

# 2025 Current Transportation System Report

# November 2025 revised





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# **Current Transportation System Report**

The transportation system in the central Puget Sound region is an integrated, multimodal network encompassing infrastructure and programs that move people and goods throughout the region every day. People and businesses make choices regarding the mode of travel they will use for each and every trip they take, based on a variety of factors such as travel time and available options. In many cases, multiple modes are selected for any given trip purpose, so the system must provide seamless and reliable connections to get people where they need to go as quickly and efficiently as possible.

The components of the current transportation system include the various elements identified in the graphic to the right:

- Local and regional transit services, including bus, rail and ferry
- Bicycle and pedestrian facilities and amenities
- Air travel for both people and goods
- Freight networks that move goods from where they come into the region to where they are going, via truck, rail, ship and air
- Streets and highways that serve as the underpinning of the system for multiple

Transit

Ferries

Operations

Integrated System

Outcomes

Streets & Highways

Ins & Technology

modes, from people driving but also for buses, trucks, and those who walk, bike or roll

There are also important elements of the transportation system that keep all of these modes maintained and operating efficiently. These include technologies such as traffic signals and other equipment, and transportation demand management programs that educate and encourage the use of modes other than driving alone.

This report describes each element of the current transportation system, including an inventory of the available facilities and services, key data and trends, and where applicable a high-level summary of identified gaps in the system. These gaps are derived from where people and jobs are today throughout the region compared to where facilities and services are located. This information provides the foundation for development of the <u>Regional</u>

<u>Transportation Plan</u> and future planned system investments. Information on the current transportation system, as well as contextual information such as demographics, the regional High Injury Network and other layers, may also be viewed in the <u>Transportation System</u> Visualization Tool.

Please note that three components of the system are not fully reflected in this report – roadway safety, aviation and maintenance and preservation. These important components will be addressed in greater detail in the full plan document, and a thorough assessment of safety was conducted in the <u>Regional Safety Action Plan</u>.

# Section 1: The Regional Transit Network and Services

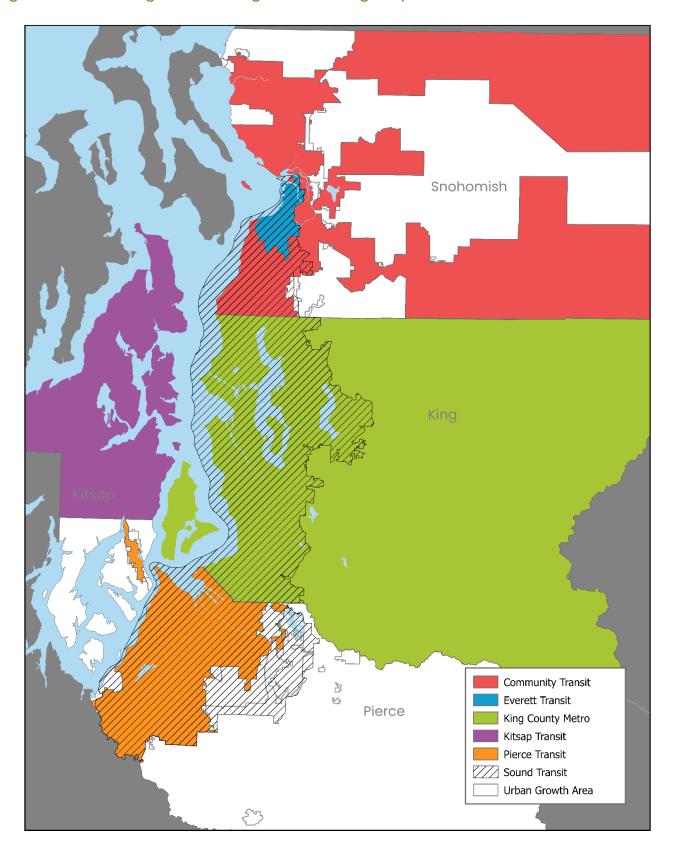
There are numerous and varied elements to the system of public transportation in operation throughout the region. These include fixed route bus, rail and ferry networks; on-demand services; and programs and services provided for people with mobility challenges. In addition, there are bus and rail services that connect the region to other places. Each of these system elements is described in the sections below.

This system of public transportation therefore is a network of services that provide connections within the region but also to other parts of the state and around the country. Connecting to air and marine transportation further provides connections around the world.

# Section 1A: Fixed Route Transit Services

The region's public transit system is operated by nine separate agencies providing a variety of mobility services available to the public. Five of the agencies are primary providers of local transit service to the region, primarily via bus mode but two also provide passenger-only ferry services: Community Transit, Everett Transit, King County Metro, Kitsap Transit and Pierce Transit. Sound Transit provides regional rail and bus transit service in the urbanized parts of Snohomish, King and Pierce Counties. The transit agency boundaries of these six agencies are found in Figure 1. In addition, Washington State Ferries and Pierce County provide multimodal ferry service connecting destinations on Puget Sound, and the City of Seattle owns specific streetcar and monorail assets that offer public transit in specific areas of the city. Approximately 93% of the region's population and 98% of jobs are located within the region's transit service area boundaries. The sections below describe where actual services are present within these boundaries, or where gaps exist.

Figure 1: Central Puget Sound Region Transit Agency Boundaries



# Highlights of the Current Transit System

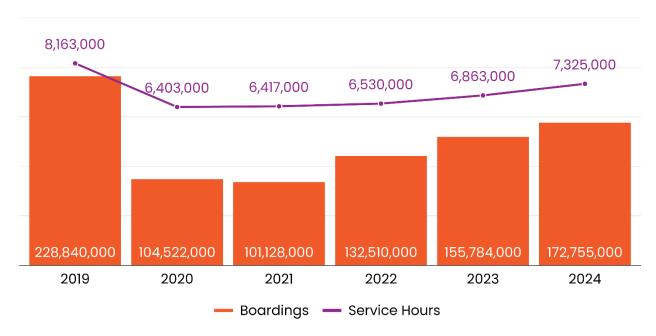
The region's transit system is built upon the backbone of an extensive bus transit network with an expanding high-capacity transit (HCT) network. Around 87% of the region's transit service was provided by bus in 2023. Meanwhile, the region continues an aggressive expansion of its HCT system provided by a variety of rail, bus rapid transit and ferry modes. Rail HCT modes include Sound Transit's Link light rail system, Tacoma Link, and Sounder commuter rail, Seattle's two streetcar lines and the historic 1962 monorail. Ferry HCT modes include passenger-only ferry services provided by King County Metro and Kitsap Transit, and multimodal ferry service provided by Washington State Ferries and Pierce County (ferries are described in greater detail later in this report). Two agencies currently provide and are expanding bus rapid transit (BRT) service in the region: Community Transit's Swift service and King County Metro's Rapid Ride service. BRT is designed to move larger numbers of people and at faster travel times than conventional bus service, reflecting characteristics of rail service. BRT is typically distinguished from other forms of bus transit by a combination of features that include branded buses and stations, off-board fare payment, wider stop spacing and other treatments such as transit signal priority.

# Key Trends and Findings

The region's transit system has continued to show a steady recovery in ridership since the COVID-19 pandemic (see Figure 2.). Boardings in 2024 were 172,755,000 or 75% of 2019 levels with 90% of the service hours provided.

<sup>&</sup>lt;sup>1</sup> 2023 Washington State Summary of Public Transportation, WSDOT

Figure 2: Transit Ridership and Service Compared to 2019



Source: National Transit Database

Ridership recovery has been fueled, at least in part, by the expansion of Sound Transit's Link light rail system and the opening of new BRT lines. Over the last several years the Link light rail 2 Line was opened connecting Bellevue to Redmond, the T Line in Tacoma was extended to the Hilltop neighborhood, and the 1 Line has expanded north to Lynnwood. In addition, King County Metro and Community Transit have opened new BRT lines and extended the reach of others to connect to newly opened light rail stations.

Transit has traditionally had a strong commute to work component which has been particularly disrupted by post-pandemic work from home trends. PSRC's 2023 Regional Household Travel Survey shows that traditional commute to work markets such as Downtown Seattle and Bellevue have some of the highest work-from-home rates among employees since the pandemic (Figure 3). More than 50% of employees with a workplace in Bellevue, and more than 2/3 of all employees with a workplace in Downtown Seattle, were no longer commuting to the office daily.

Pierce 90% 10% 88% 12% Kitsap Snohomish-King Suburban 26% 34% Seattle Outside Downtown 51% 49% Rellevue 67% Seattle Downtown 70% 0 10% 20% 30% 40% 50% 60% 80% 90% 100% Fully In Person Hybrid

Figure 3: 2023 Household Travel Survey: Employee Hybrid Work by Work Location

Source: PSRC 2023 Regional Household Travel Survey

This trend is reinforced by a review of National Transit Database transit ridership data which shows less recovery to-date among transit modes oriented to commute travel. While transit in general has recovered to 75% of 2019 ridership levels, Sounder Commuter Rail and vanpool programs lag in recovery at 42% and 45% of 2019 ridership, respectively. Meanwhile, transit agencies are reporting that ridership has recovered on weekends and evenings at a faster rate than weekdays, indicating demand for transit service that takes people to destinations for multiple purposes, not just work commutes. This finding is reinforced by <a href="PSRC's 2023">PSRC's 2023</a> Household Travel Survey, which found that work trips made up only 24% of all transit trips.

The survey also found that more than 90% of people accessed transit by walking or rolling (i.e. traveling with the aid of a mobility device), highlighting the importance of safe, accessible, and well-connected active-transportation networks to transit ridership (see Figure 4). While walking and rolling are important access modes it should also be noted that for some riders, driving to a park-and-ride or being dropped off at a station might be more necessary options to access transit, especially in suburban locations where local transit connections may be less available.

93%

1%

Bike, Micromobility

1%

Other

5%

Auto (Drive, Drop-off)

Figure 4: 2023 Access Mode for Transit Riders

Source: PSRC 2023 Household Travel Survey

Walked or Rolled

## **Current Gaps in the Transit System**

The VISION 2050 Regional Growth Strategy assumes 65% of the region's population growth and 75% of the region's job growth will locate in regional growth centers and near high-capacity transit. An integrated transit system with easy connections between modes should both connect these growth centers and provide connections to other parts of the region. The mode and quality of transit service relies heavily upon the land use context in which it operates. Therefore, PSRC has developed a framework for analyzing transit service gaps associated with different densities of people and jobs throughout the region.

Table 1 illustrates four different categories of transit service based on the frequency and span of service (i.e., the amount of time between when service starts and ends each day) and the corresponding densities of people and jobs that will support those service levels.

Table 1: Transit Service & Transit-Supportive Densities

Density	Frequency & Span	Transit Service
At least 7 people + jobs per acre	Service with at least 2 trips per hour between 6am and 8pm	Local Transit
At least 15 people + jobs per acre	Service with at least 3 trips per hour between 5am and 10pm	All Day Service

At least 25 people +	Service with at least 4 trips per	Frequent Service
jobs per acre	hour between 6am and 6pm	
At least 40 people +	BRT, Light Rail, Commuter Rail or	High-Capacity
jobs per acre	Ferry at varying frequencies and	Transit
	spans	

There are additional, more limited transit services provided outside of the four types identified in the table above. Specifically, any local transit service with fewer than 2 trips per hour between 6am and 8pm would be classified as "Limited Transit."

Current population and job densities were mapped across the region and compared to the existing transit service types described above. These areas can be viewed in the <a href="https://example.com/TransportationSystem Visualization Tool">Transportation System Visualization Tool</a>.

The number of people living in transit supportive areas by county are shown in Figure 5. King County has the largest population living in areas that support higher levels of transit service today.

1.8M 1.6M 1.4M 1.2M 1M 0.8M 0.6M 265,900 0.4M ,754,100 165,000 27,700 0.2M King County Snohomish County Population living in a Transit Supportive Density Local Transit All Day Transit Frequent Transit High Capacity Transit

Figure 5: Population in Transit Supportive Densities by County

Source: PSRC Parcelized Population Estimates

The analysis below describes the percentage of these populations with corresponding transit services and areas of gaps in the current system.

100 90 80 70 60 50 40 30 20 10 %09 0 King County Kitsap County Pierce County Snohomish County Percent of Population Within 1/4 Mile of Service 🌑 Limited Transit 🌑 Local Transit 🌑 All Day Transit 🌑 Frequent Transit 🛑 High Capacity Transit

Figure 6: Population and Transit Service Types by County

Source: 2024 Fall General Transit Feed Specification (GTFS) Transit Service Data & PSRC Parcelized Population Estimates

#### **Current Local Transit**

Local Transit provides the lowest frequency of regularly scheduled transit service throughout the day. Approximately 33% of the region's population lives or works in an area that meets the minimum density threshold but does not have this level of service provided.

King County has the smallest gap in Local Transit service coverage, with 17% of people living in areas meeting the density threshold that do not have this service provided. The other three counties have significantly higher percentage gaps (54%-66%) demonstrating a potential need for more Local Transit in those areas.

#### **All Day Transit**

All Day Transit provides service outside of traditional peak commute hours, allowing people to access destinations throughout the day and later in the evening, as well as providing more coverage for jobs such as retail and shift work that require commutes in the evenings or early mornings. Approximately 36% of the region's population lives or works in an area that meets the minimum density threshold that would support All Day Transit but does not have that service provided.

King and Snohomish Counties have the smallest gap in All Day Transit service compared to the density threshold at 30% and 40%, respectively. Pierce County has a gap of 83%. There are no All Day Transit services provided in Kitsap County, however a relatively small

percentage of the county's population (less than 5%) lives within this density category.

#### Frequent Transit

Frequency of transit service is an important quality of service that provides more freedom for people using transit to just show up and go without reliance upon a schedule. Areas with more frequent transit services support higher densities of people living car-free or car-light lifestyles envisioned in the VISION 2050 Regional Growth Strategy. Approximately 11% of the region's population lives or works in an area that meets the minimum density threshold but does not have Frequent Transit service provided, which is a much smaller gap than other types of services.

King County has the highest Frequent Transit service coverage with 6% of people living in areas meeting the density threshold experiencing a gap. Similar to All Day Transit, Snohomish County has the next smallest gap at 12%. There are no Frequent Transit services operating in Pierce or Kitsap County, but the total number of people living within the areas meeting the density threshold is less than 2% for both counties.

#### **High Capacity Transit**

The central Puget Sound region has embarked upon one of the most aggressive expansions of HCT modes of transit in the nation. This type of transit service is designed to move larger numbers of people at faster and more reliable speeds than typical bus service. HCT provides very frequent service and connects large population, employment and entertainment centers. The highest density threshold of 40 or more people and jobs per acre is necessary to support this level of service. Approximately 16% of the region's population lives or works in areas meeting this threshold and does not have HCT provided.

King County has a 15% gap for HCT, Pierce County 39% and Snohomish County 45%. Although Kitsap County has HCT service via ferry routes, less than 1% of people in Kitsap County live near ferry terminals. Although King County has the most extensive HCT coverage of all the counties today, it also has larger areas meeting the supporting density threshold.

## Additional System Gap Analyses

Similar analyses of these four levels of transit service were conducted for the region's six equity focus areas, regional growth centers and manufacturing/industrial centers. A high level summary of these results includes the following findings:

- There are larger gaps in all four transit service levels for areas with higher shares of households with children under 18.
- Gaps in Local Transit are smaller in areas with higher shares of people of color and people with limited English proficiency, at ~9%.
- ▶ Similarly, these areas have smaller gaps in All Day Transit at ~25%.
- Of all transit services, there are smaller gaps in Frequent Transit service for all equity

focus populations.

## Section 1B: Ferries

Passenger-only and multimodal ferries are an important component of the integrated high-capacity transit network envisioned in VISION 2050. Four agencies provide ferry services within the central Puget Sound region.

Washington State Ferries (WSF) and Pierce County Ferries provide multimodal ferry service that extend the street and highway system, allowing automobile, pedestrian, and bicycle access over Puget Sound. WSF is the largest ferry system in the United States and is considered both part of the region's transit network and the region's marine highway system. WSF provides six routes that serve the region and have the highest ridership amongst the region's ferry systems.

Within the region, WSF routes connect Bainbridge Island and Seattle, Bremerton and Seattle, Kingston and Edmonds, Seattle's Fauntleroy neighborhood to Southworth on Vashon Island, and the south end of Vashon Island to Tacoma. Mukilteo is also served by a WSF route that connects to Whidbey Island.

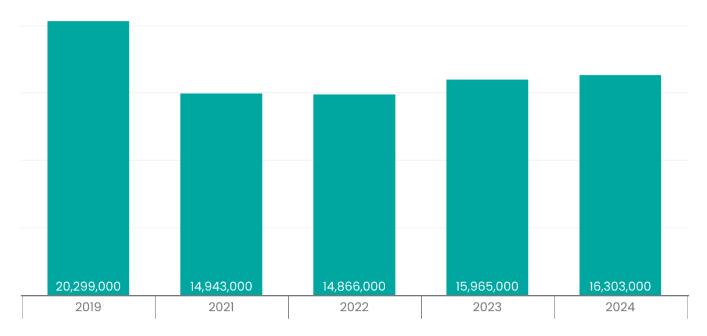
Pierce County Ferries operates one route that serves Steilacoom, Anderson Island, and Ketron Island.

King County Metro and Kitsap Transit provide passenger-only ferry services for their customers. King County Metro provides two routes of its Water Taxi passenger-only ferry service. These two routes provide service between Downtown Seattle and West Seattle, and between Downtown Seattle and Vashon Island. Kitsap Transit provides five passenger-only ferry routes, two local Foot Ferry services and three cross-Sound Fast Ferry services. The three cross-Sound ferries all serve Downtown Seattle, connecting to Southworth, Bremerton, and Kingston. Kitsap Transit's two Foot Ferries provide local service from Bremerton to Port Orchard and Annapolis.

# **Key Ferry Trends**

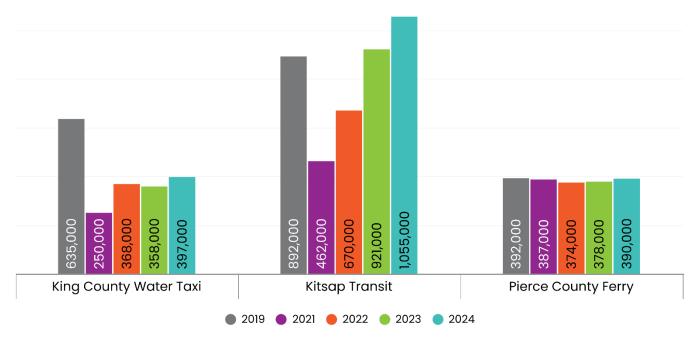
In 2024, there were 18.1 million boardings on ferries in the region. Approximately 1.5 million of these boardings occurred on the growing passenger-only ferry system, while the rest were on multimodal state and county ferries. As illustrated in Figures 7 and 8 below, ferry ridership within the region is recovering from the ridership decline that occurred during the COVID-19 pandemic.

