

To: OPTP Policy Advisory Committee
From: OPTP Project Team
Date: 8/15/2016
Re: OPTP: DRAFT Opportunities, Challenges, and Trends

Introduction

Public transportation is a key component of Oregon's transportation system. Public transportation includes modes such as bus, bus rapid transit, paratransit, light rail, commuter rail, intercity passenger rail, and taxis and similar services. It creates mobility and accessibility for residents and visitors, and provides connections within and between Oregon's urban and rural communities; it supports Oregon's economic vitality; and it contributes to the health and safety of Oregon communities.

ODOT Mission

To provide a safe, efficient transportation system that supports economic opportunity and livable communities for Oregonians.

This memorandum outlines how societal **changes and trends** may affect the way Oregonians think about and use public transportation, and how public transportation contributes to the state's economy and quality of life. The new Oregon Public Transportation Plan will include a vision, goals, policies and strategies that will build on **opportunities** and anticipate **challenges** that result from trends occurring in Oregon and nationally. The following summarizes trends, opportunities, and challenges that affect public transportation in Oregon, and is informed by OPTP Existing Conditions information, the OPTP Case for Public Transportation, and the transit providers and stakeholders who provided input through a provider survey distributed in September/October 2015; the Oregon Public Transportation Conference workshop held October 21, 2015; and OPTP initial stakeholder interviews completed by ODOT in 2014.

"Trends" refer to developments that reflect changes in demographics, tendencies, habits, or behaviors.

The information in this memorandum will be used to inform the development of **policies and strategies** for the OPTP. Policies and strategies will address the opportunities, challenges and trends faced by transit agencies, other state agencies, and regional and local governments. Policies and strategies shape and support decisions about public transportation planning, investment, construction, operations, and maintenance.



The information in this memorandum will be reviewed and enhanced through discussion with the OPTP Policy Advisory Committee and outreach events.



Trends

A number of trends affect transportation in Oregon and the use and provision of public transportation services in the state. These trends are important because they directly influence many of the opportunities and challenges facing public transportation now and in the future, and therefore will help shape the new OPTP.

Population growth and demographic changes

Oregon is growing – about one million new residents have been added to the state’s population since the first OPTP was adopted almost 20 years ago. Oregon continues to grow faster than



the national average,¹ driving demand for all forms of transportation including public transportation. Growth is expected to be greatest in urbanized areas, particularly in the mid-Willamette Valley, and public transportation will become a more important alternative as motor vehicle congestion worsens. In more rural areas, population changes may vary by location and have different impacts on public transportation in those areas. These different growth trends will affect the quantity and type of public transportation service needed as communities change.

In addition to growing population, three demographic trends are influencing the use and provision of public transportation. First, millennials now make up the largest single generation nationally and in Oregon. Millennials comprise 27% of the state's population.² Early trends show that millennials, particularly those who live in urban areas, are less inclined to own personal vehicles and more likely to use public transportation than preceding generations. This will place increased demands on public transportation than has previously been observed.³

Second, Oregon's population is aging, and as adults age, they are more likely to use public transportation services as an alternative to driving. Today, 16 percent of Oregonians are aged 65 or older.⁴ Older adults are expected to represent a greater share of the population in the future and in turn, a greater share of public transportation trips. Older adults in Oregon are also more likely to live in rural areas (21 percent) compared to urban areas (14 percent),⁵ and many intend to stay in their homes as long as they are able.⁶ Thus, rural areas in particular, will face increased demands to support the travel needs of older adults to critical services and amenities. This will impact demand and interest in public transportation, and will require providers to accommodate more geographically dispersed riders.

Third, low-income households, minorities, people with disabilities, and limited English proficiency (LEP) populations are more likely to use public transportation than other groups.⁷ The number of Oregonians who are racial or ethnic minorities is growing, likely resulting in increased use of public transportation.⁸

¹ State of Oregon Employment Department. 2015. *Population Growth Rate Increases in Oregon for Third Straight Year*. Accessed at <https://www.qualityinfo.org/-/population-growth-rate-increases-in-oregon-for-third-straight-year>. August 6.

