

OREGON TRANSPORTATION PLAN UPDATE
Transportation and the Aging Population

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OREGON TRANSPORTATION PLAN UPDATE

Background Paper

Transportation and the Aging Population

Objective

This paper provides background for Oregon Transportation Plan (OTP) policy discussions addressing policy gaps regarding the changing transportation needs of those age 65 or older. The paper describes the characteristics of this population, identifies ways mobility of those age 65 or older may be improved, identifies the current statewide transportation planning policies and recommends policy changes in the OTP.

Definition of the Issue

Oregon's senior population is growing rapidly. The 2000 U.S. Census found that almost 13% of Oregon's population is aged 65 or older. By 2025 this group will be 24% of the state's population. Of the 50 states, Oregon will have the fourth highest proportion of elderly. Currently in Oregon, the greatest proportions of those age 65 or older are in rural counties; older adult populations are greater than 20 percent of Curry, Josephine and Wheeler Counties. However, the greatest number of those over age 65 live in the metropolitan counties, ranging from 29,000 in Jackson County to 74,000 in Multnomah County.

For seniors as well as others, mobility is an important part of the American identity. In American society, "mobility—being able to go where you want when you want—is central to the quality of life. . . . Personal mobility is inextricably tied to the ability to drive a car. For most people, driving is the means to exercise the freedom to choose where to work, live and recreate, to enjoy a network of family and friends, and to travel anytime. These freedoms are perceived to be among the basic rights of every adult."¹ But, as seniors' health declines, their ability to drive and to maintain mobility becomes impaired.

For personal, social and economic reasons, seniors need to maintain mobility. "Currently, there are nine wage earners supporting each senior. By 2050, that ratio will be four wage earners supporting each senior. The fabric of society will necessitate a larger role for part-time work and volunteering. . . . By 2030, it is unlikely that there will be sufficient public funds to support the wide range of services needed. Seniors will want to be mobile because not being able to get around restricts access to economic, social, and health care services and reduces the ability for self-care. The economic impact associated with lack

¹ At Risk Driver Public Education Consortium and DMV, *Shifting Gears in Later Years*, January 2003, p. 2.

of mobility includes lost income, reduced employment opportunities, increased costs of delivering goods and services, increased costs of transport for medical care, and macro-economic losses due to decreased discretionary spending (shopping, cultural events, restaurants, and recreation).”²

The issue then is how can the mobility needs of Oregon’s growing senior population be maintained. Since research and public transit programs have linked those over 65 with the mobility-impaired, some of the discussion refers to both groups. The group of those over 65 includes some who are mobility-impaired; the mobility-impaired group includes people both under age 65 and over age 65.

Characteristics of the Senior Population and the Mobility Impaired

Some predict that the Baby Boomers who are beginning to retire now with high expectations, good health and financial security will change the way we age, design communities, provide services, work and learn. As more Americans age, research is being done to understand the characteristics, needs and preferences of seniors.

Nationally older Americans will be more diverse, with people of color being one of the fastest-growing groups of those over age 65. Women will continue to substantially outnumber men. Most will be in good health and not seriously disabled. Overall, “new generations of older Americans will be healthier for a greater percentage of their lives than those just a few decades ago.”³

Driving is seniors’ preferred way to travel, and they are putting more miles on their cars. According to *Shifting Gears in Later Years*, “driving is the preferred means of transportation for 90 percent of older adults in urban areas and 95 percent in rural areas. In some rural areas, driving is the only means of transportation. Today older drivers travel nearly twice as far in a typical day as older drivers did 20 years ago.”⁴

For seniors, mobility and mode use are more dependent on health than age. AARP’s⁵ *Understanding Senior Transportation Survey*, a national telephone survey of adults age 50 and older to examine transportation needs and preferences, found that health and disability status were better predictors of transportation use and problems than age, especially for those over age 75.⁶

Conditions tend to determine seniors’ driving habits. Most older drivers choose when and where to drive based upon conditions and comfort, e.g., not in poor weather, at night, or

² National Conference on Aging & Mobility, *Senior Mobility in the 21st Century—What Can We Do to Prepare?* Conference Proceedings, March 2002, p. 10.

