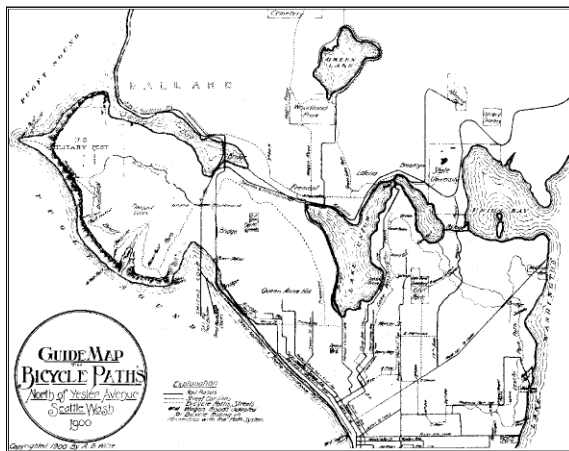
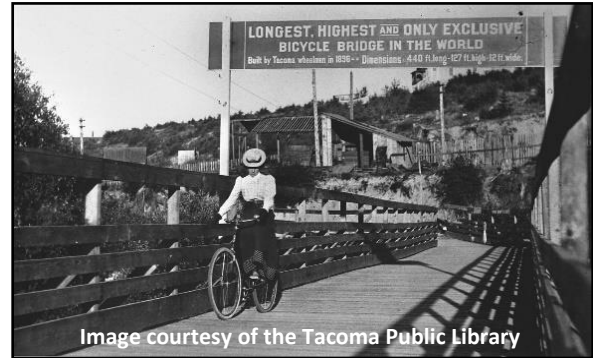


Chapter 3: ACTIVE TRANSPORTATION IN THE PUGET SOUND REGION

The central Puget Sound region has a long and evolving history of active transportation. In the 1890s, walking, bicycling, and public transit were primary modes of daily transportation along with the maritime industry. There were more than 65 miles of bike paths, with additional connections from Tacoma to Puyallup and Lakewood. The region had a “dedicated bicycle toll road²⁵ connecting Seattle to other Puget Sound communities.” The bike path system connected public roadways and provided some of the “first public access to some of the



undeveloped areas of the city.” Seattleites would take their bikes onto the ferry to Tacoma to ride the “longest, highest and only exclusive bicycle bridge in the world,” then bike to American Lake.

This era was then followed by decades of prioritizing the public right of way for automobile use, causing bicycling and walking to become less integrated into the transportation system. However, in the 1970’s, abandoned rail corridors began to be converted into what is now a vast regional trail/ shared use path

system.

The first of these ‘rails-to-trails’ projects was the iconic Burke-Gilman Trail that connects Seattle along the Lake Washington Ship Canal heading north of Lake Washington. Northeast of the lake it connects to the Sammamish River Trail. The original twelve miles of the Burke-Gilman Trail was dedicated on August 19, 1978 along a former abandoned rail line. This was one of the first examples in the nation of converting former rail lines to a bicycle and pedestrian corridor. The Burke-Gilman Trail is now one of the most heavily used trails in the region and considered such an amenity that the trail is noted in nearby real estate advertisements and has attracted businesses to locate along the trail such as Brooks Sports, Inc. which relocated its



²⁵ Berger, K. (2013, September 24). *How bikes led Seattle's first roads renaissance*. Retrieved from <http://crosscut.com/2013/09/24/roots-of-tomorrow/116180/seattles-first-golden-age-bikes/>
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company headquarters in 2011 citing²⁶ their location across from the Burke-Gilman. One last missing link in the Ballard neighborhood is under development as this trail continues to change. The segment that traverses through the University of Washington has experienced capacity issues, and the University is undertaking an ambitious upgrade to increase capacity and safety on the heavily used corridor through campus.

Other 'rails-to-trails' projects have been developed over several decades. The 20-mile Burke-Gilman Trail was extended by the 10.9-mile-long paved Sammamish River Trail from Bothell to Marymoor Park in Redmond, which offers extraordinary views of the river, the broad Sammamish Valley, Cascade foothills, and Mt. Rainier. Continuing from Redmond the East Lake Sammamish Trail provides an additional 11 mile paved path on the historic railroad route along the eastern shore of Lake Sammamish to Issaquah. The regional trails network then continues east into the Cascade foothills. These paths are used for recreation, but they are also used by commuters between suburban cities and Seattle.