Figure 7: WSF Ferry Boardings, January to October



Source: National Transit Database Monthly Ridership Time Series, December 2024 Release

Figure 8: Passenger-Only Ferry Boardings, January to October



Source: National Transit Database Monthly Ridership Time Series, December 2024 Release

Recovery of ferry ridership has varied by agency and ferry type. WSF multimodal ferry

ridership had recovered 80.3% of 2019 ridership by 2024. King County Metro's passenger-only ferry ridership had recovered 63% of 2019 ridership by 2024. Meanwhile, Kitsap Transit's passenger-only ferry ridership increased 18% from 2019 to 2024, and Pierce County's multimodal ferry ridership had recovered to 2019 ridership levels by 2024.

This difference in recovery is in part related to changes in service hours, with reductions stemming from the Covid-19 pandemic exacerbated by staffing shortages and maintenance issues with aging vessels. WSF has experienced a 14% reduction of revenue hours between 2019 and 2024. King County Water Taxi had an approximately 7% reduction of service hours between 2019 and 2024, while Pierce County Ferry service hours have stayed constant during that time period, reflecting its role as the only public infrastructure serving Anderson and Ketron Islands. Only Kitsap Transit's passenger-only ferry service hours have significantly grown between 2019 and 2024. The agency saw a 60% increase in service hours in that period, due in part to new vessel delivery and financial support from the state.

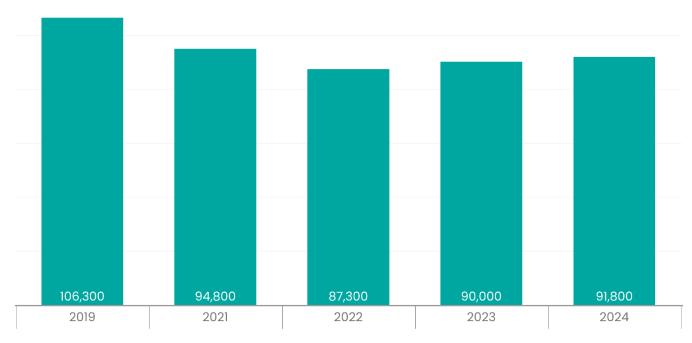


Figure 9: WSF Service Hours, January to October

Source: National Transit Database Monthly Ridership Time Series, December 2024 Release

5,500
4,300
4,800
5,000
5,100
11,800
12,400
15,300
15,700
4,400
4,500
4,500

Kitsap Transit

2022
2023
2024

Figure 10: Passenger-Only Ferry Service Hours, January to October

Source: National Transit Database Monthly Ridership Time Series, December 2024 Release

2019 2021

From a rider survey conducted in the fall of 2023,<sup>2</sup> 64% of WSF passengers drove onto ferry vessels, and another 16% were passengers in automobiles. Eighteen percent of passengers walked or rolled on, and 2% biked onto the ferry.

Riders have various purposes for ferry travel. Thirty-four percent of WSF ferry riders' primary trip purpose was visiting family or friends, 24% for work, 29% for recreation, 17% for medical appointments, 13% for shopping, and 4% for school.

#### **WSF Ferry Riders:**

- 29% are 65+
- 12% have a disability
- 11% are people of color
- 55% earn over \$100,000 a year

Pierce County Ferry

Source: Washington State
Ferries <u>Passenger</u>
<u>Demographic Survey Report,</u>
<u>December 2023</u>

# Gaps in the Current Ferry System

King County Water Taxi

In addition to the service reductions and recovery from the pandemic, the region's ferry system is faced with unique challenges and needs that impact the reliability and future growth of service. WSF in particular has faced the dual challenges of an aging fleet and workforce shortages. Nearly half of vessels are over 30 years old and five out of a total of 21 vessels are over 50 years old. Maintenance needs on these older vessels are greater and deferred preservation leads to a higher risk of breakdowns. The current fleet does not always

<sup>&</sup>lt;sup>2</sup> Washington State Ferries <u>Passenger Demographic Survey Report, December 2023</u>

have the capacity to both sustain baseline levels of service and have a standby vessel available in the case of emergent need.<sup>3</sup> In addition, unique skillsets are required of vessel employees, and half of current employees may qualify for retirement over the next 5-10 years.<sup>4</sup>

Over the past several years WSF, the Governor, and the Washington State Legislature have taken steps to address these challenges. WSF is on track to restore service to pre-pandemic levels by the summer of 2025. This is possible in part due to hiring and workforce development efforts, as well as the ongoing work to replace vessels and transition to a hybrid-electric fleet. There is current funding for five new ferries; WSF opened construction bids in May 2025 and a decision on next steps is expected over the summer.

The challenges to service growth and reliability for passenger-only ferry services include the need for a new Seattle Fast Ferry Terminal. The current facility at Pier 50 limits additional trips on existing routes and does not have capacity for new passenger-only ferry routes serving downtown Seattle. Additional landing facilities are needed to ensure reliability, on-time service, and meet future needs. Kitsap Transit has identified three potential terminal sites for a long-term Seattle Fast Ferry Terminal, and the project is in the final phase of alternatives development.

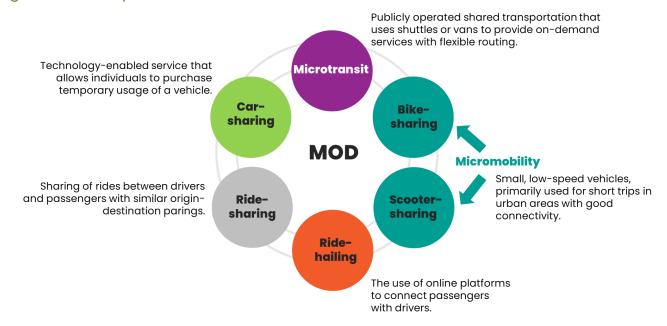
# Section IC: Mobility On Demand

Mobility on Demand (MOD) describes services that provide flexible, on-demand transportation options instead of operating on a fixed schedule. It includes services such as micromobility, microtransit, and ridehailing, which often complement traditional public transit. MOD services are available to the general public and allow users to request personalized rides within designated service areas set by providers. Figure 11 provides an overview of the different types of MOD services available in the central Puget Sound region.

<sup>&</sup>lt;sup>3</sup> WSF Service Contingency Plan, May 2025, <a href="https://wsdot.wa.gov/sites/default/files/2025-05/WSF-Service-Contingency-Plan-2025.pdf">https://wsdot.wa.gov/sites/default/files/2025-05/WSF-Service-Contingency-Plan-2025.pdf</a>

<sup>&</sup>lt;sup>4</sup> WSF Fact Sheet, February 2025, <a href="https://wsdot.wa.gov/sites/default/files/2025-02/WSF-FactSheet-February2025.pdf">https://wsdot.wa.gov/sites/default/files/2025-02/WSF-FactSheet-February2025.pdf</a>

Figure 11: Mobility on Demand Overview



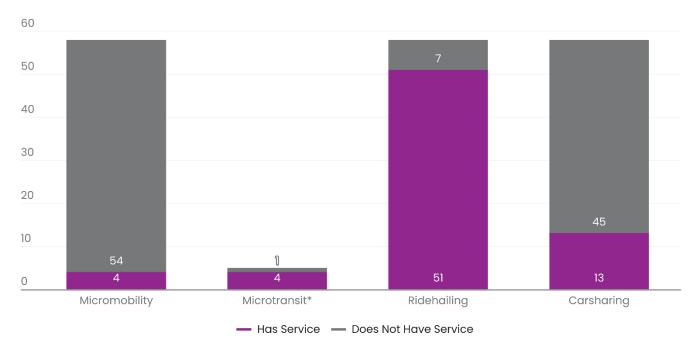
# **Existing Conditions**

In the spring of 2024, a survey was conducted to take inventory of the usage and coverage of MOD programs across the region. A total of 53 jurisdictions and five transit agencies participated, providing insights into key aspects of MOD services, including:

- Availability and coverage of MOD programs
- Ridership trends across different MOD modes
- Roles and responsibilities of jurisdictions and agencies
- Program costs

Figure 12 below highlights survey results for the share of jurisdictions/agencies that indicated they have MOD services.

Figure 12: Mobility on Demand Services by Agency, 2023



Source: PSRC survey of Jurisdictions/Agencies with MOD services, 2024

# Mobility on Demand (MOD) Programs

#### Micromobility

Micromobility includes bike- and scooter-share, primarily used for short trips in more dense areas with relatively good connectivity between destinations. Micromobility serves as a first-and last-mile option that is faster than walking, hailing a taxi, or transferring to public transit. Electric scooters and bikes and dockless micromobility programs have accounted for the majority of micromobility services in the region.

In 2023, micromobility was available in five cities across the region:

- Bothell (scooter-share)
- Everett (scooter-share)
- Redmond (bike-share & scooter-share)
- Seattle (bike-share & scooter-share)
- Tacoma (bike-share & scooter-share)

Micromobility is provided by private companies in partnership with jurisdictions. Examples of private companies that provide these services include Bird, Lime, and Veo.

<sup>\*</sup>Microtransit responses were provided only by transit agencies

Based on the inventory data, in 2023 micromobility ridership accounted for almost five million rides in the jurisdictions that allowed them, with a higher share of scooter usage than bicycle rides. The average trip duration for micromobility ranged from 8 to 12 minutes and the average distance traveled ranged from 0.7 to 1.5 miles.

#### Microtransit

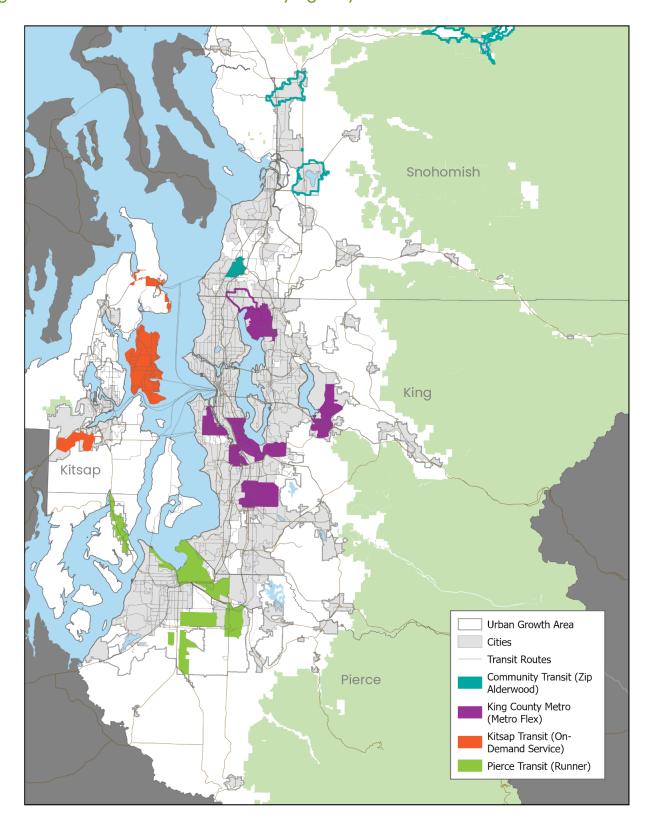
Microtransit is a publicly-operated shared transportation service that typically uses multi-passenger vehicles like shuttles or vans to provide on-demand services with flexible routing. The purpose of microtransit is to serve areas that currently lack or are not well suited for bus or rail service, as well as to offer first- and last-mile rides to transit stations.

Transit agencies across the region provide an array of microtransit programs, including:

- Community Transit (Zip Shuttle)
- King County Metro (Metro Flex)
- Kitsap Transit (Rides for multiple locations, including Bainbridge Ride and South Kingston Ride)
- Pierce Transit (Runner)

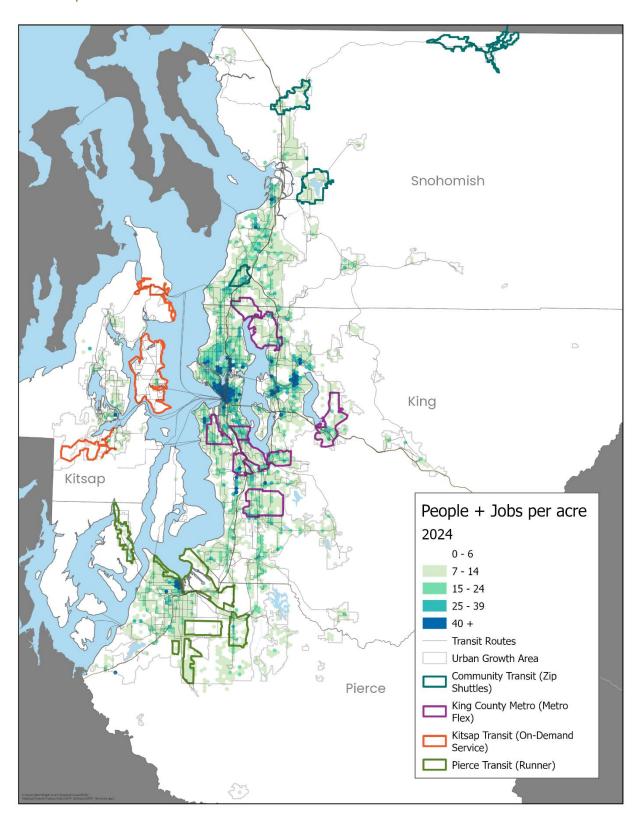
All microtransit programs accept ORCA cards including ORCA LIFT (low-income fare) and ORCA Regional Reduced Fare Permit, which allow for easy transfers between microtransit and bus and rail systems for all ORCA users. Riders under 18 years old can ride microtransit for free with a Youth ORCA card. Most agencies provide wheelchair-accessible vans and offer curb-to-curb pick-up and interpreter services for riders with accessibility and mobility needs. Riders can customize their rides using an app or call each program directly to arrange a trip. Figure 13 below highlights microtransit service areas by the different transit agencies.

Figure 13: Microtransit Service Areas by Agency



PSRC conducted an analysis comparing these microtransit service zones to population and employment densities. As illustrated in Figure 14, microtransit services are being provided in diverse areas of the region with different density levels. In areas where traditional fixed-route transit may not be efficient or sustainable, microtransit services may help fill gaps in the regional transit network and support demand for flexible, first- and last-mile transportation options.

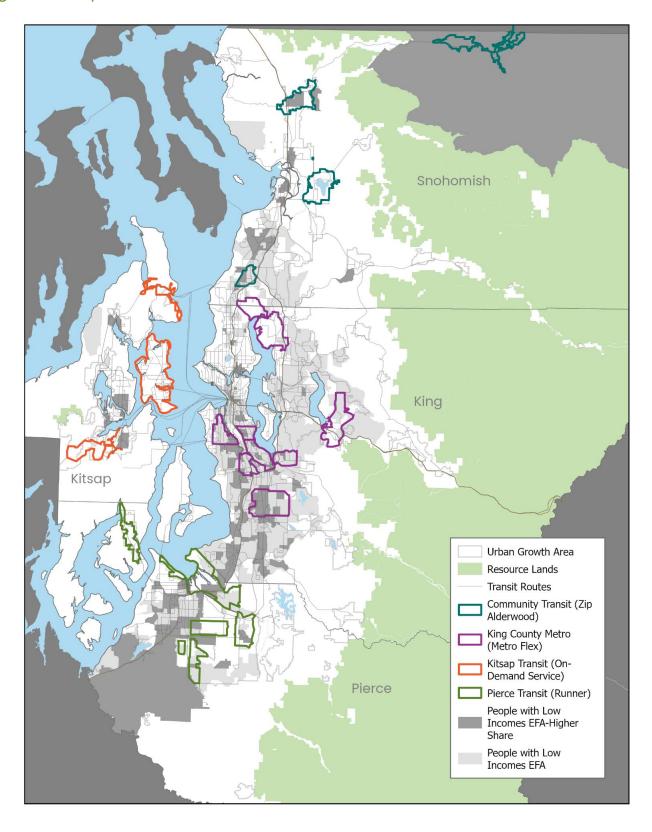
Figure 14: Population and Job Densities and Microtransit Service Areas



PSRC also conducted an analysis of these microtransit service zones to areas around the region with higher percentages of people with low incomes than the regional average. As

seen in Figure 16, more than half of the microtransit zones in the region serve communities with a higher share of low-income residents. Many service zones are located in or near these areas, particularly in parts of South King, Pierce, and Snohomish counties. This suggests that microtransit can help to improve transportation access for people who may need more affordable, flexible options to get where and when they need to go. Additionally, microtransit services accept ORCA cards and reduced fares, making it easier for riders to transfer for free between microtransit, buses, light rail, or Sounder trains.

Figure 15: People with Low Incomes EFA and Microtransit Service Areas



#### Ridehailing

Ridehailing uses online platforms to connect passengers with drivers and automate reservations, payments, and customer feedback. Riders can choose from a variety of vehicle options, including drivers who use personal vehicles or traditional dispatched taxicabs. Ridehailing is operated by private agencies within and beyond the region but service availability is dependent on the driver's willingness to drive to certain pickup points. Examples of ridehailing services include Uber and Lyft.

#### Ridesharing

Ridesharing is a type of shared transportation where volunteer drivers give rides to passengers traveling to similar destinations. It includes carpools or vanpools and typically follows a pre-set schedule. Transit agencies provide vanpool or van-share programs to help connect riders, especially commuters, between home, work, and transit services. Some transit agencies in our region offer vanpool programs with monthly fares, which is dependent on the number of riders, trip mileage, vehicle size, number of days commute, etc.

#### Carsharing

Carsharing is a technology-enabled service that allows individuals to temporarily access vehicles from a shared fleet of cars and light trucks. Carsharing operators usually provide parking and maintenance, while users pay a fee each time they drive a vehicle. Carsharing is often used as an alternative to owning a personal vehicle, especially for individuals who drive infrequently or wish to minimize the financial and logistical burdens associated with vehicle ownership.

In the central Puget Sound region, thirteen jurisdictions (about 22%) identified that they have car-sharing programs. Most of these jurisdictions do not have direct involvement in car-sharing, as private companies typically operate these services. Currently, ZipCar, ZEV (Zero Emission Vehicle) and peer-to-peer car rental options, like Turo or Getaround, are available in the region. In addition to these private providers, Kitsap Transit also operates the SCOOT carsharing program.

In King County, along with other locations nationwide, a non-profit agency called Forth Mobility operates the Affordable Mobility Platform (AMP), a nationwide carsharing program that provides access to electric vehicles (EV) at affordable housing sites and underserved communities. AMP operates and deploys EV chargers at affordable housing locations in low-income neighborhoods in Seattle (West Seattle, New Holly, Lake City) and Des Moines.

# Section 1D: Specialized Transportation Services

While transit serves as a backbone for providing essential mobility services, specialized transportation provides more personalized solutions for those who have difficulty using transit or other transportation options due to their age, income, or ability.

