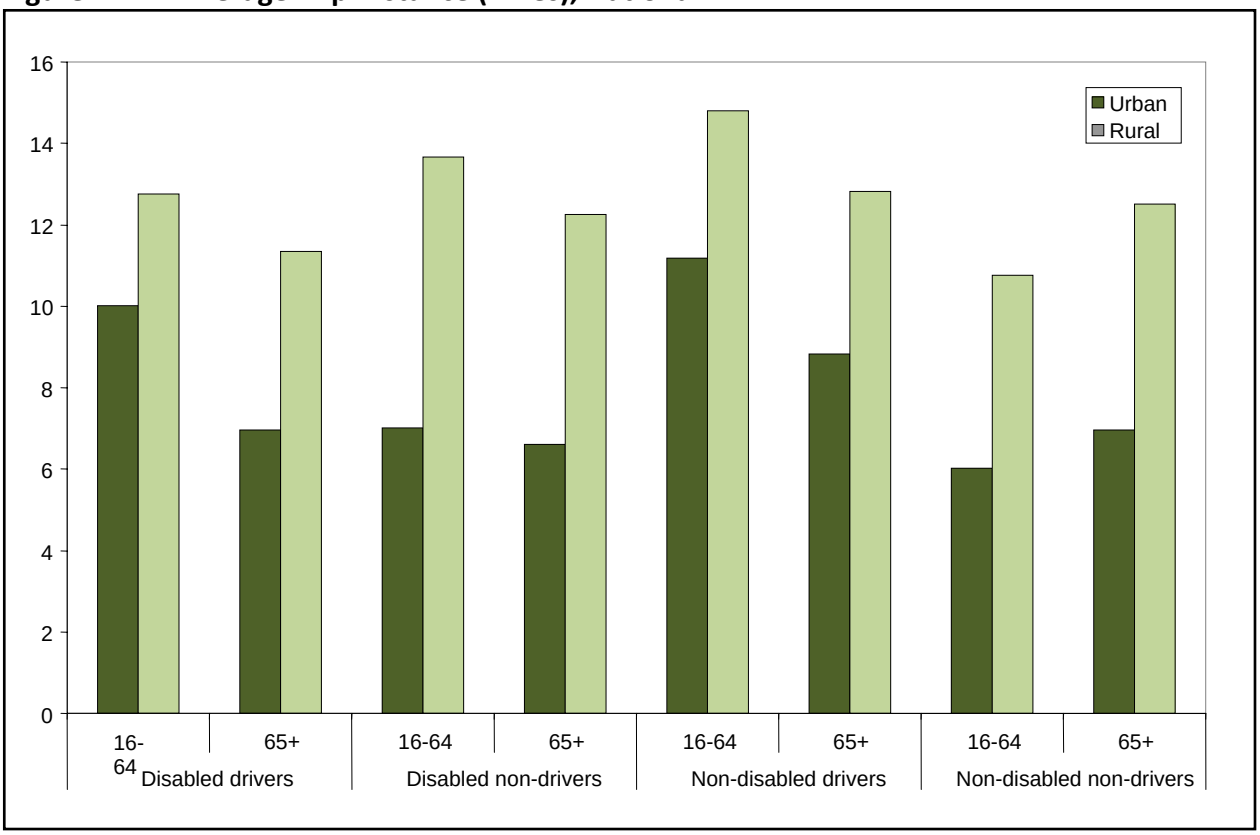
A recent Oregon-based study on transportation patterns among older adults echoed the above findings and shed light on the transportation modes used by older non-drivers *(Neal et al. 2008)*. Compared to older adults who drove, older adults who had ceased driving were twice as likely to use public transportation and over three times as likely to use special transportation services when compared to drivers. Non-drivers also traveled more frequently by rides from family, friends, volunteer programs, and church transportation programs, and traveled less frequently by walking or biking. However, older non-drivers indicated that rides from family were the only mode they used "often," with all other modes being used just "rarely/never" or "sometimes." Rural residents were much less likely to indicate that public transportation and special transportation were available, and rural non-drivers used public bus less frequently than urban non-drivers.

Trip lengths

Our analyses revealed that people who lived in rural areas made much longer trips on average that people who lived in urban locations, as shown in Figure 4-2 F. This likely

occurred because the lower density of rural development meant they had to travel farther to reach their destinations. Drivers made somewhat longer trips than non-drivers, and (with the exception of non-drivers who did not have travel disabilities), older adults made somewhat shorter trips than adults aged 16-64. However, rural older adults as a group appeared to be traveling farther than people who live in urban locations, despite the increasing physical toll that long trips take on the elderly. Disabled drivers made somewhat shorter trips than drivers without disabilities, while disabled non-drivers traveled as far or slightly farther than non-drivers who had no travel disabilities. This suggests that disabled non-drivers may have to travel farther than they would otherwise choose to meet their specific needs. (Please note that for the purpose of this analysis, trips over 500 miles were excluded because they do not represent normal day-to-day travel.)

Figure 4-2 F: Average Trip Distance (Miles), National



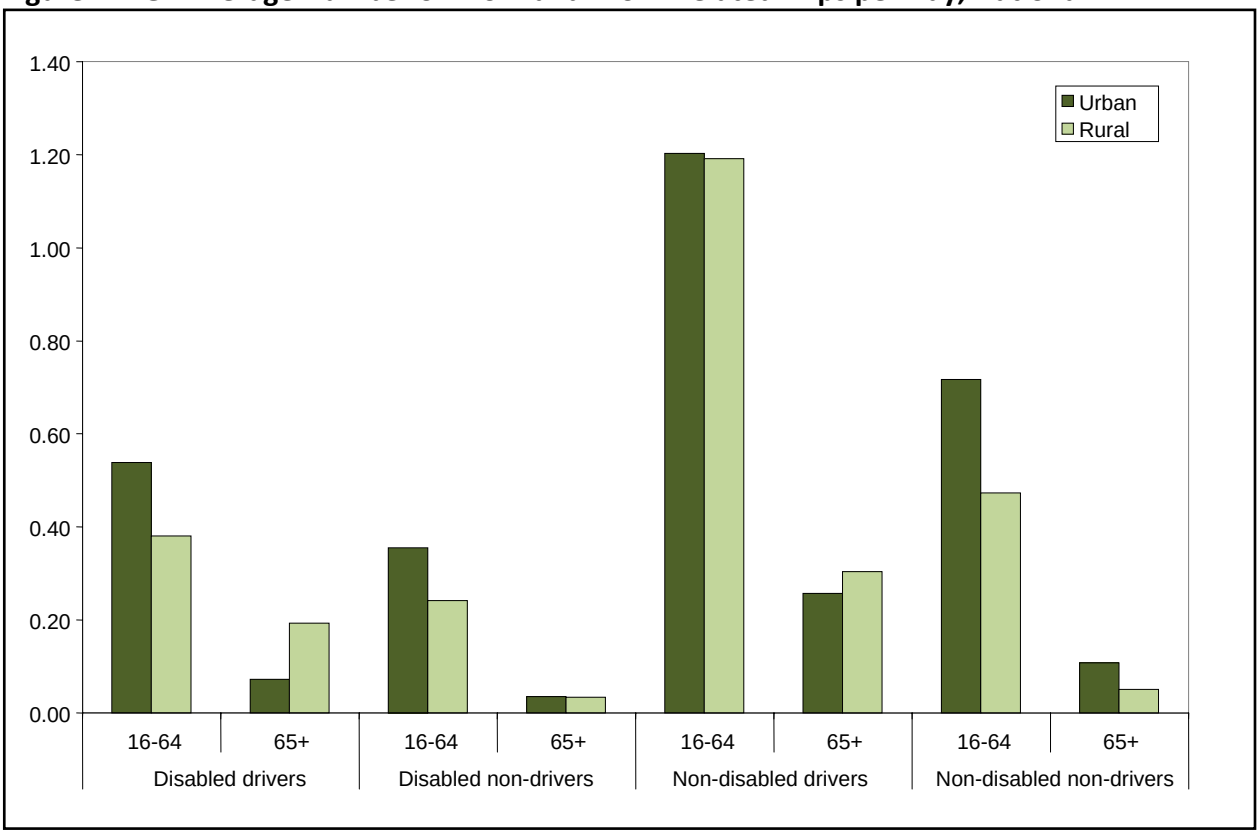
Source: 2001 National Household Travel Survey

Note: Excludes trips over 500 miles

Trip purposes

Drivers aged 16-64 without travel disabilities made significantly more work trips per day than any other groups of travelers, with near-equality between urban and rural workers, as shown in Figure 4-2 G. Within that same age group, non-drivers who did not have disabilities made slightly more trips than disabled drivers, while disabled non-drivers made the fewest number of work trips. In each of those groups, urban residents made slightly more work trips than rural residents. Among older adults, the patterns of work-related travel changed: drivers without disabilities again made the most work trips, followed by drivers with disabilities; and, in both groups, rural residents made more trips than did urban residents. Older adults who did not drive made very few work trips overall, but work trip rates were slightly higher among urban non-drivers without travel disabilities.

Figure 4-2 G: Average Number of Work and Work-Related Trips per Day, National

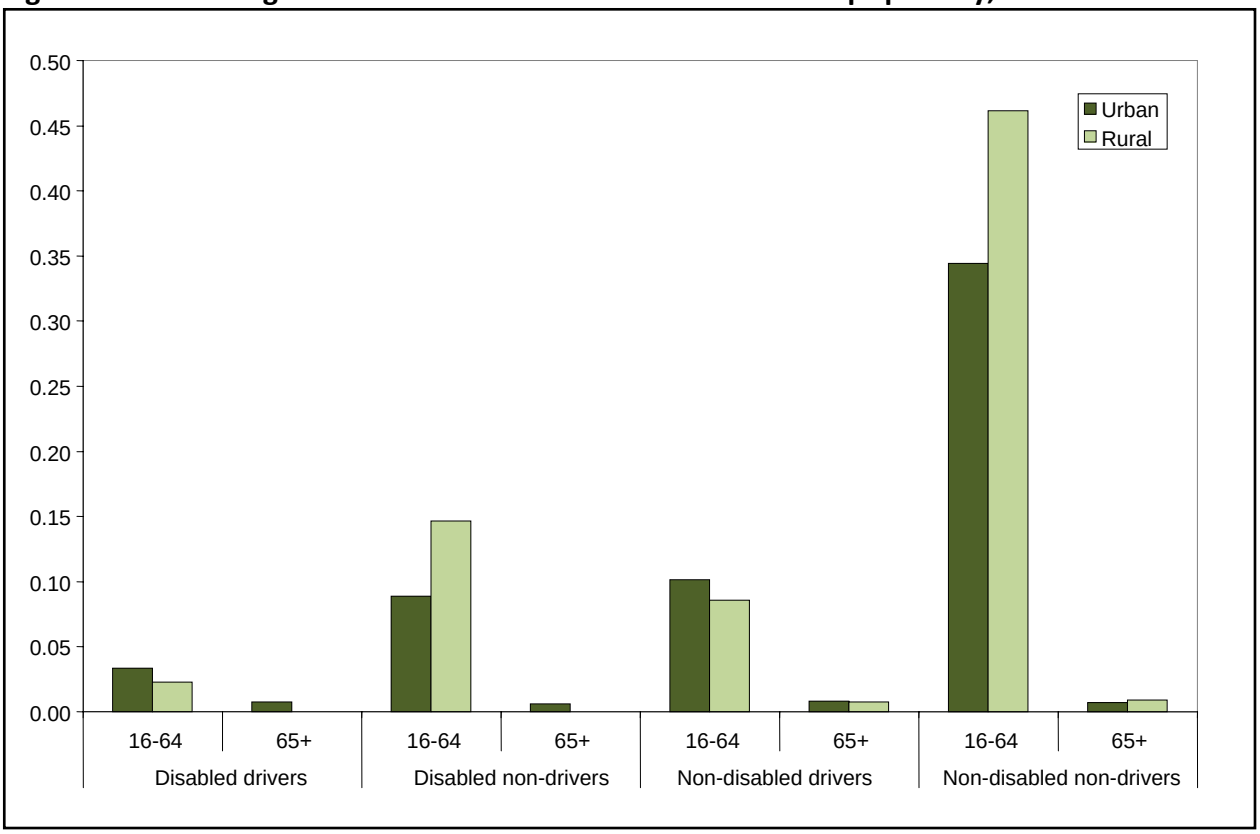


Source: 2001 National Household Travel Survey

Non-drivers aged 16-64 who did not have travel disabilities made roughly three times as many school-related trips as any other group of travelers, with rural residents making