Photo courtesy of Don Willott

REGIONAL TRAILS/SHARED USE PATHS

The region now has over 450 miles of regional trails/shared use paths, and more are under development throughout the region. Their development not only provides recreational opportunities but significant connectivity as regional active transportation amenities. Besides the Burke-Gilman, Sammamish River, and East Lake Sammamish trails, other important paths include:

King County:

- The [Green River Trail](#) is one of the longest contiguous regional trails in the Central Puget Sound region at 19 paved miles from South Park in Seattle to the City of Kent along with segments in Auburn. This path follows the Duwamish and Green rivers and provides an excellent commuting corridor. The landscape is predominantly riparian but it also traverses commercial, industrial, and agricultural lands as well as older urban neighborhoods in the river valley. Future plans anticipate continuing trail development through Auburn and out the upper Green River Valley.

²⁶ https://www.brooksrunning.com/en_us/10-20-2011.html
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- The [Interurban Trail](#) (South) – this paved path connects cities south of Seattle along the historic route of the Puget Sound Electric Railway. The trolley ran between Tacoma and Seattle from 1902 to 1928. The 18.1-mile facility runs nearly straight and level along the length of the Green River Valley from Tukwila to south King County. The route connects the cities of Tukwila, Kent, Auburn, Algona, and Pacific and is popular with commuters.



- The [Snoqualmie Valley Trail](#) – this path is King County’s longest greenway paralleling the Snoqualmie River for more than 31 miles from the City of Duvall through the cities of Carnation, Snoqualmie, and North Bend. The trail continues southeast to Rattlesnake Lake where it connects to the Washington State John Wayne Pioneer Trail that crosses the Cascades and eastern Washington. The path is gravel, but popular and well-used by people who bike.
- The [Lake to Sound Trail](#) – development continues on this 16-mile active transportation facility that will combine shared use path segments with on-road strategies to create a continuous dedicated multiuse route from Lake Washington to Puget Sound through the cities of Renton, Tukwila, SeaTac, Burien, and Des Moines.
- Other regional trails in King County include the Mountains to Sound (I-90) and SR520 trails that cross Lake Washington from Seattle to Eastside cities, the Issaquah-Preston and Preston-Snoqualmie trails that extend the path network through the Mountains to Sound Greenway, the Soos Creek Trail, Cedar River Trail, Elliot Bay Trail, Alki Trail, and others.

Kitsap County

- The [Sound to Olympics Trail](#) is a planned regional trail crossing Kitsap County. It will connect the trails of the Mountains to Sound Greenway from King County, across both the Winslow and Kingston ferries, to the Olympic Discovery Trail beyond the Hood Canal Bridge. An 800-foot section has been built on Bainbridge Island close to the ferry terminal.



- The [Kitsap Forest & Bay Project](#) is a visionary effort to conserve over 4,000 acres of forest surrounding Port Gamble Bay in north Kitsap County. The project provides a unique opportunity to preserve lands for habitat but also for public recreation such as regional trails. Part of this acquisition would support the alignment of the Sound to Olympics trail.

Pierce County:

- The [Foothills Trail](#) is a 30-mile collection of six unconnected segments of the old Burlington Northern Railway that served the farming, coal-mining, and logging economies near the base of Mount Rainier. The longest section is a 15.1-mile segment of paved trail that connects the outskirts of Puyallup to South Prairie through the town of Orting. Other paved, gravel, and dirt segments are located in Wilkeson while the White River separates the completed portions in Enumclaw and Buckley. Local plans call for connecting all these pieces and extending the trail to connect with the cities of Tacoma and Sumner as well as to the Interurban Trail.
- The [Interurban Trail](#) has two unattached segments in Edgewood and Milton following the old railway corridor toward Tacoma. The cities of Edgewood, Milton, Pacific and Sumner have been coordinating to complete the missing links and connect their jurisdictions.
- The [Prairie Line Trail](#) project converts one mile of the historic Prairie Line railroad corridor through downtown Tacoma into a signature public space integrating a multi-use trail, historic/cultural interpretation, public art, multimedia, and green features. This trail links Tacoma's waterfront, downtown, University of Washington - Tacoma campus, and Brewery Districts. Future plans are to extend the trail to Dock Street along the Thea Foss Waterway with a vision to have a connected waterfront to downtown Tacoma.





