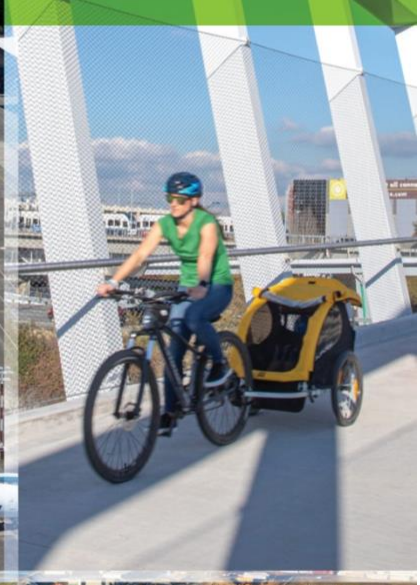
Puget Sound Regional Council

REGIONAL TRANSPORTATION PLAN 2022–2050

Appendix F: Regional Equity Analysis

2022



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Puget Sound Regional Council

REGIONAL TRANSPORTATION PLAN 2022–2050

Adopted May 26, 2022

Appendix F

Equity Analysis

Contents

Chapter 1. Introduction

This appendix provides an evaluation of potential benefits and burdens of proposed transportation policies and projects on equity demographic populations, including people of color, people with low incomes, youth, older adults, people with disabilities, and people with limited English proficiency, for the Regional Transportation Plan.

VISION 2050 Policy Direction

VISION 2050, the region's plan for growth, provides an overarching policy framework for the region and guides the development of the Regional Transportation Plan. Equity is a foundational premise for the policies and outcomes in VISION 2050. Equity related transportation policies and actions in VISION 2050 include:

- **MPP-T-9** Implement transportation programs and projects that provide access to opportunities while preventing or mitigating negative impacts to people of color, people with low incomes, and people with special transportation needs.
- **MPP-T-10** Ensure mobility choices for people with special transportation needs, including persons with disabilities, seniors, youth, and people with low incomes.
- **T-Action-1** PSRC will update the Regional Transportation Plan (RTP) to be consistent with federal and state requirements and the goals and policies of VISION 2050. The RTP will incorporate the Regional Growth Strategy and plan for a sustainable multimodal transportation system for 2050. The plan will identify how the system will be maintained and efficiently operated, with strategic capacity investments, to provide safe and equitable access to housing, jobs, and other opportunities, as well as improved mobility for freight and goods delivery. Specific elements of the RTP include the Coordinated Transit-Human Services Transportation Plan and continued updates to the regional integrated transit network (including high-capacity transit, local transit, auto, and passenger ferries), the Active Transportation Plan, regional freight network, aviation planning, and other important system components

This Equity Analysis Report seeks to implement this action and measure how well the Regional Transportation Plan supports these policies.

The VISION 2050 plan presents an opportunity for the region to develop a coordinated effort to better assess and address issues related to the goal of creating an exceptional quality of life and opportunity for every resident, regardless of race, ethnicity, income, age, ability, or other socioeconomic characteristics.

The Regional Transportation Plan and Equity

The Regional Transportation Plan (RTP) builds from VISION 2050 and applies a racial equity lens to provide a safe and equitable transportation system for everyone in the region, reducing the likelihood that race and other demographic factors continue to predict who has access to resources and opportunities. Early in the RTP development process, the PSRC Transportation Policy Board identified equity as a key policy focus area and equity is one of the six regional outcomes used to evaluate the plan. Applying an equity approach allows PSRC to better understand how the plan impacts different communities and to ensure the plan meets the transportation needs of the historically marginalized and underserved communities.

Racial Equity Lens

Applying a racial equity lens to the RTP allows PSRC to establish universal goals of equitable access to transportation (e.g., having choices between various transportation options, ensuring that costs are affordable, and ensuring that travel times to destinations are reasonable for all people) while considering how different groups have faced, and continue to face, different barriers so the agency can ensure the plan meets specific needs.

Public Engagement

Throughout the Regional Transportation Plan development process, PSRC conducted public outreach to gain meaningful feedback from communities with mobility challenges due to race, ethnicity, income, age, ability, and other socioeconomic characteristics. The primary objective of the outreach was to identify the mobility needs of the communities and build awareness of the Regional Transportation Plan and PSRC to residents across the region. Due to the COVID-19 public health protocols, PSRC staff used new and innovative techniques to engage a wide range of communities.

For the development of the plan, PSRC conducted two surveys and follow-up interviews with particular emphasis on reaching out to the groups who are historically underrepresented. The surveys helped identify the needs of transportation infrastructure, motivators or barriers to the use of public transportation, priorities for the future regional transportation system, and the impact of COVID-19 on work-related travel. Extensive outreach was conducted to reach people of color, people with low incomes, and people with limited English proficiency. Follow-up interviews were conducted in four languages to explore feedback shared in the survey and hear more from individuals with diverse backgrounds about their personal experience of using the regional transportation system. PSRC also collaborated with local community-based organizations (CBOs) to conduct virtual outreach to identify mobility needs and priorities of the communities with special transportation needs. The team used an accessible online engagement tool, specifically designed to engage these audiences, and it helped the agency to effectively communicate with CBOs and their audiences.

More information can be found in the Public Engagement and Outreach Appendix.

This equity analysis appendix reaffirms PSRC's commitment to advancing racial justice, equity, diversity, and inclusion in the central Puget Sound area.

Definition of Equity

Equity is an overarching goal and key policy area addressed throughout VISION 2050 and the Regional

Transportation Plan. Equity is defined as when all people have the resources and opportunities that improve their quality of life and reach their full potential. Those affected by economic hardship, communities of color, and historically marginalized communities are engaged in decision-making processes, planning, and policymaking.[1] Differences in life outcomes cannot be predicted by race, ethnicity, class, or any other identity.

Advancing Equity Through Transportation

PSRC acknowledges that our region has a history of discrimination based on race, national origin, and other socioeconomic characteristics. Inequitable planning policies and practices, such as redlining, disproportionately limit access to opportunities and create undue burdens for many marginalized communities in central Puget Sound. As the region becomes increasingly diverse, providing equitable access to transportation, especially to historically underserved communities, will be critical for the overall health of the region. The availability and quality of transportation have profound impacts on equity, as people's daily lives are affected by the accessibility of destinations and associated travel costs. Therefore, identifying transportation barriers and opportunities will help eliminate disparities faced by marginalized and underserved communities, making the region more resilient.

Leading with Race

PSRC leads explicitly, though not exclusively, with race. The agency leads with race because specificity matters. "One-size-fits-all" strategies are rarely successful. Rather than seeking to establish policies and practices where everyone is treated the same, PSRC is establishing universal goals while considering how different groups have faced, and continue to face, different barriers. The agency recognizes that other groups of people are still marginalized based on gender, sexual orientation, ability, and age, etc. Focusing on racial equity not only provides the opportunity to address the unique circumstances of various racial groups, but it recognizes the interconnected ways in which marginalization takes place and introduces a framework, tools, and resources that can be applied to other marginalized communities.

Direction on Equity

This appendix addresses federal laws and regulations stated below.

Title VI

This analysis has been completed as part of PSRC's Title VI plan. The Title VI of the Civil Rights Act of 1964 requires that transportation planning and programming be non-discriminatory based on race, color, national origin, or disability. The federal statute was further clarified and supplemented by the Civil Rights Restoration Act of 1987 and a series of federal statutes enacted in the 1990s relating to the concept of environmental justice. The fundamental principles of environmental justice include:

- Avoiding, minimizing, or mitigating disproportionately high and adverse health or environmental effects on minority and low-income populations.

[1] Puget Sound Regional Council (2020). *VISION2050* (page 16). Accessed: https://www.psrc.org/sites/default/files/vision-2050-plan.pdf

- Ensuring full and fair participation by all potentially affected communities in the transportation decision-making process.
- Preventing the denial, reduction, or significant delay in the receipt of benefits by minority populations and low-income communities.

Executive Orders

Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low–Income Populations

In February 1994, President Clinton signed Executive Order 12898, which mandates that federal agencies make achieving environmental justice part of their missions. The U.S. Department of Transportation Order requires agencies to do the following:

- Provide meaningful opportunities for public involvement by members of minority populations and low-income populations during the development of programs, policies, and activities.
- Provide the public, including members of minority and low-income populations, access to public information concerning human health or environmental impacts of programs, policies, and activities. Such information must address the concerns of minority and low-income populations for the proposed action.

Executive Order 13166: Improving Access to Services for Persons with Limited English Proficiency

The Executive Order, signed by President Clinton in August 2000, states that people with limited English proficiency (LEP) should have meaningful access to federally conducted and funded programs and activities. It requires all federal agencies to identify any need for services to those with LEP and develop and implement a system to provide those services so all persons with LEP can have meaningful access to services.

Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government

In early 2021, President Biden signed Executive Order 13985, to advance racial equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality. This order requires federal agencies to identify methods to assess equity and conduct an equity assessment for those facing systemic barriers in accessing opportunities. The order also calls for government programs to be designed to promote equitable delivery of the opportunities.

Executive Order 14008: Tackling the Climate Crisis at Home and Abroad

President Biden also signed Executive Order 14008, in January 2021, which created a government-wide “Justice 40 Initiative” that aims to deliver 40 percent of the overall benefits of relevant federal investments to disadvantaged communities. The Justice 40 Initiative is also aligned with the goals of Executive Order 13985, addressed above, and the U.S. Department of Transportation is in the process of implementing this order as part of its broader equity agenda.

Chapter 2. Demographic Characteristics

This chapter describes the existing conditions and trends of demographic groups covered in this appendix. Additional demographic information can be found in PSRC's 2021 Demographic Profile.

Methodology

Equity Demographics

Regional Transportation Plan centers equity, with particular attention paid to the needs of communities that may have historically faced disadvantage and underinvestment due to their race, ethnicity, income, age, ability, or other socioeconomic characteristics.

In this appendix, PSRC has expanded on previous analyses, which primarily analyzed regional outcomes of people of color and people with low incomes, to include other underserved communities. Demographics included in this appendix are identified below:

- People of color
- People with low incomes (below 200% of the federal poverty threshold)
- Older adults (aged 65 and above)
- Youth (ages 5-17)
- People with disabilities
- People with limited English proficiency (LEP)

The above groups have been chosen because of their potentially unique transportation needs. For the demographics, 2015-2019 U.S. Census Bureau's 5-year American Community Survey (ACS) data was analyzed. This appendix also reviews cross-tabulation data, derived from the 2019 Public Use Microdata Sample (PUMS), to address intersectionality by incorporating race and ethnicity in conjunction with age, income, ability, and other socioeconomic characteristics. The regional distribution of households without vehicles and overlaps between the aforementioned population groups were also evaluated. Additional cross-tabulation information can be found in the Coordinated Mobility Plan Appendix.

Equity Focus Areas

The underlying methodology for conducting an equity analysis in the Regional Transportation Plan relies on a comparison of impacts on different equity areas. Each community has uniquely different geographic settlement patterns across the region, which is important for informing PSRC's transportation planning impacts upon historically marginalized and underserved communities. Equity Focus Areas (EFAs) refer to areas that have concentrations of equity populations above the regional average. The regional average for the individual equity populations serves as the threshold for determining concentrated locations of the communities. To understand how transportation investments may benefit or burden different communities, tract-level demographic data (5-year ACS) is used.

For example, people of color comprise 35.9% of the total region's population. Therefore, any tract

with more than 35.9% of its population being people of color would be considered an EFA for that demographic group. Furthermore, in the analyses on individual populations, areas that surpass the corresponding regional average may be referred to as "people of color EFA" or "people with low incomes EFA."

For people of color and people with low incomes, their regional averages are relatively high, so an additional threshold of 50% was used to identify the areas with a higher concentration of these populations. Since there are no or only a few tracts that are above the 50% threshold for other equity populations, this appendix only used the 50% threshold for those two equity focus populations. This analysis method allows PSRC to use the more focused lens to analyze the impacts of transportation investments on these marginalized communities.

One limitation of this analysis method is that it does not account for the relative proportion of populations of interest within the tracts. For example, a tract with 80% people of color and a tract with 40% people of color would both be counted equally as "people of color EFA," although there is wide variation in their proportionate population. Also, the tract-level analysis counts all tracts equally, regardless of the size of the population within each tract. This is because its unit of analysis is the tract rather than the individual. For example, a tract with 100 people, 25 of whom are people with low incomes, and a tract with a population of 20, five of whom are people with low incomes, would both be counted equally as "people with low incomes EFA." In both of these areas, the proportion of people experiencing low income is 25%, but the actual number of people that are with low incomes in each tract is different. This is mainly due to the binary delineations based on the thresholds (either regional average or 50%), however, this method allows PSRC to best identify the EFAs with currently available data. Another limitation is the distribution of populations within a census tract. In larger tracts, people of color or people with low incomes may be concentrated in one part of a tract, while a project may be located in another.