# **Demographic Highlights**

The priority populations supported with these services often share one or more of the following demographic characteristics:

- Age: Older adults (65 and older) or Youth (between 5 and 17)
- Income: Below 200% of the Federal Poverty Line (FPL)⁵
- Ability: Physical or intellectual disabilities
- Language: Limited English proficiency (LEP)

Many individuals in these groups face multiple overlapping barriers, which can further limit their access to public The <u>Coordinated Mobility Plan</u> is a required Regional Coordinated Transit-Human Services Transportation Plan to address transportation needs for people with mobility and accessibility needs (referred to as "priority populations"). PSRC updates the plan once every four years, aligning with the Regional Transportation Plan development process. The plan also documents engagement with the affected communities to identify key mobility needs and prioritizes strategies to address those needs.

More information can be found on <u>PSRC's</u> <u>Coordinated Mobility Plan webpage</u>.

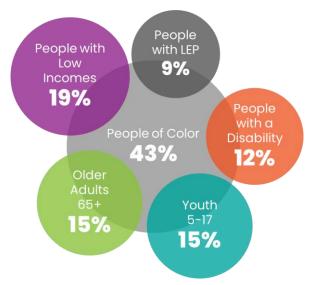
transportation. According to the 2023 U.S. Census Bureau's American Community Survey (ACS), over 40% of the region's population falls into at least one of the above groups.

As illustrated in Figure 16, people with low incomes account for nearly 20% of the region's 4.3 million residents. Notably, a higher percentage of people of color experience low-income status (24%) compared to white individuals (15%): 36% of American Indians and Alaska Natives; 34% of Black individuals; and over 30% of Native Hawaiians and Other Pacific Islanders, and LatinX individuals have low incomes. PSRC's 2023 Household Travel Survey indicates that low-income residents are more likely than their higher-income counterparts to rely on transit, walk or bike more, and drive alone less for daily travel, as owning and maintaining a vehicle can be costly. Furthermore, the survey shows that a higher percentage of workers from low-income households work in person and commute to work than those from higher-income households.<sup>6</sup> However, despite their greater reliance on non-driving modes, individuals with low incomes may still face limited access to transit due to gaps in service coverage, frequency, or affordability. These challenges can make it more difficult to reach employment and other essential destinations, which may further contribute to economic disparities.

<sup>&</sup>lt;sup>5</sup> In 2023, 200% of FPL for a four-person household was \$60,000, or approximately \$5,000 per month. Given the high cost of living in the central Puget Sound region, and to align with other transportation program eligibility guidelines, PSRC defines low-income households using the 200% FPL threshold.

<sup>&</sup>lt;sup>6</sup> Based on the 2023 Household Travel Survey, 22% of workers from households earning \$75,000 or less worked from home compared to 56% of workers from households earning \$200,000 or more.

Figure 16: Percent of Priority Population Breakdowns, 2023



Source: U.S. Census Bureau, American Community Survey 1-Year, 2023

Older adults (65 and older) make up approximately 15% of the population, and 12% of all residents have at least one disability. There is a significant overlap between these demographic groups: based on the 2023 ACS, 34% of adults over the age of 65 and 71% of those over the age of 85 have at least one disability that limits their ability to travel independently. This compound burden can make it more challenging for older adults to access essential services like medical facilities, maintain social connections, and participate in daily activities without reliable transportation options.

Additionally, the number of older adults, people with disabilities, and LEP individuals is increasing at a faster rate than the overall population. Over the past four years, while the overall population has grown by 4%, the number of adults aged 65 and older has increased by nearly 20%, and the populations of people with disabilities and LEP individuals have grown by almost 15%.

At the same time, our region is diversifying. Today, over half (52%) of the youth ages 5 to 17 identify as non-white and approximately 5% come from households with limited English proficiency. These demographic shifts indicate a growing need for inclusive transportation options that provide both language and accessibility support. To further emphasize, individuals who belong to multiple priority population groups such as older adults with disabilities or LEP individuals with low incomes face compounded challenges in accessing transportation.

# Specialized Transportation Services Inventory

In 2024, PSRC conducted a regional survey to inventory transportation services available to the priority populations identified above, including transit, ADA-complementary paratransit, demand-response shuttles, mobility management programs, and other human service

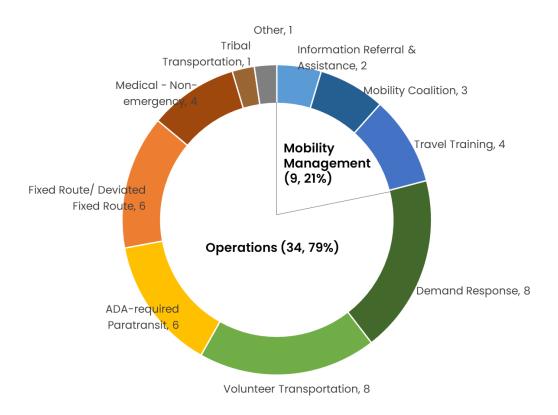
transportation providers in the central Puget Sound region. A total of 44 responses were submitted. PSRC also collaborated with the Washington State Department of Transportation (WSDOT) and Hopelink's Find-a-Ride project team to supplement the inventory data, integrating additional information and service area boundaries. The survey collected key information, including:

- Basic program information (program contact, reservation details, eligibility)
- Service areas
- Performance data (Ridership, revenue vehicle mileage, revenue vehicle hours)
- Annual program cost
- Top trip origins and destinations

# **Program Types**

The survey identified a variety of transportation programs serving populations with mobility and accessibility needs. Among the 44 programs analyzed (see Figure 17), the majority (34 programs) focus on operations, while 20% are categorized as mobility management. In most cases, except transit open to the public, specialized transportation programs have eligibility requirements for passengers.

Figure 17: Transportation Program Types from Inventory Survey



## Operation programs

Operation programs include both transit and specialized transportation. They help people get from one place to another by offering different types of rides through scheduled transportation. These include:

- Public transit such as buses or trains that run on fixed routes and schedules that are open to the public.
- Specialized transportation designed to help people safely and reliably reach their destinations especially when transit may not be the best option for them, such as:
  - ADA complementary paratransit: A service required by the Americans with Disabilities Act (ADA) for individuals with disabilities who are unable to use transit. Transit agencies provide wheel-chair accessible vans to eligible riders.
  - Demand-response (also called Dial-a-ride): Door-to-door rides that can be scheduled in advance and offer rides to eligible riders with a small fee.
  - Volunteer driver programs: Local volunteers give rides to people who may not have other options, often for medical appointments or essential errands.
     Agencies connect riders with volunteer drivers.
  - Non-emergency medical transportation (NEMT): Rides to and from medical appointments for people who do not have other alternatives to get there, usually covered by Medicaid or other health programs.

## **Mobility Management Programs**

Mobility management programs help people get where they need to go by making transportation easier to understand and use. These programs include:

- Trip planning assistance (or 2-1-1 call centers): Helping individuals figure out the best way to get to their desired destinations and plan their trips.
- Travel training: Helping people learn how to confidently use buses and other transit services, including boarding the vehicle and paying fares.
- Information and referral services: Connecting people with different transportation programs that fit their needs.
- Mobility coalitions: Bringing together different transportation partners to improve services through coordination.

These diverse programs play an important role in ensuring that people with mobility challenges can access essential destinations, reinforcing the need for a regionwide well-coordinated mobility network.

# **Key Destinations**

The survey also identified key destinations of riders using specialized transportation

#### programs:

- Medical facilities
- Grocery stores & food banks
- Residences
- Employment/Educational
- Transit stations
- Recreation & Parks

As previously mentioned, over 70% of adults aged over 85 have a disability, and need accessible transportation to get to medical facilities more frequently than younger adults for better health outcomes. In our region, some major healthcare facilities are accessible by public transportation, but not all of them. More information and maps of the key regional destinations will be available in the <u>Coordinated Mobility Plan</u>.

# **Key Findings**

## Transit Usage

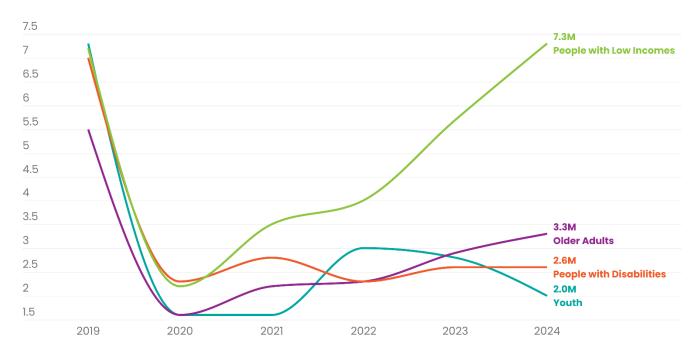
Bus and rail services play a vital role in meeting the transportation needs of residents across the region. To improve accessibility and affordability, several reduced-fare programs are available:

- ORCA LIFT: for low-income households (below 200% of the federal poverty line)
- Regional Reduced Fare Permit (RRFP): for older adults and people with disabilities
- Subsidized Annual Pass: Residents of King, Pierce, and Snohomish counties, who are at or below 80% of the federal poverty line and enrolled in one of six state benefit programs, are eligible.<sup>7</sup>

Reduced fare programs provide cost-effective transit options, making travel more accessible for these populations, and particularly individuals with low incomes. According to regionwide ORCA data, fixed-route boardings for all groups dropped sharply in 2020, likely due to the pandemic. Since then, low-income boardings have rebounded the most, reaching 7.3 million in 2024. The number of boardings made by low-income riders has more than tripled since 2020, compared to a doubling of general ORCA boardings over the same period (see Figure 18).

<sup>&</sup>lt;sup>7</sup> Details of the ORCA Subsidized Annual Pass can be found here: https://info.myorca.com/using-orca/ways-to-save/state-benefit-programs/.

Figure 18: ORCA Boardings by Passenger Type, 2016-2024



Source: Regional ORCA Data

NOTE: Since fall 2022, all youth (18 and under) can ride transit for free. Since many transit agencies allow youth riders to use their student ID as proof of fare when boarding, ORCA data may not fully capture actual youth ridership.

# **ADA-Complementary Paratransit Highlights**

All transit agencies in our region provide complementary paratransit as required by the Americans with Disabilities Act (ADA). ADA paratransit is a door-to-door service for individuals with physical or cognitive disability or who meet other qualifying conditions.

ADA paratransit ridership is steadily recovering from the pandemic. As of the latest data, ridership has rebounded to 71% of 2019 levels (see Figure 19). However, demand is increasing alongside costs: paratransit operating expenses have risen by 40% compared to 2019. This financial strain makes it challenging for transit agencies to maintain and expand services to meet growing demand.

Despite ongoing efforts to improve service, significant gaps remain. While most people with disabilities live in areas where ADA paratransit is available (Figure 20), nearly 13%—about 64,500 individuals—live outside these areas, limiting their access to mobility options. Even within the designated service area, paratransit may not fully meet all travel needs. Riders often face constraints such as limited service hours and coverage, long wait times, and the requirement to schedule trips in advance, making some trips difficult or impossible to complete.

Another challenge is the complex eligibility review process. Except for Kitsap Transit, most providers have overlapping or adjacent service areas but use different eligibility screening procedures or limit paratransit usage within the county of origin. These inconsistencies and restrictions create barriers for riders who want to travel across county lines.

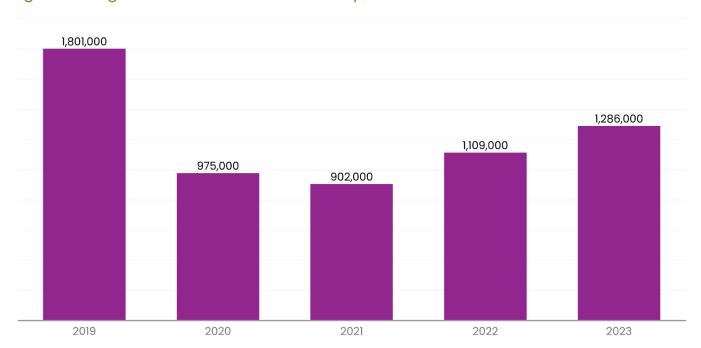
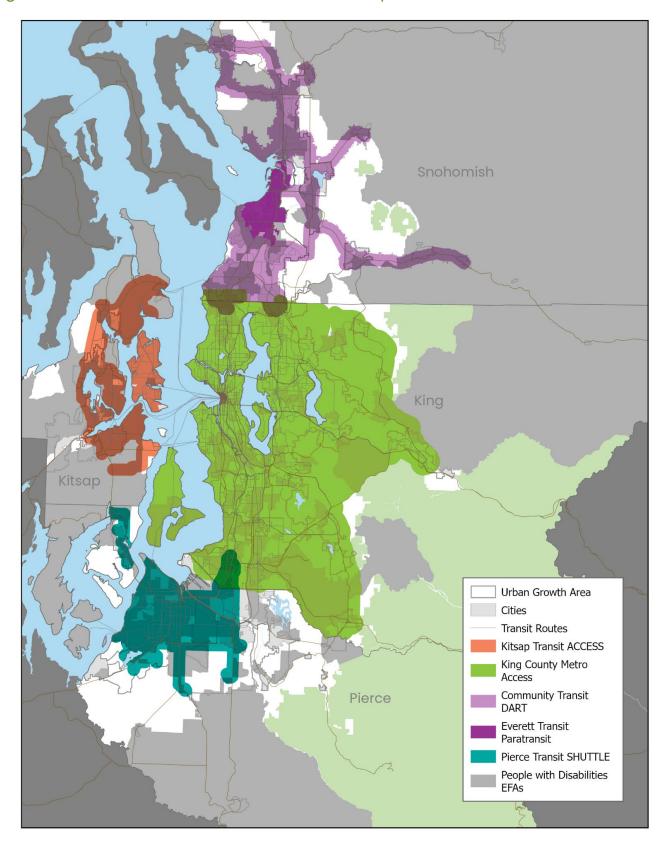


Figure 19: Regional ADA Paratransit Ridership, 2019-2023

Source: National Transit Database Monthly Ridership Time Series, December 2024 Release

Figure 20: ADA Paratransit Service Areas and People with Disabilities EFA

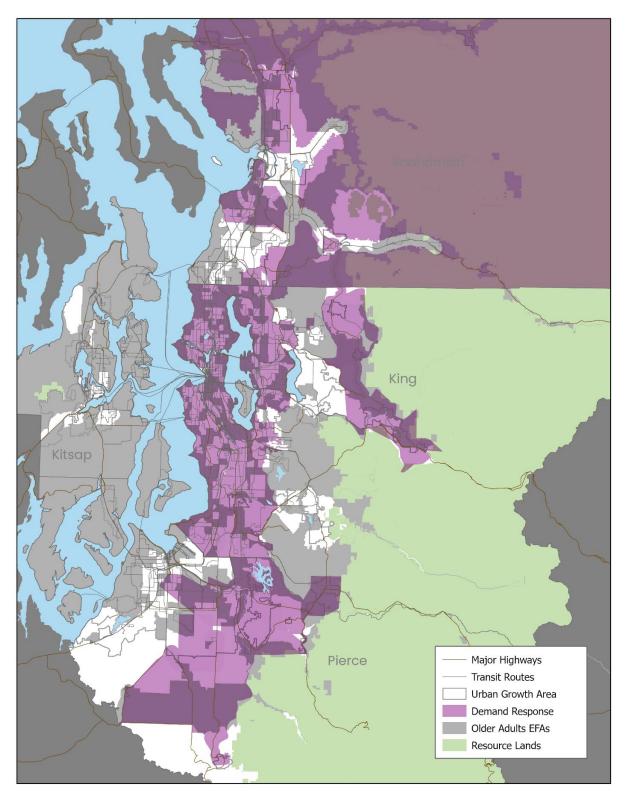


# Demand Response (Dial-a-Ride) Shuttles Highlights

Demand response shuttles provide flexible, customized transportation for individuals who are not fully served by fixed-route transit or ADA complementary paratransit. These services help riders who may lack transportation access at certain times or locations. Often operated by non-profits and human service agencies, demand response shuttles offer tailored solutions to meet the diverse mobility needs of individuals with limited travel options due to their age, income, or ability.

Demand response shuttles are critical because they fill gaps in existing transit services, particularly in rural or areas with limited transportation options. They also support riders who may not meet strict ADA paratransit eligibility but still have significant mobility needs, particularly those who are no longer able to drive or comfortably use fixed-route transit. As an example, these shuttles offer flexible, curb-to-curb or door-to-door service that helps older adults access medical appointments, grocery stores, community centers, and other essential destinations. As shown in Figure 21, not all communities with a higher share of older adults are served by demand response shuttles, highlighting the importance of continuing and expanding these services to ensure mobility for aging populations.

Figure 21: Older Adults EFA and Demand Response Services Coverage



NOTE: Non-emergency medical transportation and volunteer transportation programs are not shown on this map as they operate on a county-wide basis.

One of the main challenges with demand response programs is the lack of comprehensive and consistent data. While complete ridership or cost data are unavailable due to a lack of consistent data reporting or agency capacity, the survey responses indicate that demand response and other specialized transportation programs have significantly higher operating costs compared to bus and rail transit (commonly referred to as fixed-route transit). Figure 22 compares the average operating cost of different public transportation services. These higher costs are largely due to smaller vehicle capacity, tailored service needs, and longer trip distances to serve riders in areas with limited transit coverage.

### **Volunteer Driver Program Highlights**

Volunteer transportation programs are essential for people living in communities that are not well served by fixed-route transit or demand response shuttles. These services are especially valuable in less urbanized areas, where transportation options are limited and residents may face long distances to reach medical facilities or other essential services. Volunteer drivers offer door-to-door or door-through-door service, typically at little or no cost to riders, making it an affordable and accessible solution for people with limited mobility. This community-driven model helps fill critical transportation gaps and ensures that residents are not left behind due to where they live. While the number of trips provided through volunteer transportation is, on average, five times lower than that of demand response shuttles, the cost per ride is approximately \$30 less, as shown in Figure 22.

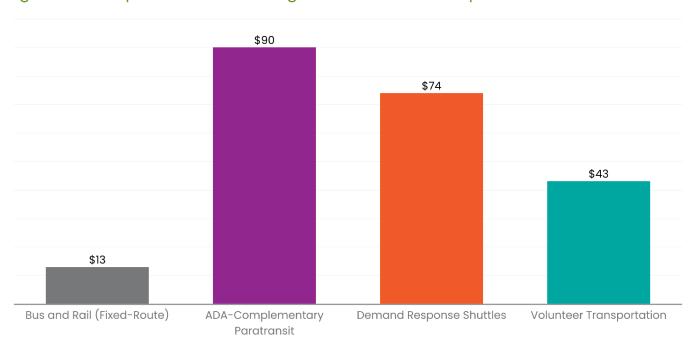


Figure 22: Comparison of the Average Cost of Public Transportation Services

Source: National Transit Database, February 2025 Release

#### Summary of System Gaps

Specialized transportation services exist to fill the needs that fixed route transit services cannot easily provide for those with mobility challenges. However, these individuals still face transportation gaps across the region. While a variety of different transportation programs improve access, key challenges remain, including limited service coverage, long travel times, complex ADA paratransit eligibility processes, and rising operating costs.