- The [Cushman Trail](#) is a 6.2 mile trail utilizing a utility corridor that connects Gig Harbor to the Scott Pierson Trail which is a 5-mile trail that crosses the Puget Sound on the new Tacoma Narrows Bridge and connects to central Tacoma.

Snohomish County:

- The [Centennial Trail](#) is a 30-mile paved multi-use path that connects the town of Snohomish north to Skagit County. Built on an old Burlington-Northern railroad line, more than 400,000 citizens utilize the trail each year as a recreational trail and commuter corridor.
- The [Interurban Trail](#) (North) is a hard-surfaced, regional trail which begins in North Seattle and continues north through Shoreline, Edmonds, Mountlake Terrace, Lynnwood, unincorporated Snohomish County, and Everett. The Interurban Trail follows the route once used by the electric Interurban Railway that ran between Seattle and Everett from 1910 to 1939. Puget Power converted the Interurban corridor to a power line corridor and titled segments to Seattle City Light and Snohomish County Public Utility District #1. In the mid-90s, cities along the corridor between Seattle and Everett began developing portions of the Interurban Trail for bicycle and pedestrian recreational and commuter use.
- The [North Creek Trail](#) will result in a continuous connection between the Sammamish River/Burke Gilman Trail in King County and the Interurban Trail at McCollum Park in Snohomish County connecting the cities of Bothell, Mill Creek and Everett. This trail has been under development in segments over the last decade and the last missing piece is currently under development.



- Spanning 27 miles between the City of Arlington and the Town of Darrington, [the Whitehorse Regional Trail](#) follows the path of the former BNSF railroad through the North Stillaguamish River Valley. The trail meanders through the valley from its junction with the Centennial Regional Trail in Arlington, frequently paralleling SR 530 and the North Fork Stillaguamish River. The only open section runs for 6 miles near Darrington but the trail is currently being redeveloped in phases.



The [Eastside Rail Corridor](#) (ERC) connects some of King County's largest and fastest growing communities on the east side of Lake Washington. In its entirety, the ERC is a 42-mile rail corridor that stretches from Renton to Snohomish, passing through Renton, Bellevue, Kirkland, Woodinville, Redmond, and portions of unincorporated King and Snohomish counties. This Master Plan includes the railbanked sections of the ERC Main Line between Renton and Kirkland, between Kirkland and Woodinville, and along the Spur from Woodinville to Redmond. Originally, the rail line was known as the Lake Washington Belt Line and supported development along the eastern shore of Lake Washington. After over 100 years in service for freight rail, the corridor has been brought into public ownership to provide a potential route for trail, transit, and utilities.

The Master Plan is focused on approximately 16.7 miles of the 42-mile corridor. King County owns approximately 15.6 miles of the corridor covered in the Master Plan, and Sound Transit owns a 1.1-mile segment located within the City of Bellevue.

The City of Kirkland has completed the first 5.7-mile segment of the ERC as an interim trail and Redmond has completed segment of the 'spur' called the Redmond Central Connector. In the future, through coordination and partnerships with the City of Woodinville, City of Snohomish, and Snohomish County, the ERC trail may continue from Woodinville north through Snohomish County where it would connect with the Centennial Trail in the City of Snohomish.



Although the central Puget Sound region is fortunate to take advantage of these corridors for regional trails, other strategies for both pedestrians and bicycles are being implemented across the region. One such strategy is known as ‘place-making.’ **Place-making** creates places that incentivize people to enjoy communities that incorporate art and design elements for people to enjoy while walking, exploring and supporting local economies.

WALKABILITY AND PLACE-MAKING

Burien Town Square is the new heart of Downtown Burien. Town Square Park is located at the center of Town Square, immediately adjacent to the Burien Library and City Hall in the midst of Burien’s shopping district. This investment in an open, public space in the heart of downtown provides Burien residents the opportunity to explore downtown on foot and enjoy community events. This strategy, which was part of the development of a new city hall, provides the placemaking opportunities that incentivize residents to enjoy their community on foot.



Downtown Everett has an abundance of art installations and includes an arts district which coincides with the Schack Art Center, an admission-free visual art center dedicated to promoting and celebrating the arts for the enhancement of community life. The center shares a building with Artspace Everett Lofts which provides 40-units of affordable housing for artists and their families. The Hoyt Avenue pedestrian scape incorporates artistic street lights and includes other elements along the streetscape identifying the arts district from the rest of downtown where old town style lighting fixtures identify downtown. Mid-block crossings, pedestrian bulb-outs, landscape and streetscape improvements along sidewalks contribute to a pleasant and walkable downtown Everett.