more trips than urban residents (Figure 4-2 H). Disabled non-drivers aged 16-64 made roughly the same number of school trips as drivers of the same age who did not have travel disabilities, although the effect of location on trip-taking was reversed between those two groups. Disabled drivers aged 16-64 made very few school trips, regardless of location; school trips represented a negligible amount of travel by older adults.

Figure 4-2 H: Average Number of School and School-Related Trips per Day, National

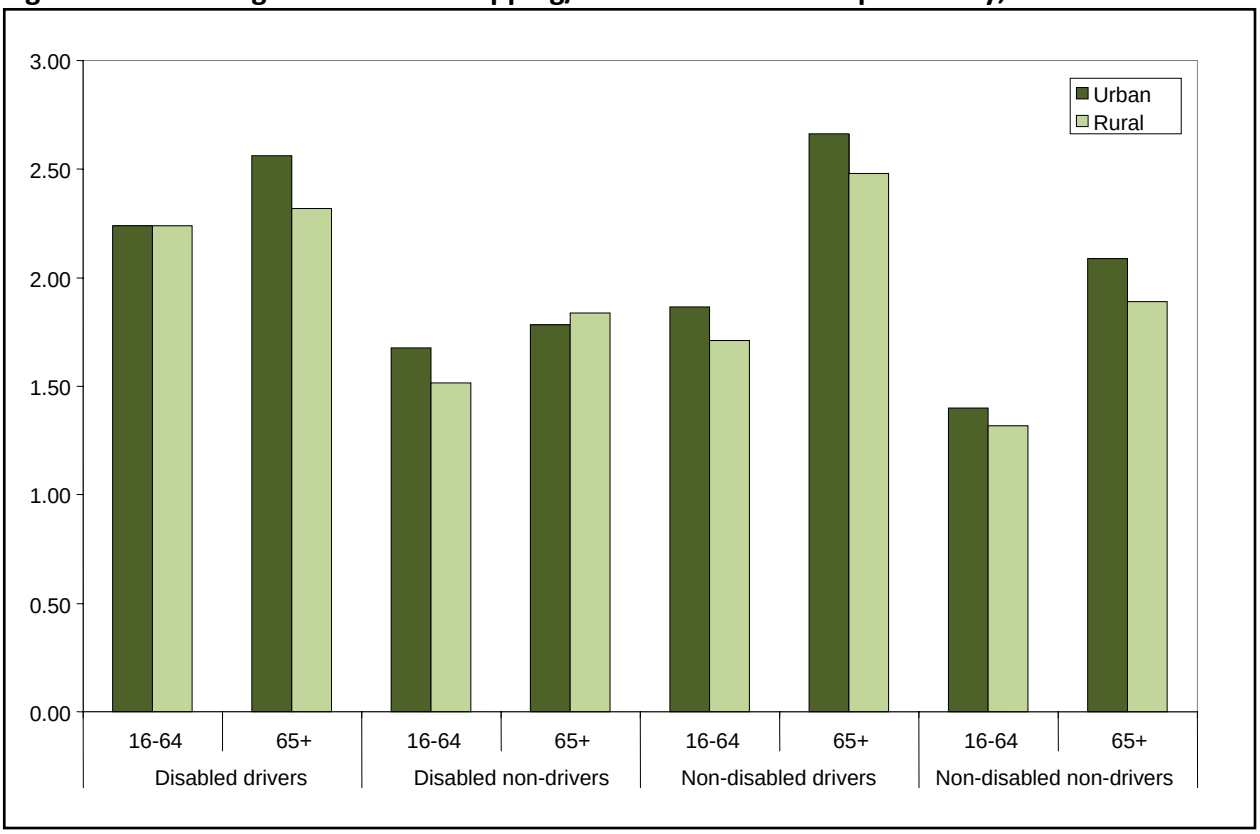


Source: 2001 National Household Travel Survey

Older adults were slightly more likely to make shopping and personal business trips than adults aged 16-64 who were of the same driver and disability status, as depicted in Figure 4-2 I. Among people with disabilities, these differences were relatively small; the effect of age on these kinds of trips was much more pronounced among travelers who did not have disabilities. When contrasted with the patterns of work- and school-related travel discussed in the preceding paragraphs, it seems plausible that higher rates of shopping and personal business trips among older adults can be attributed to the fact that older adults are less likely to have work or school commitments. They are, therefore, more able to fit other kinds of travel into their schedule. (Difficulties in scheduling, nonetheless, can make

it hard to obtain and use transportation.) People with disabilities who were under the age of 65 made more shopping and personal business trips than their counterparts who did not have disabilities; these findings may be due to the lower rates of school and work travel among people with disabilities. In general, rural residents appeared to make slightly fewer shopping and personal business trips than urban residents.

Figure 4-2 I: Average Number of Shopping/Personal Business Trips Per Day, National

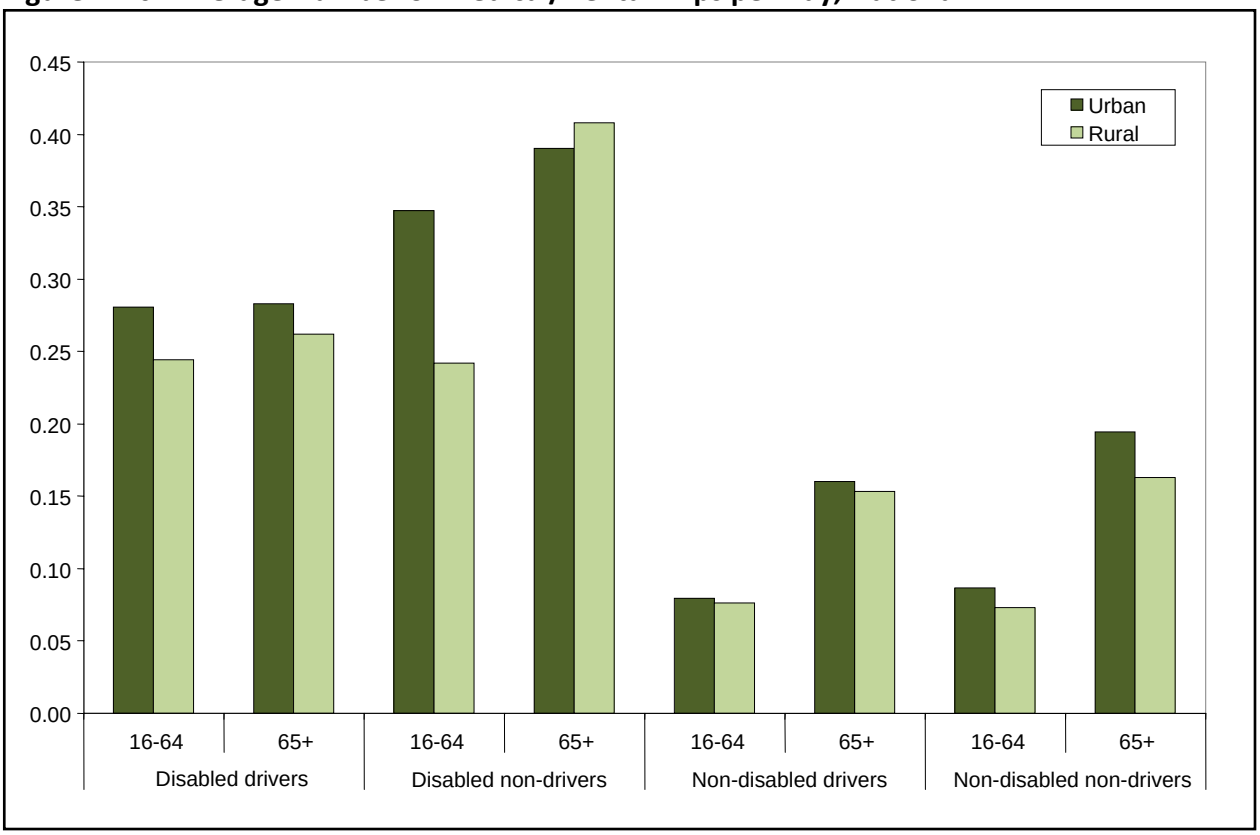


Source: 2001 National Household Travel Survey

People with disabilities made significantly more medical and dental trips than people without disabilities, as revealed in Figure 4-2 J. Older adults generally made more of these trips than did people under 65 of the same driver and disability status (although no age differences were apparent among urban drivers with disabilities). Although rural residents again made slightly fewer trips than their urban counterparts, this trend was reversed among disabled older adults who did not drive. Because older adults who have more severe disabilities may be less likely to be able to drive, this group of travelers may have both the most mobility barriers (due to disability, non-driver status, and the dearth of

transportation options available in many rural locations) and the highest need for medical travel.

Figure 4-2 J: Average Number of Medical/Dental Trips per Day, National



Source: 2001 National Household Travel Survey

These patterns of trip rates by purpose are partially consistent with the findings of the study by Neal et al. *(2008)* of the travel patterns of older Oregon adults, which found that older non-drivers made more frequent medical/dental trips than older adults who drove, but made all other kinds of trips less frequently. Among older adults who drove, rural respondents made significantly fewer grocery shopping and entertainment/cultural trips than did urban respondents, while older rural non-drivers made significantly less frequent work/volunteer trips than older urban non-drivers.