Many individuals live outside ADA paratransit service areas or are not eligible but still have significant mobility needs. Demand response shuttles and volunteer transportation help fill these gaps, especially in rural and underserved areas, but are limited and not fully meeting the local needs.

Expanding flexible, affordable, and accessible transportation options is critical to meeting the diverse mobility needs of these communities and ensuring access to medical and essential services. The Coordinated Mobility Plan, to be included in the final Regional Transportation Plan, will address these needs and identify proposed strategies to address them

# Section 1E: Transportation Demand Management Programs

Transportation Demand Management (TDM) refers to a coordinated set of programs including education, incentives, products (like subsidized transit fare cards), and programs that make it easier and more convenient to use non-drive-alone modes such as transit, carpool, vanpool, walking, biking, and teleworking. These programs are typically implemented by a wide variety of entities including cities, counties, transit agencies, transportation management associations (TMAs), and non-profit organizations.

The Commute Trip Reduction (CTR) Law,<sup>8</sup> passed by the Washington State Legislature in 1991, is an early example of TDM and served as a catalyst for many TDM programs operating in the region today. The law aims to address traffic congestion, air pollution, and fuel consumption by reducing trips during peak commute periods. To achieve this goal, the CTR Law prioritizes programming in urban growth areas experiencing the greatest automobile-related air pollution and traffic congestion. These counties and cities are sometimes referred to as "CTR-affected jurisdictions." The Washington State Department of Transportation implements the CTR Law and updates this list every four years.<sup>9</sup>

The central Puget Sound region has a high concentration of areas that are CTR-affected: 36 cities and towns across all four counties plus the unincorporated areas of King, Kitsap, Pierce,

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<sup>8</sup> RCW 70A.15.4000-4110

<sup>&</sup>lt;sup>9</sup> RCW 70A.15.4010 2(a): "Affected urban growth area" means: (i) An urban growth area, designated pursuant to RCW 36.70A.110, whose boundaries contain a state highway segment exceeding the one hundred person hours of delay threshold calculated by the department of transportation, and any contiguous urban growth areas; and (ii) An urban growth area, designated pursuant to RCW 36.70A.110, containing a jurisdiction with a population over seventy thousand that adopted a commute trip reduction ordinance before the year 2000, and any contiguous urban growth areas.

and Snohomish counties. (See Figure 23).

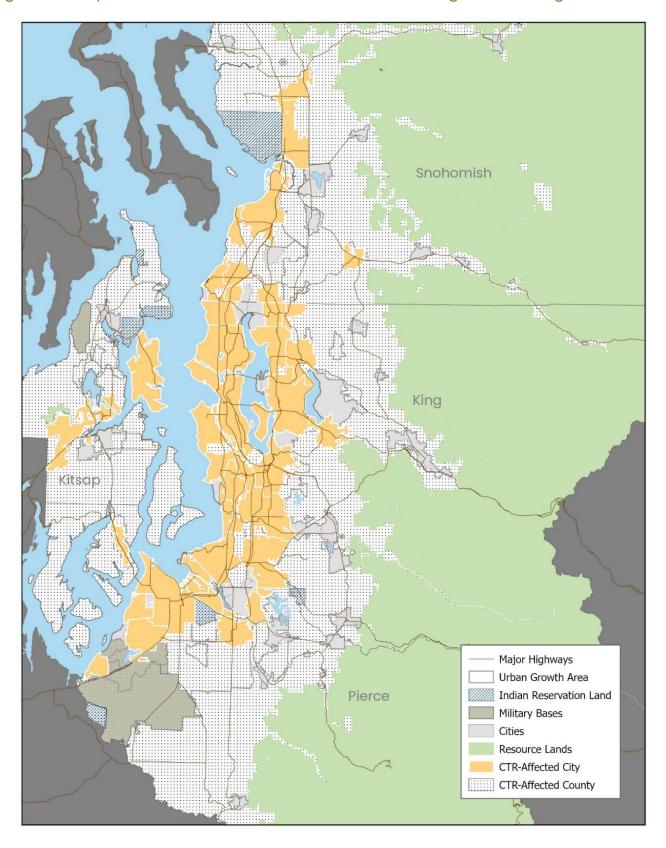
CTR-affected jurisdictions must engage "major employers" within their boundaries to implement programs to reduce single-occupant vehicle commuting among employees. "Major employer" refers to a public or private entity employing 100 or more full-time employees at a single worksite<sup>10</sup> who begin their workday between 6:00 a.m. and 9:00 a.m. on weekdays for at least 12 continuous months.

Although the CTR law addresses a small percentage of overall trips in the region, the state law and the funding it provides implementers establishes a foundation on which they can build broader TDM programs. To address trips outside the scope of CTR, jurisdictions, transit agencies, and other implementers have created TDM programs addressing broader audiences and trip purposes, as resources allow.

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<sup>&</sup>lt;sup>10</sup> A major employer may have more than one worksite where their employees report. They may also have worksites outside of Washington. Only worksites in CTR-affected jurisdictions are subject to the CTR Law.

Figure 23: Map of CTR-Affected Jurisdictions in Central Puget Sound Region



#### Summary of TDM Activities in the Region

A survey asking about TDM activities occurring in 2022 was sent to the region's cities, towns, counties, transit agencies, major TMAs and other relevant organizations. The survey gathered information on implementation of TDM throughout the region, the type and extent of organizational partnerships, and the scope of TDM activities included in the programs conducted. This included information on the target audience for each program and the various strategies implemented. The survey also asked about the sources and amount of funding used to deliver programs, and any performance metrics used to analyze outcomes.

Sixty-one organizations responded to the survey, and just over half of respondents (32) indicated they implemented TDM strategies in 2022 – either directly or through funding or other support for another implementing agency. The majority of these agencies contracted with another organization to implement the programs – either a transit agency, TMA, non-profit organization, another city or the state.

Employers and commuters are the focus for the majority of TDM programs, reported by 69% and 75% of the 32 respondents involved in these activities, respectively. Sixty-six percent of respondents indicated they engage in broader TDM work

#### TDM in Snohomish County

Community Transit works with employers, residential communities and schools in Snohomish County to provide transportation information and incentives. For example, Community Transit partners with over 40 residential complexes and community-based organizations within its service area to share information with residents about alternatives to driving alone. This includes sending mailers, hosting events, and making it easier for people to obtain ORCA cards to pay transit fares.

In 2023 the residential program distributed 2,182 promotional ORCA cards to participants, generating 39,588 transit boardings across all regional transit services.

aimed at all people living in a jurisdiction, 25% indicated programs focused on a specific neighborhood or corridor, and 44% reported programs directed at schools.

## **TDM Strategies**

According to the survey responses, marketing and education continue to be the most prevalent TDM strategies implemented throughout the region. These activities raise awareness of alternatives to driving alone through efforts such as advertisements, travel training and trip planning, community events, etc. Specific to programs aimed at commuters, financial incentives were utilized at an almost equal rate. These incentives often include a distribution of ORCA cards for using transit in the region either with a small preloaded amount or an employer subsidizing the cost of a regional unlimited trips pass through the ORCA Business Passport program. Non-financial incentives are utilized to a lesser degree, and may include programs that reward badges, points or other incentives

that do not provide a financial benefit.

In addition, 59% of respondents utilize legislation and policy tools to advance TDM initiatives. These include local ordinances and codes related to CTR and TDM requirements, and the development of Transportation Management Plans.

#### **Regional Trends**

PSRC's Household Travel Survey, conducted every two years, provides information regarding how people throughout the region travel for various purposes, as well as work from home rates. While there is no direct correlation to TDM programs in the region, the information is useful as a baseline for consideration of how future programs might provide benefits.

The number of employees who are working from home or on a hybrid schedule (some hours worked at home, some worked in person) has grown over the last five years. In 2019, workers on a hybrid schedule accounted for 18 percent of all workers and 5 percent worked full-time from home, meaning 77 percent of workers in the region worked fully in person. In 2023, hybrid workers rose to 25 percent and full-time work from home rose to 12 percent, with 63 percent working fully in person in 2023, a reduction of 14 percent.<sup>11</sup>

According to the <u>2023 Regional Household Travel Survey</u> data, 24 percent of workers in the region were offered a transit subsidy at that time, a significant decrease from 44 percent in the 2019 survey. Workers who were offered a transit subsidy are more likely to use transit for commuting – for those workers who were offered a transit subsidy, 4 percent commuted via transit compared to less than one percent among workers who were not offered the subsidy. This demonstrates a notable decrease from 2019, when 21 percent of workers offered a transit subsidy commuted via transit and about five percent of workers without the subsidy option commuted via transit.

Even with most workers working in-person all or some of the time (88 percent<sup>12</sup>), commuting is still only part of overall travel behavior. Commute trips accounted for 18 percent of all weekday trips in 2023 (compared to 21 percent of all weekday trips in 2019). All of the other trips taken every day by people around the region include going to school, the grocery store, recreation, running errands, etc. Many of these trips are taken by modes other than driving alone, including carpooling, transit, bike or walk. Specific to transit, going to work accounted for 24% of all transit trips in 2023; the remaining trips were taken for purposes such as recreation, social, errands, etc.

## Program and Performance Monitoring Gaps

As noted from the TDM survey, many existing TDM programs are targeted towards work trips; expanding future programs to more fully address all of the varied trips in the region, and

<sup>&</sup>lt;sup>11</sup> Data Source for all values in this section (unless otherwise noted): Puget Sound Regional Council 2019 and 2023 Household Travel Survey

<sup>&</sup>lt;sup>12</sup> Total of fully in person (63 percent) and hybrid workers (25 percent) in 2023.

tying into the transit-supportive densities as described elsewhere in this report, could provide even greater impact regionwide.

In addition, while some organizations gather quantitative and qualitative data from their TDM programs, performance monitoring is not universal and methods are not consistently applied throughout the region. The most common metric gathered is simply the number of participants reached by a given program, and measuring direct outcomes from these activities can be challenging – for example, correlating a sustained reduction in vehicle trips to a specific TDM program.

Employee surveys required by the CTR Law continue to be one of the more consistent data sources to track the outcomes of TDM activities, yet there are challenges in collecting comprehensive data. A survey is currently underway for the 2023-2025 time period; once the data is available for the Puget Sound region it will be reflected here.

# Section 1F: Intercity Bus and Rail

Intercity transit refers to bus and rail services that connect people living in the four-county region to cities and destinations outside of the region. For example, the Federal Railroad Administration (FRA) offers the following distinctions for passenger rail service (49 USC Section 24102):

- Commuter: Serves metropolitan and suburban areas, usually offering multiple-ride or reduced-fare tickets for commuters and operating exclusively or primarily during peak periods in the morning and evening. Example: Sound Transit Sounder from Everett to Lakewood. (Not addressed in this section.)
- Intercity: Routes of 750 miles or less that are not commuter rail. Example: Amtrak Cascades from Eugene to Vancouver, B.C.
- Long-Distance: Routes of more than 750 miles between endpoints. Example: Amtrak Empire Builder from Chicago to Seattle.

This section addresses intercity and long-distance passenger rail as well as intercity bus services like Greyhound (FlixBus) and the Travel Washington Dungeness Line.

### **Intercity Rail**

The Pacific Northwest Rail Corridor (PNWRC) is 461 miles long, running from Eugene, Oregon through the Seattle-Tacoma-Everett urbanized area up to Vancouver, British Columbia, and serves as the primary north-south passenger rail route in the state. Since 1994, the Amtrak Cascades line has provided intercity rail service along the full length of this corridor. Beginning in 2013, the service has been managed and funded by the Washington State Department of Transportation (WSDOT) and Oregon Department of Transportation (ODOT),

contracting operations and train equipment maintenance with Amtrak and primarily using tracks owned by BNSF.

The Amtrak Cascades line connects 18 cities along the corridor. In the central Puget Sound region, trains stop in Tacoma, Tukwila, Seattle, Edmonds, Everett, and Stanwood. In 2023, the service offered six daily roundtrips between Seattle and Portland, two daily roundtrips between Seattle and Vancouver, B.C., and two daily roundtrips between Portland and Eugene, a higher service level (two extra Seattle – Portland trips) than before the COVID-19 pandemic. Most stations provide connections to local transit service and major destinations.

In addition to Amtrak Cascades, the Amtrak Coast Starlight (from Los Angeles to Seattle) and Empire Builder (from Chicago to Seattle), which are both managed by Amtrak, serve the region with long-distance passenger rail service. The Empire Builder stops at Everett, Edmonds, and Seattle stations, with the line terminating in Seattle. The Amtrak Coast Starlight stops in Tacoma and Seattle, where the line terminates.

#### Amtrak Cascades Performance

There were 746,000 passenger trips on Amtrak Cascades in 2023. While this is fewer than the 824,000 trips in 2019, it demonstrates a continued recovery from the 172,000 trips in 2020, when service was significantly reduced due to the COVID-19 pandemic. Service between Seattle and Vancouver was not fully restored to two daily roundtrips until March 2023 and the addition of two daily roundtrips between Portland and Seattle was implemented at the very end of the year (December 2023).

In 2024, Amtrak Cascades reached an all-time high of 993,000 passenger trips, surpassing pre-pandemic levels. The addition of two more roundtrips between Seattle and Portland was a major factor in ridership growth. May 2024 also marked the beginning of free fares on Amtrak Cascades for passengers 18 and under for trips fully in Washington State. However, ticket revenues still grew at a rate similar to ridership, with revenues increasing 26 percent between 2023 and 2024 and ridership increasing 33 percent over the same period.

The Seattle – Portland segment continues to be the most productive part of the line (54 percent of all trips started and ended somewhere in this segment), followed by the Seattle – Vancouver, B.C. segment, which accounted for 24 percent of all trips. Over 615,000 passengers either started or ended their trip at King Street Station in Downtown Seattle in 2024.

On-time performance continues to be a challenge for Amtrak Cascades. Since 2018, the service has had an annual goal of 88 percent of trips arriving on time (within 10 minutes of scheduled arrival at a segment endpoint). At the time the goal was set, on-time performance was 50 percent. There has been some fluctuation, but on-time performance was largely unchanged at 49 percent of trips in 2024.

Generally the major causes of delay include congestion due to shared tracks with freight trains and other passenger trains, as well as required speed reductions for track maintenance or other conditions.

### Safety

The Washington Utilities and Transportation Commission (UTC) is the primary state agency responsible for regulating railroad safety in Washington, including the inventory and inspection of railroad crossings and documentation of trespassing and incident data. UTC monitors all fatalities and injuries involving trains, including those occurring at private crossings or on industrial properties along railroad rights of way.

According to UTC statewide data, there were 10 grade crossing fatalities in 2024, six of which were in the central Puget Sound region. Of these six fatalities, three involved an Amtrak passenger train (intercity or long-distance). There were also 21 trespass fatalities, 12 of which were in the region. Of these 12, four involved an Amtrak passenger train.

### **Intercity Bus**

Intercity bus service has provided critical mobility throughout the region for several decades, particularly for smaller cities and towns. Perhaps the most well-known example is Greyhound (owned and operated by FlixBus since 2021), which operates a network of intercity bus service across North America. With terminals in Everett, Seattle, and Tacoma, routes serving the region primarily operate on the I-5 and I-90 corridors, with direct service as far as Vancouver, B.C. to the north, Spokane to the east, and Los Angeles to the south as well as connections to other destinations in the national intercity bus network.

Other private operators serving the region with intercity bus service include Northwestern Trailways, Bellair Charters & Airporter, and Cantrail Coach Lines. Spokane-based Northwestern Trailways operates intercity bus throughout Washington, including one daily roundtrip from Tacoma to Spokane via I-5 and US-2, with stops in Seattle, Everett, and Skykomish. Bellair Charters & Airporter serves Sea-Tac Airport with 19 daily trips across three routes from Bellingham, Yakima, and Anacortes to the airport. Cantrail Coach Lines provides three southbound and four northbound daily trips between Seattle and Vancouver, B.C.

Intercity bus also encompasses the rural intercity bus program, which is designed to connect residents in rural and small urban areas to larger urban areas and more transportation options. The FTA requires each state to spend at least 15% of funds received from the FTA Rural (Section 5311) formula grant program for rural areas to develop and support rural intercity bus transportation. In 2007, WSDOT developed the Travel Washington program, which uses the federal dollars to subsidize four intercity bus routes that fill gaps in the transportation network for rural and small urban areas. WSDOT contracts with private bus companies to operate the services.

The Dungeness Line, a Travel Washington route operated by FlixBus, connects the central Puget Sound region to the Olympic Peninsula. It runs from Seattle to Port Angeles and includes stops in Edmonds and Kingston. The route provides direct connections to several other modes—Amtrak Cascades (intercity passenger rail), Amtrak Coast Starlight and Empire Builder (long-distance passenger rail), Sounder (commuter passenger rail), and FlixBus (intercity bus)—at King Street Station in Seattle and terminates at Sea-Tac Airport.

The Dungeness Line has the highest ridership of the four Travel Washington routes, but it has been slower to recover from the pandemic. In 2019, there were almost 16.000 passenger trips on the Dungeness Line, and ridership was half that (about 8,000) in 2020. By 2023, ridership recovered to about 10,000 trips. To compare, the Grape Line from Walla Walla to Pasco had about 6,000 annual passenger trips in 2019 and 4,000 in 2023. The Grape Line is the second most productive route after the Dungeness Line.

#### Other Local Transit Providers

In addition to intercity bus lines, there are also local transit providers in smaller urban areas bordering the region that operate longer-distance or commuter routes into the central Puget Sound region. Examples include Intercity Transit, Skagit Transit, and Clallam Transit routes.

Intercity Transit in Thurston County operates a limited stop service from Olympia to the SR 512 Park-and-Ride in Lakewood, where riders can connect to Pierce Transit local bus and Sound Transit ST Express bus.

Skagit Transit operates the Skagit Snohomish Connector, an express route from Burlington to Everett via Mount Vernon. Today riders can connect to Community Transit Swift Blue Line BRT and local bus, Everett Transit local bus, and Sound Transit Sounder commuter rail at Everett Station. Island Transit in Island County also provides service connecting Whidbey Island and Camano Island with local transit in Snohomish County.

Clallam Transit in Clallam County operates a commuter bus that connects Port Angeles and Sequim with Poulsbo and the Bainbridge Island Ferry Terminal. From these stops, riders can connect to local Kitsap Transit routes or the Washington State Ferries Bainbridge-to-Seattle route. Mason Transit Authority in Mason County and Jefferson Transit in Jefferson County also provide public transit service to Kitsap County from other parts of the Olympic Peninsula.

Multimodal connections to services bordering the region enhance the function and reach of the regional transit network and provide more transportation choices for people making longer trips within the region and beyond.