In 1890, **Port Orchard** was incorporated as Kitsap County's first city. Today the busy waterfront is adjacent to the historic downtown Bay Street. A short ride on the historic foot ferry connects to



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downtown Bremerton and to the Washington State ferry terminal. The foot ferry utilizes one of the oldest of only two operational boats that was once part of the Mosquito Fleet which were once a large fleet of small passenger and freight carrying ships that linked the islands and ports of Puget Sound in Washington State in the late 19th and early 20th centuries. A separated bicycle and pedestrian path allows people visiting the waterfront a corridor separate from the park and summer festivals. The amenities of the historic downtown, active waterfront, pedestrian and bicycle accommodation and the foot ferry combined with the natural beauty of the Puget Sound provide Port Orchard with a great equation for walkability.

ACCESS TO TRANSIT

With many transit investments coming online and increasing ridership in the central Puget Sound region, walk and bike **access to transit** is becoming ever important. Below are examples of pedestrian and bicycle transit access projects that have coincided with new transit investments.

A new land bridge connects the University of Washington's Rainier Vista to a new bicycle and pedestrian bridge built over Montlake Boulevard. This bridge accesses the new light rail station at Husky Stadium. This project transforms how people cross Montlake Boulevard and access the Burke-Gilman trail from the station.



The city of Lynnwood is planning for walk and bike access to the future light rail station. The purpose of the City Center Station is to provide more convenient walk access in the growing center, encouraging a higher level of transit use and aiding economic development of the City Center. The plan includes two pedestrian plazas, bike lanes, cutting large block sizes by adding new roadways and paths, development of a nearby local trail, pedestrian amenities and access to the regional Interurban Trail.

The City of Tukwila, in partnership with King County Parks, completed the Southcenter Pedestrian Bridge which provides a pedestrian and bicycle connection between the Tukwila Station and the Southcenter Mall. The Tukwila Station is served by Sounder and Amtrak train service as well as Metro RapidRide. The Southcenter area is a regional destination for employment, retail, dining and entertainment.



ALL AGES AND ABILITIES BICYCLE FACILITIES

Greater emphasis is being made on the implementation of more **comfortable bicycle facilities** that serve people of all ages and abilities. Due to dense urban networks and lack of space, regional trails separated from roadways may not be feasible in some areas. Therefore, new designs have been piloted that provide a more comfortable environment while also separating people who walk and bike from fast moving motor vehicles. The City of Seattle was the first city to pilot and expand new facility types considered more comfortable to people of all ages and abilities such as neighborhood greenways and protected bike lanes. These types of facilities are currently being planned or are under development in many other jurisdictions in the central Puget Sound region such as in the cities of Kirkland and Tacoma.

Seattle **Neighborhood Greenways** began as a volunteer group and has now worked with the City of Seattle to implement a network of neighborhood greenways across the city. Volunteers help with public engagement, identifying and advocating local routes and help to gain neighborhood support. The City has implemented seven neighborhood greenway routes and another eleven in planning, design or construction phases. Chapter 5 describes more information about the design elements involved with Neighborhood Greenways.



Protected Bike Lanes are another facility type being implemented by the City of Seattle but are also being planned in many other jurisdictions in the central Puget Sound region. These facilities provide a comfortable network in high traffic and more urban areas by providing a physical barrier between people who bike and motor vehicles.