The Oregon Mobility Needs Study examined the reasons that older adults and people with disabilities made trips, although it did not compare these data to trip-taking patterns for the general population *(Northwest Research Group Inc. 1999)*. The study assessed the needs of Oregon's mobility-impaired population, defined as: (a) people with disabilities

who could not transport themselves; and (b) older adults who could not afford their own transportation. It found that mobility-impaired Oregonians most frequently cited grocery shopping as a primary or secondary trip purpose (mentioned by 68% of respondents), followed closely by medical appointments (61%); only 21% of respondents cited work- or school-related travel as a primary or secondary trip purpose. However, for all trip purposes assessed, work/school trips were the only type that the majority of respondents reported making once a week or less. Of the other trip purposes, grocery-shopping trips were made the most frequently, followed by entertainment trips, visiting trips, and trips to medical appointments.

A discussion of rates of "essential" or "life-sustaining" versus "life enriching" trip-taking and the implications for unmet travel needs is presented in Section 0

What share of older adults and people with disabilities are drivers?

Evidence from the Literature

Past research indicates that licensing rates are not necessarily an accurate reflection of whether – or how much – older adults and people with disabilities actually drive. Both older drivers and drivers with disabilities tend to pay close attention to their own abilities and self-regulate their driving behavior to avoid conditions and routes they believe they cannot navigate as safely *(Rosenbloom 2007)*. Among older women surveyed in rural and small urban North Dakota, 87% reported possessing a license, but roughly 45% of those who were licensed reported having other limitations on their ability to drive *(Hough 2007)*. Similarly, a national Bureau of Transportation Statistics (BTS) survey found that disabled drivers were more likely to limit their driving than non-disabled drivers *(Bureau of Transportation Statistics 2003)*. These self-imposed restrictions may diminish disabled drivers' overall travel, if they eliminate trips rather than switching modes, and constitute additional limits on disabled drivers' overall mobility. At the same time, this self-monitoring indicates an awareness of safety concerns and a desire to reduce risk to themselves and other travelers. In a review of previous related research, Rosenbloom *(2007)* noted that while older drivers have higher accident rates than middle-aged drivers, they are no more likely to be involved in accidents than drivers aged 25 and under.

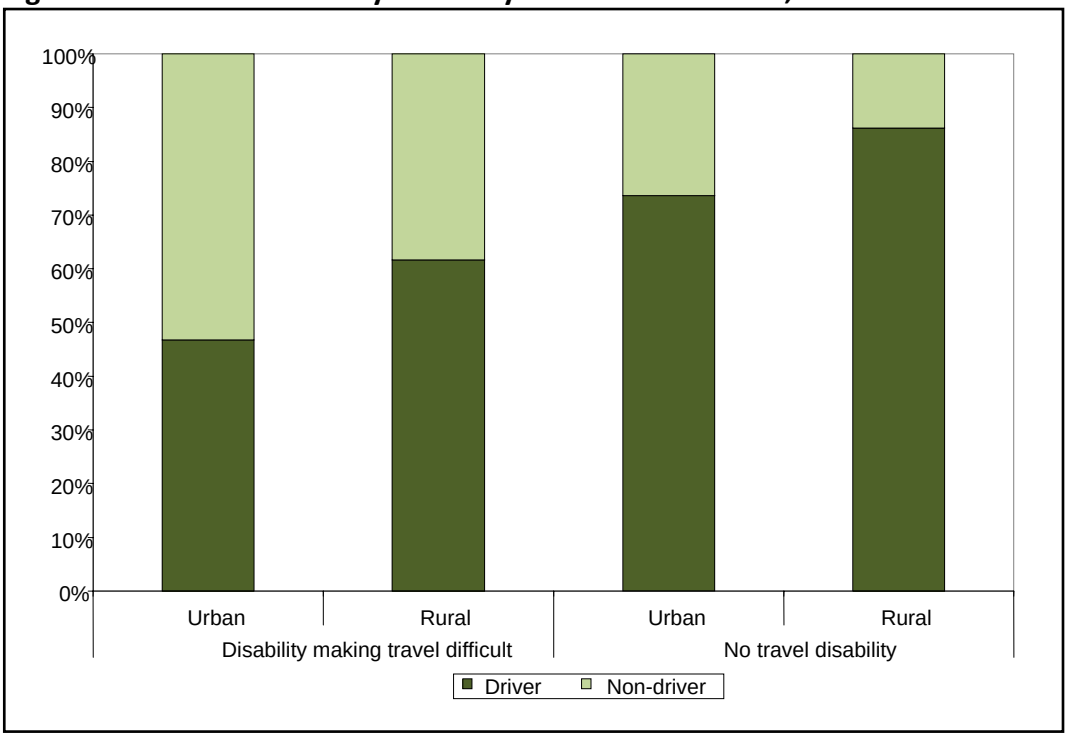
Patterns of licensing and driving vary somewhat based on demographic characteristics. In a study of adults 70 years and older, Foley, Heimovitz, Guralnik, and Brock *(2002)* found that 82% of the men, but only 55% of the women, drove. These differences were largely due to the fact that, while both groups had a similar driving life expectancy, total life expectancy was longer among women, meaning that women spent more years in later life

dependent on alternate sources of transportation. Several studies also have found racial and ethnic differences in driving rates: as Bailey *(2004)* identified in her review of the literature, older African-American, Asian-American, and Latino adults experienced higher rates of staying home later in life, due to the lower rates of licensing and private automobile availability as compared to white older adults. The study of older adults in Oregon by Neal et al. *(2008)* found that, compared to older adults who drove, older non-drivers were an average of 10 years older, were more likely to be female, were more likely to be widowed and to be living alone, had less education and lower incomes, were more likely to be living in senior residences/communities, were more likely to live in rural areas, were less likely to be employed, were more likely to be depressed, and rated their level of health as lower. They also were likely to have altered their travel due to their health and were more likely to use public transit when it was available. The Neal et al. *(2008)* study also found that even older adults who reported that they had stopped driving indicated that they still drove occasionally, such as to the mailbox, or would drive in an emergency.

Driving Rates by Disability Status, Age, and Location

As noted above, the analysis of NHTS data conducted as a part of the present study categorized respondents as drivers if they identified themselves as drivers and had also driven over 50 miles in the previous year. Figure 4-2 K displays the general pattern of driver status by disability status and location, revealing higher shares of rural respondents driving and lower shares of people with disabilities driving. It is not possible to determine from these data whether driving rates were higher among rural respondents because: (a) a lack of other transportation options required them to keep driving even if they would have preferred not to; or (b) respondents who could not or would not drive relocated to urban locations at higher rates. The first, but not the second, potential reason was supported by the Neal et al. *(2008)* study, which found that participants reported fewer available transportation options in rural compared to urban areas of Oregon and also that very few older adult drivers and non-drivers in Oregon, whether in rural or urban areas, were willing to consider moving to have their transportation needs better met.

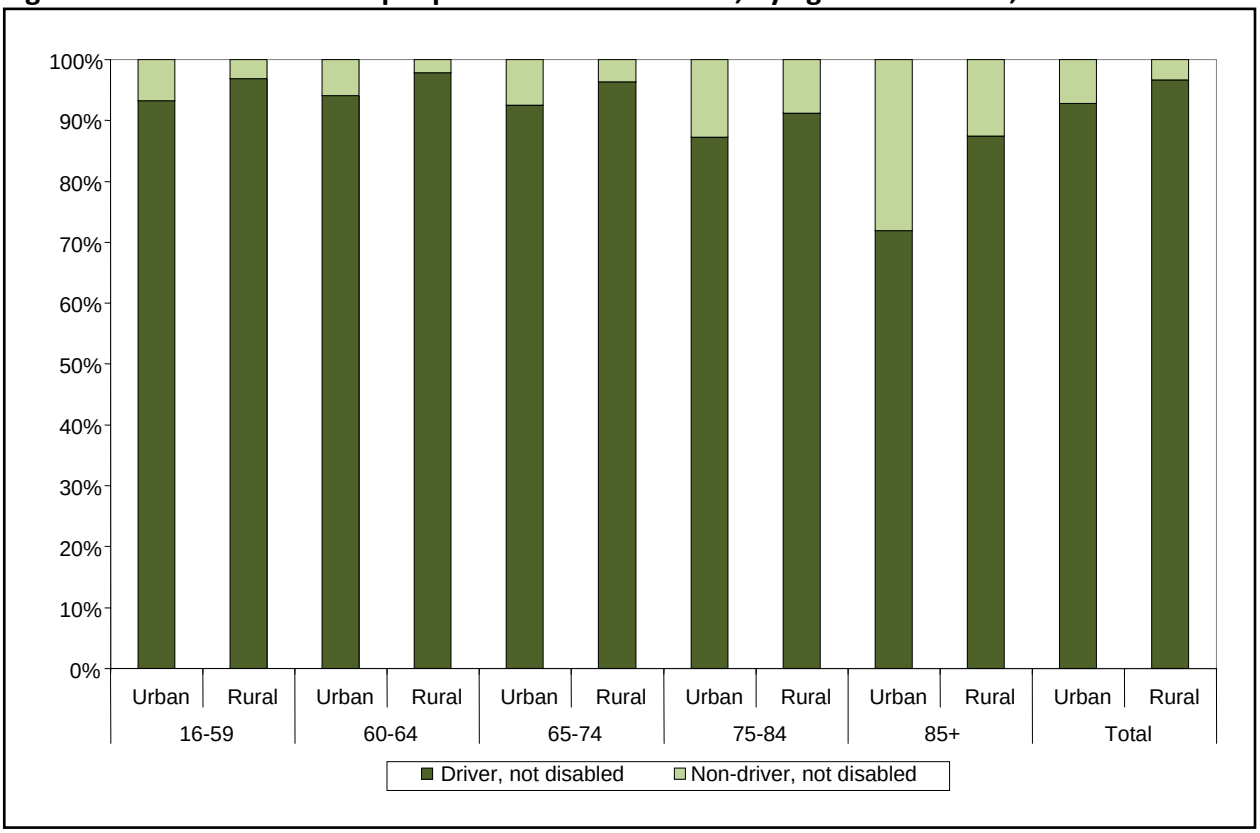
Figure 4-2 K Driver Status by Disability Status and Location, National



Source: 2001 National Household Travel Survey

Among people without travel disabilities, driver status remained relatively consistent among respondents aged 16 to 74, dropping only slightly among respondents aged 74 to 84, as shown in Figure 4-2 L. Driving rates made a more pronounced drop among respondents aged 85 and older, with the gap between urban and rural respondents widening. Among all age groups and locations, the majority of people without disabilities were drivers.