³ Sandra Rosenbloom, “The Mobility Needs of Older Americans: Implications for Transportation Reauthorization,” Center on Urban and Metropolitan Policy, The Brookings Institute, July 2003, p. 1.

⁴ *Shifting Gears*, p. 24.

⁵ Formerly American Association of Retired Persons.

⁶ Audrey Straight, *Senior Mobility*, p. 27.

during peak congestion.⁷ When seniors become “aware they have a problem, they typically act responsibly by limiting or modifying their driving habits. In general, older drivers decide for themselves when to quit, usually as a result of the progression of medical conditions that affect visual, physical and cognitive functioning and consequently, driving skill.”⁸

Alternative transportation becomes an important resource as people age. Most people give up driving around age 85. Men tend to outlive their driving ability by about six years and women, by about 10 years. This means that the oldest of elderly drivers will have several years after they give up driving when they are dependent on alternative transportation. The availability and cost of alternative sources of transportation are big concerns to the older driver.⁹

The most popular form of alternative transportation is ride-sharing. According to the AARP Public Policy Institute survey of transportation preferences, ride-sharing is the second most common mode of transportation of people age 50 or older and the mode used by more than 20 percent of those age 75 or older. Walking, public transportation, taxis, and community or senior vans each are the usual transportation mode for fewer than five percent of those age 50 or older.¹⁰

Most seniors want to age in place and stay connected to their neighborhood.¹¹ However, seniors may not have accessible public transportation where they live. Nationally, 56 percent of older adults live in suburban areas, 23 percent in rural areas, and 21 percent in central cities. Those living in the suburbs and rural areas are less likely to have good access to public transportation. As well, walking and public transportation may not be good alternatives. Studies show “people in general are often able to drive even though they are no longer able to walk or use public transportation. Eighty percent of people over the age of 80 cannot walk two blocks, and the older a person gets, the more likely he or she will be a rider than a driver.”¹²

The Mobility Impaired

An ODOT-funded research study on mobility needs elaborates on the population of seniors who rely on public or community transportation. The study defines a mobility-impaired person as someone who is dependent on others for meeting transportation needs due to a disability or due to a combination of age (over age 60) and low income. Based on a phone survey in 1998, the study found that 89 percent of those surveyed had no transportation difficulty. Eight percent of all households (urban and rural) had one or more individuals who were mobility impaired. Five percent of those over age 60 had a

⁷ *Senior Mobility*, p. 12.

⁸ *Ibid.*, pp. 25-26.

⁹ *Shifting Gears*, p. 26.

¹⁰ AARP Public Policy Institute, “In Brief: Understanding Senior Transportation: Report and Analysis of a Survey of Consumers 50+,” 2002, p. 2.

¹¹ Straight, *Senior Mobility*, p. 42.

¹² *Senior Mobility*, p. 27.

disability or transportation difficulty. The survey found that the mobility-impaired individual is:

- More likely to be female (63%) than male (37%);
- Older – half are 65 and older;
- Less affluent than the average citizen – median household income is \$20,540. Twenty-two percent report an annual household income of less than \$10,000;
- Not currently employed – half are retired and 28 percent are unemployed due to their disability;
- More likely (55 percent) than not to use a mobility aid.¹³

The primary disability of 37 percent of mobility-impaired persons is ambulatory in nature. About 75 percent of the mobility impaired indicated they had difficulty performing key tasks related to using fixed route public transportation, including walking six blocks, standing and waiting for a vehicle for 10 minutes, and asking someone for information.

The study found that 98 percent of the mobility impaired made at least some trips outside the home, travelling an average of 3.6 days per week. Although they made trips to grocery shop most often, they also frequently made trips for medical appointments, entertainment and visits to friends or family. Forty-one percent of the mobility-impaired individuals indicated they would like to make more trips in their community but are unable to do so because they do not have transportation. In some cases this means more trips on existing services since 84 percent of the survey respondents have access to one or more types of public transit including fixed route, dial-a-ride, or other public transportation services.¹⁴

Approaches to Senior Mobility

How can the state and local jurisdictions help seniors maintain the essential mobility that enables them to meet personal, social and economic needs? There are six basic approaches:

1. Driver licensing and education,
2. Technology-enabled driving,
3. Roadway engineering,
4. Public transportation, paratransit/demand response and other mobility strategies,
5. Improvements to land use development and walking and bicycling facilities, and
6. Improvements to other modes.