## Interregional Planning and Needs

As noted above, there continue to be challenges in on-time performance for these services, due to congestion, competing modes and greater demands on the system. As such, a variety of planning efforts are currently underway.

The Federal Railroad Administration (FRA) Corridor Identification and Development Program (CID) was established under the Infrastructure Investment and Jobs Act in 2022 to create a national framework for planning and a pipeline for the funding and delivery of intercity passenger rail projects. Amtrak Cascades service was selected to be part of the program in late 2023, a critical milestone in eligibility for federal funding to enhance the service. WSDOT finalized a <a href="Preliminary Service Development Plan">Preliminary Service Development Plan</a> in June 2024 outlining plans for future service enhancements to Amtrak Cascades. The plan revisits the recommendations of the 2006 Amtrak Cascades Long-Range Plan with updated costs and financial forecasts as well as assumptions about travel behavior.

The Cascadia High-Speed Rail corridor was also selected for the CID program as a potential location for new high-speed rail service in the future and received federal funding for service development planning in late 2024. The FRA defines high-speed rail as a service operating at speeds of up to 186 mph or greater and operating primarily or solely on a dedicated alignment. High-speed rail is not intended to replace Amtrak Cascades but to provide a faster direct service than is feasible on the current system. The <u>Cascadia High-Speed Rail</u> study is now being integrated with WSDOT's I-5 Master Planning Study to look more holistically at the transportation system needs along the whole corridor.

Information on the region's aviation system and current long-range planning efforts will be addressed in the full plan document.

# **Section 2: Active Transportation**

Across the central Puget Sound Region, people make daily trips by a variety of modes, including walking, biking, or rolling. While the share of these trips is far smaller than travel by other modes, active travel plays a critical role in providing access to a variety of destinations. According to PSRC's 2023 Household Travel Survey (HTS), on an average weekday, 10% of trips are made by walking and 1% by biking. Walking makes up a much larger proportion of daily travel than biking, as not everyone is a bicycle user, but nearly everyone walks at some point throughout their day. People aged 18–34 walk more than the regional average, and people with household incomes under \$50,000 walk the most. In addition, walking is the dominant mode of accessing the regional transit system, with over 93% of the people who use transit reporting that they walked to their stop or station.

Walking and biking travel behavior varies significantly in different geographies. For example, people who live in Seattle made 24% of their trips by walking in 2023, which is more than twice as high as the regional average. Similarly, Seattle residents made 3.8% of their trips by

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<sup>&</sup>lt;sup>13</sup> In 2017 the Washington State Legislature directed WSDOT to perform a feasibility study for Ultra-High-Speed Ground Transportation (UHSGT) connecting Vancouver, B.C., Seattle, and Portland, OR. Subsequent planning work (the 2019 UHSGT business case study analysis and 2020 Cascadia UHSGT Framework for the Future report) has advanced this concept and created a foundation for the CID application. State studies have looked at high-speed rail options with speeds up to 250 mph.

biking, more than three times the regional average. Residents of the region's Regional Growth Centers (RGCs) made over 30% of their trips by walking and over 2% by biking, far above the regional average. Generally, people in more urban areas are more likely to travel by walking or biking than those in less urban areas.

### Pedestrian and Bicycle Facilities Inventory

To document the state of active transportation facilities in the region, PSRC has worked to build a comprehensive and consistent regional inventory of pedestrian and bicycle facilities. This inventory documents the presence, completeness, and type of pedestrian and bicycle facilities on regional facilities in all four counties of the region. The inventory was created using facility data provided by local jurisdictions, building from the original inventory developed in 2019/2020 and updated with edits from jurisdictions in 2023.

The regional network for this purpose is defined as pedestrian and bicycle facilities on principal arterial roadways or above and regional shared use paths. In consultation with PSRC's Bicycle and Pedestrian Advisory Committee (BPAC), PSRC refined the criteria for shared use facilities on separate rights-of-way to only include shared use paths that provide connections between regional destinations, rather than internal circulation. For this inventory, PSRC only tracks and monitors facilities that meet the specified regional thresholds described above. However, many local jurisdictions collect information for active transportation facilities on more local facilities. Further information about the definitions used in the inventory is provided in PSRC's <u>Pedestrian and Bicycle Facility Typology</u>.

### Pedestrian and Bicycle Facility Coverage on Principal Arterials

The following section describes the inventory of pedestrian and bicycle facilities throughout the region based on "facility coverage." This is calculated by taking the total miles of complete and partial pedestrian or bicycle facilities and dividing that by the total arterial roadway mileage of the given geography. Unless it is called out specifically, both complete and partial facilities are included in the mileage and facility coverage totals. Table 2 below provides more detail on the coverage definitions.

Of the just over 1,000 miles of principal arterials in the region, 726 have the presence of sidewalk facilities, and 366 have some type of bicycle facility. However, as noted above, these figures include partial facilities. When looking only at sections of the roadway with complete facility coverage on both sides of the roadway, 563 miles of principal arterials have complete sidewalk facilities, and 235 miles have complete bicycle facilities.

Table 2: 2023 Pedestrian and Bicycle Inventory – Arterial Coverage Definitions

Value	Definition
Complete	Facilities cover the full length of the segment on both sides
	of the road.

Partial	Facilities only cover one side of the road or partially cover
	either side of the roadway. Partial coverage means
	facilities cover between 1% and 99% of the segment.
No Facilities	No facilities on either side of the road.

Similar to the travel behavior observed in the 2023 HTS, there is slightly higher pedestrian facility coverage in urban areas, defined as being within the Urban Growth Area (UGA), than in rural areas. Pedestrian facility coverage is also much higher than the regional average in RGCs and near all transit station areas. PSRC defines HCT station areas using ½ mile buffers around light rail stops and ¼ mile buffers around other high-capacity transit stops. Coverage is also assessed for all areas within a ¼ mile of any transit stop. Using these geographies, bicycle facility coverage is a little below the regional average in RGCs and all transit station areas. While the bicycle facility coverage is low in these geographic areas, it is critical to note that this inventory only reports on the region's principal arterial network and cannot assess the potential presence of parallel facilities on minor arterial, collector, or local roadways. Tables 3 and 4 below show more detailed information on facilities in these geographies.

Table 3: Mileage and Coverage of Pedestrian Facilities by Geography

	Region	Urban	Rural	RGCs	HCT Station Areas	Transit Station Areas
Miles	726	716	10	109	397	652
Facility	71%	84%	6%	94%	91%	82%
Coverage						

Table 4: Mileage and Coverage of Bicycle Facilities by Geography

	Region	Urban	Rural	RGCs	HCT Station Areas	Transit Station Areas
Miles	366	308	58	34	113	260
Facility	36%	36%	35%	30%	26%	33%
Coverage						

Key differences in total mileage and facility coverage were observed between the four counties in the PSRC region. The specific mileage and coverage of pedestrian and bicycle facilities by these different geographies is shown in Table 5 and Table 6 below.

Table 5: Mileage and Coverage of Pedestrian Facilities by County

	King County	Pierce County	Kitsap County	Snohomish County
Miles	433	177	22	95
Facility	78%	71%	37%	61%
Coverage				

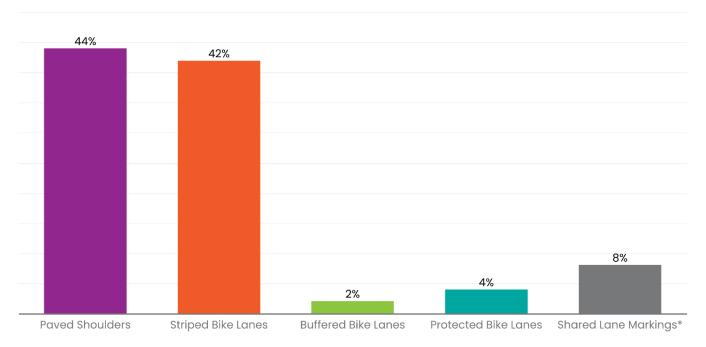
Table 6: Mileage and Coverage of Bicycle Facilities by County

	King County	Pierce County	Kitsap County	Snohomish County
Miles	144	127	24	70
Facility	26%	51%	41%	45%
Coverage				

### Bicycle Facility Types on Principal Arterials

In addition to collecting information on facility completeness, the inventory gathered data on the type of bicycle facilities present on principal arterials. PSRC staff worked with the BPAC to create a typology of bicycle facilities based on state and national design guidance. This Pedestrian and Bicycle Facility Typology established consistent terminology to guide PSRC's data collection efforts. The most common facility types on the arterial network include paved shoulders, striped bike lanes, buffered bike lanes, and protected bike lanes, although information is also collected on the presence of Shared Lane Marking roadway treatments. Across the region, paved shoulders and striped bike lanes are by far the most prominent types of bicycle facilities. However, there is a smaller proportion of buffered and protected bike lanes in the region's more urban areas. The proportion of bicycle facility types across the region is shown in Figure 24 below.

Figure 24: Regionwide Proportion of Bicycle Facility Types



Source: PSRC regional inventory of pedestrian and bicycle facilities

### Regional Shared Use Paths

Regional shared use paths, often referred to as trails, provide routes for walking and biking outside of the roadway network. They are critical for both facilitating regional walking and biking travel and providing local connections. Examples of regional shared use paths in the Puget Sound region include the Interurban Trail in King, Snohomish, and Pierce counties and the Burke Gilman Trail from Ballard to the City of Bothell, among many others. There are 477 miles of shared use paths meeting the regional threshold criteria. Notably, 60% of the regional shared use path network connects with a transit station area, providing access to transit. More details on the regional shared use paths in the inventory are provided in Tables 7 and 8.

Table 7: Mileage of Regional Shared Use Paths by Geography

	Region	Urban	Rural	RGCs	HCT Station Areas	Transit Station Areas
Miles	477	343	134	30	127	283

<sup>\*</sup> Shared lane markings are included in the previous totals but are not technically classified as a "bicycle facility;" rather they are considered a roadway treatment.

Table 8: Mileage of Regional Shared Use Paths by County

	King County	Pierce County	Kitsap County	Snohomish County
Miles	322	66	4	86

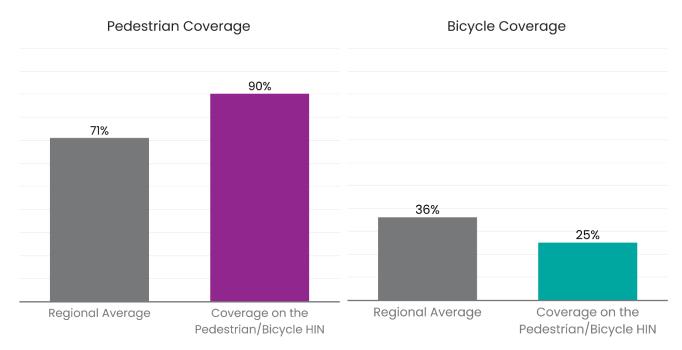
### **Analysis of Facility Coverage**

Using the updated pedestrian and bicycle facility data, PSRC staff assessed facility coverage in various geographies and undertook several new analyses. The following sections will overview the current pedestrian and bicycle system in regards to safety, population and employment densities and the six equity focus areas. In addition, staff developed a bicycle level of traffic stress assessment and a method for identifying and categorizing gaps in the pedestrian and bicycle networks.

### Safety and the Regional High Injury Network

PSRC conducted an analysis of areas on the regional High-Injury Network (HIN) with high rates of collisions involving pedestrians or bicyclists compared to facility coverage using the pedestrian and bicycle inventory. When looking at the sections of roadway on the pedestrian and bicycle HIN, staff observed pedestrian facility coverage well above the regional average and bicycle facility coverage below the regional average. Figure 25 below provides more information on the presence of facilities in these areas.

Figure 25: Pedestrian and Bicycle Facility Coverage on the HIN



Source: PSRC regional inventory of pedestrian and bicycle facilities & High-Injury network

The total mileage and facility coverage in these areas are shown in Tables 9 and 10 below. Generally, there is less variation in pedestrian facility coverage across counties, with all being relatively close to the regional average. Greater variation is seen in bicycle facility coverage on the pedestrian and bicycle HIN across the four counties.

Table 9: Mileage and Coverage of Pedestrian Facilities on the Pedestrian/Bicycle HIN by County

	Region	King County	Pierce	Kitsap	Snohomish
			County	County	County
Miles	71	50	10	0.2	10
Facility	90%	91%	90%	85%	83%
Coverage					

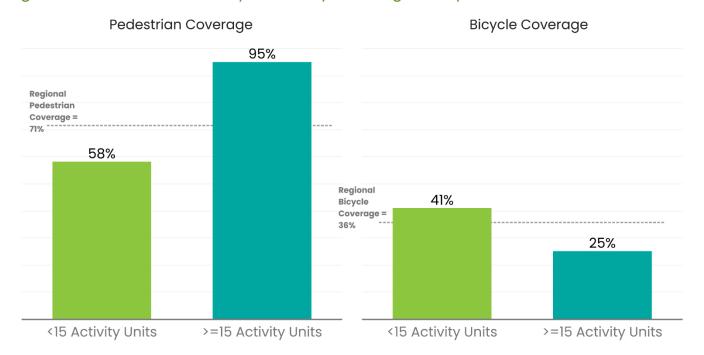
Table 10: Mileage and Coverage of Bicycle Facilities on the Pedestrian/Bicycle HIN by County

	Region	King County	Pierce County	Kitsap County	Snohomish County
Miles	20	12	5	0	3
Facility	25%	21%	45%	2%	25%
Coverage					

### Pedestrian and Bicycle Facilities Compared to Areas of Density

An analysis of pedestrian and bicycle facility coverage compared to areas with at least 15 people and jobs per acre was conducted. For comparison, from the earlier discussion of density thresholds related to transit service, this density is supportive of all day transit service – lower densities are supportive of local transit, and higher densities supportive of frequent and HCT services. Figure 26 below shows the facility coverage for areas above and below this density threshold. Pedestrian facility coverage is far above the regional average in the higher density areas, whereas bicycle facility coverage is below the regional average in these areas. This points to potential gaps for bicycle facilities in these areas of the region; more information on system gaps is provided later in this section.

Figure 26: Pedestrian and Bicycle Facility Coverage Compared to Densities



### Pedestrian and Bicycle Facilities in Equity Focus Areas

PSRC reviewed facility coverage in PSRC's six equity focus areas (EFAs). There is some variation in sidewalk coverage, with areas with higher populations of people with a disability, older adults, and youth having on average less sidewalk coverage. The EFAs of people with limited English proficiency, people of color, and people with lower incomes had sidewalk coverage above the regional average. There is much less variation in bicycle facility coverage between EFAs than pedestrian facility coverage. These areas can be viewed in the <a href="mailto:Transportation System Visualization Tool">Transportation System Visualization Tool</a>.

## **Bicycle Level of Traffic Stress**

PSRC staff, in collaboration with BPAC, developed a methodology for assessing bicycle Level of Traffic Stress (LTS). An LTS analysis uses roadway conditions to classify the comfort level of a given roadway segment. Like most LTS analyses, PSRC used four categories of traffic stress. These are explained in more detail in Table 11. Generally, LTS values of 1 or 2 are the most preferable for bicycle routes, with values of 1 being classified as all ages and abilities facilities<sup>14</sup>. Roadways with values of 3 or 4 are unlikely to support bicycle travel except for the most confident and risk-tolerant riders. PSRC's LTS analysis used the marked roadway speed, the presence of bicycle facilities, the type of bicycle facility, the number of lanes, and the roadway slope to determine a roadway's LTS category. Given that PSRC only collects information on the presence of sidewalks and does not gather data on sidewalk width or

<sup>&</sup>lt;sup>14</sup> All ages and abilities bicycle facilities are safe, comfortable, and equitable for all users. Refer to <a href="https://nacto.org/wp-content/uploads/NACTO\_Designing-for-All-Ages-Abilities.pdf">https://nacto.org/wp-content/uploads/NACTO\_Designing-for-All-Ages-Abilities.pdf</a>.

other conditions, staff determined that a level of traffic stress analysis for the pedestrian network would not provide quality data.

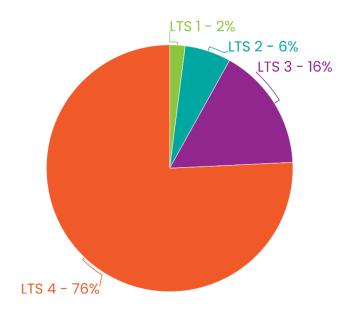
Table 11: Level of Traffic Stress Categories<sup>15</sup>

LTS Category	Definition
1	Suitable for all ages and abilities; children could walk or bike here
	independently. Separated and/or barrier-protected.
2	Comfortable for most adults, including most adults experiencing
	disabilities. Some separation, no barrier.
3	Tolerable for enthusiastic and/or confident adults. Little space, no
	separation.
4	Only used by highly confident people or those with no alternative.
	No dedicated space, no separation

As shown in Figure 27 below, 2% of principal arterial roadways around the region were classified as comfortable for all ages and abilities (LTS 1), and 6% were comfortable for most adults (LTS 2). The remaining 92% of principal arterial roadways were classified under LTS 3 or 4, with 76% being uncomfortable for all but the most highly confident bicyclists (LTS 4).

https://wsdot.wa.gov/sites/default/files/2024-07/LTS%20Level%20of%20Traffic%20Stress%20Flyer\_0.pdf

Figure 27: Level of Traffic Stress on Arterials



#### Pedestrian and Bicycle Facility Gap Analysis

PSRC evaluated the regional system using various factors to identify the most critical pedestrian and bicycle facility network gaps. As a reminder, the information in this report is focused on the regional network of principal arterials so this gap analysis cannot speak to the presence of parallel pedestrian and bicycle facility networks on local roadways. As such, just because a roadway segment is identified as a "gap" does not necessarily mean a "need" exists. However, this analysis provides useful information to support local planning and further needs analyses.

This analysis classifies roadways with *partial or no facilities* into three categories. These segments were assessed based on the combination of three conditions. First, if the segment is in an area on the HIN with a higher rate of collisions involving pedestrians or bicycle users. Second, if the segment is in an area with densities of at least 15 people and jobs per acre. Third, if the segment is in an equity focus area that has lower pedestrian or bicycle facility coverage than the regional average. Using these three conditions, each roadway segment was flagged if it fell into any of the categories described below.

The first category identifies principal arterials with partial or no facilities that reflect all three conditions described above: they are on the pedestrian and bicycle HIN, and in a higher density area, and are within an identified EFA. The second category identifies principal arterials with partial or no facilities that reflect at least one of the three conditions. Finally, the third category identifies all principal arterials with partial or no facilities regardless of whether any of the three conditions are met. It is important to note that there is overlap

between these categories, as one roadway segment could meet the criteria for all three categories.

A fourth category was created for arterials with complete bicycle facilities but are classified with a level of traffic stress of 3 or 4. The four categories are summarized in Table 12 below.