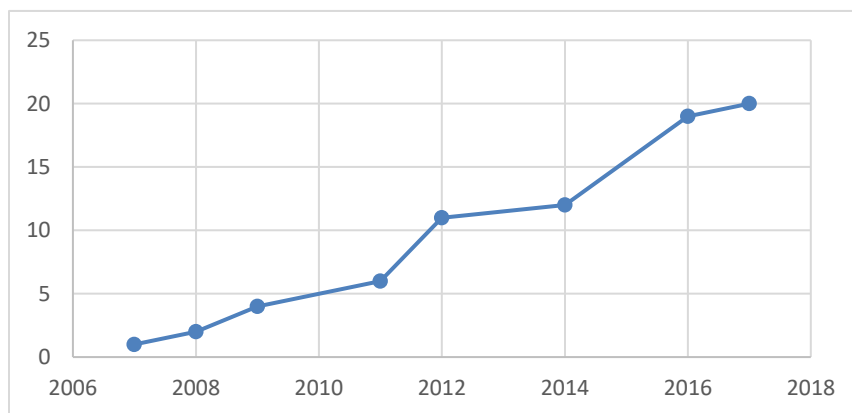


COMPLETE STREETS

Many of the region's jurisdictions are also adopting **Complete Streets** policies. The City of Redmond, in 2008, was one of the first jurisdictions in the central Puget Sound region to adopt a Complete Streets ordinance. The city ranges from congested urban blocks to quiet residential streets. As stated in Redmond's Transportation Master Plan, it is City policy to "routinely accommodate bicyclists as part of roadway improvement projects." Redmond's Complete Streets Ordinance²⁷ also requires that all new transportation projects will ". . . provide appropriate accommodations for bicyclists, pedestrians, transit users, and persons of all abilities in comprehensive and connected networks."

Since 2015, the Washington State Transportation Improvement Board (TIB) has been providing Complete Streets Grant funding to cities or counties in Washington state that adopt complete streets ordinances. Since that time, the region has seen a significant up-tick in the number of jurisdictions adopting Complete Streets policies.

Chart 3: Central Puget Sound - Jurisdictions Adoption of Complete Streets Policies (2006- 2018)



As of August 2017, the following jurisdictions have adopted Complete Streets policies: Algona, Auburn, Bellevue, Bremerton, Burien, Carnation, Darrington, Des Moines, Duvall, Edmonds, Everett, Federal Way, Fircrest, Issaquah, Kenmore, Kent, Kirkland, Lake Forest Park, Lakewood, Marysville, Mountlake Terrace, Pierce County, Redmond, Renton, Ruston, Seattle, Shoreline, Snoqualmie, Sumner, Tacoma, Tukwila.



Grandview, University Place WA (before/ after)

²⁷ City of Redmond (2007, September). Ordinance No. 2359. Retrieved from: <http://www.redmond.gov/common/pages/UserFile.aspx?fileId=20767>

EXISTING CONDITIONS

PEDESTRIAN FACILITIES

Pedestrian facilities include sidewalks, access ramps, crosswalks and furnishings that create pedestrian-friendly streets such as benches and lighting. The presence of a sidewalk network and other developed pedestrian paths is an important ingredient for a walkable environment.

An accurate inventory of existing pedestrian facilities would help to assess the state of walkability in the central Puget Sound region and would provide the opportunity to identify critical needs and gaps. However, attaining regional pedestrian facilities data is difficult due to inconsistent or non-existent data across jurisdictions. The Action Plan includes strategies for how the region will work toward attaining regional pedestrian level data.