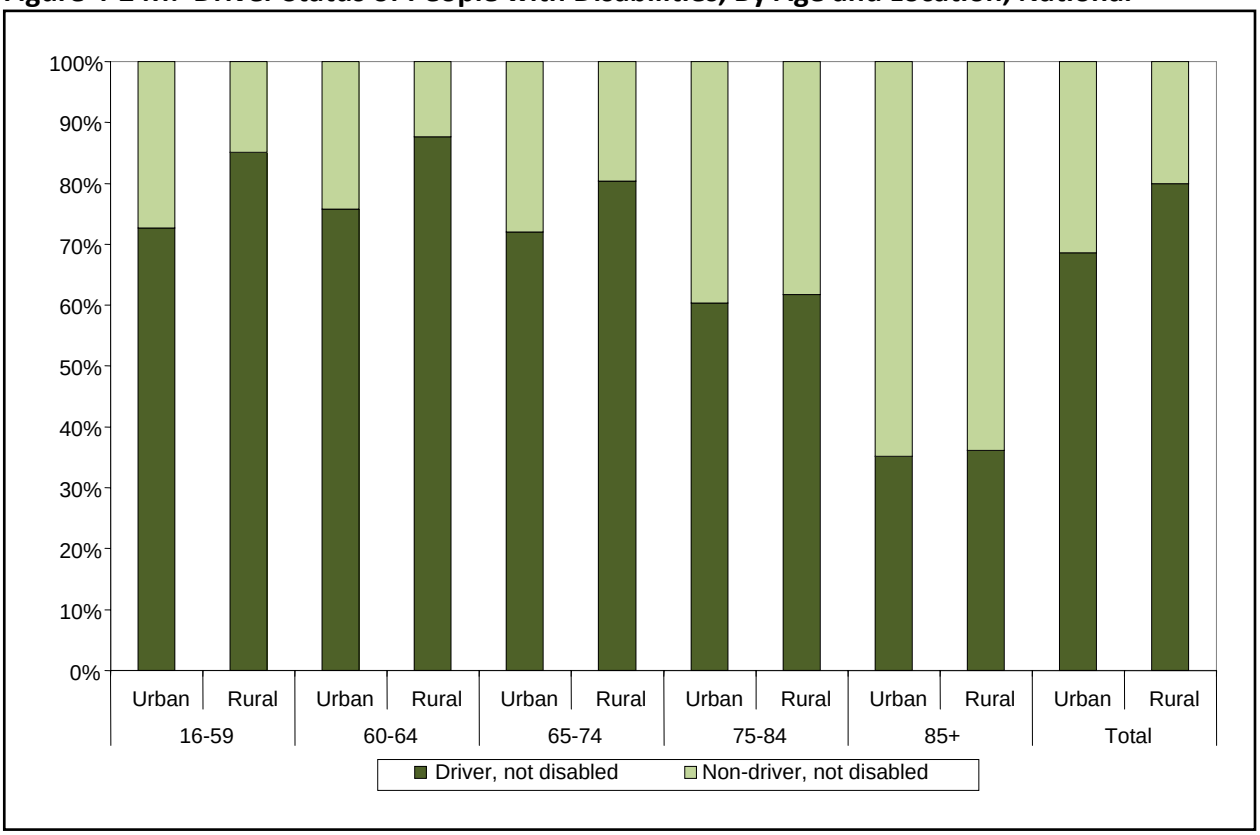
Figure 4-2 L Driver status of people without disabilities, by age and location, National



Source: 2001 National Household Travel Survey

Among people with disabilities, although driving rates also decreased with age, the location differences virtually disappeared among adults aged 75 or older, as depicted in Figure 4-2 M. A majority of people with disabilities under the age of 84 were drivers; among disabled adults aged 85 and older, driving rates dropped to about one in three.

Figure 4-2 M: Driver Status of People with Disabilities, By Age and Location, National



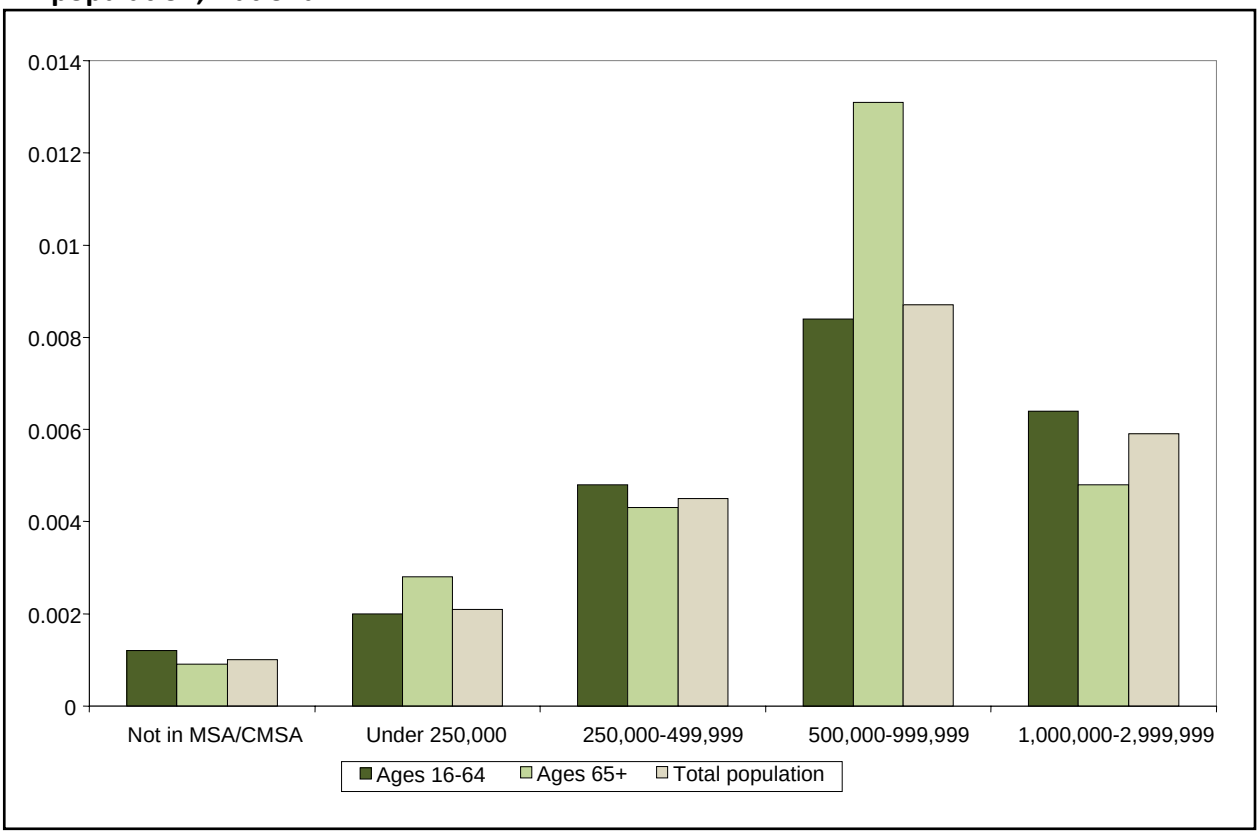
Source: 2001 National Household Travel Survey

How Many Trips Are Made On Transit?

The NHTS data allow only limited analysis of travel patterns by public transit, because demand-responsive and paratransit trips are not clearly distinguished from other transit modes. To facilitate comparisons to travel patterns within Oregon, where most areas do not have extensive rail transit available, local public bus trips were selected as the most appropriate proxy for overall travel by fixed route transit.

The findings, as shown in Figure 4-2 N, revealed an inconsistent pattern of location differences in mean public bus trips by age. In MSAs with populations under 250,000 or between 500,000 and 999,999, older adults mad more bus trips per capita than people aged 16-64. In MSAs with populations between 250,000 and 499,999, between one million and three million, or in areas that are not in MSAs, older adults made slightly fewer daily trips than people aged 16-64.

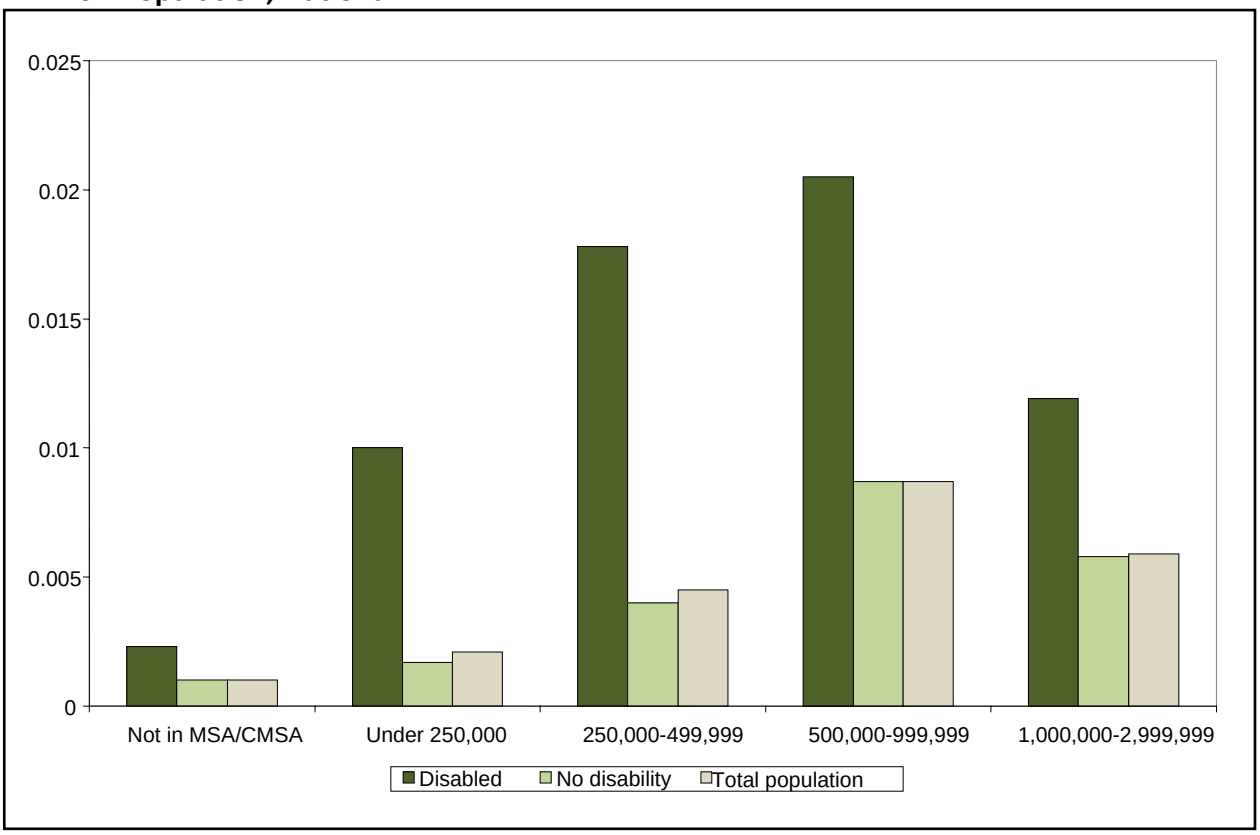
Figure 4-2 N: Average number of public bus trips per day per person, by age and MSA population, National



Source: 2001 National Household Travel Survey

In contrast, people with disabilities in all locations made more public bus trips per capita than the rest of the population, as shown in Figure 4-2 O. The difference in rates was most pronounced in smaller MSAs: in MSAs with populations under 250,000, people with disabilities made nearly six times as many bus trips per capita as people without disabilities, and there was a similar difference in rates in the next-largest MSA category.