Table 12: Gap Analysis Category Definitions

Category	Definition
1	These segments are on the <i>Pedestrian/Bicycle HIN</i> , within a <i>higher</i> density area, in an equity focus area, and have no or partial
	pedestrian and/or bicycle facilities.
2	These segments are on the <i>Pedestrian/Bicycle HIN</i> , <u>or</u> within a <i>higher density area</i> , <u>or</u> in an <i>equity focus area</i> , and have <i>no or partial</i> pedestrian and/or bicycle facilities.
3	These segments have <i>no or partial</i> pedestrian and/or bicycle facilities.
4	These segments have complete bicycle facilities but a level of traffic stress value of 3 or 4.

Tables 13 and 14 below show the results of this approach to identifying gaps based on principal arterials with partial or no facilities. The total mileage for each category shows notable gaps in active transportation facilities on the arterial network, especially for bicycle facilities.

Table 13: Gap Analysis of Pedestrian Facilities on all Principal Arterials

	Miles (%)
Category 1: Pedestrian/Bicycle HIN + Higher Density + Equity	4 (< 1%)
Focus Area + No/Partial Facilities	
Category 2: Pedestrian/Bicycle HIN or Higher Density or Equity	459 (45%)
Focus Area + No/Partial Facilities	
Category 3: No/Partial Facilities	464 (45%)

Table 14: Gap Analysis of Bicycle Facilities on all Principal Arterials

	Miles (%)
Category 1: Pedestrian/Bicycle HIN + Higher Density + Equity	37 (4%)

Focus Area + No/Partial Facilities	
Category 2: Pedestrian/Bicycle HIN or Higher Density or Equity	781 (76%)
Focus Area + No/Partial Facilities	
Category 3: No/Partial Facilities	789 (77%)

Table 15 below provides information on the LTS analysis as described above.

Table 15: Additional Gap Analysis of Principal Arterials with Complete Bicycle Facilities

	Miles (%)
Category 4: High Bike LTS + Complete Bike Facilities	288 (79%)

#### **ADA Transition Plans**

Another important aspect to the system is the presence of ADA-accessible infrastructure, such as wheelchair-accessible curb ramps. These facilities support individuals with mobility challenges in fully using the system, and in many cases allow them better access to the transit system to reach their desired destinations. Per federal law, agencies receiving Federal Highway Administration funds must adopt an ADA Transition Plan. An ADA transition plan identifies barriers to ADA compliance and provides actions that agencies will take to remove barriers within the public right of way and on publicly owned facilities. PSRC is in the process of obtaining current information on the status of ADA Transition Plans in the region and this information will be included in the draft Regional Transportation Plan.

# Section 3: Streets and Highways

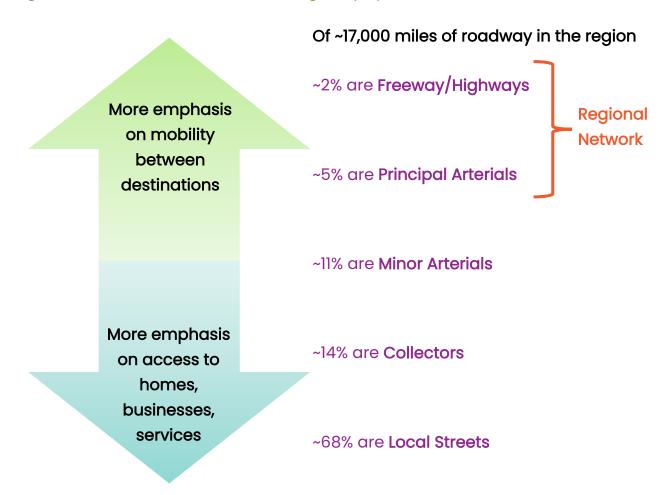
Streets and highways throughout the region provide the foundation of the multimodal transportation system. Street rights-of-way may include vehicle lanes, transit lanes, bicycle lanes, sidewalks or shoulders, and/or planted strips that provide buffers between vehicular and non-vehicular traffic. Buses, streetcars, freight trucks, automobiles, bicycles, pedestrians, and sometimes light rail all travel via the street network, sometimes in space dedicated to their specific travel mode and sometimes mixed in shared space.

## Street and Highway Functions

Streets and highways serve mobility for all travel modes and provide access to homes, businesses, and services. Figure 28 shows how the region's roadways are classified according to the mix of these uses they serve. These facilities are further described below.

- Freeways and highways generally carry the highest volumes of vehicular traffic, including trucks, buses, and automobiles. Freeways are high-speed with controlled access, and do not generally accommodate pedestrian or bicycle travel. Other state highways serve a high level of vehicle volumes, but also accommodate active transportation and may provide access to intersecting streets and some adjacent properties, functioning essentially as arterials.
- Arterials primarily provide mobility as well as some access to properties and serve all modes of transportation. Of these, Principal Arterials have higher traffic volumes and lower access function than Minor Arterials. These facilities provide some access to properties and accommodation for deliveries.
- Collectors serve a more even mix of mobility and access functions, providing connections between arterials and the local street system. They serve all modes of transportation, provide access to properties, accommodate deliveries, and may include on-street parking.
- Local Streets primarily provide access to residential and commercial properties. They are lower-speed, lower-volume roads that typically serve automobile, bicycle, and pedestrian travel, as well as vehicle parking and door-to-door freight deliveries.

Figure 28: Functions of the Street & Highway System 16



As noted above, the streets and highways system serves not just passenger vehicles but other functions including transit, freight, pedestrian and bicycle uses. Overall, the regional network includes the following mileages by mode:

520 miles of transit routes	365 miles of with bike facilities
810 miles of truck freight routes	737 miles of with sidewalks/walkways

Streets and highways in rural areas have operational and design characteristics unique to their urban counterparts. For example, arterials in urban areas may be more closely spaced, serving major activity centers and connecting residential areas to employment centers. Arterials in rural areas often are more spread out, serving longer trips between destinations and access points.

<sup>&</sup>lt;sup>16</sup> Source: WSDOT, Highway Performance Monitoring System, <u>Annual Mileage and Travel Information</u> (2023)

## State Highway System

The Washington State Department of Transportation (WSDOT) leads the planning, operation, maintenance, and improvement of all Interstate and U.S. highways (I-5, I-90, I-405, and US 2 in the central Puget Sound region) as well as segments of state routes that serve as access-controlled freeways. WSDOT is also responsible for some highways that function as arterials, as well as freeway ramp intersections, but typically works closely with the local jurisdictions where they are located for the planning, operation, maintenance, and improvement of these facilities. Regionwide there is about 1,100 miles of these state facilities managed by WSDOT,

which reflects about 6% of all miles within the region. However, these facilities carry more than 46 million vehicle miles traveled (VMT) on an average weekday, which is more than half of the regional total.<sup>1718</sup>

The state's Managed Lanes System is one approach WSDOT uses to operate its highway facilities efficiently. The system includes High Occupancy Vehicle (HOV) lanes, Express Toll Lanes, and High Occupancy Toll (HOT) lanes that are designed to maximize the movement of people and encourage commuters to use transit or travel together to save time and reduce traffic volumes and congestion.

Figure 29 shows the managed lane facilities operating on the system today as well as future planned facilities. Overall, approximately 24% of roadways on the regional network include Managed Lanes.

Types of Managed Lanes

High Occupancy Vehicle (HOV) lanes - Also known as carpool or diamond lanes, HOV lanes are special-use highway lanes reserved for carpools, vanpools, buses, and motorcycles.

Express Toll Lanes and High Occupancy Toll (HOT) Lanes – These lanes are a form of HOV lane that can also be used by non-HOV drivers who choose to pay a toll.

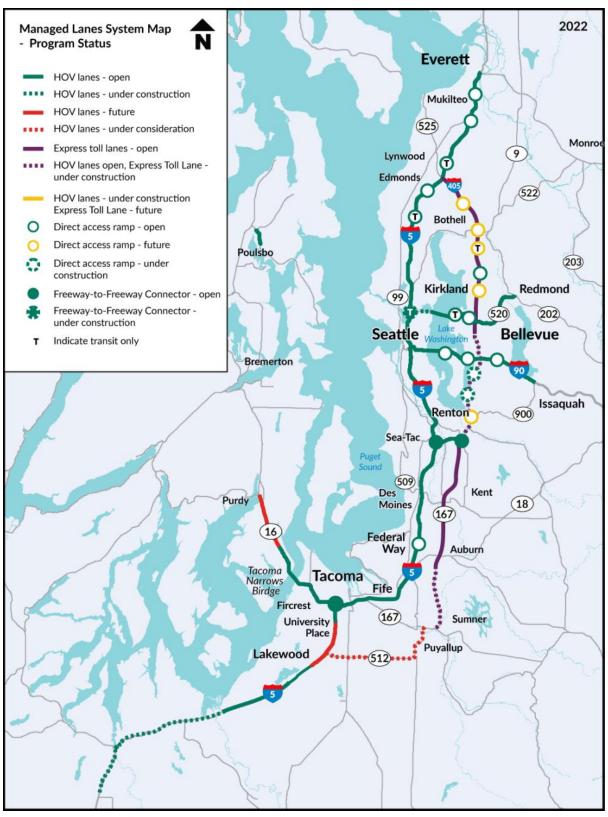
### **Local Streets System**

All other arterials, collectors, and local streets—approximately 94% of the roadway miles in the region—are planned, operated, maintained, and improved by the city or county in which they are located. These facilities carry about 36 million VMT on an average weekday, representing about 44% of the total VMT regionwide. For streets that include transit facilities such as bus stops and rail stations, the local jurisdiction coordinates closely with the transit agencies that provide the service.

<sup>&</sup>lt;sup>17</sup> Source: WSDOT, Highway Performance Monitoring System, Annual Mileage and Travel Information (2023)

<sup>&</sup>lt;sup>18</sup> Mileage estimates reflect "centerline" vs. "center lane" miles – i.e., the length of roadway regardless of the number of lanes

Figure 29: Planned and Existing Managed Highway Lanes



Source: WSDOT, 2022 HOV System Map.

#### **Key Travel Trends**

As previously noted, the streets and highway system accommodates all modes of travel, and individual mode choices and travel trends will vary depending on the land use characteristics of the surrounding area and available options. The following charts illustrate various travel and performance metrics on the current system.

#### Land Use and Mode Choice

VISION 2050 establishes regional geographies that reflect different land use densities ranging from metropolitan cities with the highest densities to rural areas where land uses are the most spread out. Higher density areas also generally have greater connectivity between land uses, with more travel options available.

Driving shares are lowest in metropolitan and core cities, and transit, walk and bike shares are higher. This reflects the higher densities within these areas and greater access to alternative modes. As areas become less dense, the drive shares increase and transit, walk, and bike shares decrease.

#### **Vehicle Travel**

Figure 30 shows the average VMT per resident, based upon the characteristics of the area in which they live. The figure shows that the higher the density of an area, the lower the average VMT per person. The densest metropolitan cities have the lowest average VMT, and average VMT increases as the density of the area in which a person lives decreases.

#### Regional Geographies

Metropolitan and Core Cities are cities that have designated regional growth centers.

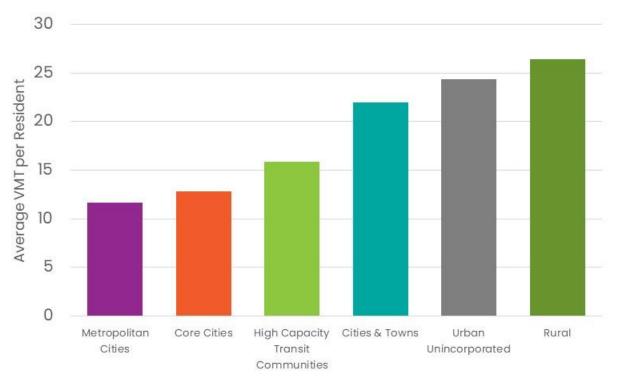
High-Capacity Transit
Communities are cities and
unincorporated areas that are
connected to the regional highcapacity transit system.

Cities & Towns have smaller downtown and local centers, and may be served by local transit

Urban Unincorporated areas may be lightly or heavily developed, served by local transit, and may include potential annexation or incorporation areas.

Rural areas are different types of unincorporated areas outside the urban growth area and include very low-density housing, working landscapes, and open space.

Figure 30: Average VMT per Resident by Home Location (2023)



Source: WSDOT, Highway Performance Monitoring System, Annual Mileage and Travel Information (2023)

Figure 31 shows how VMT has changed over time. For the years leading up to 2020, total VMT steadily increased as the region's population grew but dipped substantially during the Covid pandemic. VMT has since been increasing but is still less than pre-Covid levels. However, the average VMT per person has steadily decreased since 2000. During the same period, however, average VMT per person has steadily decreased, reducing by about 25% from 2000 to 2023 while the population of the region has increased by about 35%.<sup>19</sup>

<sup>&</sup>lt;sup>19</sup> Washington State Office of Financial Management, Population and Demographics, <a href="https://ofm.wa.gov/washington-data-research/population-demographics">https://ofm.wa.gov/washington-data-research/population-demographics</a> (accessed May 23, 2025).

Figure 31: VMT Trends Over Time



Source: 2023 Highway Performance Monitoring System (HPMS) & Office of Financial Management

### Roadway Congestion and Delay

Figure 32 shows congestion trends at various time periods on the region's National Highway System (NHS). The NHS is a federally-defined network which includes all roadways functionally classified as principal arterials or above—which aligns with PSRC's regional roadway network— plus small number of additional roads that serve as key connectors between major intermodal facilities.

The figures below summarize the percentage of roadways experiencing heavy to severe congestion (meaning average speed was less than half the posted speed limit) during the AM peak, midday, and PM peak periods from January 2018 to January 2025. As shown, the lowest level of congestion has typically occurred during the AM peak period, but 40 to 60% of roadways have typically experienced heavy to severe congestion at this time. Levels of congestion rise throughout the day, with the midday period more congested than the morning. The highest levels of congestion occur during the PM peak period, with 60 to 70% of roadways typically experiencing heavy to severe congestion.

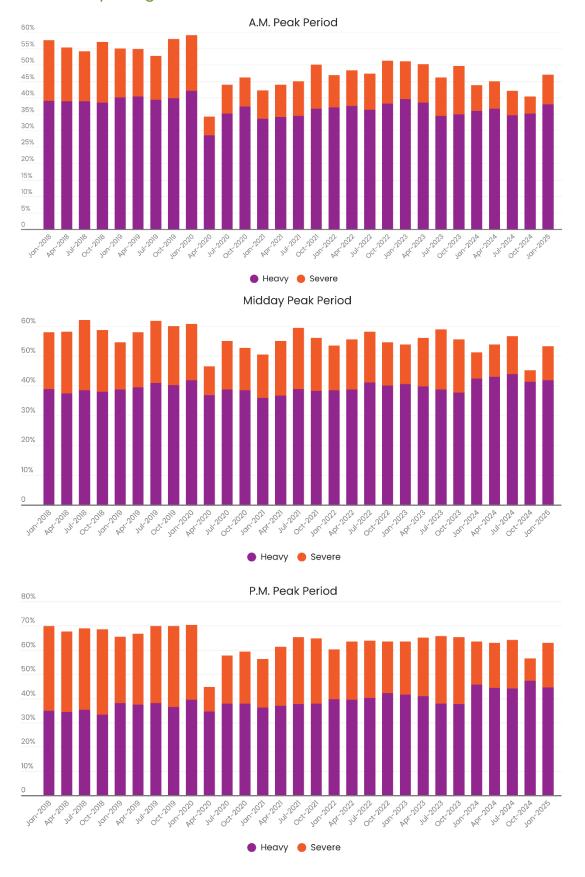
For each of the three time periods the figure shows congestion levels were higher prior to the Covid-19 pandemic, with the percentage of heavy to severe congestion approaching 60% of roadways in the morning and increasing to up to 70% in the evening. The data shows a substantial drop in congestion during the pandemic; congestion levels rose again after the pandemic but are still lower than pre-Covid levels. Currently, 40 to 50% of roadways experience heavy to severe congestion in the morning and increase throughout the day to a

PM peak period high of 60 to 65%.

Roadway congestion causes delay not only for automobiles, but for buses and freight trucks that utilize the regional street and highway network.

- Of the 520 miles of regional streets and highways that serve bus routes, 50% experience evening congestion, and 36% experience midday congestion.
- ► Of the 810 miles of regional streets and highways that serve freight truck routes, 43% experience evening congestion, and 28% experience midday congestion.

Figure 32: Roadway Congestion Trends



#### Delay

Roadway congestion increases travel time for users of the roadway network. As shown on Figure 33, 11% of commuters within the Seattle metropolitan area experience average commutes of at least one hour, which is the ninth highest in the country.

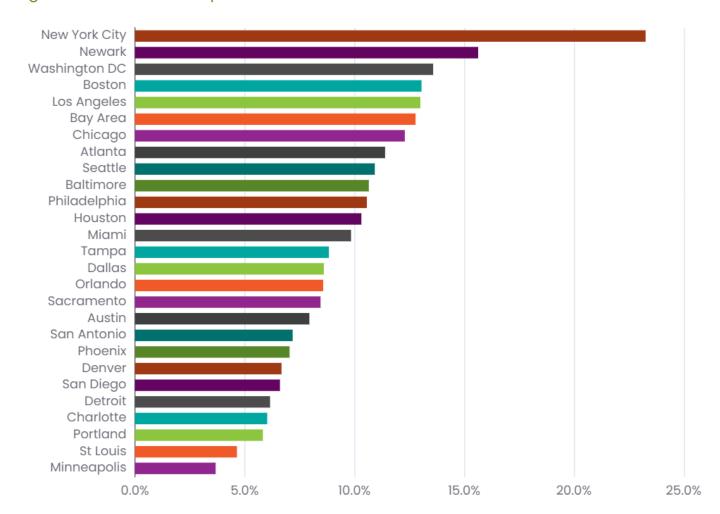
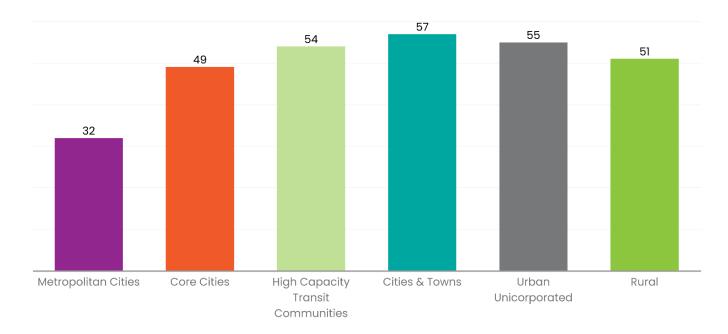


Figure 33: Percent of People with Commute of at Least One Hour

Source: American Community Survey (ACS) Data Table B08303

Roadway congestion affects all vehicle users, whether they travel by automobile or by buses that also must utilize the roadway network. Figure 34 shows the annual hours of delay per household across the various regional geographies, illustrating that households in more dense areas with greater access to transit have lower levels of delay.