Moreover, it is important to note that the size of the tracts in urban and rural areas is different. In general, the tracts in urban areas are smaller than the tracts in rural areas. This is because of how the Census Bureau assigns a census tract. Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people.[2] Therefore, the spatial size of tracts varies widely depending on the density of settlement and this leads to very small-sized tracts in densely populated areas and very large-sized tracts in sparsely populated areas, like in rural communities.

Nevertheless, the geographic analysis used in this appendix provides a means for the visualization of spatial patterns of different communities and it allows PSRC to conduct regional scale analysis which is a good proxy for evaluating benefits and burdens for underserved communities.

Table 1 provides detail on the regional averages for all the populations examined in this analysis, as well as the proportion of census tracts in the region deemed equity geographies for each group.

[2] U.S. Census Bureau. *Glossary: Census Tract.* Retrieved from: https://www.census.gov/programs-surveys/geography/about/glossary.html

Table 1. Equity Focus Areas

	People of Color	People with Low Incomes	People with Disabilities	Youth (Age 5-17)	Older Adults (Age 65+)	People with LEP
Regional Average Threshold	35.9%	20.7%	11.0%	15.4%	13.4%	8.5%
Percent of Tracts Above Regional Average	42.8% (331 out of 773)	43.1% (333 out of 773)	47.7% (369 out of 773)	52.1% (403 out of 773)	49.0% (379 out of 773)	36.4% (281 out of 773)
Percent of Tracts Above 50% Threshold	20.1% (155 out of 773)	2.8% (22 out of 773)	0% (0 out of 773)	0% (0 out of 773)	0.1% (1 out of 773)	0% (0 out of 773)

NOTE: In 2019, there were a total of 773 tracts within King, Kitsap, Snohomish, and Pierce counties.

In addition to the above analyses for individual demographic groups, additional analyses were conducted on census tracts that surpassed regional average and 50% thresholds for selected pair of demographic groups listed below:

- People of color & People with low incomes
- People of color & Youth
- People with low incomes & People with disabilities
- Older adults & People with disabilities
- Older adults & People with limited English proficiency

Recognizing the above demographics generally experience more limited mobility options due to intersectionality and compounded hardship based on the RTP outreach and survey input, they were chosen for cross-tabulations to address their unique transportation challenges. All census tracts that meet regional average and 50% thresholds for both or one demographic group were identified as EFAs for the parings. These are summarized in Table 2.

Table 2. Equity Focus Areas – Cross-Tabulations

	People of Color & People with Low Incomes	People of Color & Youth	People with Low Incomes & People with Disabilities	Older Adults & People with Disabilities	Older Adults & People with LEP
Percent of Tracts Above Regional Average for Both Demographic Groups	29.1% (225 out of 773)	23.5% (182 out of 773)	30.4% (235 out of 773)	31.7% (233 out of 773)	13.6% (105 out of 773)
Percent of Tracts Above 50% Threshold for One Demographic Group	People of Color Above 50% EFAs & People with Low Incomes EFAs 16% (124 out of 773) People of Color EFAs & People with Low Incomes Above 50% EFAs 2.8% (22 out of 773)	People of Color Above 50% EFAs & Youth EFAs 11.6% (90 out of 773)	People with Low Incomes Above 50% EFAs & People with Disabilities EFAs 1.7% (13 out of 773)	0% (0 out of 773)	0% (0 out of 773)
Percent of Tracts Above 50% Threshold for Both Demographic Groups	2.5% (18 out of 773)	0% (0 out of 773)	0% (0 out of 773)	0% (0 out of 773)	0% (0 out of 773)

The following section looks at each population of interest individually to determine which census tracts surpass the regional average for each group.

Trends and Geographic Analysis

The population of the central Puget Sound region was estimated at 4.3 million in 2019. Between 2000 and 2019, the region's population grew by nearly a million (almost 30%). This growth in total population led to changing demographics in the region, which are highlighted below.

People of Color

People of color refers to the individuals who identify as any of the following racial and ethnic groups by the U.S. Census Bureau:

- American Indian and Alaska Native (non-Hispanic or Latinx)
- Asian (non-Hispanic or Latinx)
- Black or African American (non-Hispanic or Latinx)
- Native Hawaiian and Other Pacific Islander (non-Hispanic or Latinx)
- Some other race (non-Hispanic or Latinx)
- Two or more races (non-Hispanic or Latinx) – A combination of two or more of the race categories listed above
- Hispanic or Latinx

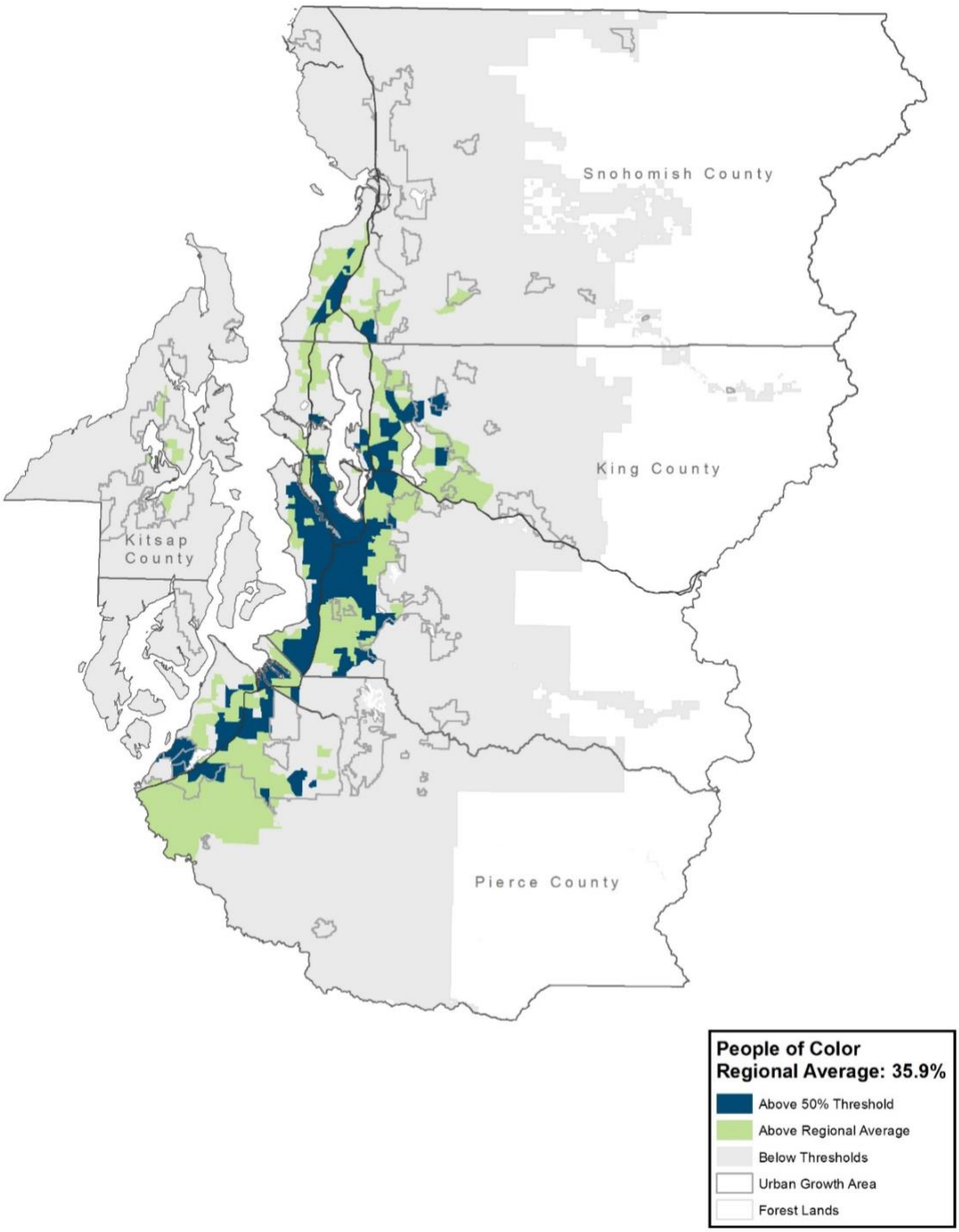
People of color are sometimes referred to as "BIPOC (Black, Indigenous, and people of color)" or "minority populations" in other PSRC publications or elsewhere.

The number of people of color in the region almost doubled over the last two decades as the region has diversified and welcomed new immigrants and foreign-born populations. Of the nearly 1 million people added to the region since 2000, more than eight out of ten residents were people of color. Currently, 35.9% of the region's population are people of color and among them, the Asian population comprises the largest racial and ethnic group, followed by Hispanic or Latinx and Black or African American populations.

On average, 8.4% of households in the region do not own a vehicle. Due to structural racism that has limited wealth and income in communities of color, compared to the regional average, households with a householder of color are less likely to own a vehicle (11%). Moreover, households with Black or African American and Hispanic or Latinx householders are far less likely to own a vehicle compared to other racial and ethnic groups.

Of all tracts regionwide, 42.8% of the tracts are classified as people of color EFAs, meaning these tracts contain people of color at a higher level than their regional average of 35.9%. Also, 20.1% are classified as tracts with over 50% of people of color. The map in Figure1 displays the tracts throughout the PSRC region that fall below and above the regional average threshold. The map also highlights the areas with a higher concentration of people of color that fall above the 50% threshold.

Figure 1. People of Color, 2019



People of color equity areas are in the more urban areas of the region, particularly along Interstate 5 (I-5) and 405 corridors, with an especially strong presence in south Seattle, east King, central and south Tacoma in Pierce, and along State Route 99 corridor in Snohomish County.

People with Low Incomes

Due to the high cost of living in the central Puget Sound region, PSRC established the threshold for defining people with low incomes as individuals in households with incomes less than 200% of the federal poverty level. In 2019, the federal poverty level for a family of four was $25,750 and the 200% threshold was $51,500.[3] People with low incomes are sometimes referred to as "low-income" to be consistent with the terms used by the U.S. Census Bureau.

The number of people with low incomes increased by 25% in the region over the last two decades and they have increasingly been displaced from their communities and accessing transportation. Currently, over 800,000, or 20.7% of the region's population are low-income, and this figure will continue to mirror the region's economic status. Compared to the regional average, households with a low-income householder are less likely to own a car, potentially due to the relatively high cost of owning and maintaining a personal vehicle. Furthermore, Black or African American households show the lowest rate of owning a car among all racial and ethnic groups.

Of all tracts regionwide, 43.1% of the tracts are classified as people with low incomes EFAs, meaning these tracts contain people with low incomes at a higher level than their regional average of 20.7%. Also, 2.8% are classified as tracts with over 50% of people with low incomes.

Concentrations of communities with low incomes also exist in the region's urban core, particularly along the I-5 corridor as shown in Figure 2. Even higher concentrations of communities with low incomes are seen in University District, Kent, and High Point in King and Tacoma and small pockets along the I-5 corridor in Pierce County.

On average, areas that have a high concentration of people of color are more likely to have a high concentration of people with low incomes. Disproportionately white (15.9%) or Asian communities (14.8%) are experiencing a relatively lower rate of low income compared to the regional average. However, a higher proportion of communities of color (23.6%), especially American Indian and Alaska Native, Black or African American, and Hispanic or Latinx communities, are experiencing low income at higher rates. One thing to note is that the Asian population represents a wide variety of income levels and there is considerable variation within this racial and ethnic origin group. More detail can be found in the PSRC's 2021 Demographic Profile.