¹³ Northwest Research Group, Inc., *Oregon's Mobility Needs: General Population Survey and Transportation Provider Survey: Final Report*, 1999, p. xi.

¹⁴ *Ibid.*, pp. xii-xiii.

Exploring these approaches can give direction to policy recommendations for the Oregon Transportation Plan Update.

Driver Licensing and Education

Studies show that older drivers are safe and that it is not possible to generalize about the relationship between age and driving performance.¹⁵ “Most older drivers are as capable of driving as safely as their younger counterparts. They are not involved in as many crashes as younger drivers, and the crashes they are in rarely kill others. However, “when in a crash, older adults themselves are more likely to be killed or seriously injured.”¹⁶

The risk of dying in crashes increases dramatically with age. Oregon drivers age 65 to 74 are almost 8 percent of licensed drivers and almost 10 percent of all driver fatalities, but 75 and older are 6 percent of licensed drivers and 11 percent of driver fatalities. Those age 65 to 74 are involved in 203 crashes per hundred million vehicle miles traveled, but those age 75 or older are involved in 964 crashes per hundred million vehicle miles traveled.

“Older drivers are less likely to speed, drive drunk or cause a severe crash. They also have the highest rate of seatbelt use. But, they are more likely to develop medical conditions that could affect safety on the road, such as deteriorating vision, slowing reaction time, and declining cognitive ability.”¹⁷ Older drivers are at higher risk for more of the medical conditions such as diabetes, cardiovascular disease and dementia that are factors in crashes.¹⁸ Vision is the most common impairment, and becomes more prevalent with age. However, experts in medical problems of the elderly estimate that as many as half of Oregonians age 85 and older have some form of dementia. This population has a much greater rate of having car crashes.¹⁹

To lower the risk of crashes, the state is increasing older driver licensing regulations and working to improve driver behavior through public education.

- **Driver Licensing**

With legislation in 1999, Oregon formally began a process to develop a comprehensive approach to licensing older drivers. As a result, the Older Driver Advisory Committee developed a set of recommendations for a licensing system. Based on the committee’s recommendations, the 2001 Legislature passed House Bill 3071 requiring Driver and Motor Vehicle Services (DMV) to work in consultation with medical experts to update administrative rules about the reporting requirements of physicians. The new standards address diminished physical, mental and/or sensory capacities that adversely impact the

¹⁵ *Shifting Gears*, p. 5.

¹⁶ *Ibid.*, pp. 24-25.

¹⁷ *Ibid.*, p. 25.

¹⁸ *Senior Mobility*, p. 29.

¹⁹ *Ibid.*, pp. 24-25.

ability to safely operate a motor vehicle. Physicians are now required to report drivers to DMV when these impairments are deemed severe and uncontrollable.²⁰

Recent accidents involving older seniors' driving into large groups of people have raised questions about the state's requirements for vision testing. Oregon has an eight-year driver's license renewal cycle with a vision screening test required every eight years at age 50 or over. Other states' licensing laws vary, but a number of states require vision tests as often as every three-four years.

- **Driver Education**

The Older Driver Advisory Committee also identified the need for a broad-based public education program for seniors, those associated with them, and the public. As a result, in 2002 a DMV-led consortium of stakeholders developed a public education plan to reduce the number of injury crashes attributed to drivers with cognitive or functional impairment.

In examining opportunities for influencing older driver behavior, DMV's At Risk Driver Public Education Consortium found that "[I]ronically, the drivers who present the greatest safety risk are the most difficult to reach and influence. According to national research, these individuals tend to be very old males with dementia, who live in rural areas without assistance and support from family members nearby, and with limited, if any, access to alternative transportation. Consequently, the most effective focus for communications is on individuals with the greatest propensity to change—those who have caregivers or family members nearby for additional support and can access alternative transportation."²¹ The Consortium recommendations are directed toward this audience to increase public awareness about the risks to public safety from drivers with functional or cognitive impairment and to promote the use of existing community resources for driver assessment and improvement and public transportation. The Transportation Safety Division is funding the implementation of the recommendations.