² Oregon Office of Economic Analysis. 2015 "Population, Demographics and Generations". Retrieved 2/1/2015. Accessed at <https://oregoneconomicanalysis.com/2015/02/05/population-demographics-and-generations/>.

³ American Public Transit Association. 2013. *Millennials & Mobility: Understanding the Millennial Mindset*. Accessed at <https://www.apta.com/resources/reportsandpublications/Documents/APTA-Millennials-and-Mobility.pdf>.

⁴ U.S. Census Bureau. 2014. State & County Quick Facts: Oregon, Accessed at <https://www.census.gov/quickfacts/fact/table/OR,US/PST045217>.

⁵ U.S. Census Bureau, Annual Population Estimates.

⁶ DeGood, K. 2011. *Aging in Place, Stuck without Options: Fixing the Mobility Crisis Threatening the Baby Boom Generation*. Accessed June 29, 2015.

⁷ Lyons, W., Peckett, H., Morse, L., Khurana, M., & Nash, L. (2012, October 12). METROPOLITAN AREA TRANSPORTATION PLANNING FOR HEALTHY COMMUNITIES. Retrieved June 29, 2015, from https://www.planning.dot.gov/documents/Volpe_FHWA_MPOHealth_12122012.pdf.

⁸ Office of Economic Analysis, State of Oregon. *Oregon's Demographic Trends*. 2011. Accessed at <https://www.oregon.gov/das/OEA/Pages/forecastdemographic.aspx>.



Low-wage jobs continue to represent a significant share of jobs in the state. Low wage jobs are defined as those occupations with a median wage threshold of \$12 an hour or annual median earnings of \$25,000 or less. Approximately 25 percent of all workers in Oregon meet this criterion. In 2013, 29 percent of all job vacancies in Oregon were for positions paying less than \$10 an hour. Furthermore, minority populations represent a disproportionate share of low wage workers; 45 percent of Latino and 50 percent of African American workers are employed in low-wage industries.⁹ These trends combine to result in populations that may live farther from work to find affordable housing and may not have room in their budgets for vehicles and maintenance. For example, a January 2016 report found that a two-person household in Portland would save \$818 per month or about \$9,817 annually by taking public transportation and living with one less car.¹⁰ Therefore public transportation providers are likely to face increased pressure to provide accessible, convenient and affordable transportation options.

Oregon's demographics affect travel needs and preferences. Understanding these user groups is important in not only planning routes and services but also how to make such audiences aware of their travel options, and to plan for mobility needs (e.g. chair lifts) and amenities (e.g. wireless internet, or restrooms near transit stops) within the public transportation system.

Increasing costs to build and operate public transportation

In Oregon and across the country, maintaining existing transportation infrastructure and responsive transportation service levels is becoming increasingly difficult in the face of long-term transportation funding challenges, particularly for public transportation.¹¹

Public transportation funding is different from other roadway and transportation investments in that public transportation includes some infrastructure costs for the vehicles and any guideways, but more of the expenses are operational, particularly for drivers to provide the service. It is estimated that operational costs are 2:1 the costs of infrastructure investments, yet operational funding comes from different sources than capital funding, and is fairly limited. Operational funding is often more from local sources, while capital funding is often mostly from federal sources. State funding contributes some to both types of expense, and state funds for public transportation in Oregon have been fairly consistent.

Local communities often cannot respond to increasing demand for service due to volatility in local funding sources such as payroll and property taxes, and difficulties associated with

⁹ Oregon Center for Public Policy, 2014. The High Cost of Low Wages in Oregon. Accessed at: <https://www.ocpp.org/media/uploads/pdf/2015/2014-lerc-oregon-workforce-report-the-high-cost-of-low-wages-in-oregon.pdf>

¹⁰ American Public Transportation Association. Accessed at https://www.apta.com/mediacenter/pressreleases/2016/Pages/160121_Transit-Savings.aspx, March, 2016.

