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The Washington State Public Transportation Plan is a guide for the next twenty years of public transportation in Washington, moving our state toward a more integrated, multimodal transportation system that can meet the needs of growing and thriving communities. The plan defines public transportation in its broadest sense, considering any alternative to a single-driver car as a part of a vast toolkit of public transportation options.

In the 21st century, we are challenged to use all our transportation assets in more cost effective and sustainable ways. In this context, public transportation does far more than simply transport people from one place to another. It functions both as an economic driver and a social safety net:

- Giving people a safer, more affordable way to get to work
- Creating jobs
- Providing access for those who are unable to drive to needed jobs, healthcare, education or social services
- Adding to homeowner equity
- Increasing the efficiency and carrying capacity of our roads and highways
- Keeping our air cleaner and our planet healthier

Public transportation is, at its core, a partnership—local transit authorities, social services, regional planning organizations, private companies, federal agencies, tribes and the Washington State Department of Transportation. All must work together to provide a system of diverse, integrated public transportation options. Emerging technology can allow for new kinds of collaboration. Leadership and innovation will be required at all levels and from all sectors to meet our growing and changing needs.

Leadership starts with you. I invite you to review the Washington State Public Transportation Plan. It provides a framework for creating an integrated, multimodal system. Once finalized, it will drive the actions necessary to make that system a reality.

Lynn Peterson
Secretary of Transportation

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- Revised Code of Washington (RCW) 49.60 Discrimination human rights commission

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Key themes of the Washington State Public Transportation Plan

- Broadly defines public transportation as any form of public or private transportation that is accessible and available to the public and does not involve a single person in a motorized vehicle
- Recognizes that a connected, coordinated transportation system that serves all people is instrumental to thriving communities
- Acknowledges that widespread innovation and continuous improvement are key to meeting ever-changing transportation needs
- Advocates for ongoing emphasis on delivering positive customer experiences
- Provides a framework for a more performance focused and integrated approach to transportation
- Advances the state's interest and role as a public transportation provider

Introduction

At the dawn of the 21st century, all signs point to a future fundamentally different than our recent past. Washington's seven million residents and half million businesses are changing the ways in which we communicate, connect, travel and transact. At the same time, the state's population is projected to grow more than 20 percent during the next 20 years. In Spokane and Clark counties, the population is expected to grow to more than 500,000 people and Central Puget Sound is expected to add another million people in the coming decades.1

This population growth is accompanied by megatrends such as aging baby boomers and public infrastructure; increasing economic inequality and diversity; urbanization and housing costs; the suburbanization of poverty; and a growing urgency to address climate change.. All of these trends, coupled with striving to meet Washington state's six adopted transportation system goals (Revised Code of Washington 47.04.280), challenge us to develop new ways to think about how to best use and preserve all of our transportation assets. These assets include public transportation as defined in its broadest, multimodal sense.

The Washington State Public Transportation Plan takes those changes into account while recognizing that our need to connect with other people—to work, play, learn and meet fundamental life needs—is as strong as ever. This plan has been prepared to support state agencies, transportation service providers, policy makers, and other public transportation stakeholders as they work together to create a public transportation system in Washington for the 21st century. It is consistent with and builds upon a legacy of initiatives to shape a better, more multimodal system for Washington (see Appendix E for a crosswalk of how this plan aligns with Washington state's other modal plans). It reflects the consideration and input of multiple partners who plan for, provide direct services, make policy and fund the various components of Washington's public transportation system.

Since 2013, the Public Transportation Advisory Committee has worked extensively with the Washington State Department of Transportation (WSDOT), transit partners, and other state agencies to develop goals and action strategies to advance a complete and connected multimodal transportation system for Washington state. Their vision, as set forth in this plan, is as follows:

All transportation partners in Washington state will work together to provide a system of diverse and integrated public transportation options. People throughout the state will use these options to make transportation choices that enable their families, communities, economy and environment to thrive.

Four Key Public Transportation Challenges in Washington State

- The demand for access to jobs, schools, services and community is growing, but public transportation providers' ability to meet this demand has never been more constrained.
- Congestion is hurting our economy and quality of life, and we must find ways to move more people with even greater efficiency.

- Traditional methods for funding mobility are increasingly unsustainable.
- Emerging technologies and business models are redefining how people communicate, work and conduct trade.