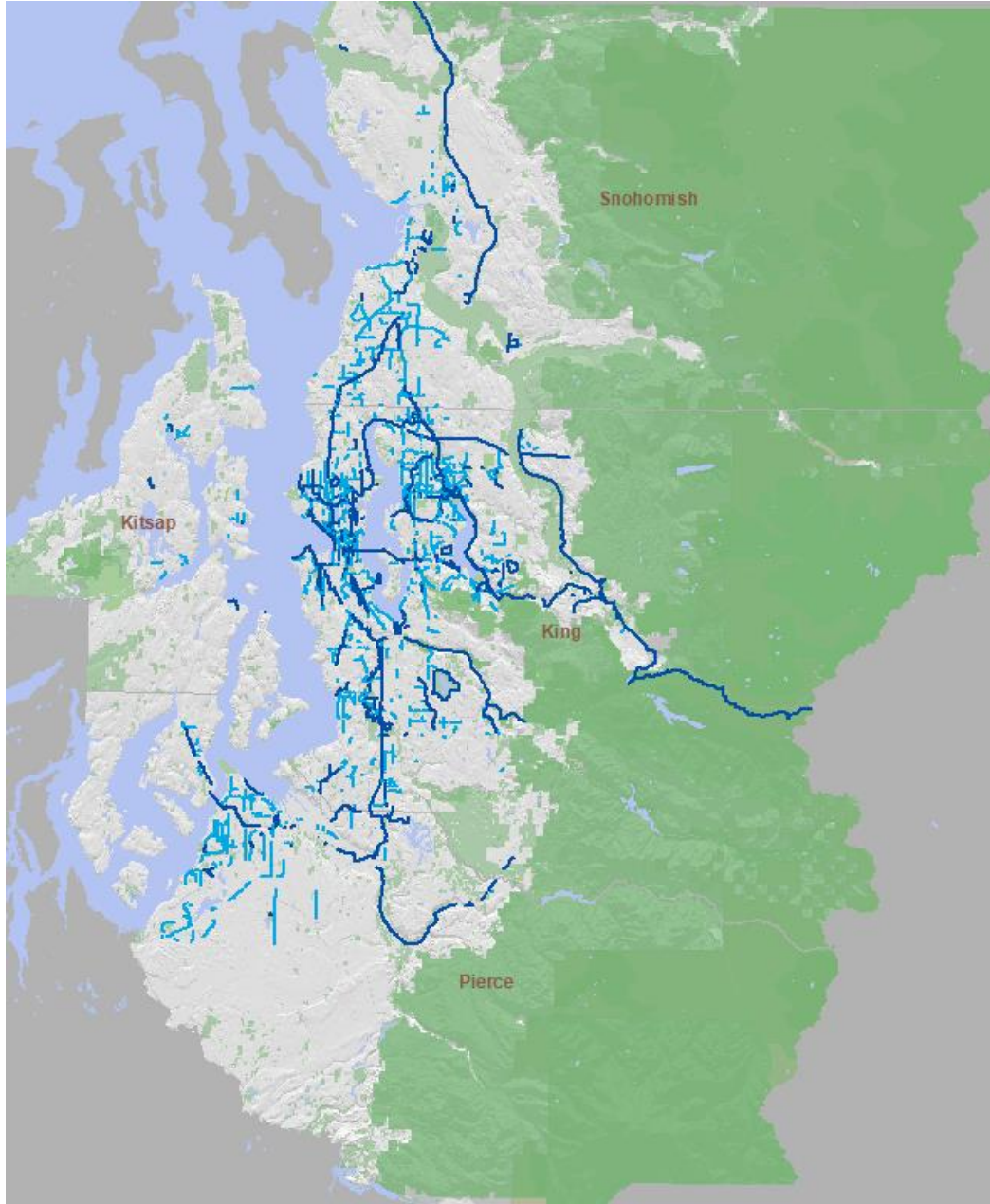
EXISTING BICYCLE FACILITIES

The bicycle network in the central Puget Sound region includes traditional bike lanes, as well as some emerging facility types that are considered more comfortable for people who bike including shared use paths, neighborhood greenways, protected and buffered bike lanes, and sidepaths. So far, the region has built:

- 923 miles of on-road bicycle facilities (up from 736 miles in 2014)
 - 878 miles of bike lanes
 - Almost 15 miles of separated bike lanes (up from two miles in 2014) – measured for each direction for two-way separated bicycle lanes
 - Over 30 miles of neighborhood greenways, mostly on local roads (up from 0 miles in 2014)
- 450 miles of regional trails/ shared use paths (up from 418 in 2014)

This regional inventory of bicycle facilities is one measure of how well the region is providing safe accommodation for people who walk and bike and to measure the completeness of the active transportation system.

Map 1: EXISTING BICYCLE TRANSPORTATION NETWORK MAP



This map reflects all of the shared use paths, neighborhood greenways and bike lanes (including protected bike lanes) in the central Puget Sound region where the data is available. As such, it constitutes the existing bicycle transportation network. A detailed version of this map can be found in the following [webmap](#) on the PSRC website.

Rates of Walking and Bicycling

According to the 2014 PSRC Household Travel Survey, 1,626,000 daily trips were taken by people walking. These trips, averaging about 0.5 miles a trip, brings the daily region total to 813,000 miles

walked. Young adults between the ages of 18 and 34 walked for leisure or for commuting 15% of the time which is higher than the regional average of 12% based on the survey. Also, people in regional growth centers walked and bicycled more than the region as a whole. More than 22% of trips made within PSRC's designated regional growth centers were on foot and 2.4% of trips were made by people who bike. Notable examples include Seattle's First Hill/ Capitol Hill regional growth center where more than 40% of all trips were walking trips, 38% in Seattle's downtown and 37% in Everett's growth center.

In addition to the number of people walking, 181,000 daily trips are made by bicycle, averaging about 3.3 miles a trip according to this survey. This brings the daily regional total to 597,000 miles biked. About 65% of these trips are made by males, with people ages 25-34 representing the highest proportion of bike riders. Although less than 3% of trips involve using a bicycle in the region, rates of bicycling are high in certain regional growth centers. In Seattle's University District, just over 6% of the trips taken were on a bicycle, 4% in Tacoma Downtown and 3.8% in Seattle South Lake Union.