Figure 34: Annual Hours of Delay per Household by Regional Geography



Source: General Transit Feed Specification (GTFS) Transit Service & SoundCast Base Year Model (2023)

Figure 35 shows the annual hours of delay per household, based on proximity to transit. The figure shows that for all types of transit service and frequencies—from frequent high-capacity transit to local transit—annual hours of delay are about 50% lower for households located near transit.

60 54 51 51 50 48 Annual Hours of Delay 40 38 37 35 30 28 20 10 0 Local Transit All Day Transit Frequent Transit High-Capacity Transit

Figure 35: Annual Hours of Delay per Household

Source: General Transit Feed Specification (GTFS) Transit Service & SoundCast Base Year Model (2023)

Not Near Transit - Near Transit

#### Safety and the Regional High Injury Network

An analysis of the regional High-Injury Network (HIN) that intersected with the regional network showed:

- Approximately 500 miles of the regional network is on the Regional High Injury Network (37%)
- Of the 500 miles of regional streets and highways that are on the High Injury Network,
   47% experience peak hour congestion, and 35% experience midday congestion.
- Of the 500 miles of regional streets and highways that are on the High Injury Network,
   66% of have a speed limit over 35mph.

# Section 4: Freight

The regional freight system is comprised of a wide array of components that include dedicated freight infrastructure like marine ports and intermodal terminals in addition to facilities like airports, streets and highways that need to be able to accommodate the movement of both people and goods. This section describes these modes and key trends of the current system.

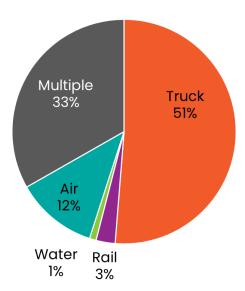
## **Major Freight Modes**

The regional freight system is integral to the movement of goods throughout the state of

Washington.<sup>20</sup> In 2022, over 500 million tons of goods moved through the state, with a total value of almost \$681 billion. The region's share was approximately 160 millions of tons of goods valued at more than \$314 billion that moved into, out of, and through the region.

The majority of these goods were transported by truck for all or some portion of their journey. Other modes, namely airplanes, cargo ships, and freight trains are also of critical importance for moving goods into and out of the region. The mode(s) used is typically based on the commodity being shipped and where it's going, which is ultimately a function of the cost to move a given product. Water and rail-based modes move large quantities of a huge variety of goods over long distances; airplanes rapidly move relatively smaller amounts of higher-value goods like fresh seafood.

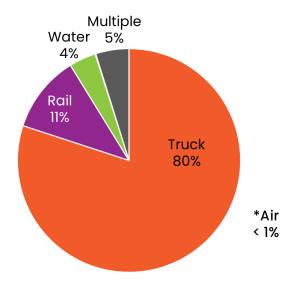
Figure 36: Percent of Each Mode Used to Move Freight Through the Central Puget Sound Region Based on Value (2022)<sup>21</sup>



<sup>&</sup>lt;sup>20</sup> WSDOT Commodity Flow Dashboard

<sup>&</sup>lt;sup>21</sup> WSDOT Commodity Flow Dashboard

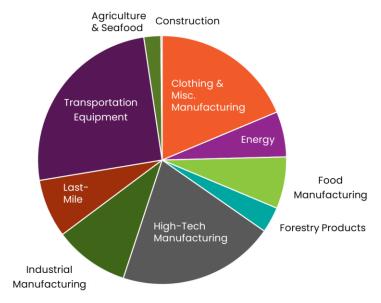
Figure 37 -Percent of Each Mode Used to Move Freight Through the Central Puget Sound Region Based on Value (2022)<sup>22</sup>



Every type of commodity is moved on the regional freight system. As shown in Figure 38, the largest categories based on value are *Transportation Equipment*, *High-Tech Manufacturing*, and *Clothing & Miscellaneous Manufacturing*. Transportation equipment includes airplanes, which are one of the region's top exports, and motor vehicles and vehicle parts, which are currently one of the biggest imports. High-tech manufacturing captures a diverse range of goods ranging from machinery and electronics to pharmaceuticals. The clothing category consists of all types of clothes, furniture, textiles, and leather products.

<sup>&</sup>lt;sup>22</sup> WSDOT Commodity Flow Dashboard

Figure 38 –Proportions of Major Commodities Moved Through the Central Puget Sound Region Based on Value (2022)<sup>23</sup>



## **Major Freight Corridors**

In Washington State, freight corridors for truck, rail and waterways are identified in different categories based on annual freight tonnage moved. Each type of freight corridor is classified into five tiers, with those designated as "I" (e.g. T-1 for truck corridors, R-1 for rail corridors) moving the largest amounts of goods. This system is known as the Freight and Goods Transportation System (FGTS). WSDOT designates and updates the FGTS every two years to meet state legislative requirements, support transportation planning processes, and inform freight investment decisions.

<sup>&</sup>lt;sup>23</sup> WSDOT Commodity Flow Dashboard

Table 16: WSDOT Freight and Good Transportation System Classifications

Truck Freight Corridors		Rail Freight Corridors		Waterway Freight Corridors	
FGTS	Annual Freight	FGTS	Annual Freight	FGTS	Annual Freight
Designation	Tonnage	Designation	Tonnage	Designation	Tonnage
T-1	> 10 million tons	R-1	> 5 million tons	W-1	> 25 million tons
T-2	4 to 10 million tons	R-2	1 to 5 million tons	W-2	10 to 25 million
	300,000 to 4 million		500,000 to 1 million		5 to 10 million
T-3	tons	R-3	tons	W-3	tons
	100,000 - 300,000		100,000 to 500,000		2.5 to 5 million
T-4	tons	R-4	tons	W-4	tons
	At least 20,000 tons				0.9 to 2.5 million
T-5	in 60 days	R-5	< 500,000 tons	W-5	tons

The major FGTS corridors in the region are comprised of railroads, waterways, and the streets and highways that move the most freight. These corridors connect the region's ports, intermodal facilities, Manufacturing / Industrial Centers (MICs) and warehouses and distribution centers to the freight network that allows goods to move within the region and connect it to the rest of the world.

Rail corridors in the region are primarily operated by the privately-owned Burlington Northern-Santa Fe (BNSF) and Union Pacific (UP) railway companies. These lines are key components of the FGTS and are designated by the state of Washington as Rail Freight Economic Corridors due to their importance of moving products that are vital to the state's economy, particularly wheat and forestry products. The publicly owned Tacoma Rail operates three divisions within Pierce County on 43 miles of track, including the Tideland Division within the Port of Tacoma.

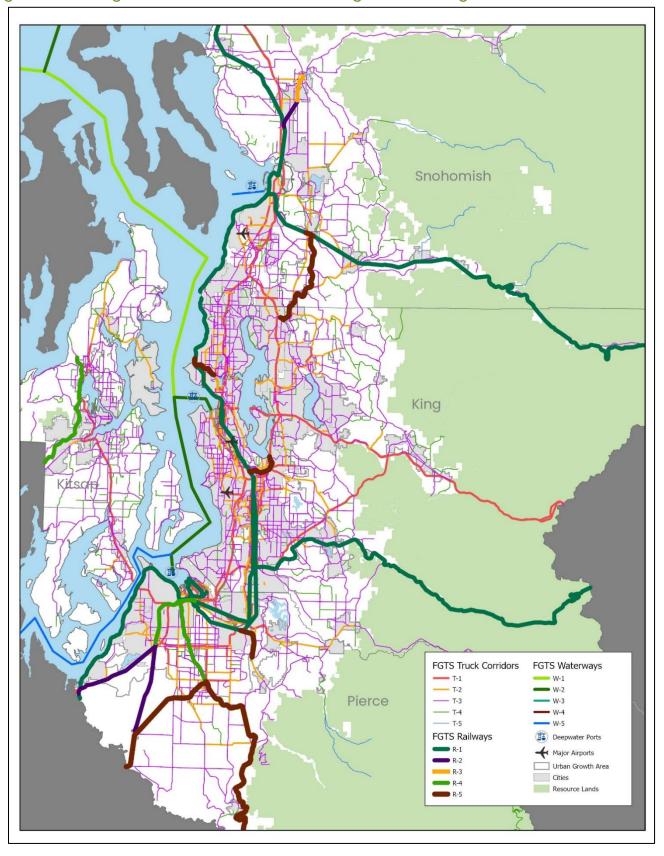
The Puget Sound functions as the region's FGTS waterway corridor that enables the region to be a major international trade gateway for the United States, connecting the region's ports to markets in North America and across the globe. The ports handle all varieties of both bulk and containerized goods, including fruit and grains that are exported to Asia, oil products refined in Washington that are sold in other western states, and consumer goods that are sold throughout the country. Travel times via waterway are typically slower compared to other modes, but it is oftentimes the least expensive and most efficient way to move goods.<sup>24</sup>

Truck corridors included in the FGTS serve a wide variety of goods movement, from heavy duty trucks transporting goods over long distances, to small and medium size trucks delivering goods from warehouses and fulfillment centers to homes and businesses throughout the region. There are over 5,000 miles of FGTS designated truck corridors within

<sup>&</sup>lt;sup>24</sup> Washington State Freight System Plan, p. 36

the region. The major truck corridors (T-1 and T-2) move the highest volumes of goods, though they also move around half of the region's general-purpose motor vehicle traffic.					

Figure 39 – Freight Corridors in the Central Puget Sound Region



WSDOT also designates certain roadways as *Truck Freight Economic Corridors* that are critical to the movement of goods. These corridors include the highest volume T-1 and T-2 designated FGTS corridors, as well as alternative routes that increase freight system resiliency during severe weather and other disruptions, and first/last mile connector routes that link freight corridors to major freight generators including ports and other intermodal facilities, warehouses, and distribution centers. Truck Freight Economic Corridors are expected to be designed and operated with freight movement in mind and include context-appropriate features (e.g. mountable curbs) that enable heavy-duty truck drivers to move to their destinations as safely and efficiently as possible.

Different types of roadways serve different purposes for freight, which need to be balanced with the purposes each facility serves for other modes as well. Most other streets and highways also move goods to varying degrees, primarily commercial and residential deliveries using medium-duty trucks as well as smaller delivery vehicles ranging from vans to cargo e-bikes.

## Other Freight Infrastructure

### Major Freight Activity Centers

The industrial areas of the region generate the majority of freight trips, particularly within the MICs and core industrial lands as classified in PSRC's 2024 Industrial Lands Analysis. These areas are home to many of the region's manufacturing facilities, warehouses, and distribution centers.

Freight activity in general is particularly high in areas where freight modes intersect. Goods being transported in the region frequently use more than one mode on the journey to their destination. Facilities dedicated to seamlessly transferring freight between container ship, freight rail, and trucks are known as

The Kent Valley is the largest hub of freight activity in the region. It has grown into the second-largest distribution center on the West Coast due to its unique position between the Ports of Seattle and Tacoma and proximity to SeaTac Airport. E-commerce firms have opened fulfillment centers in the Kent Valley to take advantage of its strategic location near major freight corridors and the region's substantial customer base.

The Kent Valley is home to more than 10,000 businesses with over 250,000 employees, generating \$6.7 billion in annual revenue.

Around 20% of the jobs in the valley are in the manufacturing sector, with companies specializing in advanced manufacturing, particularly aerospace manufacturing.

intermodal facilities. There are intermodal rail yards operated by railroad companies located in Kent, Renton, Seattle, Tukwila as well as the Tacoma Tideflats within the Port of Tacoma. These enable goods to be transferred between truck and rail modes.

#### **Ports**

Port terminals also function as intermodal facilities that provide an interface between water and land-based transportation modes. The Ports of Seattle, Tacoma and Everett are the

three deep water ports in the region that move cargo between ships, trains and trucks.

The Ports of Seattle and Tacoma formed the Northwest Seaport Alliance (NWSA) in 2015 to become the first strategic partnership between ports in North America. Today it ranks as the sixth-busiest cargo port in the country based on container volume. In addition to connecting to ports throughout Asia, direct service is also provided to Alaska, Australia, Europe, the Middle East, and South America. Cargo moving through NWSA's ports includes bulk commodities like soybeans, wheat, corn, raw wood, and oil. Containerized goods include machinery of all kinds, toys, sports equipment, furniture and apparel.

Several major investments are ensuring the NWSA will continue to play a vital role in the region's economy, including the recently completed Terminal 5 Improvement Project in West Seattle. The project allows new ultra large container ships to call at the Port of Seattle by expanding the naturally occurring deep water berth and making infrastructure improvements to the docks to accommodate larger cranes with a longer reach. The project also included utility upgrades including the addition of shore power to allow ships to connect to the power grid while in port, reducing emissions.

The Northwest Seaport Alliance is also collaborating with the Puyallup Tribe to construct a new shipping berth at the Port of Tacoma to accommodate the demand for moving bulk and roll-on/roll-off cargo like automobiles and heavy equipment that are driven off vessels before being transported for sale across North America. The new facility will be built next to the existing East Blair Terminal 1 on 22 acres of land owned by the Puyallup Tribe and will include carbon reduction technology.

The Port of Everett ranks as the third largest container port in the state in terms of volume, but is the second largest based on dollar value of goods handled. It is a vital link in the regional aerospace logistics supply chain, handling oversized components for many of Boeing's aircraft.

The Port of Everett has several initiatives both recently completed and underway to modernize the seaport and position the region for growth. The new Norton Terminal was completed in December 2022 on the site of the former Kimberly-Clark mill, transforming the historic site into a new maritime hub that will support expanded port operations well into the future.

### **Airports**

The region has two major cargo airports. SeaTac Airport serves as the primary air cargo gateway for the region. Several all-cargo carriers offer non-stop service to Asia, Europe and the Middle East. Domestic service to destinations throughout North America is also provided on dedicated freighter planes and by using the belly cargo capacity available on many passenger flights. These connections are vital to regional industries selling hi-tech manufactured goods, high-value agricultural commodities, and fresh seafood products. Upcoming improvements to Air Cargo Road will ensure the primary roadway that serves the

airport's cargo facilities will be able to continue to support freight operations and employee access into the future.

King County International Airport / Boeing Field also handles air cargo, primarily by United Parcel Service which uses it as one of their hubs; current plans also call for increasing the amount of cargo moved through Boeing Field to alleviate growing demand at SeaTac.

Renton Municipal Airport and Paine Field/Snohomish County Airport have dedicated railroads to support the airplane manufacturing facilities located adjacent to their runways, though there are no general air cargo services currently provided at these two airports.

### **Trucks**

Trucks are a major component of the freight transportation system that share the highway and street system with other modes of transportation. PSRC's travel demand classifies trucks into two groups: medium-duty trucks are single unit vehicles that weigh between 16,000-and 52,000-pounds gross vehicle weight, e.g., box trucks and delivery vehicles; heavy-duty trucks are usually double or triple unit vehicles weighing over 52,000 pounds gross vehicle weight, e.g. long-haul freight vehicles.

Traffic volume data shows that in 2023 trucks made up approximately 7.5% of the average total daily VMT in the region for all vehicles, 3.5% of which reflects heavy trucks and 4% of which reflects medium trucks. Overall, more than three-quarters of truck travel in the region occurs on the major truck routes, i.e. the T-1 and T-2 corridors.

Major Truck Routes

86.8%

70.5%

54.4%

Other Streets

13.2%

29.5%

45.6%

Medium Trucks

Passenger Vehicles

Figure 40: Percent of Daily VMT for Major Truck Routes Compared to Other Streets

Source: PSRC travel model, 2023

Figure 40 above shows the percentages of passenger vehicles, medium trucks and heavy trucks travelling daily on major truck routes compared to all other streets. While most truck trips occur on major truck routes, more than half of all passenger vehicle trips also occur on these routes.

Trucks move around the clock throughout the region. Many operators make trips during off-peak periods when traffic is lighter, as roadway congestion impedes reliable freight delivery. Trucks travelling during peak periods can experience significant delays. WSDOT measures truck mobility performance by calculating the truck travel time reliability index (TTTR), which is required under federal law to be measured for NHS routes. TTTR measures the consistency of truck travel times which can then be used to identify the locations where trucks experience a significant breakdown in traffic flow, commonly referred to as bottlenecks. Higher TTTR values correlate to more frequent breakdowns in traffic flow; the central Puget Sound region has the highest TTTR in the state and is also where the top 10 truck bottlenecks can be found. <sup>25</sup>

Heavy truck travel is most concentrated in the vicinity of the region's major freight generators, including the ports, intermodal facilities, MICs and other freight-intensive areas. More than one in three heavy truck trips move through the Kent Valley, where many of the region's manufacturing and warehousing jobs/businesses are concentrated. Truck traffic is also relatively high around the gateways to the region, including North Bend and southern Pierce County near Joint Base Lewis McChord. In these places, drivers position themselves to arrive at their destinations at specified times, take breaks, and refuel as they prepare for the next stage of their trip.

## Freight Issues and Needs

## Truck Parking

There are operational and maintenance impacts of heavy truck use that are beyond the responsibility of any single jurisdiction or agency. As a prime example, there is an inadequate supply of truck parking in the United States, including within the central Puget Sound region. It is essential for drivers to have safe and hygienic places to rest in order to meet federal hours-of-service regulations, take care of basic needs, and prepare for the next stage of their trips. This is a critical need to keep freight moving safely and reduce roadway congestion, yet drivers report difficulty finding adequate truck parking, particularly along I-5, I-405, and I-90. <sup>26</sup>

In December 2024, the Freight Mobility Strategic Investment Board (FMSIB) and WSDOT submitted a jointly developed <u>Truck Parking Implementation Plan</u> to the Washington State

<sup>&</sup>lt;sup>25</sup> https://wsdot.wa.gov/about/data/Multimodal-mobility-dashboard/dashboard/freight/landfreight.htm

<sup>&</sup>lt;sup>26</sup> https://wsdot.wa.gov/sites/default/files/2022-11/Appendix-H-FSP-Truck-Parking-Assessment\_0.pdf (PDF p. 13)

Legislature that recommends six specific actions to address truck parking shortages statewide. The plan builds off previous truck parking studies by identifying the root cause of truck parking issues and recommending some of the specific actions identified in prior studies completed by WSDOT and the Joint Transportation Committee (JTC).

The recommendations include completing the development of a Truck Parking Information Management System (TPIMS) along I-5 to provide drivers with real-time information about the availability of truck parking at safety rest areas and weigh stations and pursuing federal funding to add truck parking stalls at the I-5 Fort Lewis weigh station.

While the above recommendations are focused primarily on parking for long haul trucks, the City of Seattle has recently focused efforts on increasing truck parking supply for drayage trucks in the Port of Seattle terminal area on Harbor Island and the intermodal rail terminal in the Industrial District.

### Safety Issues

Around 14% of the region's FGTS Truck Corridors are on the High-Injury Network identified through PSRC's 2025 Regional Safety Action Plan. Consideration of local context and the core purpose and function of roadways will be paramount in determining which countermeasures may be appropriate for a given corridor. For example, designated freight corridors have unique heavy-duty transportation needs with few alternative routes. The application of certain strategies may not be suitable in these locations, for example those that may hamper the movement of freight and/or result in conflicting uses of the facility.