The need for public transportation services in Washington continues to grow in many different ways. Washington is a diverse state with various public transportation markets and services—urban and rural, commuter and off-peak, regional and local, fixed-route, on-demand services, bike/pedestrian facilities, telework, demand management tools and more. All are challenged within the context of our current methods of planning and funding to meet demand and accommodate future growth.

A central premise of the Washington State Public Transportation Plan is that our public transportation services should be considered a valued asset that can be enhanced with new types of partnerships and strategic investments. Additional resources are needed, but to be good stewards of our system it is also necessary to maximize the value of the assets we already have in place.

That is why this plan emphasizes a focus on integrated multimodal outcomes and performance. For example, this plan identifies a need for further collaboration to more clearly identify transportation performance goals; even stronger partnerships, innovations and investments to achieve those goals; and better data and evaluation to measure and report our progress.

The State's Interest in Public Transportation

There is ample policy precedent that supports the state's interest in increasing and leveraging the benefits of public transportation. The RCW 47.66.010, adopted by the Washington State Legislature in 1993, states that "there is significant state interest in assuring that viable multimodal transportation programs are available throughout the state." In 2005, RCW 47.01.330 passed with the intent "that the state department of transportation be a leader in public transportation. The department shall play a guiding role in coordinating decentralized public transportation services, increasing connectivity between them, advocating for public transportation as a means to increase corridor efficiency, and increasing the integration of public transportation and the highway system."

Additionally, the state's six transportation system policy goals 2 (RCW 47.04.280) helped lay the foundation for the public transportation plan:

- Economic Vitality: To promote and develop transportation systems that stimulate, support and enhance the movement of people and goods to ensure a prosperous economy
- Preservation: To maintain, preserve and extend the life and utility of prior investments in transportation systems and services
- Safety: To provide for and improve the safety and security of transportation customers and the transportation system
- Mobility: To improve the predictable movement of goods and people throughout Washington state, including congestion relief and improved freight mobility

- Environment: To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities and protect the environment
- Stewardship: To continuously improve the quality, effectiveness and efficiency of the transportation system

Planning and policy initiatives contain language that reinforces the need for collaborative and integrated transportation planning and investment. Examples include, the Washington State Bicycle Transportation and Pedestrian Walkways Plan, Washington State Freight Mobility Plan, Washington State Department of Transportation Ferries Division Long-Range Plan, Human Services Transportation Plan, Americans with Disabilities Transition Plan, Aviation System Plan, Target Zero and Washington State Rail Plan.

The Washington Transportation Plan (WTP 2035)3, based on the state's six transportation policy goals, was adopted by the Washington State Transportation Commission in January 2015. This plan places particular priority on the need to increase the person-carrying capacity of key transportation corridors to decrease congestion, support special needs transportation, connect communities with transit and expand local options funding authority for public transportation. Partnership is an essential component of WTP 2035, as well as other state modal plans, because no single solution will work for every community. For example, the Practical Design methodology and Corridor Sketch Planning (discussed further in Chapter 2) are based on the premise that WSDOT and local jurisdictions partner to create solutions that are customized to meet the unique needs of the communities. Through that collaborative process, more cost effective and relevant solutions will emerge.

The Results WSDOT4 strategic plan for 2014-2017 emphasizes the need to work collaboratively across all modes of transportation to get the most out of existing transportation system capacity. Results WSDOT recognizes that, despite the state's strong interest in public transportation, the responsibility for managing public transportation lies primarily among its 360+ direct public transportation service providers. Moving toward an integrated, multimodal transportation system will require a new level of partnership and collaborative planning.

At the state level, Results Washington,5 the Governor's data-driven continuous improvement plan, calls for sustainable transportation to help the state agencies meet and deliver on the goal of a prosperous economy with sustainable, efficient infrastructure. Additionally, it calls for a reduction in transportation-related greenhouse gas emissions to meet the goal of a clean transportation system.

Subsequent actions taken by the Washington State Legislature, Governor, Washington State Transportation Commission, various citizen panels and commissions, and WSDOT have all made clear statements that support Washington state's interest in public transportation and have suggested the state's role in public transportation relates to leadership and coordination of public transportation systems.

Chapter Two of this document, A Decision-Making Framework Focused on System Performance and Multimodal Integration, provides more detail on how the state's role in public transportation can be better defined. Chapter Three, Goals and Action Strategies, provides a path toward strengthening that role.