Continuing driver education courses are useful for the older driver to maintain skills and knowledge. The California Task Force on Older Adults and Traffic Safety recommended providing a statewide system of non-regulatory driver assessment and rehabilitation services so that older adults have a means to evaluate their driving ability, learn appropriate ways to self-regulate and maximize their safety. Rehabilitation programs can identify areas of driver impairment and teach individuals techniques to compensate for their impairments.²² In Oregon, many major hospitals have rehabilitation centers that may include qualified occupational or physical therapists who can conduct driver evaluations. Private organizations also do driver assessments and skill development. DMW has developed a Website as a resource for people concerned about their own or a family member's driving (www.oregonsafemobility.org).

²⁰ *Shifting Gears*, pp. 2-3.

²¹ *Shifting Gears*, p.11.

²² California Task Force on Older Adults and Traffic Safety, *Traffic Safety Among Older Adults: Recommendations for California*, p. 29.

Technology-Enabled Driving

Intelligent transportation systems (ITS) can improve safety for senior drivers with improvements in vehicle design such as night vision, collision avoidance, and remote vehicle assistance. These enhancements are under development and expensive, so they may be options in the near future for only Oregon seniors and other vehicle purchasers who are financially secure.

Roadway Engineering

Roadway engineering can consider the older drivers' need for enhanced visibility, clear decision-making, and physical flexibility. Larger traffic control devices can enhance visibility; decisions at intersections can be simplified; signs can give advance warning of traffic decisions. Engineering intersections can be evaluated from an older person's perspective.

The Federal Highway Administration has published engineering guidelines to give practical information for highway design and operation that consider seniors entitled *Guidelines and Recommendations to Accommodate Older Drivers and Pedestrians*. It includes recommendations on intersections, interchanges, curves, work zones and highway-rail grade crossings. Many of these recommendations have been incorporated into FHWA's new Millennium Edition of the Manual on Uniform Traffic Control Devices (MUTCD).

ODOT has adopted the MUTCD. Changes include new requirements for the size of signs, options like adding street name signs to advance warning signs, improved directions on the operation of traffic signals, and compliance with the American with Disabilities Act (ADA). In addition the department has been testing and using more durable and reflective pavement markings and considering pedestrian needs when setting up work zones. Audible pedestrian signals and other devices to assist the aging pedestrian are being more widely used.

Public Transportation and Paratransit/Demand Response

Public transit, paratransit and demand response programs are transportation options for seniors, but research studies have found that seniors have particular expectations of these services. The Transit Cooperative Research Program (TCRP) report, *Improving Public Transit Options for Older Persons*, points out that the older traveler wants:

- Acceptability including reliability and comfort,
- Accessibility meaning proximity (door-to-door) and physical and information accessibility,
- Adaptability meaning flexibility and assistance with special needs,
- Availability meaning responsiveness and frequency in hours and days of service, and
- Affordability including fares and discounts or subsidies when needed.

Older consumers are most concerned about the reliability of public transit; they want door-to-door services and flexible services. They are interested in comfortable vehicles and waiting areas and want to travel more hours of the day and days of the week than many public transit authorities currently offer.²³

The TCRP report suggests short-term and long-term strategies for attracting older riders, with a focus on adopting a more customer-oriented approach to public transportation. The report recommends that transit agencies and/or the state could implement the following short-term strategies:

- Improve schedule reliability and provide real-time arrival/departure schedule information using advanced technologies;
- Provide “guaranteed ride home” services;
- Find ways of welcoming people unaccustomed to using transit, including customer relations training for drivers, travel training for passengers, and “bus buddies”;
- Improve information for trip planning and driver training;
- Work with human service organizations and volunteer agencies to better serve specialized travel needs;
- Partner with seniors to build community support for more local transit funding;
- Provide special vehicles for special events; and
- Minimize physical barriers at stations and on vehicles.

The report recommends several long-term strategies:

- “Multiple types of services, offered at varying prices, could go a long way to replacing the ‘one size fits all’ approach to public transportation with options that riders could choose on their own to fit the specific demands of individual days and trips.
- “Shared-ride demand-responsive services, dispatched and controlled through advanced technologies, could provide higher levels of service than now available at higher levels of productivity and cost-effectiveness.
- “Frequent, comfortable, affordable, spontaneous service to a wide variety of origins and destinations over a wide range of service hours is what seniors desire.”²⁴

- **Public Transportation Services in Oregon**

In Oregon, transportation services for seniors are provided by a variety of local agencies, including mass transit and transit districts, cities, counties, tribal governments, private entities and private non-profit agencies. There are 11 transportation districts and about 200 other public and private non-profit agencies offering transportation services. ODOT

²³ TCRP Report 82, *Improving Public Transit Options for Older Persons, Volume 2: Final Report*, p. xx-xxi.