The numbers reported in this section primarily come from survey data that is representative of the population, but not actual daily counts.

Mode Share

Transit Access Mode Share

Transit access for people walking and bicycling is becoming more important as more regional transit investments come on-line. Ridership is increasing and it is important to note how people are accessing their transit service. According to the 2014 PSRC Household Travel Survey, more than 88% of people who board transit (light rail, bus or commuter rail) walked to access their transit service.

Even though auto travel is still integral to the region's transportation system, survey results²⁸ suggest significant shifts are taking place, especially toward transit and walking. Transit shares increased by over 60% between 1999 and 2014. The percent of trips made by walking increased 25% between 1999 and 2006 and increased by over 40% between 2006 and 2014. However, there are some differences in the survey methods that likely exaggerate the changes in walking shares between 2014 and previous surveys, so changes might not be quite as dramatic as suggested by the results in this table, though the general trend in increased walking shares is still evident. In 2014, the survey was first offered in a web-based format and also included interactive mapping and travel diary features that might have spurred respondents to remember and record additional walk trips or walk components of other trips that may have been excluded from the previous phone surveys.

Table 2: Transit access mode share (boardings)

Walked or jogged	88.1%
Drove a personal vehicle	7.2%
Got dropped off	2.6%
Rode a bike	1.4%
Other	0.6%
Drove a carshare vehicle	0.2%
Took a taxi	0.0%

Source: PSRC 2014 Household Travel Survey

²⁸ Puget Sound Regional Council (2015, June). *Regional Travel Study: Key Comparisons of 1999, 2006, and 2014 Travel Survey Findings*. Retrieved from: <http://www.thefuturetaskforce.org/wp-content/uploads/2015/11/PSRC-2014-Regional-Travel-Study.pdf>
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Commute Mode Share by Poverty Status

The rate of people who walk varies significantly by income groups. People below the federal poverty level are three times more likely to walk than people not in poverty.

Table 3: Commute Mode Share by Poverty Status

	Commute Mode Share					
Poverty Status	Drove Alone	Carpooled	Transit	Walked	Other	Worked at Home
Below 100% of the poverty level	57.0%	11.6%	12.8%	9.1%	2.9%	6.6%
100 to 149% of the poverty level	63.9%	11.1%	12.5%	5.5%	2.6%	4.3%
At or above 150% of the poverty level	71.3%	10.0%	8.3%	2.9%	2.1%	5.4%

Source: 2014 American Community Survey 5-year Estimate

Commute Mode Share by Race

Commute patterns by race are different than those by income:

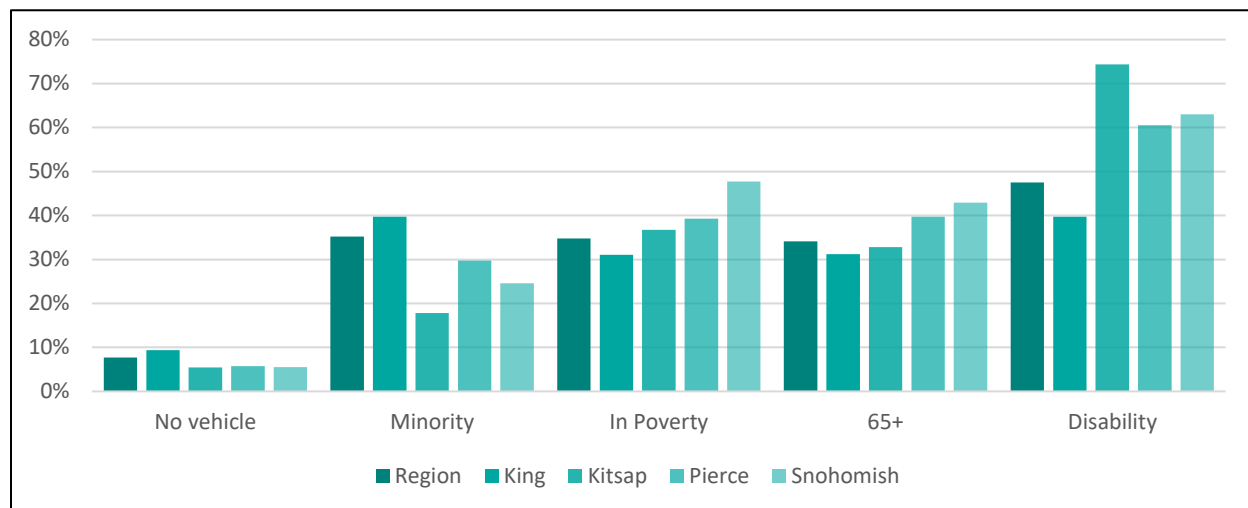
- Black workers have the highest transit commute mode share.
- Asian, Other, and Hispanic/Latino workers have the highest carpool shares.
- White workers have the highest drive alone and work at home commute mode shares.
- Commute by walking is similar for all races.