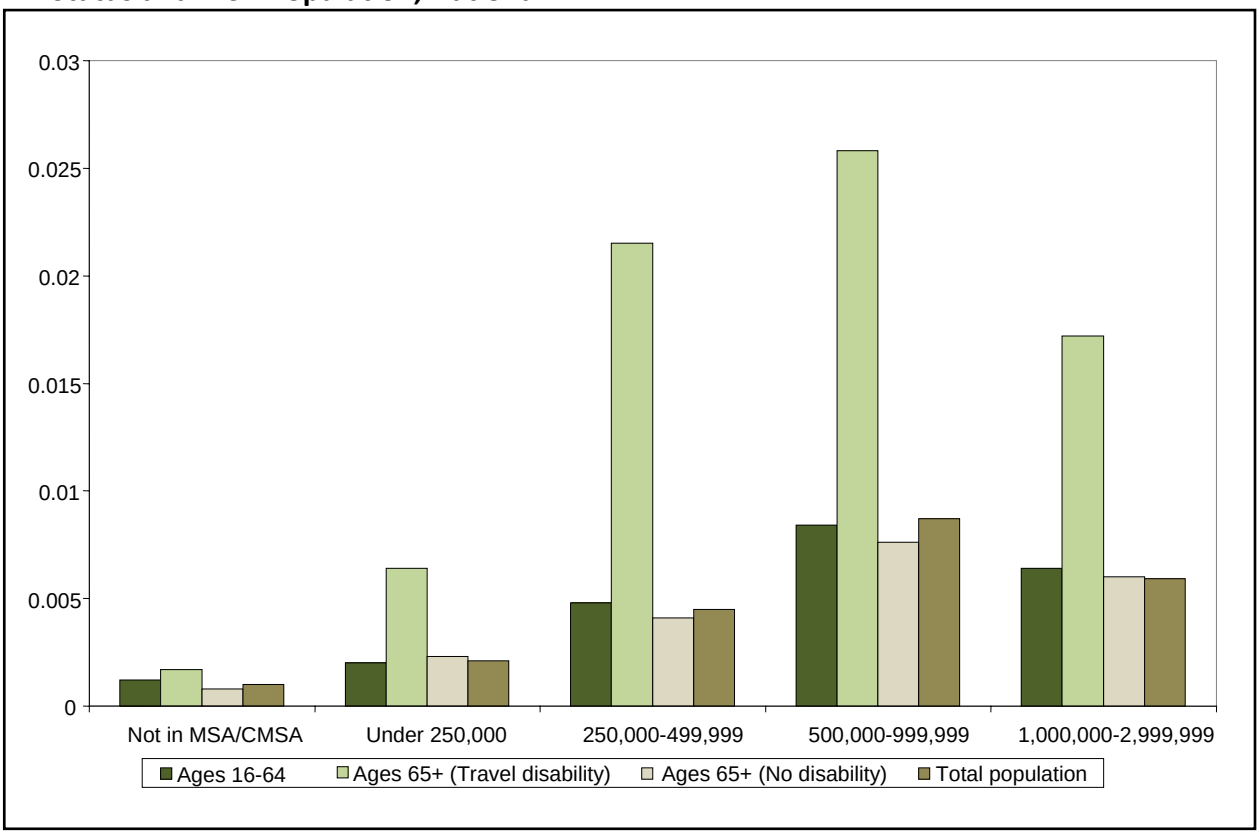
Figure 4-2 O Average Number of Public Bus Trips per Day Per Person, By Disability Status and MSA Population, National



Source: 2001 National Household Travel Survey

In the other three location categories, people with disabilities made roughly twice as many trips per capita as people without disabilities. This general pattern of higher rates of bus travel among people with disabilities was apparent among older adults as well, as shown in Figure 4-2 P.

Figure 4-2 P: Average Number of Public Bus Trips per Day Per Person, By Age, Disability Status and MSA Population, National



Source: 2001 National Household Travel Survey

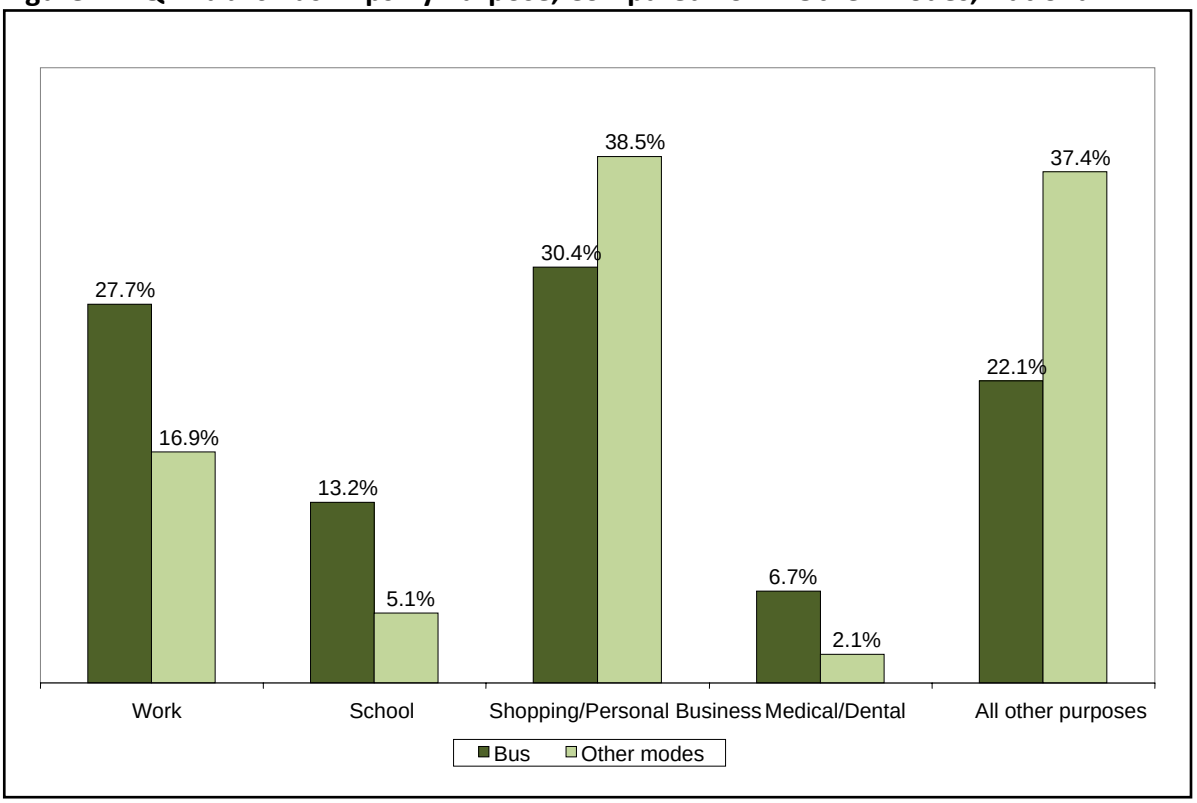
What Are The Transit Trip Purposes?

Among Oregon's mobility-impaired populations (including people with disabilities and older adults who could not afford their own transportation), fixed route and dial-a-ride accounted for 5% of grocery shopping trips, 12% of medical appointments, 10% of entertainment trips, 6% of visits to friends and family, 13% or personal business trips, 10% of other shopping trips, and 37% of work/school trips *(Northwest Research Group Inc. 1999)*.

The analyses of the NHTS data conducted for the present study indicated that trip purposes varied somewhat by mode of travel, i.e., bus or other modes, as shown in Figure 4-2 Q. Shopping/personal business trips and work trips were the two categories that accounted for the majority of travel by public bus. For travel by all other modes of travel, shopping/personal business again topped the list of trip purposes, closely followed by "all other purposes," then work, school, and medical/dental purposes. Shopping/personal

business trips and trips for "all other purposes," however, accounted for a smaller share of travel by public bus than of travel by other modes.

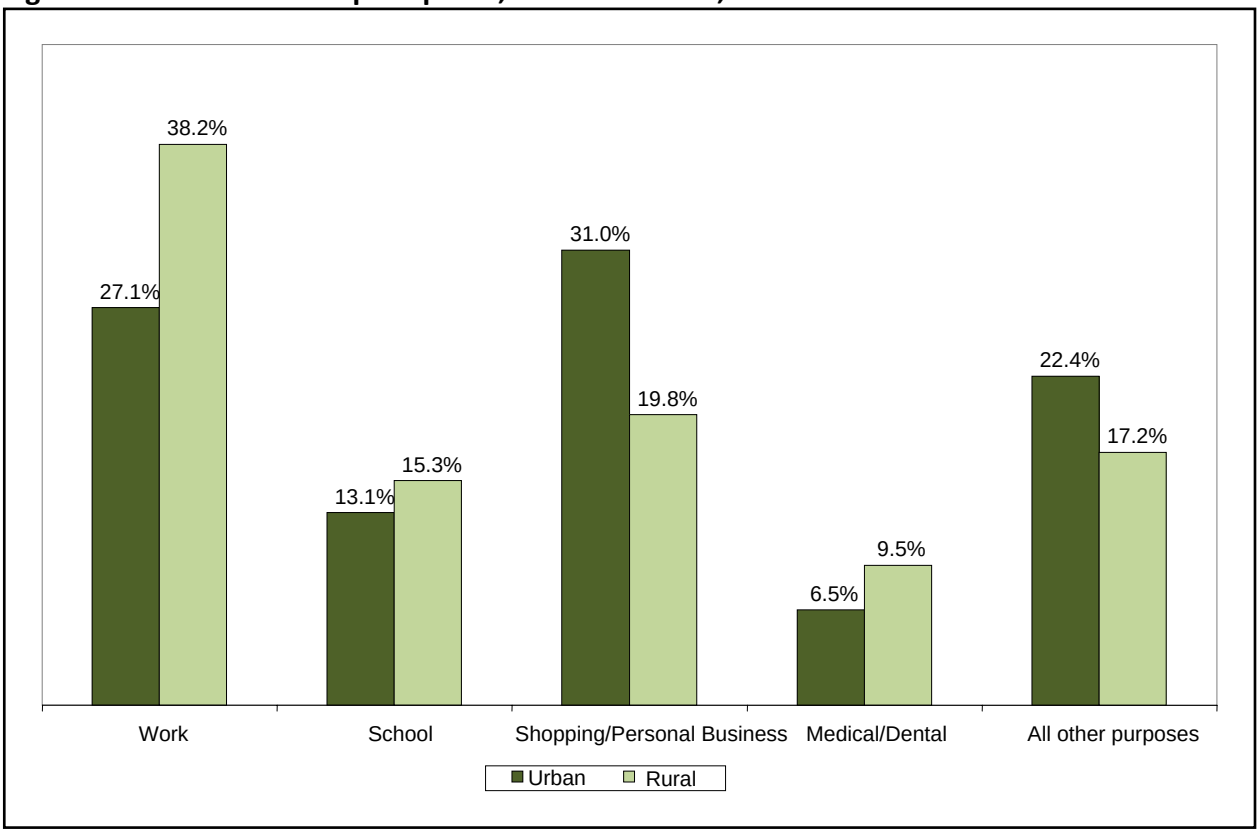
Figure 4-2 Q: Public Bus Trips By Purpose, Compared To All Other Modes, National



Source: 2001 National Household Travel Survey

A comparison of urban-rural differences in trip purposes made by public bus revealed that work trips, school trips, and medical/dental trips accounted for a larger share of rural public bus trips than of urban public bus trips, as shown in Figure 4-2 R. Shopping/personal business trips and trips for "all other purposes" accounted for a larger share of public bus trips in urban locations than in rural locations.