## At-grade Rail Crossings

An important multimodal consideration for freight is the presence of at-grade rail intersections with roadways, where trains must occupy the same spaces used by motor vehicles and people riding bikes, walking, and rolling. These intersections are typically under the jurisdiction of multiple authorities – the railroad companies like Union Pacific and BNSF and the city/county in which it is located.

The Washington Utilities and Transportation Commission (UTC) developed the Washington State Action Plan (SAP)<sup>27</sup> in 2022 to identify the high-risk crossings throughout the state and rank them based on factors including the number of daily trains and average annual daily traffic. The SAP analysis generated a list of the top 58 high-risk crossings, 27 of which are located in the region.

In 2024, the UTC published its second SAP progress report. Six of the 27 crossings initially identified in the region have had projects completed; 13 additional crossings have projects either planned or in progress. The UTC will continue to provide annual updates on the status of the SAP.

<sup>&</sup>lt;sup>27</sup> https://www.utc.wa.gov/public-safety/rail-safety/state-action-plan

#### Maintenance and Preservation

While all modes using the region's infrastructure rely on maintenance and preservation to keep moving, the backlog of roadway maintenance and preservation projects is a significant issue for trucks. The major truck corridors are the foundation of the region's economy, yet they are also the roads that are most likely to deteriorate due to the size and volumes of vehicles they move each day. Bridges, given their weight limits, are especially weak links in the freight system – a single new weight restriction or unexpected closure on a major freight corridor has serious implications for the ability of trucks to efficiently get to their destinations. Proactive investments in these corridors is vital to ensuring that freight can move efficiently.

In addition to roadway projects, ports also need to maintain and preserve their assets including bulkheads, seawalls, runways, and terminal infrastructure. More information on maintenance and preservation needs will be addressed in the <u>Regional Transportation Plan</u>.

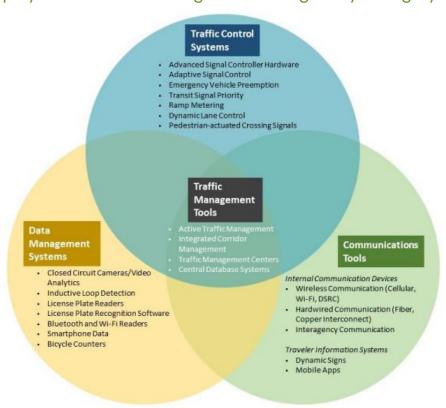
# Section 5: Transportation System Technology

Intelligent Transportation Systems (ITS) are technologies that help the transportation system operate more efficiently and effectively. By doing so, they have the potential to improve mobility, increase safety, and reduce emissions. These technologies are multimodal and apply to personal vehicles, transit, freight modes, as well as pedestrians and bicyclists.

Figure 41 provides examples of the different types of ITS assets that are being used across the region, which generally fit into four categories:

- Traffic Control Systems are hardware or devices that interface directly with travelers to improve traffic flow and across modes.
- Communication Tools include *traveler information tools* used to inform travelers about travel times, conditions and schedules and *internal communication tools* used to relay information between devices and operators.
- Data Management Systems are tools used to collect multimodal traveler data and systems used to collect tolls and other revenues.
- Traffic Management Tools are operating systems that use different elements from the categories above to monitor traffic, identify issues, and manage the transportation system in a coordinated manner.

Figure 41: ITS Deployed in the Central Puget Sound Region by Category



In addition to these more established ITS technologies, there are other newer and still emerging technologies that have the potential to affect the transportation system in ways that are not yet totally clear. Autonomous (i.e., "self-driving") vehicle technology has seen major advancements in recent years but is still in the relatively early stages of development, and the timeline for and impacts of its widespread deployment on the roadways is unclear. The same is true for connected vehicle technology, which allows vehicles to communicate directly with other vehicles and traffic infrastructure.

ITS tools are integral to keeping the region's transportation system operating efficiently and safely. Provided below are descriptions of various key ITS assets deployed across the region and the benefits they provide.

▶ Signal coordination is when two or more signals along a corridor have synchronized timing cycles, minimizing the number of times vehicles must stop when traveling along a corridor. It is most effective along higher-volume roadways where signals are within ~3/4 of a mile of each other.²8 Signal coordination both reduces travel time and improves safety by increasing the efficiency of traffic flow. Coordinated signals along intersection-dense corridors reduce the amount of time spent lingering at busy intersections. Jurisdictions have the flexibility to change coordinated signal timing based on their policy goals. For example, the City of Bremerton has enacted safety

<sup>&</sup>lt;sup>28</sup> FHWA, 2017: https://ops.fhwa.dot.gov/publications/fhwahop08024/chapter6.htm

improvements for pedestrians along two major corridors by updating their coordinated timing cycles to provide pedestrians with more clearance time to cross the roadway.

- Adaptive signal control (ASC) is a technology that continually adjusts signal timing on the fly based on existing traffic conditions along a corridor. It provides quicker, more reliable travel times by meeting travel demand in real-time and adapting to unforeseen events or conditions.
- ▶ Transit Signal Priority (TSP) reduces delay for transit riders by modifying signal timing as transit vehicles approach an intersection. It decreases transit travel time and improves a transit route's reliability and efficiency. This technology is most effective along congested corridors where transit routes are frequently delayed, such as SR 99 in Snohomish County or Pacific Avenue in Tacoma.
- Automatic Traffic Signal Performance Measures (ATSPM) continually collects and analyzes data at signalized intersections, allowing traffic engineers to make more informed decisions regarding signal timing and traffic operations at these intersections.
- Accessible Pedestrian Signals (APS) use tones and vibrating push buttons to make it easier and safer for pedestrians with visual impairments to cross roadways and travel through an area.
  - In addition to APS, there are an array of other ITS tools being deployed in the region that improve safety for pedestrians and bicyclists. Examples include:
  - Rectangular Rapid Flashing Beacons (RRFBs), which provide a high-visibility strobe-like warning to drivers when pedestrians and bicyclists use a crosswalk.
  - Mid-block crosswalks to aid pedestrians and bicyclists across high-speed roadways.
  - "Head start" signal timing which gives pedestrians and bicyclists a few seconds head start to enter crosswalks before cars and trucks.

# Signal/ITS Inventory

In 2019 and 2023, PSRC staff worked with member agencies to collect data for a regional traffic signal/ITS inventory to better understand where ITS assets are located throughout the region and to help support and inform regional and local ITS planning. The inventory was confined to NHS facilities, and included the following elements:

- Traffic Signals
- Signal Timing
- Signal Coordination

- Adaptive Signal Control
- Transit Signal Priority
- Automatic Traffic Signal Performance Measures
- Accessible Pedestrian Signals
- Emergency Vehicle Pre-emption

In 2023, the share of intersections along the NHS that were signalized remained similar to 2019, at approximately 40%. The total number of signals on the NHS increased only slightly (by 24 signals), from 2,560 in 2019 to 2,584 in 2024. The majority of new signals are located in Everett, Pierce County, and Bellevue. The location of all signalized intersections along the NHS in the central Puget Sound region in 2023 is viewable on the <u>Transportation System</u> Visualization Tool.

Table 17: Share of NHS Signals with Various ITS Tools, 2019 & 2023

ITS Feature	2019 % of Signals with Feature	2023 % of Signals with Feature	% Point Change
Accessible Pedestrian Signals	31.9%	44.0%	12.1%
Transit Signal Priority	12.4%	12.4%	0.0%
Adaptive Signal Control	9.3%	11.7%	2.4%
Coordinated Signal	69.9%	67.2%	-2.7%
Automated Traffic Signal Perf. Measures	1.4%	3.7%	2.3%
<b>Emergency Vehicle Priority</b>	77.4%	78.9%	1.5%
Pretimed Signal Timing	10.3%	10.3%	0.0%
Actuated Signal Timing	91.6%	91.6%	0.0%

Source: PSRC Regional ITS Inventory

# Key Findings and Trends

- Accessible Pedestrian signals, which allow people of all abilities to more safely utilize signal-protected crossings, saw an increase of nearly 300 new deployments between the two data collection periods. In 2019 approximately 32% of all NHS signals had APS, with that number increasing to 44% in 2023. The vast majority of this increase is due to an uptick in APS signal upgrades in the City of Seattle.
- ▶ 62 more signalized intersections had Adaptive Signal Control in 2023 than in 2019, increasing from a share of 9% to 12%. This increase is largely accounted for by Snohomish County, which installed a new ASC system after 2019.

- Automatic Traffic Signal Performance Measures (ATSPM) is a relatively new technology used to collect data to help traffic engineers make more informed decisions about signal operations at intersections. It still has fairly low deployment in the region overall. However, the share of signals with ATSPM has increased from 1% to 4% (36 to 96 signals) between 2019 and 2023, highlighting a trend of strong growth.
- ▶ The share of signals that are coordinated decreased from 70% to 67% between 2019 and 2023. This is the result of the removal of coordination from some signals in multiple cities primarily due to reduced traffic volumes during the Covid-19 pandemic.

### System Gaps

It is important to recognize that not every ITS feature is necessary or even helpful at every intersection or along every corridor. When identifying where ITS gaps may exist, various contextual factors such as congestion, crash history, and the presence of transit and/or freight corridors (among other factors) must be taken into account.

A broad array of analyses were conducted to identify potential gaps by overlaying signal/ITS data from the inventory with various other key datasets. This included overlaying frequent transit routes with Transit Signal Priority; the High Injury Network with Accessible Pedestrian Signals; congested corridors (including a subset of high-volume freight corridors) with Adaptive or Coordinated signals; and PSRC's Equity Focus Areas (People of Color, People with Low Incomes, Persons with Disabilities, People with Limited English Proficiency, Youth, and Older Adults) with Accessible Pedestrian Signals.

PSRC's <u>Transportation System Visualization Tool</u> can be used to visualize these overlay analyses. Key findings are described in more detail below.

- Signals along frequent transit routes without Transit Signal Priority (TSP). Information on signals including TSP was overlaid with NHS corridors where frequent transit routes operate. This intersection of data highlights gaps where TSP could be installed to potentially improve transit mobility and reliability. As shown in Figure 41, the analysis indicates that 85% of signals along corridors with frequent transit routes do not have TSP, presenting potential opportunities for deployment.
- Signals along the bicycle/pedestrian subset of the High Injury Network without Accessible Pedestrian Signals (APS). Information on signals including APS was overlaid with the bicycle/pedestrian subset of the High Injury Network. This network highlights where the highest concentrations of bicyclist and pedestrian deaths and serious injuries have occurred in recent years. The intersection of these datasets highlights gaps where APS could be installed to improve safety for bicyclists and pedestrians. As shown in Figure 41, the analysis indicates that 62% of signals along this subset of the HIN do not have APS.
- Signals in areas with a higher share of people with disabilities without Accessible Pedestrian Signals (APS). Signal information regarding APS was also overlaid with

- census tracts where the share of people with disabilities was higher than the regional average. As shown in Figure 41, the analysis indicates that 64% of signals in areas with a higher share of people with disabilities do not have APS. This is a higher percentage than the region overall, where 56% of signals do not have APS.
- Signals on severely congested corridors that are not coordinated and do not have Adaptive Signal Control (ASC). Information on coordinated signals and signals with ASC was overlaid with NHS corridors that have been identified as having severe congestion. This intersection of data highlights gaps where signal coordination or ASC could be installed to potentially help ease congestion. As shown in Figure 41, the analysis indicates that 32% of signals along severely congested corridors are neither coordinated nor include ASC.
- Signals on severely congested FGTS T-1 or T-2 freight truck corridors that are not coordinated and do not have Adaptive Signal Control (ASC). Information on coordinated signals and signals with ASC was overlaid with FGTS T-1 and T-2 corridors that have been identified as having severe congestion. This intersection of data highlights gaps where signal coordination or ASC could be installed to potentially help ease congestion for freight vehicles. As shown in Figure 41, the analysis indicates that 36% of signals along severely congested T-1 and T-2 freight corridors are neither coordinated nor include ASC.

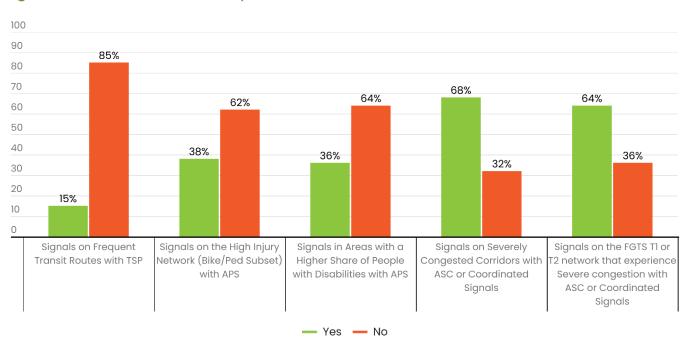


Figure 41: Results of ITS Overlay with Additional Datasets

Source: PSRC Regional ITS Inventory

### Section 6: Aviation

VISION 2050 recognizes the critical role that aviation plays for people and businesses in the growing central Puget Sound region, as well as its impacts to communities and the environment. The region is currently home to 29 airports of varied sizes and functions (see Figure 42). Continued, coordinated planning is essential for ensuring that the regional airport system can support existing and future demand. Aviation planning and implementation falls under the authority of the Federal Aviation Administration and is the responsibility of airport operators. PSRC recognizes the interrelationship between aviation and the broader region and within the role of the Metropolitan Planning Organization addresses these cross-cutting issues in the Regional Transportation Plan, including access issues and impacts to the broader transportation system and local communities.

### **Existing Conditions**

There are 27 public-use airports and two military-operated airports within the central Puget Sound region. The region is also home to multiple Boeing facilities as well as suppliers and related aerospace companies. Most of the aviation activity in the central Puget Sound region is concentrated in King and Snohomish counties. An in-depth Regional Aviation Baseline Study analyzing the region's aviation system and needs was published in 2021.

The Federal Aviation Administration works closely with state aviation agencies and local planning organizations to identify public-use airports that are important for inclusion in the National Plan of Integrated Airport Systems (NPIAS). NPIAS is an inventory of existing and proposed airports that are significant to national air transportation in the U.S. and are eligible to receive certain types of federal grant funding. Twelve of the region's airports are part of the NPIAS system.

#### **Commercial Aviation**

Within the region, there are three primary commercial service airports:

• Seattle-Tacoma International Airport (SEA), in King County, connects the central Puget Sound region to the world by serving more than 50 million passengers annually. With an area of 2,500 acres—much smaller than other U.S. airports with similar annual passenger numbers—it is severely constrained by urban development and existing topography. SEA is one of the region's leading economic engines, with a total business output of \$33.4 billion in 2023<sup>29</sup>. From airport workers who live in neighboring communities to cherry farmers in central Washington, and from shops in tourist destinations like Pike Place Market to corporate giants like Microsoft and Boeing, SEA touches nearly every aspect of the economy in the central Puget Sound region.

<sup>&</sup>lt;sup>29</sup> The Northwest Seaport Alliance, Port of Tacoma and Port of Seatle Economic Impact Analysis, July 2, 2025: https://www.portseattle.org/page/economic-impact

• Paine Field International Airport is a unique airport located in Snohomish County, with both significant manufacturing activity and limited commercial service. In 2025, Paine Field is estimated to have served over 1 million commercial passengers. That number is forecast to potentially quadruple by the year 2040 to approximately 4.3 million passengers. The airport is currently authorized for up to 24 daily flights and is home to over 650 aircraft, including small, single-engine recreational aircraft, corporate jets, vintage Warbirds, and Boeing Dreamliners. Located about 30 miles north of downtown Seattle, the airport has become a major tourist destination with the opening of the Future of Flight Aviation Center & Boeing Tour, the Flying Heritage & Combat Armor Museum, and the Historic Flight Foundation. Paine Field

#### **Aviation Definitions**

**Commercial Aviation:** Scheduled

passenger service

**Air Cargo:** Freight and mail carried in the lower hold of passenger aircraft and on dedicated freighters

**General Aviation:** Business, flight instruction, medical, emergency, law enforcement, recreation, and tourism

### **Airport Classifications**

Airports are grouped by federal law into two major categories: primary and nonprimary. Primary airports are defined by the FAA as public airports that receive scheduled air carrier service with 10,000 or more passengers per year. Primary airports are further grouped into four hub categories: large hub, medium hub, small hub, and non-hub.

has an estimated economic impact of \$60 billion annually, primarily due to the aerospace companies based at or near the facility.<sup>30</sup>

• King County International Airport (Boeing Field) is one of the nation's busiest primary non-hub airports, averaging 200,000 takeoffs and landings each year. The airport serves small commercial passenger airlines, cargo carriers, private aircraft owners, helicopters, corporate jets, military and other aircraft. It is also home to Boeing Company final production aircraft services and flight testing operations as well as The Museum of Flight. This airport is severely land constrained with ongoing urban encroachment. Due to its strategic location just four miles south of downtown Seattle and close to other business centers, it is frequently used by celebrities, dignitaries, and sports teams, and supports \$3.5 billion in local business.

# Section 7: Summary

As reflected in this report, the current transportation system is a complex interconnection of facilities and networks, serving multiple modes and purposes of travel. The system serves a vibrant and growing region and requires significant efforts to maintain and operate on a daily basis.

<sup>30</sup> https://www.painefield.com/218/Commercial-Air-Service-FAQs

While recognizing the significant ways in which the system serves the region and beyond, there are gaps in the current system that are important to be aware of and address as the next Regional Transportation Plan is being developed. Key takeaways from the sections above include:

- Regionwide, the percentage of people living and working in different transit supportive densities but experiencing gaps in these services are: Local Transit 33%, All Day Transit 36%, Frequent Transit 11%, High-Capacity Transit 16%.
- Supporting the ongoing maintenance, preservation and timely replacement of ferry vessels and terminals is critical to ensuring reliability of both multimodal and passenger-only ferry services.
- People with mobility challenges due to age, income or disability continue to experience gaps in the transportation system, including limited service coverage, lengthy travel times, and complex eligibility processes.
- While overall sidewalk coverage throughout the region is fairly good, there are more significant gaps in bicycle facilities. In addition, 92% of principal arterials are classified as having a high level of traffic stress for cyclists (LTS 3 and 4).
- The region's roadways continue to experience heavy and severe congestion during multiple periods throughout the day, including facilities serving transit routes and freight vehicles.
- Technologies that can support the system are not being fully utilized for example, 85% of signals along corridors with frequent transit routes do not have transit signal priority; 62% of signals along the pedestrian/bicycle high injury network do not have accessible pedestrian signals; and 32% of signals along severely congested corridors are neither coordinated nor include adaptive signal control.

An analysis of the future transportation network will be conducted as part of the development of the next Regional Transportation Plan. Additional details may be viewed in the <u>Current Transportation System Visualization Tool</u>.