[3] Office of the Assistant Secretary for Planning and Evaluation (2019). *2019 Poverty Guidelines.* https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines/prior-hhs-poverty-guidelines-federal-register-references/2019-poverty-guidelines

Figure 2. People with Low Incomes, 2019

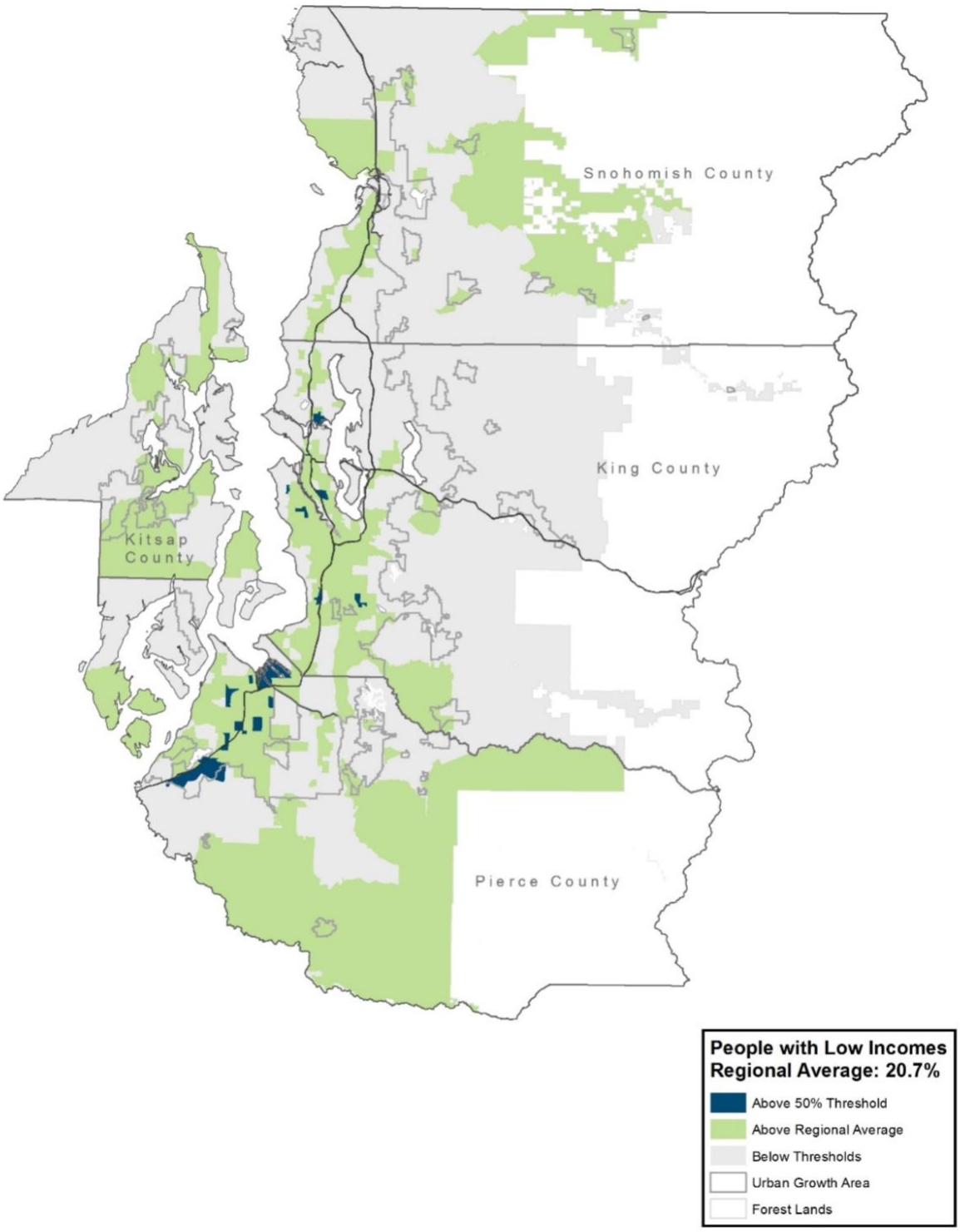
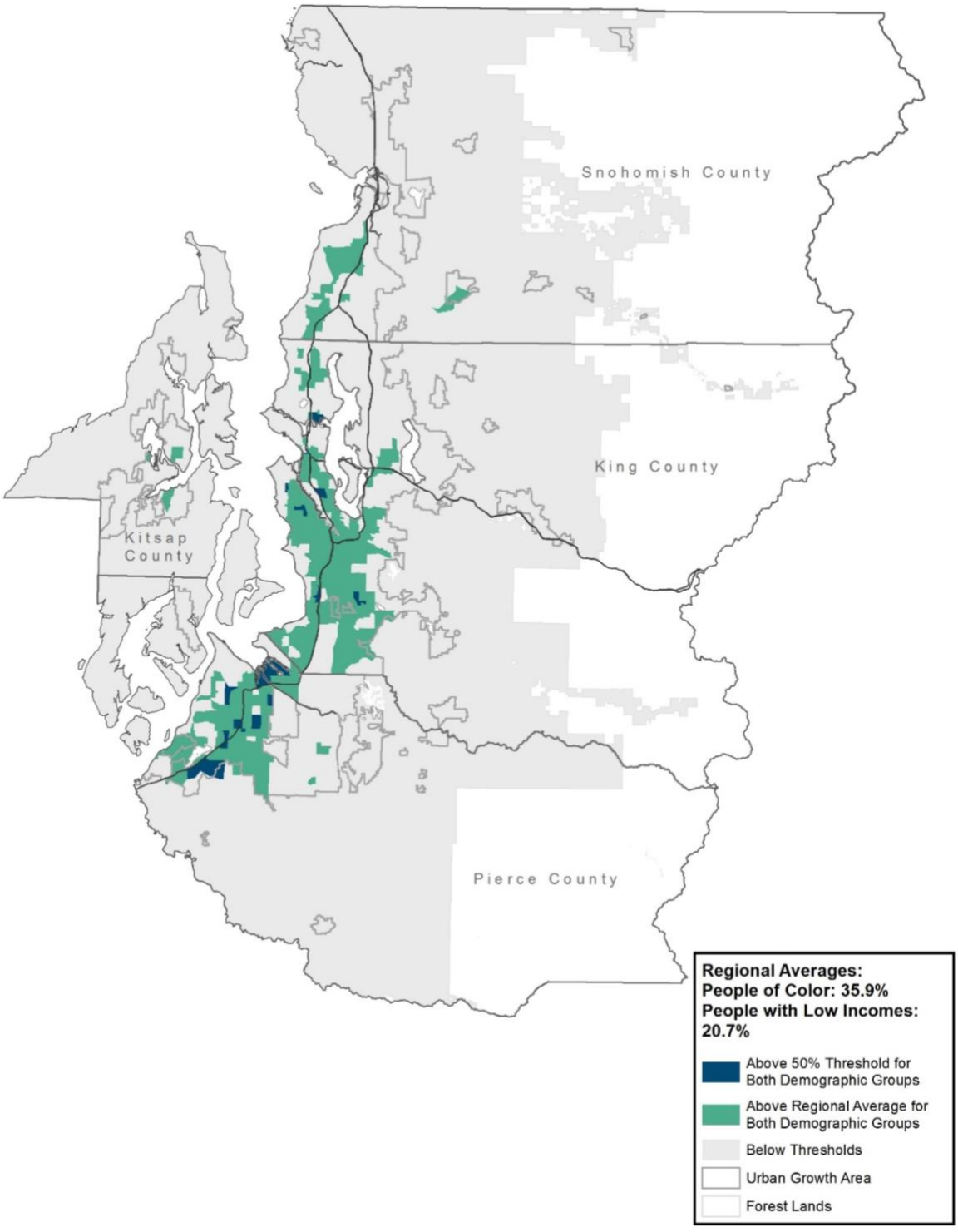


Figure 3 shows areas with relatively high concentrations of both people of color and people with low incomes. The equity areas with over 50% of people of color who are also low-income are shown in University District and several tracts in southwest Seattle in King County and Tacoma and south of Tacoma along I-5 in Pierce County.

Figure 3. People of Color and People with Low Incomes, 2019



People with Disabilities

An individual with disabilities is "a person who has a physical or mental impairment that substantially limits one or more major life activities or has a record of or is regarded as having such an impairment."[4] There are six disability types included in the U.S. Census Bureau's ACS. They include difficulties with hearing, vision, cognitive, ambulatory, self-care, and independent living difficulties.[5]

People with disabilities often face barriers getting to areas they need to go, including education, employment, and medical destinations, as there are limited transportation options available to them. As of 2019, people with disabilities make up 11% of the region's population. Over the past decade, the number of people with disabilities grew by nearly 10% in the region. Substantially higher share of the households with one or more persons with disabilities does not own a vehicle (15.4%) than the regional average (8.4%).

Of all tracts regionwide, 47.7% of the tracts are classified as people with disabilities EFAs, meaning these tracts contain people with disabilities at a higher level than their regional average of 11%. As shown in Figure 4, people with disabilities EFAs are found in the less populated areas of King, Kitsap, Pierce, and Snohomish counties and some areas along major highways.

People with disabilities are over-represented in low-income and unemployed populations. The percentage of people with disabilities with low incomes (34%) is substantially higher than the regional average for all persons (20.7%). Also, the unemployment rate of people with disabilities (8.1%) is more than double the unemployment rate of people without a disability (3.6%). Also, the unemployment rate of people of color with disabilities (11.2%) is relatively high, especially for Blacks or African Americans (16.0%), compared to the rate of whites with disabilities (6.7%).

[4] United States Census Bureau (2021). *How Disability Data are Collected from The American Community Survey.* https://www.census.gov/topics/health/disability/guidance/data-collection-acs.html

[5] Ibid.

Figure 4. People with Disabilities, 2019

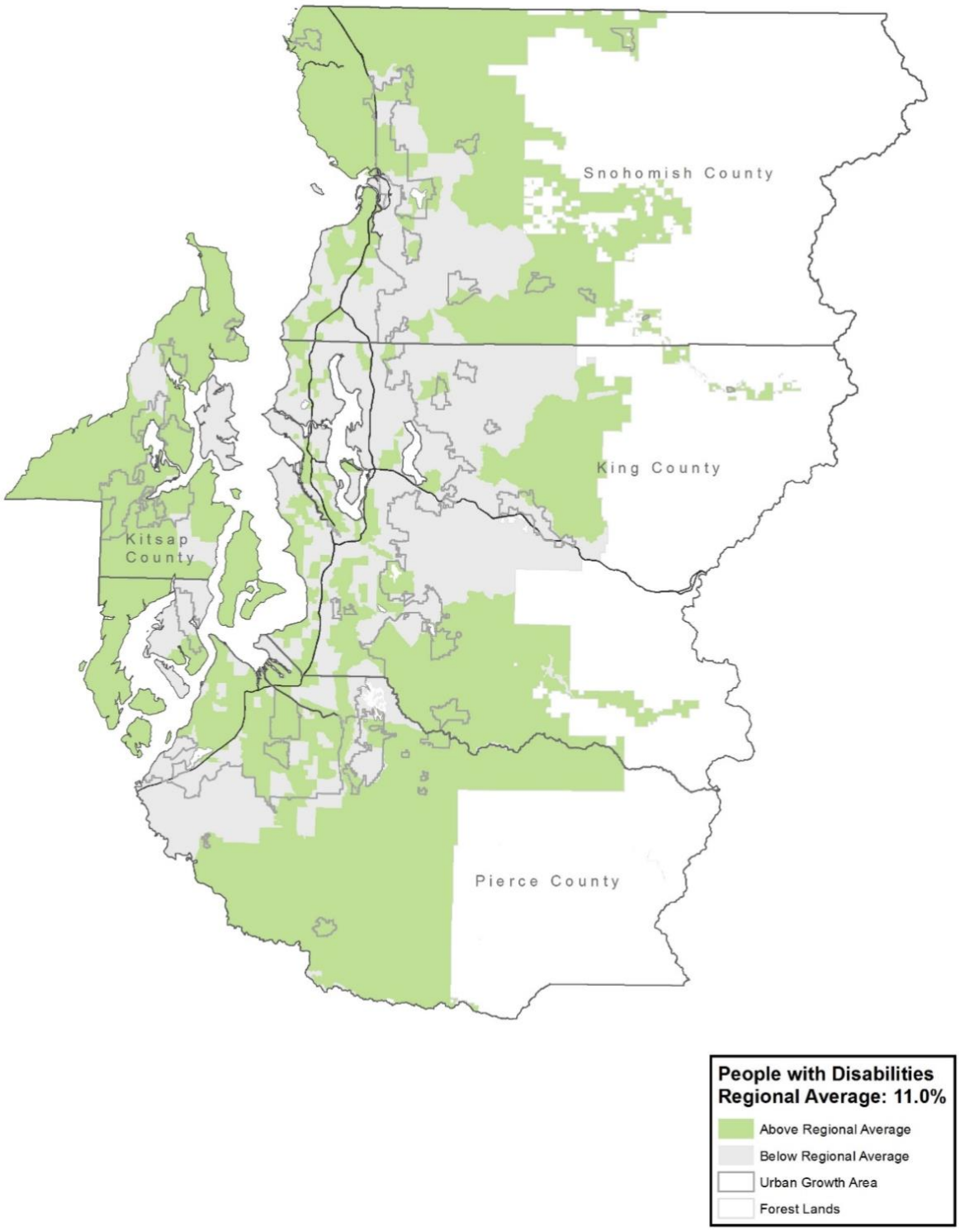
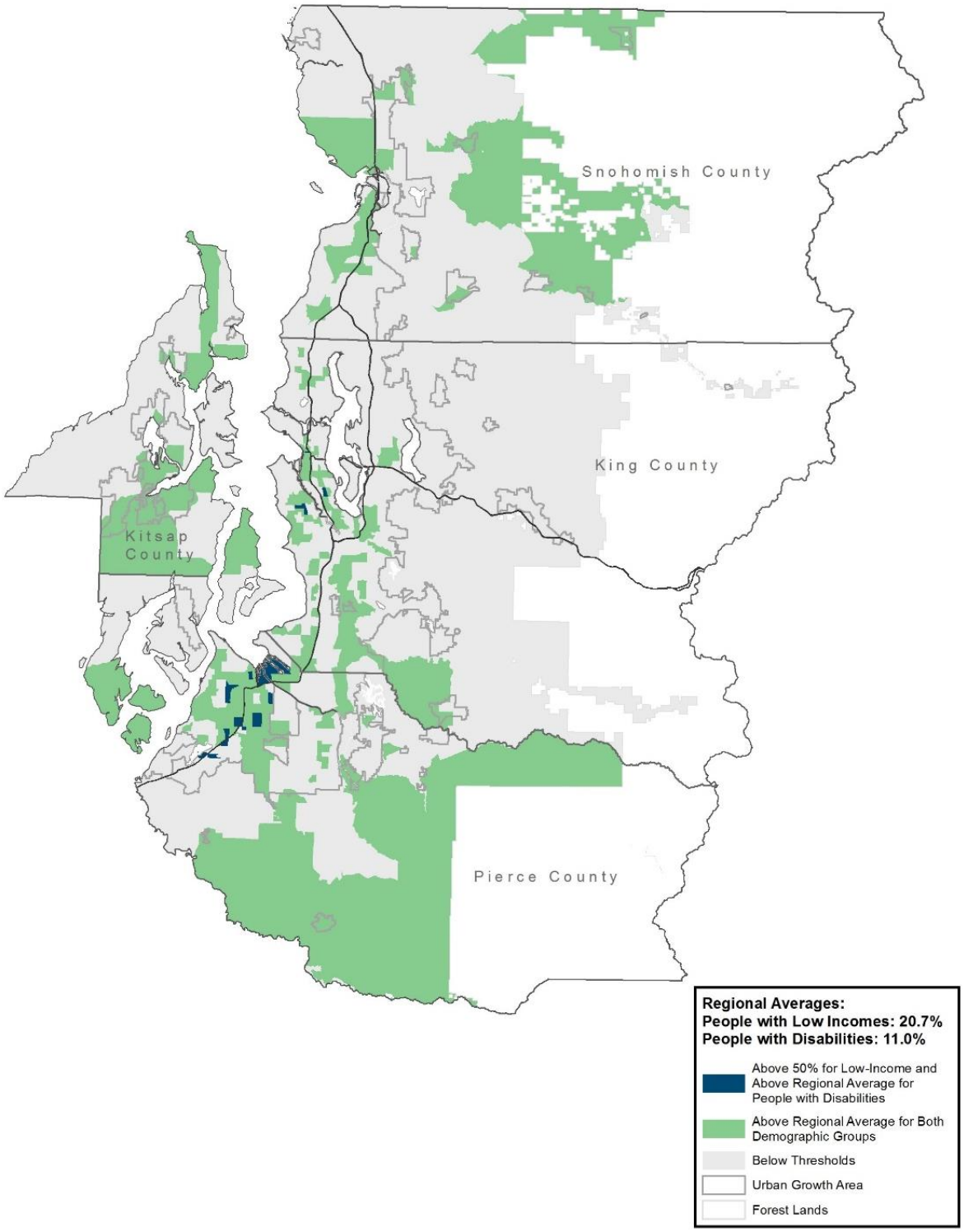