Table 4: Commute Mode Share by Race

	Commute Mode Share					
Race	Drove Alone	Carpool	Transit	Walked	Other	Worked at Home
White Alone	71.2%	9.1%	7.6%	3.6%	2.4%	6.1%
Black Alone	66.8%	9.8%	14.4%	3.5%	1.6%	3.9%
Asian Alone	63.7%	14.7%	12.5%	3.7%	1.4%	3.9%
Some Other Race Alone	67.3%	14.7%	9.3%	3.7%	1.8%	3.2%
Two or More Races	64.3%	14.2%	11.9%	4.0%	1.6%	4.0%
Hispanic or Latino Status						
White Alone, Not Hispanic or Latino	71.4%	8.8%	7.6%	3.6%	2.4%	6.3%
Hispanic or Latino	67.0%	14.9%	9.1%	4.5%	1.5%	3.0%

Source: 2014 American Community Survey 5-year Estimate

Chart 4: Households with No Vehicles, 2015



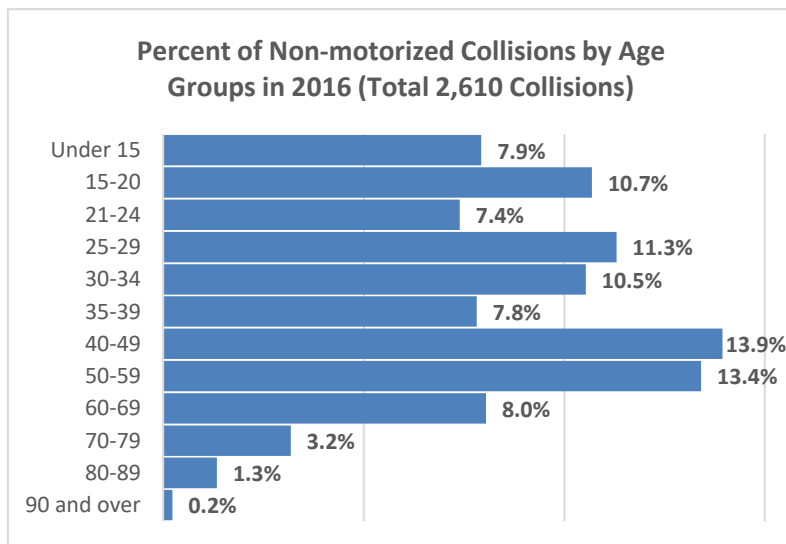
Source: 2015 American Community Survey 1-year Estimate, table B25045, 2015 ACS Public Use Microdata Samples

US Census data shows that, in 2015, people of color (referred to as minority by the Census Bureau), people in poverty, those with a disability and those over the age of 65 are more likely to not own a vehicle in than the region as a whole. It should be noted that some people may be double-counted in the above categories. More information for travel patterns by race and income can be found in the Regional Equity Analysis Report, Appendix B.

Crash Rates

Safety continues to remain a key concern for people walking and bicycling. In 2016, more than 63 pedestrians and bicyclists were killed in collisions with motor vehicles, 324 were seriously injured and more than 2,000 were injured in central Puget Sound.²⁹ These numbers that involved pedestrians or bicyclists represent more than 32% of all regional traffic fatalities and serious injuries.³⁰ Improving road safety, particularly at intersections, and providing more separated facilities for people walking and bicycling can begin to reduce these crash rates.

Chart 5: Collisions by Age



²⁹ WA State Crash Data Portal, WSDOT, 2016 (Access: <https://remoteapps.wsdot.wa.gov/highwaysafety/collision/data/portal/public/>)

³⁰ Safety Performance Metrics by County and for MPA Boundaries that Closely Align with County Boundaries, 2017