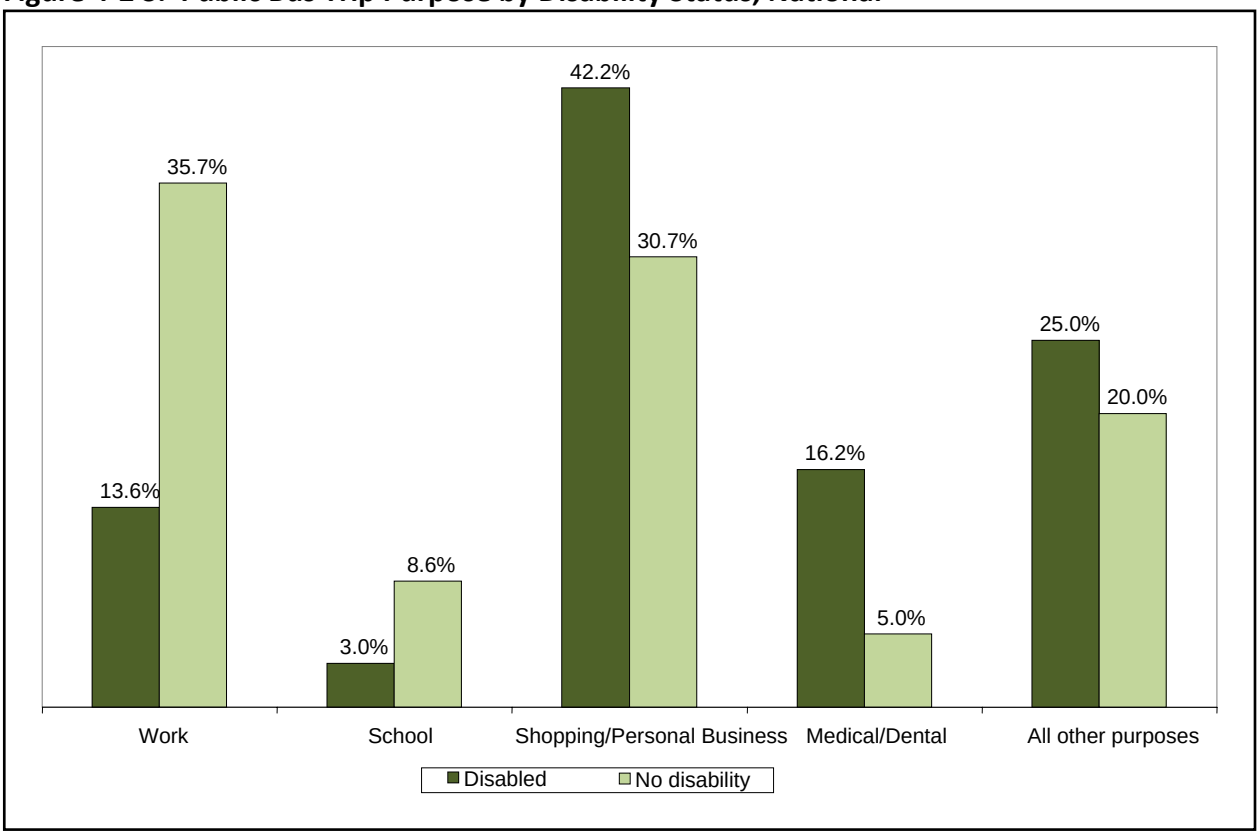
Figure 4-2 R Public Bus Trip Purposes, Urban vs. Rural, National



Source: 2001 National Household Travel Survey

People with disabilities made a larger share of public bus trips for medical/dental, "all other purposes," and shopping/personal business purposes than did people without disabilities, as shown in Figure 4-2 S. People without disabilities made a larger share of public bus trips for work or school purposes.

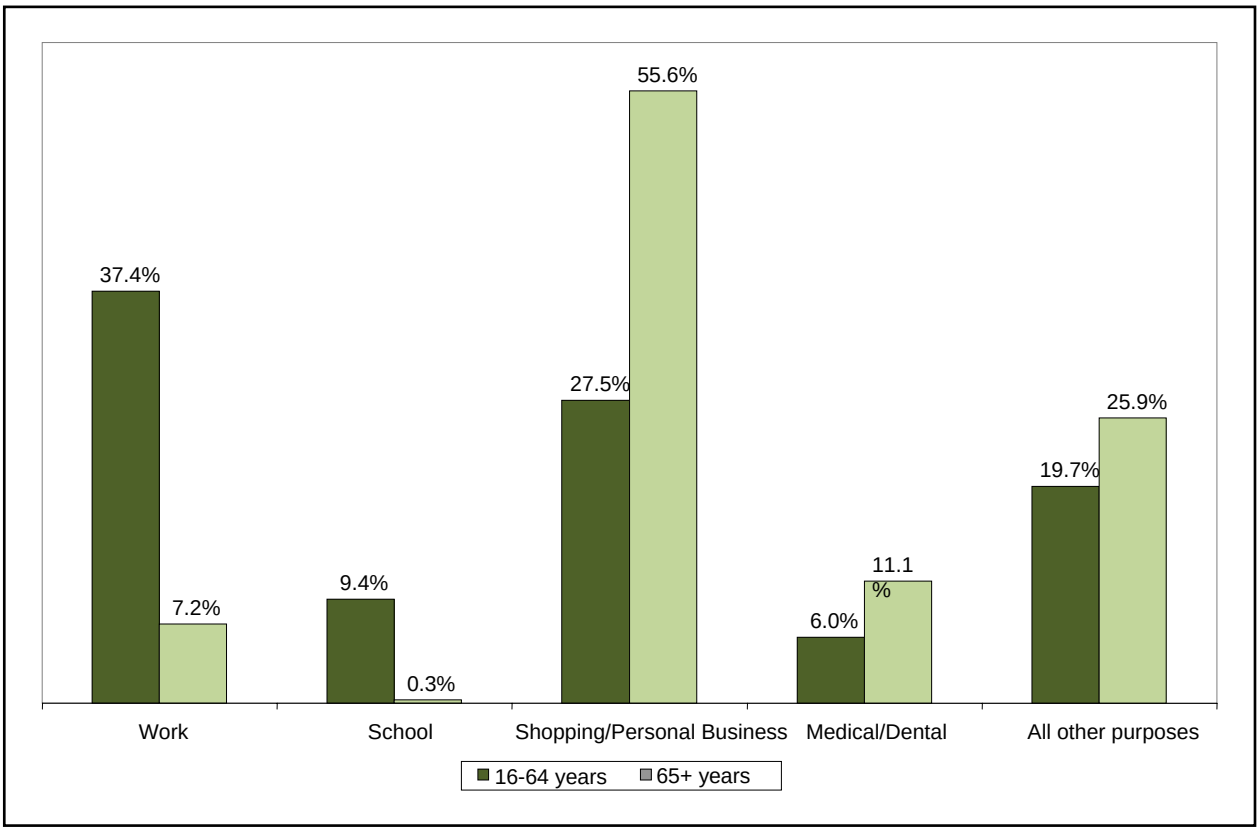
Figure 4-2 S: Public Bus Trip Purpose by Disability Status, National



Source: 2001 National Household Travel Survey

The patterns were the same for older adults aged 65+ compared to younger adults aged 16-64, as revealed in Figure 4-2 T. These findings reflect the overall differences in trip purposes by age and disability status discussed above.

Figure 4-2 T Public Bus Trips Purpose, Older vs. Younger Adults, National



Source: 2001 National Household Travel Survey

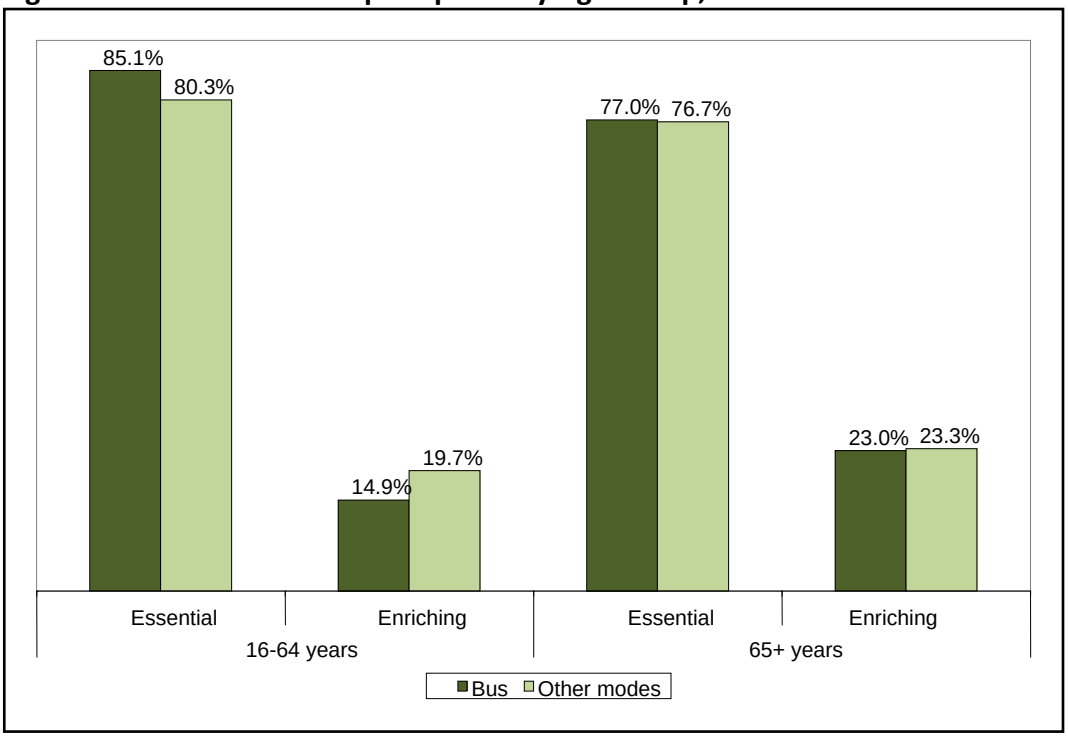
Using input from the report work group, we categorized different trip purposes as either "essential" or "enriching." Essential trips are those that most likely to be eligible for coverage by demand responsive programs that provide transportation for older adults and/or people with disabilities. (Note that the required complementary paratransit service that is supplemental to the fixed route is not allowed to have limitations associated with trip purposes: any trip request for any purpose is required to be fulfilled.) Enriching trips, on the other hand, may not covered by such services (Table 4-2 B).