Figure 5 shows communities with relatively high concentrations of people with disabilities who are also low-income. These areas are shown in central Seattle and Tacoma and South of Tacoma in Pierce County.

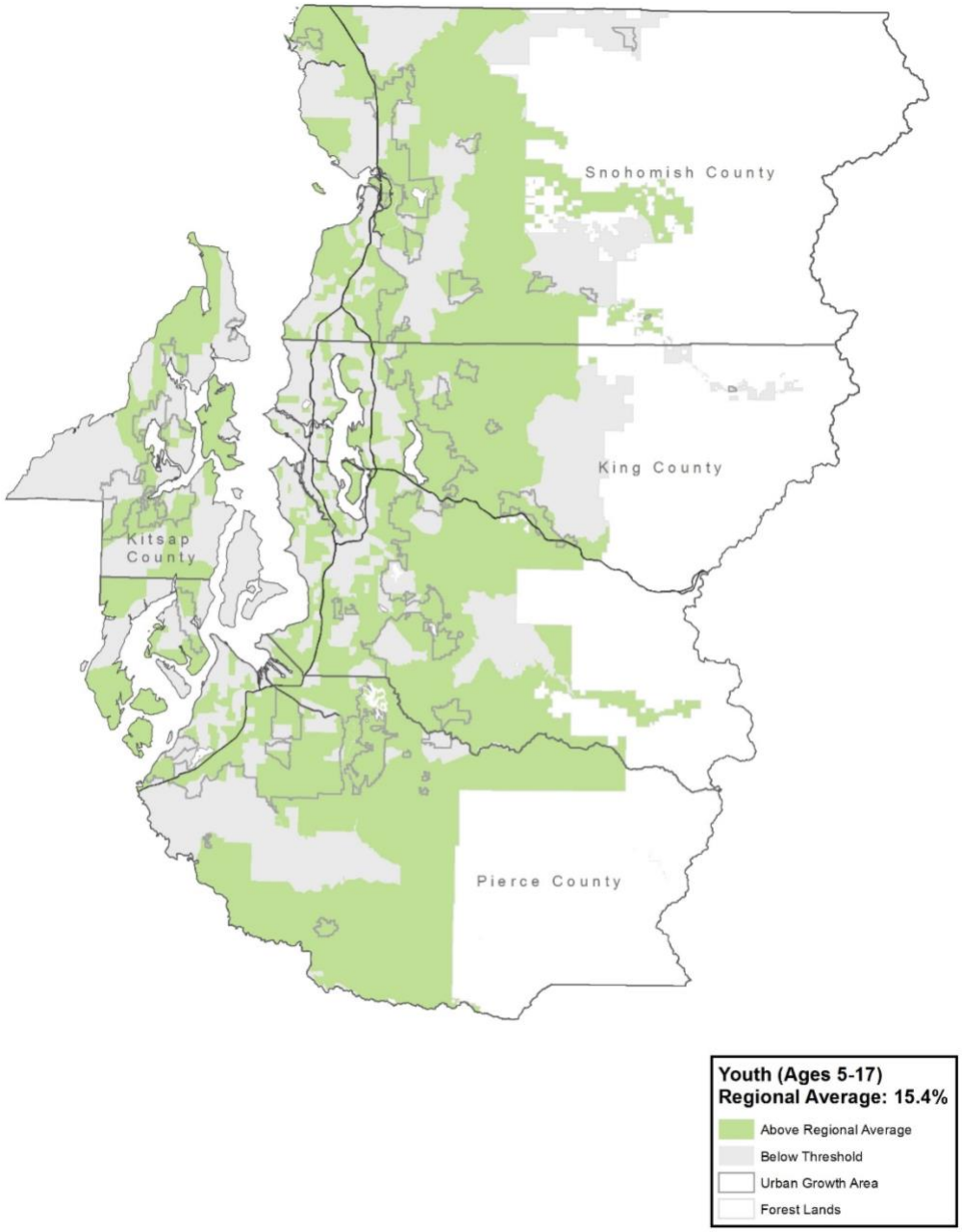
Figure 5. People with Disabilities and People with Low Incomes, 2019



Youth (Ages 5-17)

Youth refers to an individual ages 5 to 17 in Regional Transportation Plan. Transportation options for youth are generally limited to rides from others, public transportation, school bus, walking, or biking. In the region, youth are decreasing as a percentage of the population but growing in overall numbers. Between now and 2050, the population of youth will grow 21% by adding 138,900 youth to the region.[6]

Figure 6. Youth, 2019

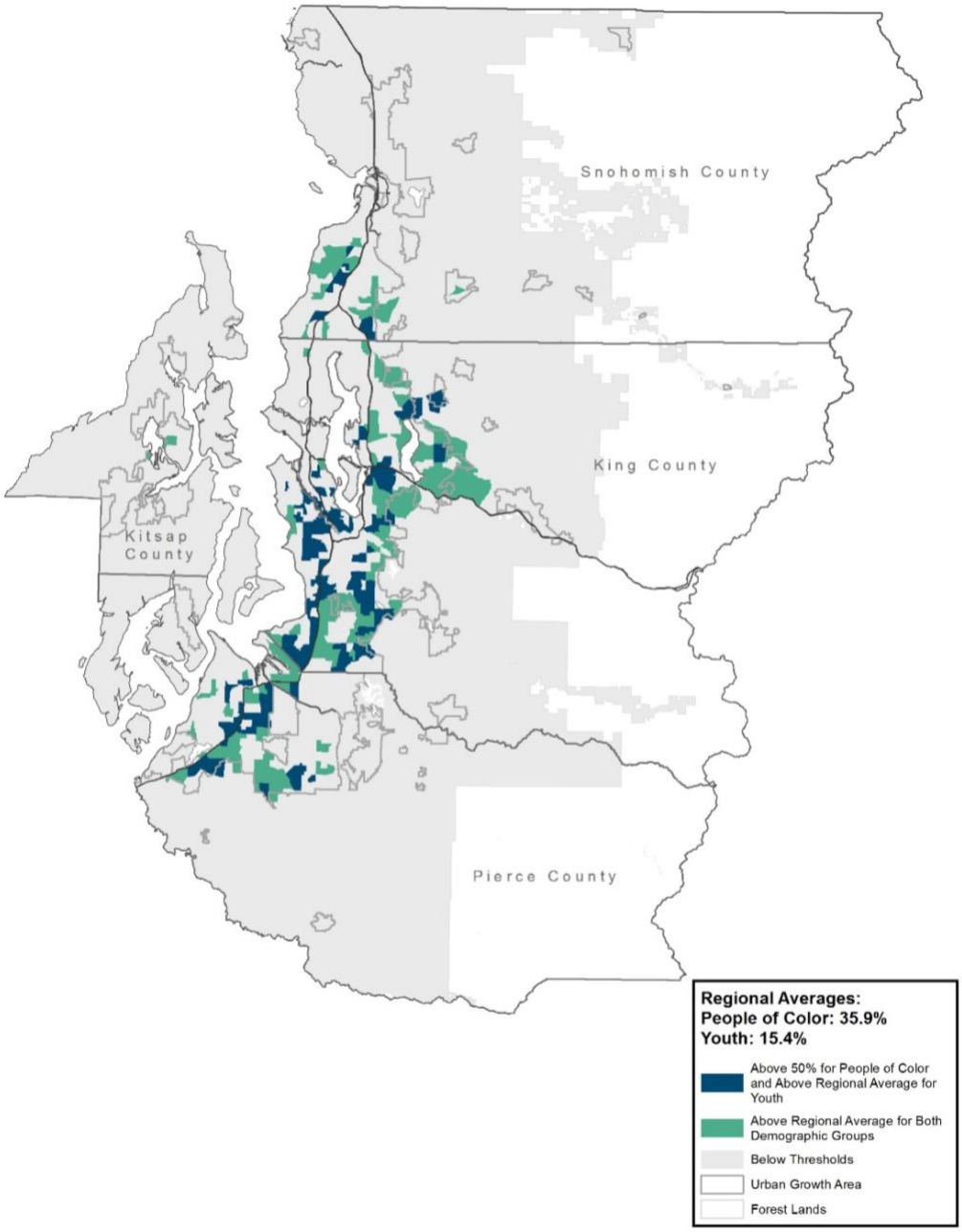


[6] Washington State Office of Financial Management. *2017 Population Projections for Counties: 2010-2050 & November 2020 State Population Forecast.* https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/state-population-forecast

Of all tracts regionwide, 52.1% of the tracts are classified as a youth EFA, meaning these tracts contain youth at a higher level than their regional average of 15.4%. Youth EFAs are spread throughout the region, also found in less populated areas of the region as shown in Figure 6.

Regionally, 48.1% of the youth are youth of color and 30.4% of them are low-income, which is a higher rate than the regional average (20.7%). Moreover, white (18.3%) and Asian (16.5%) youth have low incomes at rates below the regional average, while Black or African American (44.1%) and Hispanic or Latinx (37.8%) youth have low incomes at higher rates than the regional average.

Figure 7. Youth and People of Color, 2019



The EFAs with a relatively high concentration of youth of color are illustrated in Figure 7. These areas are located mostly within urbanized areas of the region, where a high concentration of people of color

EFAs is located.

Older Adults (Aged 65 and above)

Older adults are defined as individuals aged 65 and above. As people get aging, there is a higher chance of giving up driving a personal vehicle and relying upon other mobility options.

In 2019, older adults made up 14% of the region and they are continuously rising in size relative to the rest of the population. This large increase in older adults over time is attributed to the aging Baby Boomer generation combined with a general increase in life expectancy. Also, this rising trend is expected to continue. By 2050, older adults will grow by 85%, a much faster rate than the growth in the general population (30%), from the share of 15% today to over 20% in 2050.[7] In the region, about 13% of the households with an older adult householder do not own a personal vehicle, which is a higher rate than the regional average (8.4%).

Of all tracts regionwide, 49.0% of the tracts are classified as an older adults EFA, meaning these tracts contain older adults at a higher level than their regional average of 13.4%.

Similar to the youth EFA, less populated areas of the region contain older adults at a higher level than their regional average, noting a large portion of the Kitsap County is classified as an older adults EFA (Figure 8).

It is important to recognize that the disability rate is higher for older adults compared to the regional average (14%). More than 30% of people aged 65 and over have a disability and this percentage climbs up to 71% for people aged 85 and above, meaning the eldest age group may need more assistance in accessing transportation to get to their desired destinations.