¹¹ Government Relations, Oregon Department of Transportation. 2013. *Six trends spell trouble for transportation funding*. Accessed at <https://www.oregon.gov/odot/about/pages/government-relations.aspx>.



increasing revenues from existing sources or implementing new ones. In addition to challenges with the availability of funds, public transportation operating costs continue to rise. Costs associated with labor have increased steadily over time while funding levels have not, meaning more money is going to operations. In addition, the costs to operate and maintain vehicles have increased and many vehicles are overdue for replacement. These place pressures on the ability to sustain existing services let alone expand services to meet the changing demographic needs across the state.

State and local funds also must be used to “match” federal funds. Transit providers are expected to contribute up to 50 percent of the needed money in order to be eligible for federal funds from the Federal Transit Administration (FTA) and Federal Highway Administration (FHWA). These matching funds may come from taxes, or other local fees, which are often difficult to come by; several public transportation providers in Oregon have indicated that they fear not being able to use all federal funds they are eligible for because they may not have enough matching funds available.

Federal dollars can also be unpredictable due to uncertainties about levels of funding for public transportation in the transportation funding authorizations. Although the newest authorization, Fixing America’s Surface Transportation (FAST) Act, increases funding somewhat, new authorizing legislation will be needed after five years.

Connecting to other modes

Most people get to and from the bus or train by walking, biking, or driving and parking. Connections for pedestrians and bicycle riders to public transportation are essential in order to serve the first and last mile needs of those traveling by bus or train. Likewise, emerging services like bikeshare and carshare can help make connections to public transportation more accessible. Trends show an increased interest in a shared economy and modes that support seamless travel without the burden of vehicle ownership costs. Bikeshare and carshare services are becoming more prevalent across the state and not just in areas like Portland, but also mid-sized communities like Eugene and smaller towns like Ashland. There is an opportunity to pair these services with public transportation, helping to create a more interconnected and integrated system, which can support greater access to and increased use of public transportation services.

Private transit providers and Transportation Network Companies

Buses, trains and other transit services are not only provided by public agencies but may be available from private providers such as Bolt, Uber, or Lyft. Private provision of transit is not new, as taxis often serve this function and many of Oregon’s original street car lines were owned and operated by private businesses. An investigation of trends shows that there has been a recent resurgence of private providers, who have recognized economic opportunities to



help meet traveler demands. Bolt offers low-cost intercity and interstate connections across several parts of the country, while services like Uber and Lyft are similar to demand response transit, where contracted drivers can use their own vehicles to pick up and drop off riders. There are opportunities to consider how public and private sector providers may complement one another to meet the overall needs of riders, how one may be able to better serve specific needs, and how they can function together to expand Oregonians' travel choices and opportunities overall.

New technologies

The emergence of mobile applications that provide trip planning, real time travel information, and alerts have also made it easier and more convenient for transit users with smartphones. New e-fare technologies allow riders to purchase fares on their smartphone, speeding boarding times and increasing convenience for riders. Automated and connected cars, buses, and trains are also being tested and operated and may be a future way of delivering transit in a safe, user-friendly and cost efficient way. These technology trends present major opportunities for making public transportation more efficient and easy to use and thereby increasing ridership and revenue, though new technologies may also add expense for implementing and maintaining the technology.

Using public transportation to support state goals

Public transportation is increasingly viewed as a tool to help accomplish many of Oregon's goals including supporting a robust state economy, increasing freight mobility, reducing transportation-related greenhouse gas emissions, promoting energy conservation, supporting emergency preparedness, complementing land uses, and improving public health. State- and local-level greenhouse gas emissions reduction planning efforts revealed that expanding public transportation is essential to reducing emissions from the transportation sector. Additionally, public transportation almost always requires that users walk or bike to and from their station or stop, which can help increase physical activity for users and in turn improve public health. It supports the state's economy and freight movement by providing transportation options and helping to manage congestion through the carrying capacity of a single bus or train car. Public transportation can reduce transportation costs for riders and as a result reduce overall household costs, and provide access to education and employment opportunities, as well as shopping and other services.