Table 4-2 B: NHTS Trip Purposes Categorized By Type

Essential	Enriching
Work	School/religious activity
Go to work	Social/recreational
Return to work	Go to gym/exercise/play sports
Attend business meeting or trip	Rest or relaxation/vacation
Other work related	Visit friends/relatives
Go to school as student	Go out/hang out: entertainment/theater/sports events/go to bar
Go to library: school related	Visit public place: historical site/museum/park/library
Shopping/errands	Pet care: walk the dog/vet visits
Buy goods: groceries/clothing/hardware	Attend meeting: PTA/homeowner's association/local government
Buy services: video rentals/dry cleaning/post office/car service/bank	Social event
Family personal business/obligations	Other reason
Use professional services: attorney/accountant	
Attend funeral/wedding	
Use personal services: grooming/haircut/nails	
Meals	
Get/eat meals	
Coffee/ice cream/snacks	
Medical/dental services	
Home	
Go to religious activity	
OS - Day care	
Buy gas	
Transport someone	
Pick someone up	
Take and wait	
Drop someone off	

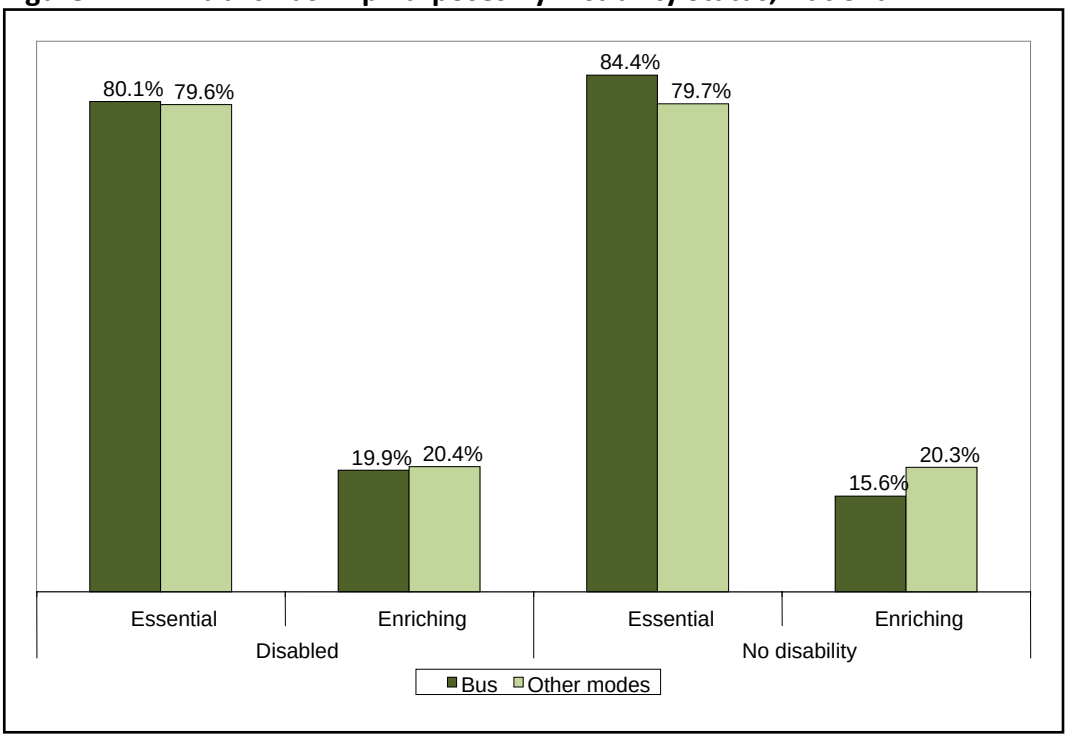
Among older adults and people with disabilities, the ratio of essential to enriching trips is the same for older adults as for all other modes (Figure 4-2 U and Figure 4-2 V). Among people under the age of 65 and people who do not have disabilities, essential trips account for a higher share of bus trips than they do for all other modes. This suggests that these groups may only be using public transit for important trips that cannot be avoided, shifting travel for pleasure to preferred modes. Constraints on the transportation options that older adults and people with disabilities have may prevent them from similarly shifting travel toward preferred modes.

Figure 4-2 U: Public Bus Trip Purposes By Age Group, National



Source: 2001 National Household Travel Survey

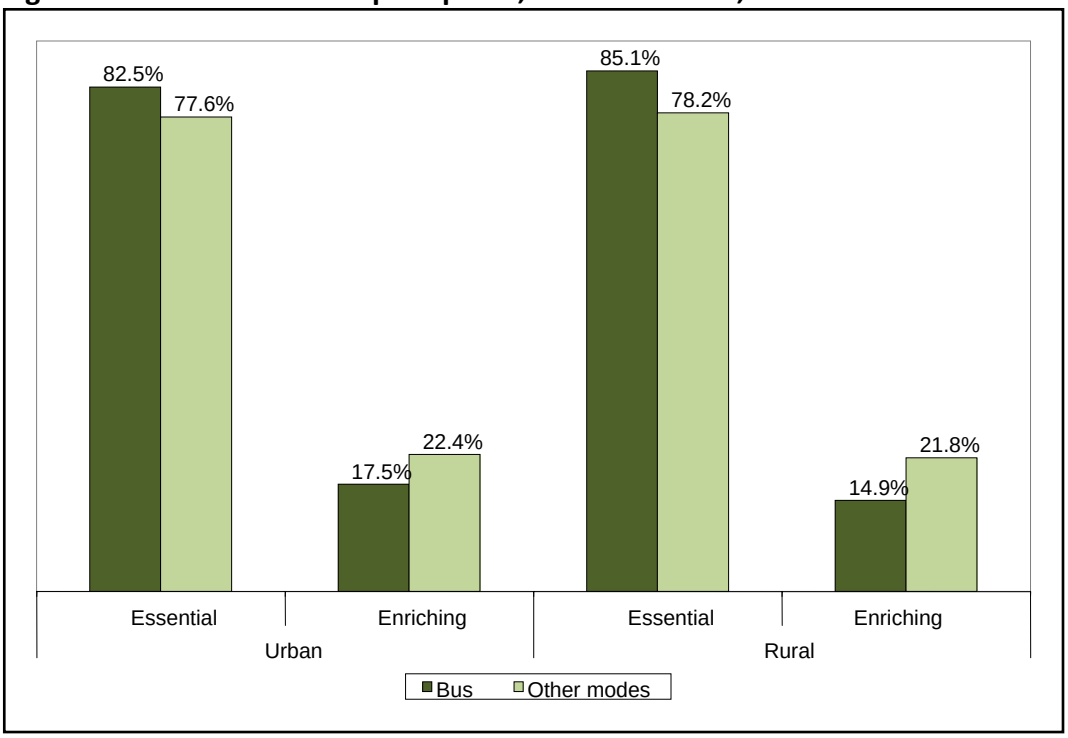
Figure 4-2 V: Public Bus Trip Purposes By Disability Status, National



Source: 2001 National Household Travel Survey

Essential trips also account for a higher share of rural residents' bus travel than of urban resident's bus travel, relative to travel by residents of those locations by all other modes (Figure 4-2 W). This may be due to the decreased convenience of transit in rural locations, which creates a disincentive for people to travel by bus for nonessential trips and limits the locations to which rural users can travel.

Figure 4-2 W: Public Bus Trip Purposes, Urban vs. Rural, National

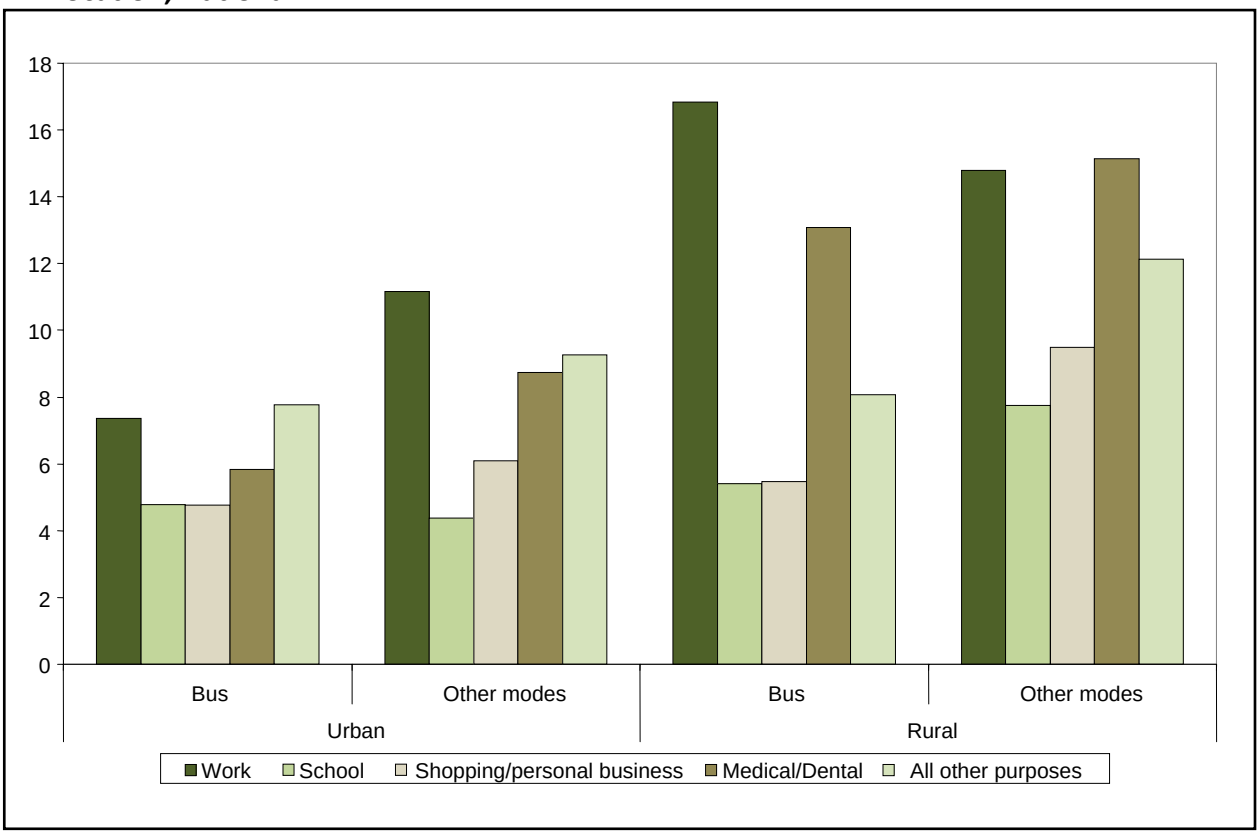


Source: 2001 National Household Travel Survey

How Long Are the Transit Trips, By Purpose?

Analysis of the NHTS data indicated that trip lengths varied considerably by mode (public bus versus other modes), trip purpose and urban versus rural location, as shown in Figure 4-2 X. Trips to work were the longest trips made either by public bus or by other modes in urban areas, and by public bus in rural areas. The longest trips made by other modes in rural areas, however, were those made for medical/dental reasons, very closely followed by trips to work.