[7] WA State Office of Financial Management (November 2020). *Forecast of the State Population.* Retrieved from: https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/state-population-forecast

Figure 8. Older Adults, 2019

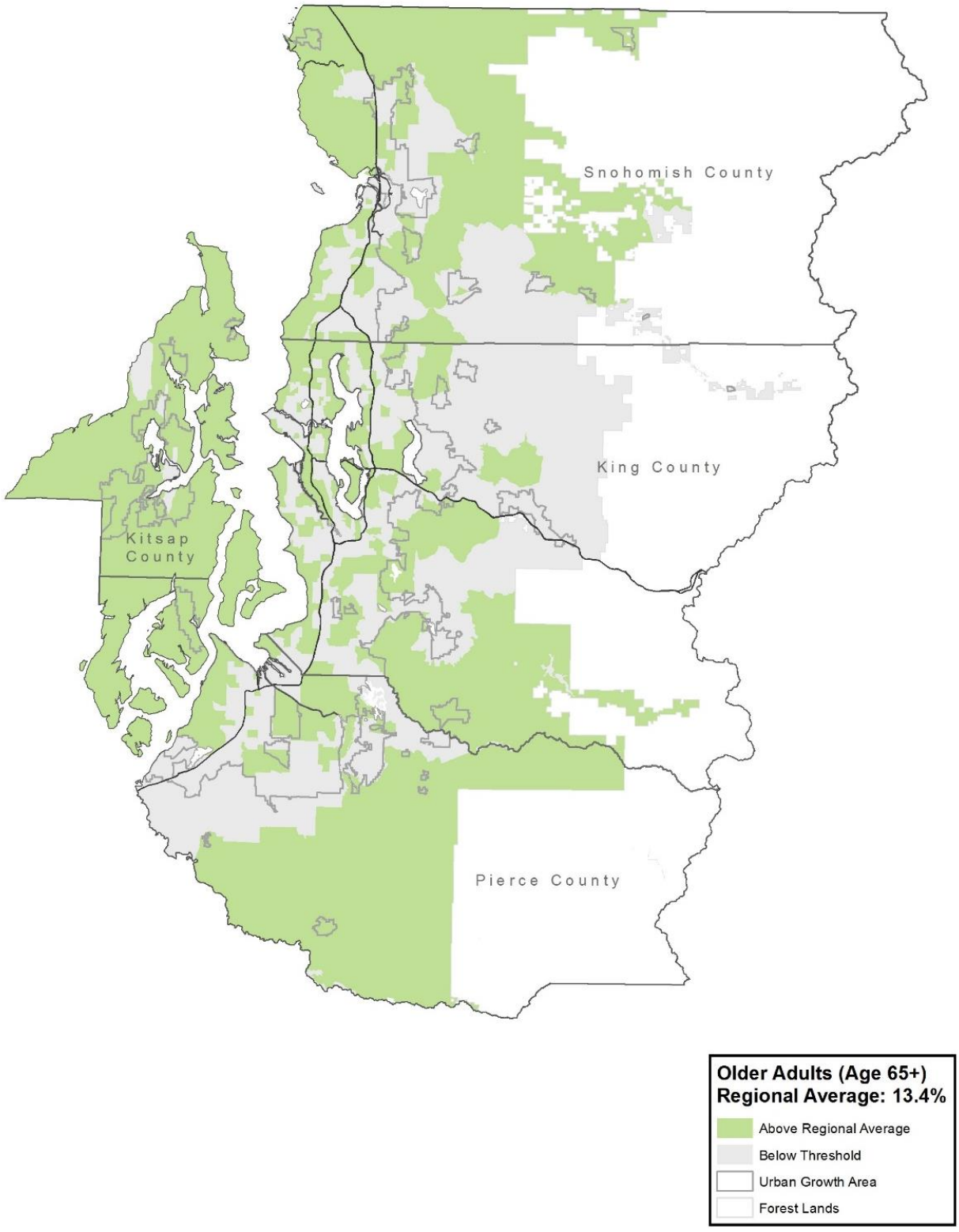
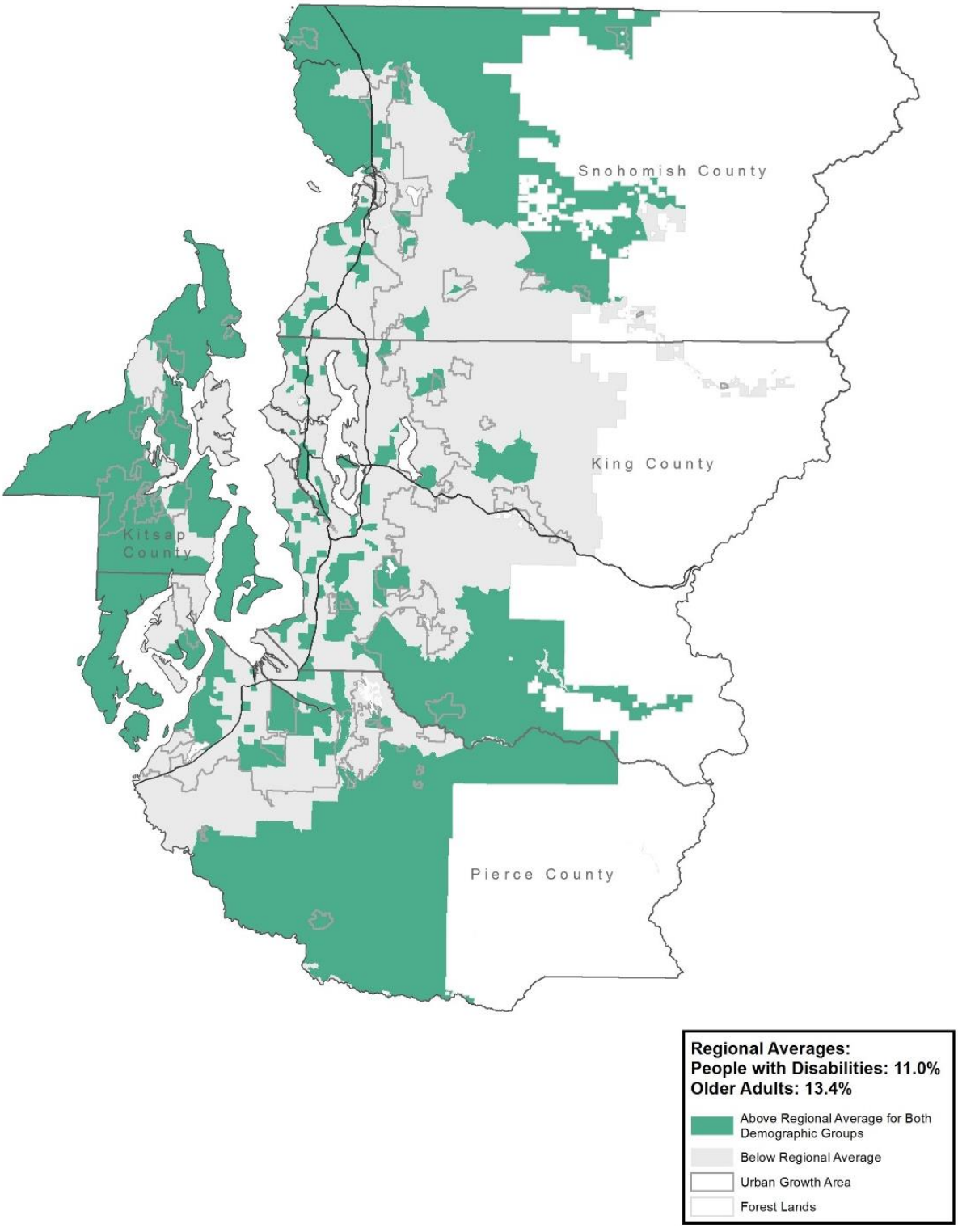


Figure 9 shows the areas with relatively high concentrations of older adults and people with disabilities. These areas are found in less urbanized areas of the region as well as some parts of the urbanized areas.

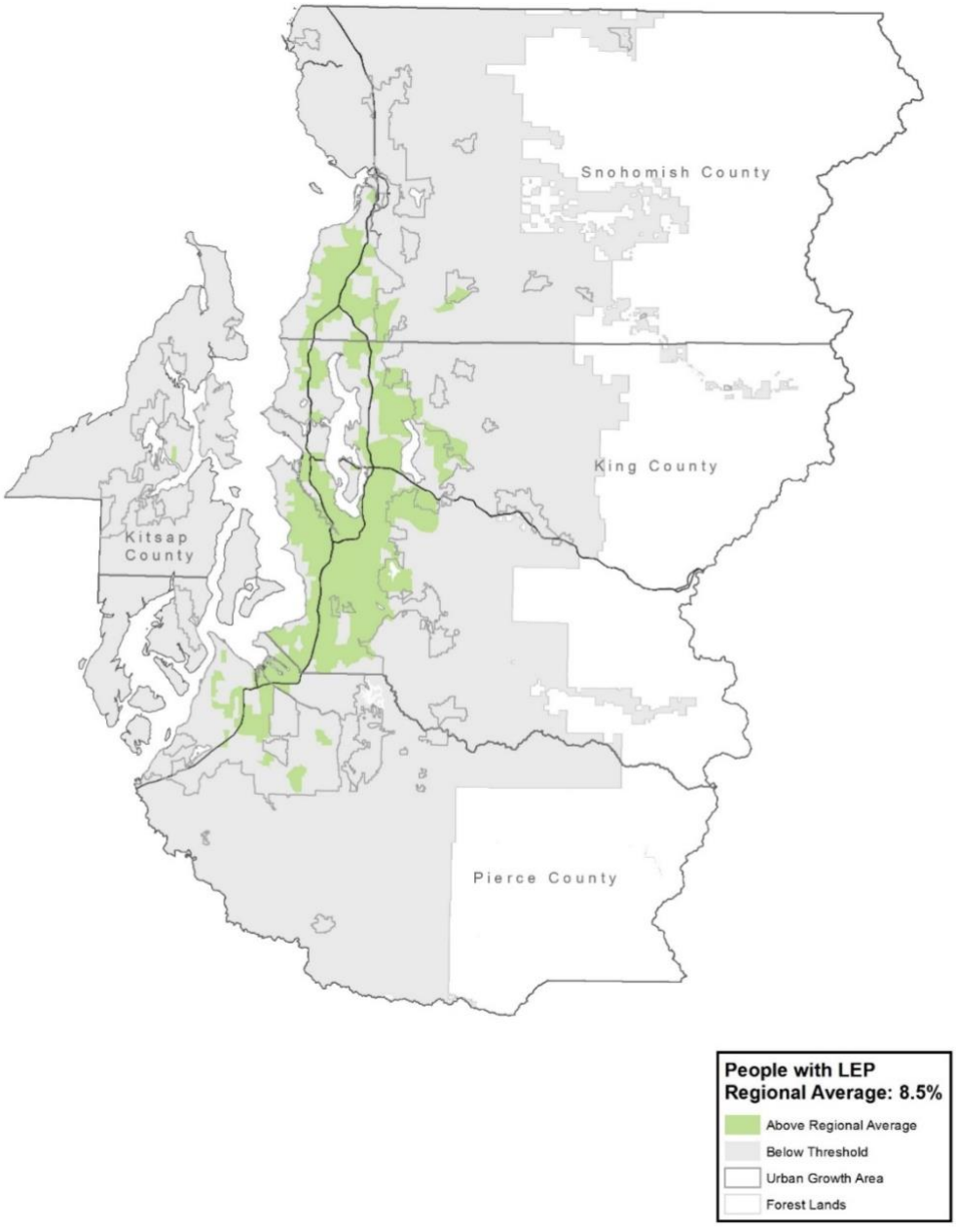
Figure 9. Older Adults and People with Disabilities, 2019



People with Limited English Proficiency

The Regional Transportation Plan defines the people with limited English proficiency (LEP) as individuals, age 5 and above, who report speaking English less than "very well" to the U.S. Census Bureau. People with LEP have grown as a share of the region. In 2019, 329,000, or 8.5% of the total population (above five years old as a total universe) were LEP and they grew by 61.4% between 2000 and 2019. In our region, people with LEP have historically been underrepresented and excluded from planning processes. Also, they may experience language and cultural barriers to accessing transportation. In our region, among those with limited English proficiency, the largest number speak Spanish, followed by Chinese, Vietnamese, Korean, and Tagalog. More detail can be found in the PSRC's 2021 Demographic Profile.