Opportunities and Challenges

Opportunities and challenges provide a foundation for shaping goals, policies and strategies that can anticipate change and frame and support future decisions about public transportation in the state. The following table lists the draft goals of the OPTP with associated opportunities and challenges for public transportation identified in OPTP work so far. In the right column, example policy or strategy topics following from the Opportunities and Challenges are listed for further consideration in the OPTP development process.

Although many of these opportunities and challenges are related to the key trends described above (many relate to more than one trend), some may be related to other Oregon historical or societal contexts.

GOAL #1: TRANSIT USER EXPERIENCE People of all ages, abilities, and income levels can travel reliably between destinations with relative ease using a seamless, affordable, convenient, well-coordinated public transportation system. People in Oregon routinely use public transportation options to meet their travel needs.	
Opportunities & Challenges	Example Policy Topics
Mobility management	<ul style="list-style-type: none"> • Mobility management to better utilize existing services • Mobility management education for planners • Incorporate mobility management measures in long range plans • Performance measures related to mobility management programs • •
Multimodal features and options	<ul style="list-style-type: none"> • Best practices for bikes and users of mobility devices on transit • Best practices for facility design • Collaboration with private providers • Multimodal hubs • Roadway design features to support transit •
Access to information	<ul style="list-style-type: none"> • Provision of accessible transit information and marketing • Culturally appropriate marketing and information • Use of technologies •



Increased congestion travel time reliability	<ul style="list-style-type: none"> • Bus queue jumps • Transit signal priority • Transit pass programs • Pre-tax benefits • Bus on shoulder • Dedicated bus lanes
Other	<ul style="list-style-type: none"> • •
Other	<ul style="list-style-type: none"> • •
GOAL #2: SYSTEM CONNECTIONS AND LINKS The public transportation system is linked and well-connected, with connections between public and private providers, user-friendly links between travel modes, and connections to urban, suburban, rural, regional and interstate destinations.	
Opportunities & Challenges	Example Policy Topics
Last Mile and Multimodal connections	<ul style="list-style-type: none"> • Link to other modes and amenities • Technology and information for travelers • Partnerships with private companies •
Access to jobs, schools, services	<ul style="list-style-type: none"> • Role of public transportation in providing access • Identification of different transit roles • Housing and job connections • Communicating transit design choices •
Seamless connections between modes	<ul style="list-style-type: none"> • Intermodal connections, including passenger rail • Bicycle and pedestrian interface with transit system • Operator interface with transit system • Interline transit schedules • Technologies that enable transfers between modes • Efare/universal fare •
Connections between communities, cities, regions, and states	<ul style="list-style-type: none"> • Connections between communities • Identification of needed connections • Connections to support intercity, interregional and interstate movements •



Traveler information	<ul style="list-style-type: none"> Emerging technologies for trip planning, real-time information, and e-fare technology Provision of travel information to non-traditional audiences Role of state in traveler information
Other	<ul style="list-style-type: none">
Other	<ul style="list-style-type: none">
GOAL #3: COMMUNITY LIVABILITY AND ECONOMIC VITALITY Public and private interests collaboratively work to promote community livability and economic vitality, including economic expansion and diversification, through public transportation that efficiently and effectively moves people of all ages to and from homes, jobs, businesses, schools and colleges, and other destinations in urban, suburban, and rural areas.	
Opportunities & Challenges	Example Policy Topics
Attracting employers and highly skilled workers	<ul style="list-style-type: none"> Incentives to locate near transit Transit passes for employees
Enabling workers to access jobs	<ul style="list-style-type: none"> Public transportation services alignment with diverse work schedules Work with private sector providers to provide off-hour transportation Integrate TO strategies with transit (eg van pools)
Promoting and supporting tourism	<ul style="list-style-type: none"> Tourist passes Transfers between transit service providers Public transportation access to recreational activities (e.g. shuttle to Multnomah Falls and to Mt Hood) Bikes on buses and trains – bike trailers
Special events (athletic games, conferences, concerts or rallies)	<ul style="list-style-type: none"> Service adjustment and partnering with event sponsors to meet travel needs for large events Public-private partnerships
Other	<ul style="list-style-type: none">