A Public Transportation System to Meet Our State's AND Residents' Diverse Needs

The Washington State Public Transportation Plan is a multimodal response to the growing and evolving transportation needs of our diverse state and its residents. Its vision is for a coordinated system of providers and services that can provide mobility and access for all. It presents strategies and early actions to give us a way to better manage and leverage our existing public transportation assets and recommends performance goals and metrics to meet Moving Ahead for Progress in the 21st Century (MAP-21) and gauge progress toward broader community and system goals.

WSDOT developed the Washington State Public Transportation Plan with the counsel of public and private providers, tribal representatives, researchers, planners and technology experts throughout Washington state. The plan's intent is to facilitate the ability of transportation partners to provide even more options to people, communities and the overall system. Because of its strong emphasis on partnership, the policies contained in this plan will be carried out over a number of years.

Statewide system integration cannot happen overnight because it involves an alignment of vision and practice for the varying interests of customers, public transportation partners and the state. Nevertheless, steps can be taken to better integrate public transportation planning and delivery. For example, common definitions of what constitutes "success" in public transportation could encourage greater efficiencies and better customer service. Integration of data gathering capabilities could support better accountability and continuous improvement. There are also potential opportunities to use common resources to better take advantage of technological innovation to create additional choices for the traveling public in both urban and rural areas.

Intriguing new transportation approaches, largely fueled by technology, are rapidly emerging from both the public and private sectors. These are particularly evident in major cities such as Seattle and Portland and through services like carsharing, bike sharing, tech-enabled workplace buses, ride-hailing services, electronic transit fare cards and toll transponders. New approaches are also emerging that serve rural communities and people with limited access and mobility — from the rural tribal elder who now can access preventative care through virtual medical consultations to the low-income urban commuter who needs reliable service to arrive on time to her job. These new approaches, often combined with existing forms of public transportation, are helping to keep people and goods moving.

This plan envisions that Washington state will be flexible and supportive of practical innovation in public transportation. This innovation may involve new technology, but the innovation is just as likely to manifest into new types of partnerships, new business models and new systems for measuring and ensuring mutual accountability and better services. Through the plan, the state will purposefully promote access and mobility for all and continue to work with its partners to promote strategic investment in the long-term sustainability of public transportation in Washington state.

Chapter 1 Public Transportation Today in Washington State

Throughout Washington state, public transportation is a multifaceted force driving the economy and building stronger communities. People depend on public transportation to reach their jobs, enjoy leisure activities and complete essential day-to-day tasks. It is an efficient and cost-effective way to transport people to their destinations. Public transportation helps to ease roadway congestion that impedes business operations and freight mobility. At the same time, it provides an essential safety net for people with special needs throughout Washington state. It connects people to each other and to their communities.

How Public Transportation is Defined in this Document

The term "public transportation" has many definitions in federal, state and local law, and it is constantly evolving. Almost daily, innovative multimodal and technical solutions are announced that broaden our thinking about what public transportation should encompass.

Public transportation is defined as any form of transportation, accessible and available to the public, that does not involve a single person in a motorized vehicle. "Public" in this sense refers to the access to the service, not to the ownership of the system providing the service.

This definition is intentionally broad to support the state's view of what constitutes an integrated transportation system, where all available tools are used to maximize the value of public transportation investments and improve the efficiency of the entire transportation system. This definition is offered to provide a common definition for the readers of this plan, and not to determine investments or funding priorities.

For other definitions of public transportation, see Appendix E.

Examples of Public Transportation Services/Programs

Transit

- Fixed route transit (buses, light rail, commuter rail, street car)
- Park and ride lots
- Amtrak Cascades
- Water Taxis

Vehicle sharing

- Vanpool
- Carpool
- HOV facilities (lanes, ramp meters, direct access ramps)

- Carsharing
- Bikesharing

On request

- Paratransit
- Dial-a-ride
- Private shuttle services
- Transportation Network Companies (Pronto, Uber, Lyft)

Demand Management

- Congestion pricing (parking fees, express toll lanes, variable tolls)
- Commute trip reduction
- Employer commute benefits
- Telecommuting
- Intelligent transportation systems
- Flextime, remote work programs, staggered work shifts

NonMotorized

- Bicycle lanes and trails
- Pedestrian facilities

The term "public transportation," as defined in this plan, includes transit services, but goes beyond the fixed-route bus and rail services to include an array of transportation modes, services and demand management tools. This broad definition is somewhat of a departure from how the term "public transportation" is often used because the vision of this plan is premised on multimodal integration.