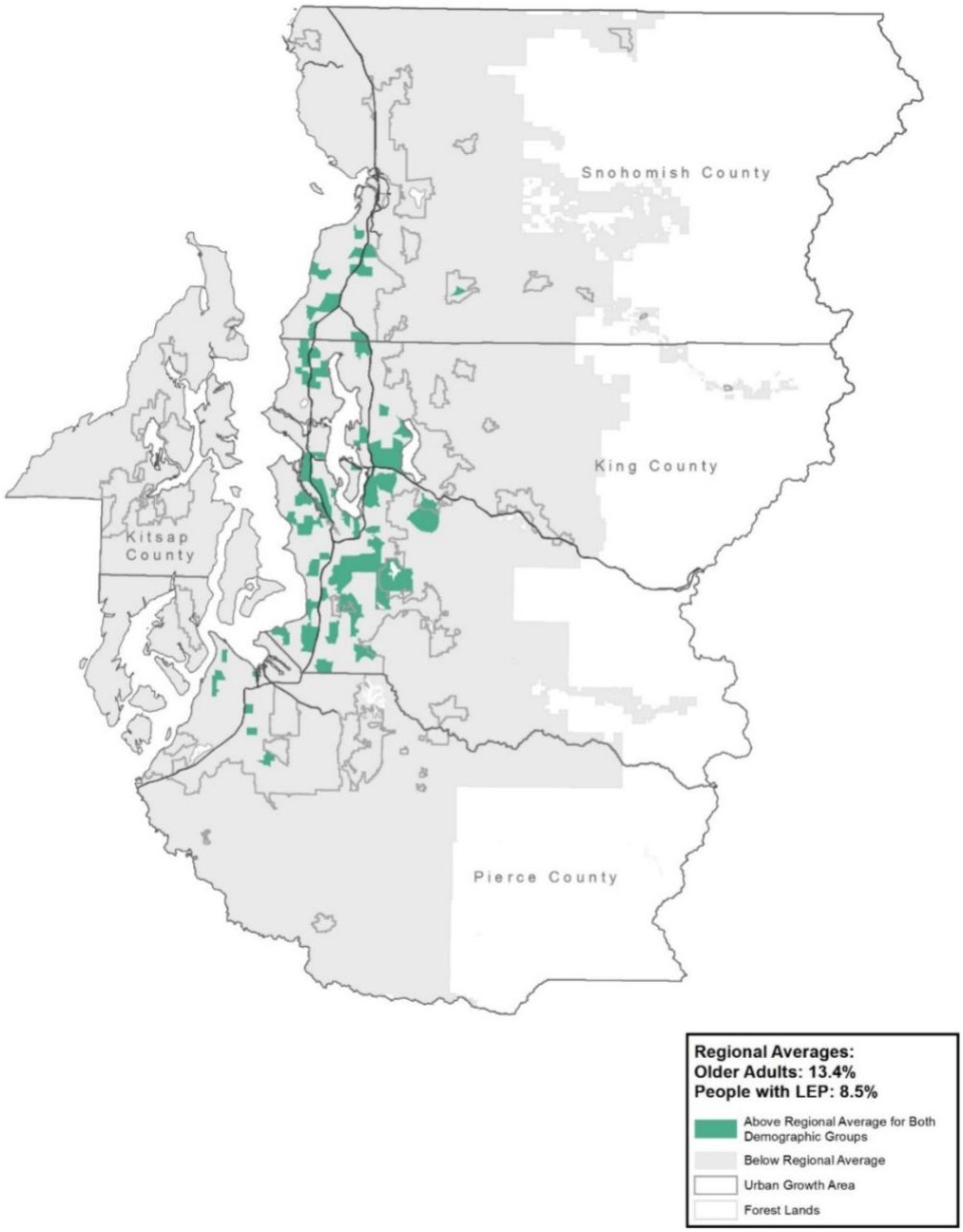
Figure 10. People with LEP, 2019



Of all tracts regionwide, 36.4% of the tracts are classified as people with an LEP EFA, meaning these tracts contain people with LEP at a higher level than their regional average of 8.5%. These areas are shown in more urbanized areas of the region, especially in south Seattle and east King, Tacoma, and nearby communities of Pierce, southeast Snohomish County as shown in Figure 10.

In the region, the percent of older adults with LEP has increased over time. The areas with high concentrations of people with LEP and older adults are shown in Figure 11. Currently, 20% of the individuals with LEP are over the age of 65 and the majority of them are Asian older adults (70%). Conversely, the percent of LEP individuals with low incomes has decreased in the region. Nearly 30% of people with LEP are low-income today, at a rate slightly higher than the regional average of 20.7%, however, it is important to note that the level of low-income status varies by country and origin of the LEP populations.

Figure 11. People with LEP and Older Adults, 2019



Chapter 3. Transportation Analysis Methodology and Measures

Methodology

An individual's race, ethnicity, income, age, ability, or other sociodemographic characteristics has been demonstrated to have an impact on a variety of outcomes. The analysis in this appendix focuses on the impact of transportation investments on equity focus areas (EFAs) by comparing current conditions with forecast plan outcomes in 2050.[8] EFAs were developed to identify areas with relatively higher shares of different demographic groups than the regional average, based on the 2015-2019 ACS 5-year estimates.

However, there are some limitations in this analysis that are important to understand. By using census data, the analysis represents all residents in census tracts, even those individuals who may not be experiencing transportation challenges due to race, ethnicity, age, income, ability, or other socioeconomic characteristics. Also, the forecast is based on the current geographic distribution of EFAs, even though future distributions of these many populations are likely to change.

Current state-of-the-practice forecasting tools are often unable to confidently forecast population details evaluated in equity analyses, however, PSRC is currently undertaking future improvements to better address these issues. Even with these limitations, this approach allows additional understanding of how the transportation investments may affect existing communities in the region and provide a method to consistently measure change over time in the region. The forecast tool combines these geographies with other place-based geographies to better understand the differences in equity outcomes across the region.

Plan Outcomes: EFAs vs. Non-EFAs

In most cases, the outcomes of the region and EFAs were reviewed and compared. Where meaningful, additional comparisons between the region, EFAs, and Non-Equity Focus Areas (non-EFAs, e.g., majority people of white and wealthier tracts) were performed to analyze how transportation investments impact different communities with their unique transportation needs. The comparison between EFAs and non-EFAs allows additional understanding of plan outcomes by analyzing impacts of transportation investments for the remainder of the region where the EFAs were fully separated and excluded.

Transportation Measures

With continued regional population and employment growth between now and 2050, increased demand will be placed on the regional transportation system. As stated above, to model travel behavior in 2050, all investments planned in the Regional Transportation Plan are assumed to be in place. The following section describes transportation plan outcomes for the following measures:

[8] For this analysis, PSRC used a travel demand model system called, SoundCast, which is built for the central Puget Sound region. The model was designed to output diverse human travel behavior and include travel sensitivity to land use and the built environment. More information can be found on PSRC's website: https://www.psrc.org/activity-based-travel-model-soundcast.

- **Transportation mode share**—the percentage of all trips, both work and non-work-related trips, made by people driving alone, carpooling, using transit and school buses, walking, or biking
- **Transit access**—transit trips accessed by walking and percentage of households located within a ½ mile of high-capacity transit (HCT) stations
- **Walking and biking**—the average amount a person walks or bikes daily
- **Vehicle travel**—how far the average person drives each day by car and an average amount of time spent driving per person
- **Transportation affordability—**an individual's annual out-of-pocket transportation costs

Chapter 4. Summary of Findings

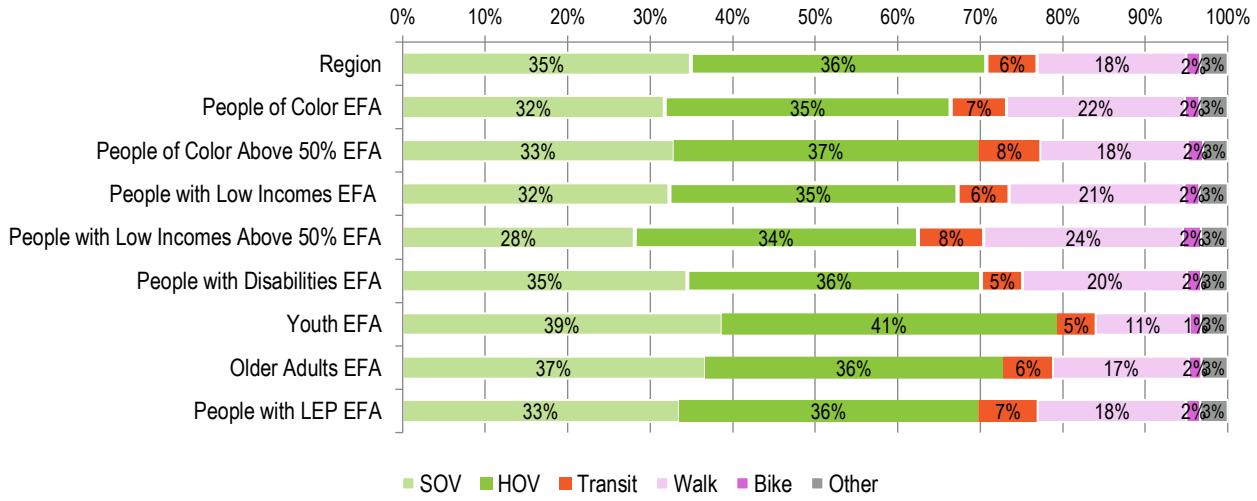
Potential Plan Outcomes

A summary of plan outcomes is presented in this section below. The plan is forecasted to improve the overall transportation system in EFAs that already have better access to transit. By 2050, PSRC's forecast anticipates the region will grow by 1.6 million, reaching a total population of approximately 5.8 million. That growth will result in about 817,000 new households and more than one million new jobs, bringing more opportunities to central Puget Sound. As the region grows, mitigation policies will need to be implemented to help prevent the displacement of vulnerable populations so they can enjoy these opportunities and improvements to the regional transportation system and in areas where growth occurs.

Transportation Mode Share

To keep up with the demands of a growing population, significant investment in a multimodal, integrated transportation system will be made by 2050. It is forecasted that the region's populations will drive less and take transit and walk or bike more for transportation in the next 30 years. In 2018, about 80% of all trips were made by personal vehicles, either by driving alone (42%) or carpooling (39%), 13% were made by walking or biking, and 3% of the region's overall travel was made by transit. Residents in people of color and people with low incomes EFAs drove less and walked or biked more than the regional average, however, more than 67% of the residents within these tracts drove for daily needs. In 2050, as shown in Figure 12, it is forecasted that 71% of the trips will be made by personal vehicles, 20% by walking and biking, and 6% by transit. It is important to note that people within the EFAs with a high concentration (above 50% threshold) of people of color and/or people with low incomes are expected to take transit at higher rates compared to the region as a whole in 2050. However, in 2050, a large share of residents in people with disabilities, youth, and/or older adults EFAs will continue to drive or carpool at rates higher than the regional average and take transit at rates lower than the regional average.

Figure 12. Mode Share of All Trips, 2050



NOTE: SOV refers to a single-occupancy vehicle (driving alone) and HOV refers to a high-occupancy vehicle (carpooling). The "other" category combines all trips made by school bus and transit network company (TNC) services.

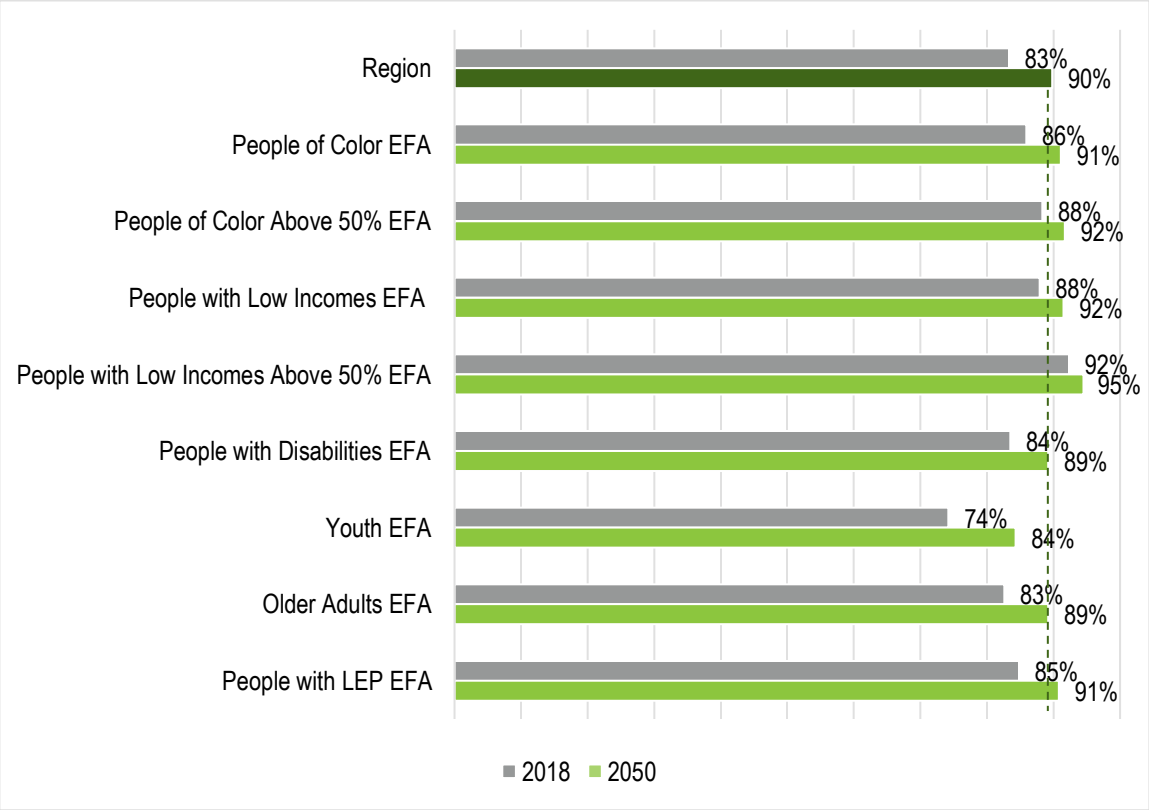
Transit Access

Local and regional transit investments represent 70% of all transportation system improvements planned for the upcoming 30 years. Transit boardings are forecasted to more than triple by 2050 with these investments. The Regional Transportation Plan public opinion survey, conducted in 2021, showed that respondents placed a high priority on both developing reliable, well-connected transit, and improving access to transit.