²⁴ *Ibid.*, p. xxii.

does not count the number of private entities offering public transit services; however, they include intercity bus operators (such as Greyhound, Valley Retriever), taxis, town cars, and medical transportation providers. Each county has at least one provider of transit services for seniors.

The service design of the majority of senior transportation programs is demand-responsive (dial-a-ride). The vehicles are usually small buses with lifts and automobiles. The fares are low or donated. To access service, the senior is required to call to request a ride usually at least a day or more ahead of the trip. Typically, the transit provider schedules more than one passenger trip together in order to gain operating efficiencies (sometimes called “shared-ride”).

Service availability varies widely across the state. There is no overlaying “system” to the transportation services provided in Oregon. Seniors may or may not be able to travel across county lines or from city to city with any consistency. The Oregon Intercity Policy, developed by the Public Transit Division, encourages connectivity between communities of 2500 or more population; however, most rural communities fall below this population threshold.

Five of the six metropolitan areas (Medford, Eugene, Salem, Portland metro area, and Corvallis) have a variety of transportation resources available to seniors, ranging from fixed-routes to taxis to demand-responsive services tailored to meet the specific needs of frail seniors. These services are usually available five to seven days a week and for any trip purpose. Bend has a general public demand-responsive service that is designed to meet the needs of the senior population; Bend is planning to expand services over the next few years.

Larger urban communities (less than 50,000 population) such as Albany, La Grande, Grants Pass, and Astoria, also have fixed route or general public demand-responsive services. Seniors are a primary user group of these services.

In the smaller urban areas, transportation services are less available. Services in these communities are limited in scope and may operate less than five days a week. There are often eligibility factors that limit the use or access to the available services. Generally, the more rural and isolated the community, the less service is available. Some communities do not have service.

A major factor in the availability of senior transportation services is funding. Despite the fact that Oregon’s Special Transportation Fund for the Elderly and Disabled provides financial resources to every county and many communities also receive state and federal funds for general public transportation, the amount is not sufficient to ensure that every senior and person with a disability has the ride they need when they need it. Funding is a serious issue in the rural areas. Rural transit costs are affected by the high percentage of senior population, the low population density (which leads to inherently inefficient service design) and the need for services (medical, etc.) that are often many miles away from the home community. Inadequate finances limits opportunities for service

improvements targeted to the elderly and people with disabilities including improved technologies, marketing, increased customer supports such as travel training, and wider hours of services, specifically evenings and weekends.

Communities respond to these challenges by being creative. Some of the strategies include coordinating a variety of financial resources, coordinating a patchwork of transit providers, using volunteers, and co-locating senior and other community services. For example, it is common for senior programs to offer a menu of services, including meals, respite care and transportation. Other state agencies also support transportation services for their clients: Medicaid may pay for certain trips for clients of the Department of Human Services, and the Oregon Department of Veterans' Services (through regional and volunteer programs) provides medical transportation for veterans. Coordination of these resources is a difficult challenge; however, many communities are using coordination techniques that are improving access and efficiency of the local transportation programs.

Land Use Development, Walking and Bicycling

- **Land Use Development**

Certain land development patterns can assist senior mobility. Development designed to mix uses, promote infill, or increase densities can increase seniors' mobility and access. Locating housing developments close to or associated with shopping and social amenities can reduce seniors' need to travel far or by car.

- **Pedestrian Facilities**

Walkable neighborhoods designed to make walking pleasant, safe and secure can increase seniors' health and mobility. Minor changes in neighborhoods can help. These changes include making all sidewalks continuous, planting shade trees along the walkways, creating designated walkways in parking lots, improving street crossing opportunities, and seating at transit stops. Traffic signals can be adjusted so that "walk" phases are more responsive to the needs of slower pedestrians.²⁵ Attention can be given to the transfer between pavements and curbs, traffic signals, traffic islands, and places where pedestrian accidents have occurred.