Beyond the role that the state plays in promoting coordination of public transportation systems through planning and funding, its broader interest is in a reliable, safe and integrated public transportation system as outlined in the Washington State Public Transportation Plan 2035. By providing people across Washington state with reliable and cohesive public transportation, the entire system functions more efficiently and the benefits are significant and wide-ranging—a cleaner environment, a stronger economy and a more mobile and healthier population. 9

In order to do this, WSDOT must work in collaboration with a multitude of partners. These include the 32 public transit providers, 12 metropolitan planning organizations and 15 regional transportation planning groups. Hundreds of local governments, countless nonprofit organizations, and many private sector providers of additional travel options like Rideshare and Intercity buses participate in these transportation planning opportunities, as well. Washington is home to 29 federally recognized tribes, 19 of which provide or partner with existing transit operators to provide transit services to tribal members and the general public. They, too, should be or are included in regional transportation planning and WSDOT initiatives outlined in this

plan.

WSDOT provides technical assistance, administers state and federal funds, supports coordination of public transportation and advocates for integrated transportation investments consistent with legislative direction (RCW 47.6.100). In addition, the state operates more than 300 HOV lane miles, 300 miles of passenger rail, and has the largest ferry system in the US that carries more than 22 million people annually.

As demonstrated in the 2015 Connecting Washington transportation funding package, the state will invest billions of dollars in transportation programs and projects that support public transportation over the next 20 years. State funds will support capital construction (e.g. transit facilities, ferry terminals, high-occupancy vehicle lanes, sidewalks, bicycle paths, accessibility improvements, complete streets); operations (e.g. transit, special needs transportation, tribal transportation, rural transportation, *Amtrak Cascades*); and equipment (vanpools, buses, accessible vehicles). In addition to providing financial support to cities, counties, transit agencies, nonprofit transportation providers and others, the state will deliver a new SR520 bridge that offers HOV lanes and a bicycle/pedestrian path, extend I-5 HOV lanes south through Tacoma, complete new ferry vessels and terminals, and continue to make *Amtrak Cascades* service between Seattle and Portland faster, more frequent and more reliable. Additionally, the state provides the authority to establish public transportation funding districts, defines local funding tax authority, and supports intercity service in parts of the state where there are service gaps.

Similarly, the federal government provides funding for an array of transportation projects and programs that support public transportation. In addition, the federal government provides policy direction on issues such as safety, air quality, freight movement, environmental processes and public involvement.

Transit agency funding in Washington state, however, is largely local. Local transit authorities and local governments provide 81 percent of direct transit agency funding. Federal agencies provide 17 percent and the state provides 2 percent. Local direct transit funding comes from sales tax revenue and is subject to economic fluctuations. During the recent recession, many jurisdictions saw significant drops in sales tax revenue coupled with significant increases in ridership demand. Other factors also impact the costs of local transportation services:

- Fluctuation in oil prices significantly impacts the costs of transit operations.
- Soaring costs of transportation infrastructure, combined with lower gas tax revenue from increased fuel efficiency, constrain state and federal resources for all transportation investment, including the construction of facilities that support transit and HOV speed and reliability, ferries, bicycles and pedestrians.
- Paratransit costs are mounting in multiple regions in the state. For example, King County increased 25 percent in 6 years.¹¹
- Grants do not fit all transit agency needs.

All transit agencies are limited in the amount of local revenue they can raise because of a legislatively imposed maximum sales tax rate. Several agencies, such as King County Metro, Jefferson Transit, and Island Transit, are at the 0.9 percent maximum. Others are not. For example, legislation enacted as part of the Connecting Washington revenue package in 2015 allows Sound Transit and Community Transit to raise new revenues beyond 0.9 percent with a public vote, while Kitsap County can now develop a passenger-only ferry district and implement

new local taxes with a public vote. 12

Coordination between planners, funders and providers of public transportation services has become increasingly essential; as the demand for public transportation increases, competition grows for limited funds. 13

Demographic Trends

Washington state's public transportation systems continue to evolve as our state grows and changes. In the 21st century, Washington's demographic and socioeconomic profile will experience even greater change, most likely at a faster rate than the prior two centuries combined.