Figure 4-2 X: Average Trip Distance for Local Public Bus versus Other Modes, By Purpose and Location, National



Source: 2001 National Household Travel Survey

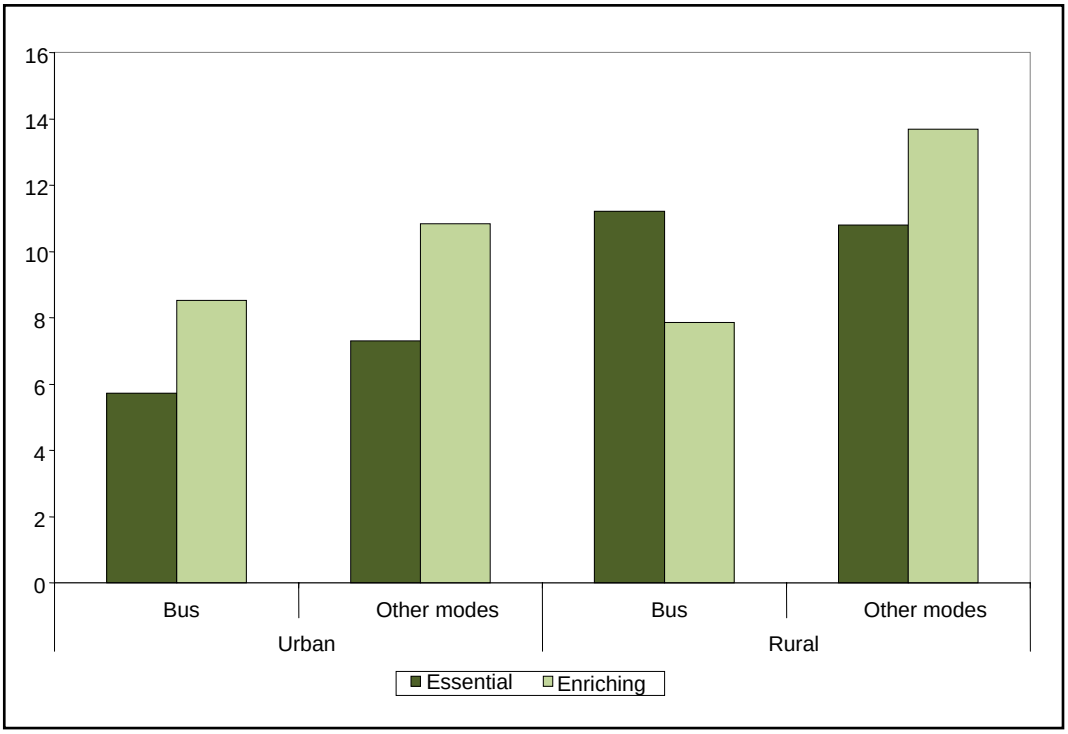
In urban locations, whether by public bus or by other modes, the next longest trips were those made for "all other purposes," medical/dental, shopping/personal business, and school purposes. In rural locations, after trips for work and medical/dental reasons, the next longest trips, whether by public bus or by other modes, were those made for "all other purposes," shopping/personal business, then school purposes.

In urban locations, trips made by other modes (not public bus) generally were longer than those made by bus, with the exception of those made for school purposes. In rural locations, too, except for work-related trips, trips made by other modes were longer than those made by other modes.

As shown in Figure 4-2 Y, in urban locations, essential trips generally were shorter than enriching trips, and bus trips were shorter than trips of the same types made by other modes. In rural locations, essential bus trips were slightly longer than essential trips made

by other modes, while trips made by bus for enriching purposes were much shorter than trips made for such purposes using other modes.

Figure 4-2 Y: Average Trip Distance for Local Public Bus Trips, Essential vs. Enriching, Urban vs. Rural, National



Source: 2001 National Household Travel Survey

Appendix 4-3. Literature Review on Unmet Travel Demand

Relatively little research exists describing the extent and types of unmet travel demand among older adults and people with disabilities. Although some of the federal programs providing senior transportation require that participating agencies assess what portion of seniors' transportation needs are being met, the U. S. Government Accountability Office (*2004*) found that most agencies focus their monitoring efforts on assessing quality of services. Many programs do not collect data on either type or portion of unmet need. Moreover, the lack of a widely accepted definition of *mobility needs* means that the agencies that do monitor unmet needs use a wide variety of indicators, many of which have significant limitations. Similarly, Wasfi and Levinson (*2007a*) noted the lack of research assessing the unmet travel needs of people with developmental disabilities. Much of the literature on transportation needs and barriers for people with disabilities focuses on issues of ADA compliance or mobility obstacles to use of specific modes of travel, rather than specific types of unmet travel needs.

In general, older and disabled non-drivers have greater unmet travel needs than older adults and disabled people who do drive. In interviews conducted by Cvitkovich and Wister (*2001*), 54% of transit-dependent older adults reported having unfulfilled transportation needs, compared to 7% of older adults who were not transit-dependent. Based on an analysis of NHTS data, Bailey (*2004*) found that older adults who do not drive make 15% fewer trips to the doctor, 59% fewer shopping or restaurant trips, and 65% fewer social, religious, and family trips. She also found that older non-drivers were three times as likely to stay home on a given day as adults who drove, with heightened rates of staying home for those who lived in rural or small urban areas. The U. S. Government Accountability Office (*2004*) reported that older non-drivers are less able to meet travel needs for chained trips (e.g., trips linked together, such as a combined trip to the grocery store and to the dry cleaner's), trips where there is a need to carry packages, trips that are "life-enhancing" instead of "life-sustaining," and trips occurring in nonurban areas. A study of travel patterns and needs in North Dakota found that among older women in rural and small urban areas of that state, those who had physical limitations, smaller social networks, who lived in remote locations, who did not own a car, and/or who were dependent on a mode of travel they did not control (such as bus or a ride from someone else) reported wanting to make more trips relative to the amount of trips they were currently making *(Hough 2007)*.

According to a report by the Bureau of Transportation Statistics (*2003*), people with disabilities make up over half the country's homebound population, with data suggesting that 1.9 million disabled individuals never leave their homes. The Bureau of Transportation study found that among people with disabilities who reported never leaving home, the need for special assistance or equipment was more of a barrier than difficulty obtaining needed transportation: 57% of homebound disabled individuals endorsed the former reason and 29% endorsed the latter. About 12% of all people with disabilities reported difficulties getting needed transportation, more than triple the rate reported by people without disabilities (*Bureau of Transportation Statistics 2003*). The following types of difficulties were most frequently reported: limited or no public transportation; not having a car; difficulties using transportation due to disability; and not having someone to depend on for transportation. People with disabilities also were less likely to travel long distances, with only 60% reporting a trip of 100 miles or more in the previous year, as compared to 76% of non-disabled individuals (*Bureau of Transportation Statistics 2003*).

In a survey of Minnesotans with developmental disabilities (a portion of whom also had physical impairments), 24% of respondents reported they were having difficulty making both the trips they wanted to make and the trips they needed to make *(Wasfi and Levinson 2007a).* More than 60% made recreational trips once per week or less and nearly 80% made social trips once per week or less. (It should be noted, however, that no survey items addressed whether or not these low rates of social and recreational trip-taking were due to difficulty meeting travel needs.)

Espinosa, Baca, Estelle, and White's (*2002*) survey of New Mexicans with disabilities provided some additional insight into the barrier that insufficient transportation can pose to fulfilling both essential and enriching travel needs. About 37% of respondents reported that they had missed out on a job opportunity because they could not get transportation to submit the application or attend an interview, and 23% reported that they had lost a job because they lacked transportation to work. In the previous 12 months, 21% had missed work at least once due to lack of transportation, 22% had missed education or training, 26% had missed rehabilitative or supportive services, 27% had missed a medical appointment, 27% had missed shopping, and 31% had missed a recreational or social event. About 55% of respondents believed that better transportation options would improve their quality of life.

According to a mobility needs survey conducted in 1999, mobility-impaired Oregonians experience unmet travel needs that generally reflect the national trends discussed above, with respondents specifically expressing a desire for more transit services (*Northwest*

Research Group 1999). Two in five respondents expressed an unmet need for additional transportation within their community, and one in three said their need for travel to nearby communities was not fully met. Nearly half of the survey respondents indicated a desire to make more trips using fixed route transit than they currently did or stated they would use fixed route should it become available in their area.

In comparison, about one in six wanted to make more demand-responsive transit trips than they currently did, and one in three would use the service if it became available to them. The three main service quality deficits reported by mobility-impaired individuals concerns problems with the accessibility of the service, the lack of staff educated about the needs of the mobility-impaired, and printed schedules that were not easy to understand. Oregon transit providers appeared to be aware of these gaps: of 129 Oregon public transportation providers surveyed, 83% did not believe that the services they provided met the full needs of older adults and people with disabilities.

A direct link between unmet travel demand and physical and mental health effects has yet to be established for older adults and people with disabilities. Previous research, however, has revealed that older non-drivers and older adults who are in poor health or have disabilities are three times as likely as other older adults to have had no social contact on a given day *(Ritter, Straight, and Evans 2002)*, and several decades of research on older adults has established a clear link between social isolation, lower activity level outside the home, and a variety of negative psychological and health outcomes.

Research has found, for example, that older adults who have ceased driving and those who have never driven are less active out of the home *(Marottoli et al. 2000)*, are in poorer health, and experience lower levels of mental and cognitive functioning *(Mann et al. 2005)*. Non-driving older adults, particularly those who do not live with someone who drives, are more likely to enter into long-term care than older adults who drive and are in comparable health *(Freeman et al. 2006)*. Conversely, for older adults, higher levels of activity are generally linked to decreased risk of disabling health conditions, reduced rates of stroke and other acute and chronic illnesses, and lower mortality rates *(Marottoli et al. 2000)*. Even social and productive activities that do not involve physical exercise offer the benefit of reduced mortality rates *(Glass et al. 1999)*.

Social isolation poses particular threats to older adults. A six-year longitudinal study found that socially-disengaged older adults experienced higher baseline levels of depressive symptoms and were more likely to develop depressive symptoms over time even if they had not initially been depressed *(Glass et al. 2006)*. Other researchers have linked driving cessation to increased levels of depression and suicide, particularly among men

(Rosenbloom 2007). Bassuk, Glass, and Berkman (*1999*) found that older adults with no social ties experienced greater rates of cognitive decline over a 12-year period. When lack of transportation diminishes the number of social ties that older adults maintain, this may create a reciprocal relationship where transportation is even harder to obtain in the future, as older adults who must depend on family for transportation are more likely to have unmet transportation needs than those who are able to turn, as well, to friends and/or neighbors for assistance *(Cvitkovich and Wister 2001)*.

In summary, when older adults and people with disabilities are also non-drivers, they travel outside the home at reduced rates and are more likely to report difficulty in meeting their travel needs. Evidence suggests that because of their reduced access to transportation, they must prioritize those trips they are able to take, with social and recreational activities receiving lower priority *(Bailey 2004; Cvitkovich and Wister 2001).* Insufficient transportation sometimes leads to lost jobs or missed employment opportunities. Although little research exists on the effects of social isolation and reduced activity levels among people with disabilities, both of these phenomena are linked to significant negative mental and physical health impacts among older adults. It appears, therefore, that ensuring that older adults and people with disabilities have access to transportation options supporting a full range of life activities will have considerable social, economic, and health benefits – both to the individuals so served and to their broader communities.