	<ul style="list-style-type: none">
Other	<ul style="list-style-type: none">
GOAL #4: EQUITY Public transportation is an essential tool for enhancing equity and opportunities for all Oregonians. Public transportation options improve lives by providing affordable, safe, and welcoming access to services and opportunities and eliminating barriers that prevent access to homes, jobs, and other destinations.	
Opportunities & Challenges	Example Policy Categories
Identify needs for the use of public transportation across Oregon's diverse population	<ul style="list-style-type: none"> Equity assessments in transportation planning and decision-making Methods to ensure outreach and participation of public transportation users in capital and operations planning
Balancing different aspects of equity	<ul style="list-style-type: none"> Balance "horizontal" equity (i.e., does service and resource distribution roughly reflect the distribution of population around the state) with "vertical" equity (i.e., does distribution of service and resources compensate for inequities in income, mobility, and need)
Youth access to public transportation	<ul style="list-style-type: none"> Partnerships with schools and colleges to offer transit passes Locating bus stops near schools Best practices in transportation of youth, eg travel training, behavioral strategies, etc.
Transit-dependent needs	<ul style="list-style-type: none"> Minority and low-income households service needs Address limited English proficiency (LEP) needs
Other	<ul style="list-style-type: none">



Other	<ul style="list-style-type: none">
GOAL #5: HEALTH Public transportation fosters improved health of Oregonians by giving people opportunities to integrate physical activity into everyday life through walking and biking, supporting community vitality by enhancing connections between people, promoting cleaner air, and ensuring access to medical services, healthy groceries, and recreation.	
Opportunities & Challenges	Example Policy Topics
Access to essential services	<ul style="list-style-type: none"> Public transportation connections to health services Barriers to use of public transit for aging adults and transportation disadvantaged
Support of active lifestyles	<ul style="list-style-type: none"> Active modes such as first/last mile connections Public transportation's contribution to cleaner air Links between neighborhoods accessibility and access to transit Connections between neighborhoods and to recreation
Other	<ul style="list-style-type: none">
Other	<ul style="list-style-type: none">
GOAL #6: SAFETY AND SECURITY Public transportation feels safe and is safe for all riders. Public transportation contributes to emergency response and the ability of Oregon communities to cope with natural or human-caused disasters.	
Opportunities and Challenges	Example Policy Topics
Transit vehicle crashes	<ul style="list-style-type: none"> Driver training Education for all users Data and identification of risk factors
Transit security issues or	<ul style="list-style-type: none"> See and be seen at transit stops (e.g. illumination)



perceptions	<ul style="list-style-type: none"> • Security guard / enforcement presence • Outreach to address misconceptions • Security planning • Safety audits and toolkits •
Natural disaster resilience and redundancy	<ul style="list-style-type: none"> • Emergency planning • Understand and work to mitigate seismic vulnerabilities • Transit as a modal option after a disaster (route redundancy) • Communication and incident management systems • Coordination with law enforcement and emergency responders • •
Roadway, guideway, or track design	<ul style="list-style-type: none"> • Bus stops and pullouts • Road, guideway, or track geometry • Guideway or track crossings • Operating speeds • •
Education for transportation system users	<ul style="list-style-type: none"> • Safety/prevention best practices • See and be seen campaigns • Rider orientation, e.g. school kids
Other	<ul style="list-style-type: none"> • •
Other	<ul style="list-style-type: none"> • •

GOAL #7: ENVIRONMENTAL SUSTAINABILITY

Public transportation contributes environmental and health benefits by lessening the need for additional vehicle travel while reducing greenhouse gas emissions by providing efficient and sustainable travel options.