Increases in elderly and special needs populations, changes in housing and transportation affordability and related transportation preferences of the millennial generation ¹⁴ alongside changes in population distribution are among several factors that will change how Washington's residents travel.

Washington's urban areas are growing. Washington's population grew from 4.1 million in 1980 to 6.7 million in 2010 and is expected to reach 8.8 million by 2040, mirroring national population growth rate projections. ¹⁵ In 2015, Washington's population grew by an additional 93,200 to a total of over 7 million ¹⁶—the largest one-year gain since 2008. New residents accounted for 57 percent of the increase. And most of that increase, roughly 75 percent, occurred in the states' five largest metropolitan counties: Clark, King, Pierce, Snohomish and Spokane. ¹⁷

These growing communities also experienced growth in the use of public transportation. Pierce Transit saw a 6 percent increase in vanpool passenger trips in 2013. Spokane Transit Authority experienced a 1 percent increase in fixed route passenger trips from 2012 to 2013. C-TRAN in Clark County also saw an increase in its vanpool passenger trips—up 18.1 percent from 2012 to 2013. Mode share in 2014 increased for all public transportation in Seattle—even higher for biking and walking than for transit. ¹⁸

Ongoing Challenges: Urban Areas

- How can public transportation meet the increasing demand for mobility?
- Are there ways in which service should be distributed to meet growing urban demand?
- How will the change in demographic profile shift the demand for public transportation?
- What are the consequences of meeting, or not meeting, demand?

As there are no uniform answers, these questions will be discussed and addressed through work plans and partnerships with agencies already engaged with these issues.

Senior population is increasing. Many demographic trends in Washington mirror trends evident in the rest of the country. As of 2013, there were 937,000 people 65 and older in Washington, which accounts for 13 percent of the state's total population. Growth in this age group will continue, with an annual gain of 43,000 in 2013 and peaking at 49,300 per year by 2020. By 2040, the 65 and older population is forecast to reach 1.85 million, representing 21 percent of the state's total population. Another way to look at it: by 2030, more than one of every five Washingtonians will be 65 or older. And as the population ages, more people are likely to have a disabling condition or otherwise experience limitations to their mobility, which will create a greater need for public transportation.

Ongoing Challenges: Growing Population of Peoples 65 and Older

- What types of transportation services will be needed for this growing sector of our population?
- How can public transportation help people live independently for a longer period of time?
- Are there emerging technologies that could help meet the mobility needs of seniors more efficiently?
- How can public transportation help people age in place longer?

As there are no uniform answers, these questions will be discussed and addressed through work plans and partnerships with agencies already engaged with these issues.

Washington's population is becoming more diverse. The ethnicities and spoken languages of Washington's people are changing fast as well. In 2011, people of non-white ethnicities and races accounted for about 28 percent of the population, while just over 44 percent of the population under one year old were people of non-white ethnicities and races. At languages of Nationally, Washington has the fifth-highest percentage of Asians, fourth-highest percentage of Native Hawaiians/Pacific Islanders, and fourth-highest percentage of people who are two or more races. At the state level, Washington is the third most linguistically diverse state in the country with 163 different languages spoken. In King County alone, the percentage of people who speak languages besides English rose from 18.4 percent in 2000 to 25.4 percent in 2011.

Ongoing Challenges: Increasingly Diverse Population

- How can we ensure equal access and mobility for Washington's growing diverse populations?
- Are there geographical and social equity issues that need to be addressed?

As there are no uniform answers, these questions will be discussed and addressed through work plans and partnerships with agencies already engaged with these issues.

The number of people with special needs is growing throughout Washington State. Washington state law defines special needs populations as "persons, including their personal attendants, who because of physical or mental disability, income status, or age are unable to transport themselves or to purchase appropriate transportation." Using this definition, more than 30 percent of Washington residents meet the criteria for special needs. And, as Washington's population

increases by more than 2 million people by 2040, close to 40 percent of residents will meet the criteria. For this population group and others unable to drive themselves or without access to a vehicle, public transportation is often the only option for completing essential day-to-day tasks like getting to work, medical appointments, visiting family and friends, or buying groceries. Additionally, as a result of the Americans with Disabilities Act, more people with disabilities are actively participating in the community, using public transportation to contribute economically and socially to the health of our community.

Ongoing Challenges: Serving People with Special Needs

- How will the demand for special transportation services change and in what areas of Washington State?
- Are there emerging technologies or business models that could improve access?
- Are we meeting the needs of those with special transit needs? Where are the gaps?
- Are there measures that can be implemented to ensure that no access to a vehicle does not impact access to employment?