Transit Trips Accessed by Walking

The number of forecasted transit boardings will increase from 673,000 today to 2,344,000 in 2050, and nearly 90% of these trips will be accessed by walking. Compared to today, a higher share of residents in all EFAs are expected to walk to transit in 2050. Over 91% of the transit trips made by a person living within either a people of color or a people with low incomes equity tract is forecast to access transit by walking, as a higher percentage of households will be located within a walkable distance to and from high-capacity transit (HCT) stations in 2050 (Figure 13). More information on the quality of sidewalks can be found in the Other Analyzes section of the appendix.

Figure 13. Percentage of Transit Trips Accessed by Walking, 2018 vs. 2050



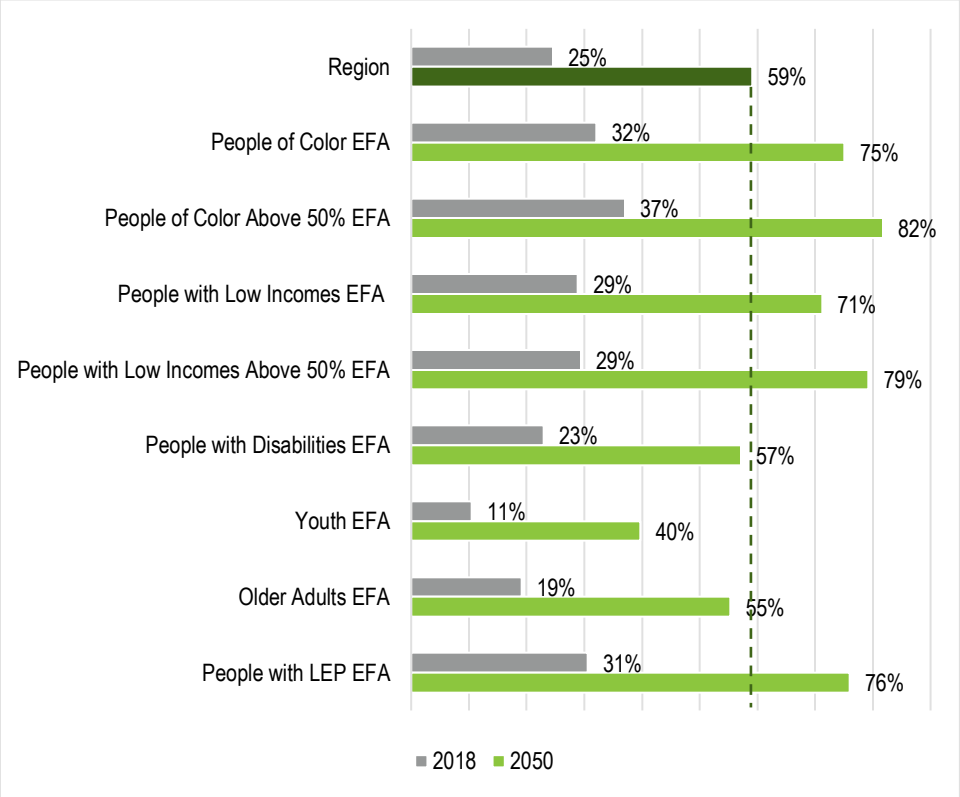
Households within ½ mile of HCT stations

By 2050, our region will build more than 40 new or expanded high-capacity transit (HCT) routes. The expansion of HCT is planned across the region in the form of rail (both light rail and commuter rail), bus rapid transit, and passenger-only ferries. HCT will provide more reliable quality transit service to the region's population.

The percentage of households within a half-mile walk to HCT provides a sense of how transit service coverage compares across equity geographies over time. Compared to today (25%), a higher share of the region's households will be located within half-mile of HCT stations in 2050 (59%). Moreover, households within people of color and people with low incomes EFAs will continue to have better access to HCT stations than the region as a whole. This is consistent with the geographic analysis that shows these households today are located in the areas where the majority of the HCT development will happen over the next 30 years, illustrating that these areas are well-served by planned investments.

As shown in Figure 14, by 2050, almost 60% of the region's households will be located within a half-mile walk to HCT stations. The EFAs with higher concentrations of people of color and people with low incomes (above the 50% threshold) will have the greatest access to HCT at higher rates (82% and 79% respectively) compared to the regional average (59%) in 2050.

Figure 14. Percentage of Households within ½ mile of HCT Stations, 2018 vs. 2050

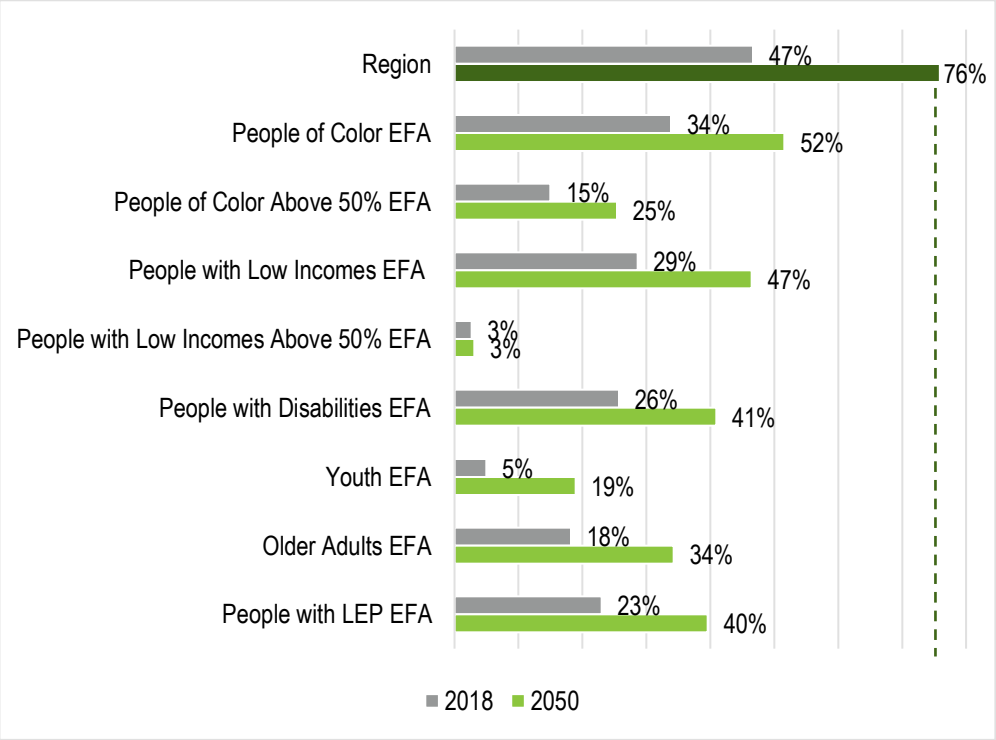


Jobs within ½ mile of HCT stations

About 47% of the region's jobs are within a half-mile of HCT stations today and this percentage is forecasted to increase to about 76% in 2050. Compared to today, all EFAs will have higher percentage of jobs within a half-mile distance to and from HCT stations in 2050. Also, people of color and people with low incomes EFAs will have higher percentages of jobs within a half-mile distance to HCT stations compared to other EFAs, but at lower rates than the regional average.

The current regional average of jobs within a half-mile distance to HCT stations is already higher than all EFAs and this gap will widen by 2050 for many of them, which could have implications for perpetuating disparities in income, employment, and social equity. However, it is important to note that this model output represents the number of jobs within equity geographies and does not represent actual transit accessibility to get to employment locations to and from equity focus areas. Also, forecasts for low-income EFAs (above 50% threshold) are substantially lower since there are very few employment locations within EFAs containing people with low incomes above the 50% threshold.

Figure 15. Percentage of Jobs within ½ mile of HCT Stations, 2018 vs. 2050



Walking and Biking

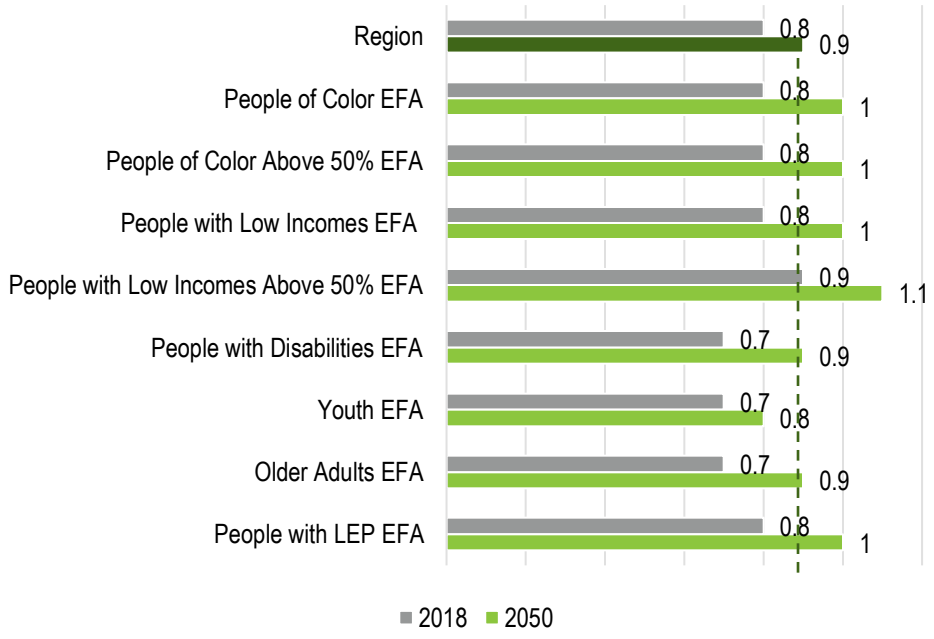
In addition to transit improvements, more investments in a regional bicycle and pedestrian network will provide more access through walking and biking, especially for the underserved communities in the region. More opportunities for walking, biking, or using wheelchairs to access work, schools, shopping centers, or to visit a friend's house, can improve overall health outcomes through encouraging greater physical activity. However, it is important to recognize that some people may choose to walk or bike due to the financial constraints of owning a personal vehicle or the lack of other affordable transportation options available to them.

Increasing the number of people walking and biking by connecting networks and making them comfortable and safe is one of the key policy focus areas of the RTP. More information on the region's strategies for the bicycle and pedestrian network improvements can be found in the Bicycle and Pedestrian section of the plan.

Miles Walking and Biking Daily per Person

Regionwide, in 2018, a person walked and biked about 0.8 miles a day for transportation purposes, on average. Walking and biking for transportation purposes is forecast to increase across the region by 2050 to 0.9 mile per day on average. Residents in people of color and people with low incomes EFAs are forecasted to walk and bike a little further than the regional average by 2050. A person within these EFAs will walk and bike about a mile per day in 2050, forecast to increase from 0.8 miles per day today. Additionally, a person within the EFA with above 50% of people with low incomes will walk and bike 1.1 miles a day, the longest distance among all EFAs. See Figure 16.