Some engineering measures to accommodate the needs of elderly and handicapped pedestrians like audible pedestrian signals, curb ramps, proper placement of street benches, braille maps, and pedestrian malls may be appropriate under certain conditions.

- **Bicycling and Other Wheeled Vehicles**

Bicycling can be a viable option for many seniors. Thirty-three percent of national bike club members are over the age of 55.²⁶ Experienced cyclists may safely continue cycling

²⁵ *Senior Mobility*, pp. 22-23, 45.

²⁶ *Ibid.*, p. 26.

into old age, but over age 75 risks become significantly greater.²⁷ Seniors are also increasing using wheeled walkers and electric three-wheeled scooters on sidewalks.

Community design and facilities can encourage more bicycling and use of other wheeled vehicles. Mixed-use development creates opportunities to cycle and walk between home, work, shopping and community activities. Continuous bicycle lanes along streets and highways improve safety for bicyclists as well as motor vehicles. A compact grid street network enables cyclists to use alternate routes to avoid congestion. Bicycle parking facilities and lockers near shops and common destinations can provide security for cyclists.

Other Modes - Air and Rail

Commercial air and passenger rail services provide for seniors through the federal ADA standards as well as through customer services.

- **Air**

Portland International Airport is fully accessible to mobility-impaired people, meeting the federal ADA requirements. Commercial air carriers follow similar regulations regarding accessibility. The Portland terminal provides multi-use information displays, seating at ticketing areas, moving walkways on the concourses, wheelchairs, and luggage carts. Volunteers as well as airport staff provide directions and information. PDX terminal operators are evaluating services for seniors and looking at improved signage and mobility within the terminal.

Other commercial airports in Oregon have fewer services for seniors and/or the mobility-impaired. General aviation airports, usually built for small planes and few passengers, can be expected to have few, if any, services or airport facilities for these populations.

- **Rail**

In Oregon, about 14,000 people over age 62 ride the train in the Eugene to Portland corridor annually; they are 11.6 percent of all passengers. There are about 10,000 handicapped travelers annually. Oregon train services, including Amtrak and the Lewis and Clark trains as well as the state-sponsored Thruway buses, are fully accessible to senior and disabled travelers. In the train stations and on the trains, staff members are available to assist the older and disabled passengers.

²⁷ "Report on Transport and Aging of the Population, European Conference of Ministers of Transport (ECMT) Recommendations," April 24, 2001, p. 3.

Addressing the Issues

Do policies in the Oregon Transportation Plan support the needs of the older and mobility-impaired populations? If not, what changes in the policies are needed? How do these changes relate to transportation supply?

Current Policy in the Oregon Transportation Plan

Although current OTP policy does not specifically talk about transportation of the aging population, the following policies are related to the subject:

Policy 1C - Accessibility. *It is the policy of the State of Oregon to promote a transportation system that is reliable and accessible to all potential users, including the transportation disadvantaged, measured by availability of modal choices, ease of use, relative cost, proximity to service and frequency of service.*

Action 1C.2

Encourage multimodal accessibility to employment, shopping and other commerce, medical care, housing and leisure, including adequate public transit access for the transportation disadvantaged.

Action 1C.3

Implement the accessible transportation requirements established by the Americans with Disabilities Act of 1990.

Action 1C.5

Assure that the services of private and public transportation providers are coordinated. Integrate public and special purpose transportation services.

Policy 1F – Connectivity among Modes and Carriers. *It is the policy of the State of Oregon to provide a transportation system with connectivity among modes within and between urban areas, with ease of transfer among modes and between local and state transportation systems.*

Policy 2B – Urban Accessibility. *It is the policy of the State of Oregon to define minimum levels of service and assure balanced, multimodal accessibility to existing and new development within urban areas to achieve the state goal of compact, highly livable urban areas.*

Action 2B.2

Give preference to projects and assistance grants that support compact or infill development or mixed use projects.

Action 2B.3

Increase the availability and use of transit, walking, bicycling and ridesharing. Promote the design and development of infrastructure and land use patterns which encourage alternatives to the single occupant automobile.