As there are no uniform answers, these questions will be discussed and addressed through work plans and partnerships with agencies already engaged with these issues.

Millennial population in the workforce is growing. In 2015, millennials surpassed the baby boom generation as the nation's largest living generation. This group promises to influence a range of policy decisions across the state and the nation, including transportation. This segment of the population includes people born in the 1980s through the late 1990s and accounts for just over 27 percent of Washington state's population. This generation is, thus far, largely choosing to live in affordable neighborhoods and suburbs in and around urban areas. Numerous studies show they are choosing to live in areas that provide the best options for transportation that do not involve driving their own cars alone. According to Puget Sound Regional Council's 2014 Regional Travel Study, the most significant decreases in auto use for the Puget Sound region between 2006 and 2014 were among millennials. Those aged 18 to 25 dropped from over 85 percent in 2006 to a little more than 70 percent in 2014.

Ongoing Challenges: Growing Millennial Population

- Are there emerging technologies that could impact demand for public transportation services for this sector?
- As Millennials age and have families, how might their housing and transportation choices change?
- How can public transportation break the spiral of poverty?

As there are no uniform answers, these questions will be discussed and addressed through work plans and partnerships with agencies already engaged with these issues.

Poverty is growing throughout Washington State, especially in rural areas. Fourteen percent of Washington residents live in poverty (for a single-parent family with two children, poverty is defined at \$20,090 per year or less), and 19 percent of Washington's children live in poverty.³² Another 28 percent of Washington residents live in "near poverty," which is below 185 percent of the Federal poverty threshold,³³ or an annual income of \$37,166.50 per year.³⁴ An estimated 94 percent of welfare recipients do not own a car.³⁵

There are large differences among Washington counties—over half the residents in 9 of the 17 "high-poverty counties" in Washington state meet the federal poverty threshold, where many residents are Hispanic and American Indian/Alaska Native.³⁶

As housing prices increase in urban areas, many lower income families are moving to suburban and rural areas, where housing is considered more affordable. For example, in South King County communities, such as City of Sea-Tac and Kent, poverty increased about 12 percent from 2005 to 2009.³⁷ While the price of housing may be lower, these more remote communities often have lower levels of transit service and are further away from places of employment. "Sprawl increases the distance between homes, businesses, services and jobs, which raises the cost of providing infrastructure and public services by at least 10 percent and up to 40 percent. ³⁸ These combined factors are resulting in a spiral of greater disparity in income for racial minorities and residents of less dense areas of Washington state.

A national longitudinal study of upward mobility has found that shorter commuting time is the single strongest factor in the odds of escaping poverty, even stronger than the relationships between crime, test scores, or the percentage of two-parent families. The longer an average commute in a given county, the worse the chances of low-income families there moving up the ladder.³⁹

Strategies and plans, such as the Puget Sound Regional Council's Growing Transit Communities and the state's Livable Communities Policy, are working to better connect communities with transit options and ensure transit planning is incorporated into housing developments and the locations of businesses and services. According to Smart Growth America, a national organization dedicated to bringing smart growth practices to communities, investing in and developing transportation infrastructure, such as streets connected in a complete network, is a "fiscally responsible investment that cost less to build and maintain." Additionally, smart growth transportation strategies reduce the amount families are spending on transportation costs.

Ongoing Challenges: Growing Poverty in Washington

- How will Washington's growing poverty levels alter demand for public transportation in both urban and rural communities?
- With more affordable housing in outlying areas, how will we need to rethink access to public transportation outside of urban centers?

As there are no uniform answers, these questions will be discussed and addressed through work plans and partnerships with agencies already engaged with these issues.