Opportunities & Challenges	Example Policy Topics
Greenhouse gas emissions	<ul style="list-style-type: none"> • Fuel efficient and electric vehicles • Reduced reliance on SOVs • Use of different fuels by transit (CNG, natural gas etc)



	<ul style="list-style-type: none">
Water quality	<ul style="list-style-type: none"> Water quality
Other	<ul style="list-style-type: none">
Other	<ul style="list-style-type: none">
GOAL #8: LAND USE Public transportation is a tool that contributes to Oregon's state and local land use goals and policy. Agencies collaborate to ensure public transportation helps shape Oregon communities and preserves farm and forest land by providing efficient and effective travel options in urban, suburban, and rural areas.	
Opportunities & Challenges	Example Policy Topics
Last mile and multimodal connections	<ul style="list-style-type: none"> Land use and transportation planning to support modal choice and connection to other modes Park and ride planning Multimodal hub planning Support community planning for car and rideshare
Integration of transportation and land uses	<ul style="list-style-type: none"> Encourage land use patterns that support compact development Transportation system plans include transportation and land use strategies to support public transportation
Other	<ul style="list-style-type: none"> What are some policies around efficient or effective public transportation?
Other	<ul style="list-style-type: none">



GOAL #9: STRATEGIC INVESTMENT

Sustainable and reliable funding meets the demand for public transportation service operations and infrastructure. Strategic investments in public transportation support the overall transportation system and the quality of life and economy of Oregon.

Opportunities & Challenges	Example Policy Topics
Lack of consistent, sustainable funding	<ul style="list-style-type: none"> • Exploration/support of additional funding and financing options •
Emerging technologies	<ul style="list-style-type: none"> • Oregon as a “proving ground” for new transit technologies • Monitoring development and advancement of new technologies as they relate to public transportation •
Prioritizing system investment	<ul style="list-style-type: none"> • Prioritization frameworks • Role of emerging technologies to create a more efficient system • TAM – transit asset management • Performance planning and measures
Equitable investment	<ul style="list-style-type: none"> • Equitable distribution of state/federal/local resources, including whether and how to ensure a basic “lifeline” level of service in all communities • Equity assessments in transportation decision-making • Consider basic level of service appropriate to area •
Lack of flexibility in the use of public transportation resources	<ul style="list-style-type: none"> • Exploration/support of additional funding and financing options • Support flexible funding source that may be used for both operations and capital •
Fixed route transit	<ul style="list-style-type: none"> • Best practice in designing fixed routes (run cutting, cost of complementary paratransit, etc.) • Use of technology for planning •
Demand for paratransit services	<ul style="list-style-type: none"> • Collaboration with human resource service agencies • Partnerships with non-profits or private contractors • Provide alternative services such as shopper shuttles •



Demand-response services	<ul style="list-style-type: none"> • Partner with non-profits or private contractors • Partner with human service providers to consolidate/coordinate operations • Technical support to providers to develop deviated fixed-route services • Identification of best practices for provision of demand-response service • Technology to increase efficiency •
Other	<ul style="list-style-type: none"> • •
Other	<ul style="list-style-type: none"> • •
GOAL #10: COMMUNICATION, COLLABORATION, AND COORDINATION Public and private transportation providers and all levels of government within the state and across state boundaries work collaboratively and foster partnerships that make public transportation seamless regardless of jurisdiction.	
Opportunities & Challenges	Example Policy Topics
Coordination between transit agencies and human service agencies	<ul style="list-style-type: none"> • Partner with human service agencies to provide rides and share costs • Encourage one-call centers that can facilitate group trips or fill empty seats in buses • Identification of potential mobility management services • •
Partnerships between businesses and institutions	<ul style="list-style-type: none"> • Partnerships with businesses to offer transit passes • Partnerships with schools and colleges to offer free student passes •
Coordination and cooperation	<ul style="list-style-type: none"> • Coordination among public transportation providers, local government, private partners, and transportation planning efforts • Roles and responsibilities of different government agencies and transit providers • Improve transit service planning – initiate transit development plans •



Memo



Other	<ul style="list-style-type: none">••
Other	<ul style="list-style-type: none">••