Policy 2D - Facilities for Pedestrians and Bicyclists. *It is the policy of the State of Oregon to promote safe, comfortable travel for pedestrians and bicyclists along travel corridors and within existing communities and new developments.*

Action 2D.1

Make walkways, pedestrian shelters and bikeways an integral part of the circulation pattern within and between communities to enhance safe interactions between motor vehicles and pedestrians and bicyclists, using techniques such as:

- *Renovating arterials and major collectors with bike lanes and walkways and designing intersections to encourage bicycling and walking for commuting and local travel.*
- *Developing all transit centers near residential areas to be safely and expeditiously accessible to pedestrians and bicyclists.*

Policy 2F – Rural Mobility. *It is the policy of the State of Oregon to facilitate the movement of goods and services and to improve access in rural areas.*

Action 2F.3

Encourage modal alternatives to the automobile and truck where feasible in rural areas.

Action 2F.4

Revise regulatory systems in order to stimulate the provision of transportation services by private companies in rural areas.

Policy 40 – Public Information and Education. *It is the policy of the State of Oregon to provide a program of public information and education for the implementation of the Oregon Transportation Plan.*

Action 40.1

Implement a public information strategy for the Transportation Plan, including educational and informational programs on

- *Pedestrian safety issues, targeting the under 25 and over 65 age groups in their roles both as vehicle drivers and pedestrians.*

Current Policy in Modal Plans

- **1995 Oregon Transportation Safety Action Plan**

Action 45

Encourage implementation of innovative programs targeted at high risk drivers, evaluate effectiveness, and, if results merit, aggressively promote statewide implementation.

Action 58

Since the number of persons over 65 living in Oregon will increase by about 25 percent by the year 2012, additional programs targeted at older drivers and transportation system users should be designed and implemented. These should include the following:

- *Programs that help older persons maintain or improve their driving skills.*
- *Programs that provide insurance incentives to persons who participate in driver education.*
- *Programs that adjust highway design and operations to better accommodate older persons. Consider if changes in standards relating to signs and traffic control devices are needed.*
- *Programs that provide transportation options.*

Action 66

Increase emphasis on programs that will encourage pedestrian travel and improve pedestrian safety. The following actions should be undertaken: . . .

- *Expand public education and information efforts relating to pedestrian safety. Develop materials that target drivers, youth, alcohol and other drug impaired pedestrians, and elderly pedestrians.*
- *Encourage more aggressive enforcement of pedestrian traffic laws.*
- *Require walkways and safe pedestrian crossings on all appropriate road projects. . . .*
- *Increase funding for pedestrian system deficiencies.*

- **1997 Oregon Public Transportation Plan**

Policy 2A – Urban, Small City and Rural Public Transportation Systems. *Public transportation in urbanized areas and large cities should serve as an alternative to the single-occupant vehicle to provide mobility, access employment, reduce congestion and maintain air quality. The urbanized area public transportation systems should be comprised of light rail, if appropriate, fixed-route bus and demand responsive transit, rideshare matching and transportation demand management services, as well as taxi, special needs transportation services and other alternatives.*

Public transportation should be provided in small cities and towns in a manner appropriate for their size, density and locally identified needs. At a minimum, public

transportation should serve the transportation disadvantaged with rideshare, volunteer programs, taxis, or minibus services. . . .

- **Other Modal Plans**

The 1992 Passenger Rail Policy and Plan, 1995 Oregon Bicycle and Pedestrian Plan, the 1999 Oregon Highway Plan, and 2000 Aviation Plan do not specifically address seniors or the mobility-disadvantaged.

Recommendations

These policies support many of the issues involved in transportation for the aging and mobility-impaired populations. But additional policy language could fill in some gaps and support better transportation practices for those over age 65. The OTP committee might consider the following policy additions:

1. Consider the mobility needs of older adults and the mobility-impaired in transportation system plans.
2. Implement public education programs involving transportation options, driving assessment and skills review, and licensing.
3. Support a variety of transportation options to provide frequent and flexible transportation services as appropriate to the community's population density and available funding.
4. Evaluate transportation-related designs for pedestrian and bicycling facilities, public transit, and streets and highways in terms of the needs of the young, the old and the disabled. Consider whether the facilities are accessible and safe for users.
5. Consider the needs of older drivers and older pedestrians when designing intersections and traffic signals.
6. Consider testing the vision of those age 65 and older renewing their driver's license every four years.

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