Public Transportation and the Economy

Whether the goal is to build a stronger economy or help people endure an economic downturn, public transportation options can play a major role. The American Public Transportation

Association found that "for every dollar communities invest in transit, approximately \$4 is generated in economic returns." 41

Washington state's economy benefits demonstrably from public transportation's contribution to the capacity and mobility of the entire transportation system. In 2013, delays on state highways cost Washington citizens and businesses over \$858 million. ⁴² By increasing the people-carrying capacity of our roadways and highway network, public transportation supports the speed and reliability of freight movement critical to our statewide economy. Every weekday in King County, transit removes over 175,000 cars from the roadways, which means during peak commute hours transit frees up the equivalent of seven lanes of traffic ⁴³. That equates to King County residents and businesses saving over \$99 million in congestion-related costs every year. ⁴⁴

A robust public transportation network can also support the development of compact, walkable, bikeable communities with lower infrastructure demands and can create hubs of activity that support local economies. Public transportation connects employers and workers to each other and provides communities and businesses with safe, reliable, cost-effective travel options. The Brookings Institution found that over three-quarters of jobs in the 100 largest metropolitan areas are in neighborhoods with transit service. ⁴⁵

Public transportation also benefits the financial well-being of individuals in Washington state. For example, a person who lives in Seattle can save up to \$11,000 a year by simply switching from driving to riding the bus. In small and rural areas, work is the primary destination for public transportation users. ⁴⁶ During the years following the 2007 financial collapse, when 55 percent of the country's local transit agencies slashed budgets, ridership in those same systems increased 63 percent. ⁴⁷

Public Transportation and the Environment

Transportation is one of the largest contributors to greenhouse gas emissions in Washington state. The U.S. Environmental Protection Agency and Federal Transit Administration noted that utilizing public transportation, such as light rail and bus transit, can help reduce greenhouse gas emissions. On average, light rail systems produce 62 percent less and bus transit produces 33 percent less greenhouse gas emissions per passenger mile than private vehicles. That savings increases to 82 percent for a typical diesel transit bus when it is full with 40 passengers. WSDOT is purchasing eight new locomotives for its Amtrak Cascade intercity rail service, which will reduce greenhouse gas emissions approximately 85 percent compared with some existing locomotives. The more people utilize public transportation, the more emissions and fuel consumption are reduced. For every 10,000 solo commuters who leave their cars at home and commute using public transportation for one year, fuel consumption is reduced by 2.7 million gallons.

Trends in Technology AND Public Transportation

Several aspects of public transportation are being driven by big data and digital age innovations. In many urban systems, big data allows individual travelers to have up-to-the-minute information regarding their best transportation options. Opportunities to use big data to provide better and more flexible access in rural areas are just starting to be explored.

Shifts in technology, such as mobile phone applications, are allowing people, regardless of age or disability, to access all forms of transport—from car sharing, to vanpooling, to public transit options, to bike access. For example, using a smartphone transit app, a transit rider can look up the timing of the next bus and adjust their schedule accordingly. This is changing the perception of public transit, which is no longer one-size fits all, but rather is customizable to customer needs.

Technology solutions can be a tool in helping to create a more seamless public transportation experience across transportation modes. For example, London commuters are able to enter their destination in the Citymapper app for a range of ways to get to their destination, along with real-time information about when a bus will arrive or when the next Tube will depart. In Washington state, multiple smartphone apps exist and are in use, such as TripPlanner, Travel or OneBusAway.

Customer service advancements in other industries also have potential to facilitate the ways in which customers interact with the public transportation services, specifically by applying knowledge management applications to make things like fare payment easier across systems and modes.

Rural Communities Need Continued Support

In Washington's rural areas, compounding factors of land use, poverty, income and age provide barriers to accessing transportation for basic life needs. In rural communities, access to a vehicle makes a difference in being able to get to jobs or services because convenient fixed route transit may not be available. Affordable housing may be a draw for a rural area (as well as suburban areas). While housing is somewhat more affordable, it means that people must rely on the use of more expensive personal vehicles to get to key employment centers that are located longer distances from their homes. Meanwhile, housing in urban areas is in high demand with increasing costs because of their proximity to job centers.

The loss of jobs in rural communities during the Great Recession impacted car ownership because many individuals could either no longer afford a car payment or had to reduce their reliance on a personal vehicle. A majority of the rural fixed-route transit providers saw increases in passenger trips between 2010 and 2013. For example, Jefferson Transit Authority saw a nearly 100,000 increase in passenger trips during this period.

Rural areas create barriers for those individuals that are on fixed incomes and require transportation options to reduce isolation. Aging populations in rural areas seeking medical care or access to basic life necessities require further consideration of their needs as the baby boomer generation ages in place—many of whom are in rural areas.

Conclusion

This chapter has highlighted numerous demographic, economic, environmental and funding trends in Washington. With continued changes and growth in the population, public transportation will be even more integral in ensuring people have access to their jobs and daily life requirements.