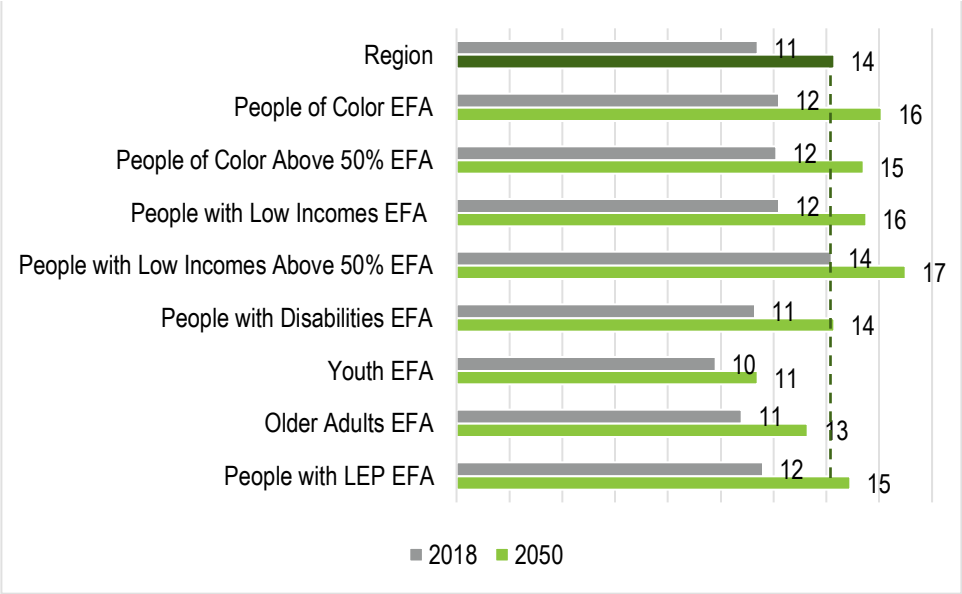
Figure 16. Miles Walking and Biking Daily per Person, 2018 vs. 2050



Time Walking and Biking Daily per Person

It is also forecasted that the region's residents will spend more time walking and biking in 2050, with residents in people of color and people with low incomes EFAs walking and biking the most. In 2018, regionwide, a person walked and biked for about 11 minutes for transportation purposes each day on average. Residents in high concentration (above 50% threshold) of low-income populations walked and biked more than 14 minutes a day. By 2050, it is forecasted that a person will walk and bike more than 14 minutes per day in the region. Residents in people of color and people with low incomes EFAs are forecast to walk and bike for about 16 minutes, which is 2 more minutes than a regional average. Moreover, residents in EFA with higher concentrations of people with low incomes (above 50% threshold) will continue to spend the most time walking and biking for transportation (17 minutes per day) by 2050 among all EFAs. See Figure 17.

Figure 17. Time Walking and Biking Daily per Person (In Minutes), 2018 vs. 2050



Vehicle Travel

Over the last few years, the region has made significant progress in building out its integrated multimodal transportation system. Streets and highways throughout the region provide the foundation of the multimodal transportation system including driving. The 2022-2050 RTP investments appear to be increasing the miles of completeness and efficiency of the roadway network regionwide as well as in areas with historically marginalized and underserved communities. The state's managed lanes system such as High Occupancy Vehicle (HOV) lanes and Express Toll Lanes are expected to maximize the movement of people and encourage residents to use transit and reduce traffic volumes and congestion.

Vehicle Miles Driven Daily

By improving regional transit, bicycle, and sidewalk networks, the average number of miles driven is forecast to decrease by more than 3 miles per day for the region in 2050. In 2018, regionwide, a person drove about 17 miles every day. Residents in youth and older adults EFAs drove (or got a ride)

more miles per day than the regional average, as shown in Table 3. As previously mentioned, a higher share of residents in the EFAs took transit and walked and biked for transportation than the regional average. As such, these populations drove fewer miles per day than the regional average.

The miles people drive every day is forecast to decline across the region as other transportation options will be available to the region in 2050. An average person is forecast to drive less (13.7 miles a day), a 19% reduction over the year 2018. Areas above the regional average of equity focus populations will also see a reduction in miles driven per day in 2050. However, residents in youth and older adults EFAs are forecast to continue to drive more than the regional average, as these areas are more spread in less populated areas of the region.

To compare the outcomes between EFAs and non-EFAs of people of color and people with low incomes, in 2050, residents in these non-EFAs are generally expected to drive more than those in the EFAs with lower rates of percent decrease in driving mileage, between 2018 and 2050 (see Table 4). For example, the percentage of a person in people with low incomes EFA is forecast to drive 23% less in 2050 than today, while a person outside of the people with low incomes EFA (or non-people with low incomes EFA) is expected to drive only 6% less in 2050.

Table 3. Average Vehicle Miles Driven Daily per Person, 2018 vs. 2050

	2018	2050	% Change
Region	**17**	**13.7**	**-19%**
People of Color EFA	15.1	11.5	-24%
Non-People of Color EFA	18.6	15.6	-16%
People of Color Above 50% EFA	14.6	11.8	-19%
Non-People of Color Above 50% EFA	17.6	14.2	-19%
People with Low Incomes EFA	15.2	11.7	-23%
Non-People with Low Incomes EFA	18.3	15.3	-16%
People with Low Incomes Above 50% EFA	11.6	9.5	-18%
Non-People with Low Incomes Above 50% EFA	17.1	13.8	-19%
People with Disabilities EFA	16.9	13.2	-22%
Youth EFA	18.7	16.1	-14%
Older Adults EFA	17.6	14.3	-19%
People with LEP EFA	15.6	12.2	-22%

Vehicle Hours Driven Daily

In 2018, an average person spent almost 40 minutes a day traveling by personal vehicle. By the year 2050, the average person is forecast to spend 34 minutes each day traveling, about 6 minutes less, which accounts for a 15% reduction compared to 2018.

As mentioned previously, people of color and people with low incomes are typically less likely to own a car or own fewer vehicles, potentially due to the high cost of owning a car, and as such, they experience less time in a car than the regional average in general. Furthermore, residents in EAFs are also forecasted to drive less in 2050. By 2050, residents in people of color equity focus areas will drive less than 30 minutes on average every day which is an 18% reduction compared to the time they drive

today. Moreover, residents in high concentrations (above 50% threshold) of people with low incomes are predicted to drive for the least amount of time among other equity geographies, 26 minutes a day.

Even though populations in all EFAs are expected to spend less time in a car, residents in areas with high concentrations of youth and older adults are expected to drive longer than the regional average in 2050. This is because their residences are located in less urbanized areas of the region, where not fully served by frequent and reliable public transit.

As shown in Table 4, residents in people of color and people with low incomes EFAs are forecast to drive shorter time in 2050 than those in non-EFAs. For example, a person in a people of color EFA drives about 6 minutes less today and will continue to drive about 8 minutes less every day on average in 2050 compared to a person living outside the people of color EFA (or non-people of color EFA). Furthermore, residents in non-EFAs will spend more time in a vehicle than the regional average (33.8 minutes), while residents in people of color and people with low incomes EFAs are forecast to spend less than the regional average in 2050.

Table 4. Average Vehicle Time Driven Daily per Person (in Minutes), 2018 vs. 2050

	2018	2050	% Change
Region	**39.6**	**33.8**	**-15%**
People of Color EFA	36.4	29.8	-18%
Non-People of Color EFA	42.2	37.5	-11%
People of Color Above 50% EFA	36	30.7	-15%
Non-People of Color Above 50% EFA	40.5	34.7	-14%
People with Low Incomes EFA	36.2	30.1	-17%
Non-People with Low Incomes EFA	42	36.8	-12%
People with Low Incomes Above 50% EFA	29.6	26.3	-11%
Non-People with Low Incomes Above 50% EFA	39.8	34	-15%
People with Disabilities EFA	38.7	32.5	-16%
Youth EFA	41.5	37.9	-9%
Older Adults EFA	40.8	35.1	-14%
People with LEP EFA	37.4	31.2	-17%

Transportation Affordability

Expenses for transportation directly affect living expenses. While the transportation costs vary between and within communities, they can be one of the largest expenditures among equity focus populations.

The out-of-pocket costs of transportation in this analysis include expenses such as transit fares, tolls, short-term parking, and fuel. These costs represent immediate costs paid by travelers, and do not include other burdensome costs of vehicle ownership, such as insurance, maintenance, financing, and long-term parking. Based on the forecast (Table 5), annual out-of-pocket transportation costs are expected to rise by 2050, from $2,900 in 2018 to $3,730 per person in 2050 which is a 29% increase, due to inflation and changes in road pricing that are critical for managing congestion, maintaining and preserving road environment, and curbing greenhouse gas emissions. Residents in EFAs are also

forecast to face an increase in transportation costs, but at rates similar or lower than the regional average (+29%), except for residents in areas with high concentrations of youth (+33%) and older adults (+30%). Populations in these areas are already paying higher transportation costs than an average person today, however, the transportation cost of those in youth EFA is forecast to be highest among all EFAs at $4,460, about $730 more than the regional average.

The forecast also identifies that residents in people of color and people with low incomes EFAs will face a lower percentage increase in annual transportation costs at 25% and 24% respectively in 2050, compared to those living outside of the people of color and people with low incomes EFAs, who will face 33% increase in transportation costs. The cost increase for those in high concentrations (above 50% threshold) of people of color and people with low incomes EFAs is forecast to be the same with the regional average of 29% increase. It is important to note that residents in high concentrations of low-income populations will pay far less for transportation in 2050 than the regional average: they are forecast to pay $2,660, $1,070 less than the average person in the region will pay for transportation in 2050.

Of note is the relatively small increase in costs for residents in people with low incomes EFA, which would pay about $620 more per year (24% increase), versus an average household that would pay $830 more in 2050 (29% increase). However, lower income households generally pay a larger portion of their expenditures on transportation than higher income households, and paying for transportation can be a cost burden for households with low incomes. Therefore, the role of reduced transit fare programs, such as ORCA LIFT, ORCA Youth, or Regional Reduced Fare Permits, will continue to be critical to reducing cost burdens to households within equity focus geographies. More information on the reduced fare options is included in Appendix B, Coordinated Mobility Plan.

Table 5. Annual Out-of-Pocket Transportation, 2018 vs. 2050

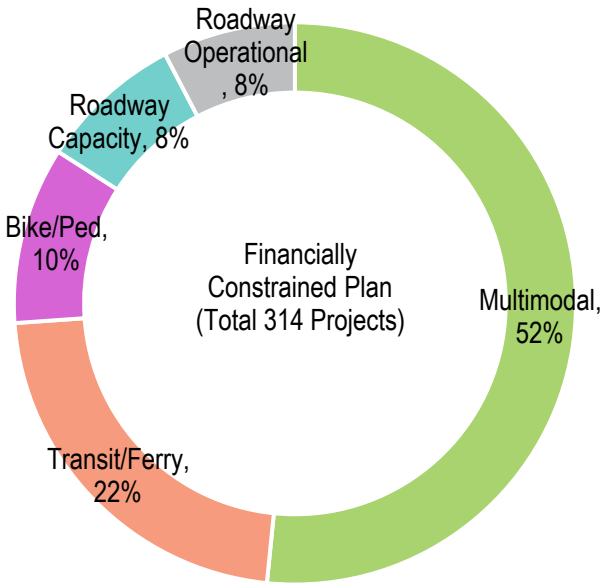
	2018	2050	% Change
Region	**$ 2,900**	**$ 3,730**	**+29%**
People of Color EFA	$ 2,590	$ 3,240	+25%
Non-People of Color EFA	$ 3,140	$ 4,180	+33%
People of Color Above 50% EFA	$ 2,640	$ 3,410	+29%
Non-People of Color Above 50% EFA	$ 2,960	$ 3,810	+29%
People with Low Incomes EFA	$ 2,590	$ 3,210	+24%
Non-People with Low Incomes EFA	$ 3,120	$ 4,160	+33%
People with Low Incomes Above 50% EFA	$ 2,060	$ 2,660	+29%
Non-People with Low Incomes Above 50% EFA	$ 2,920	$ 3,760	+29%
People with Disabilities EFA	$ 2,840	$ 3,500	+23%
Youth EFA	$ 3,350	$ 4,460	+33%
Older Adults EFA	$ 2,970	$ 3,860	+30%
People with LEP EFA	$ 2,720	$ 3,500	+29%

Other Analyses

Proximity to Regional Capacity Projects

The Regional Capacity Project list provides full information on transportation projects planned to be implemented by 2050. As part of the development of the plan, an opportunity was provided to update transportation projects on the Regional Capacity Project list. [9] As shown in Figure 18, a large share of financially constrained projects planned by 2050 are projects that help provide multiple transportation opportunities for the region's population. "Multimodal" projects contain multiple elements in their scopes, for example, projects providing roadway improvements often also contain additional elements such as sidewalks and bicycle lanes, signalization and improved pedestrian crossings, or transit amenities. Also, these multimodal transportation investments support desired regional plan outcomes identified in adopted regional policies, focusing on improving the existing conditions of historically marginalized and underserved communities. The System Performance section of the plan and Appendix D contain more information on the PSRC's Regional Capacity Projects.

Figure 18. Regional Capacity Projects by Type, 2022-2050



To better understand how transportation projects may benefit or burden different communities, this

[9] Regional Capacity Projects are those transportation projects adding capacity to the regional system above a pre-determined threshold, and include roadway, transit, bicycle and pedestrian, and other project types. More information on the PSRC's Regional Capacity Projects definition, definition of 'financial constraint,' and the project list can be found at: https://www.psrc.org/our-work/regional-planning/rtp/regional-capacity-projects-list-and-approval-process.

equity analysis evaluates distributions of the Regional Capacity Projects within or nearby the EFAs. It is important to note that not all transportation projects could be assigned to a geographic location and thus forecasted outcomes may not reflect the impacts of the full transportation investments planned for the region. Some transportation projects could not be mapped because their scope of work is not tied to specific locations or the projects' locations are not fully determined yet but will impact the equity outcomes of the plan. Many smaller scale projects that will be implemented by cities and towns are "programmatic," or identified by a level of planned investment jurisdiction-wide in a project type, but not yet fully identified in a specific location.

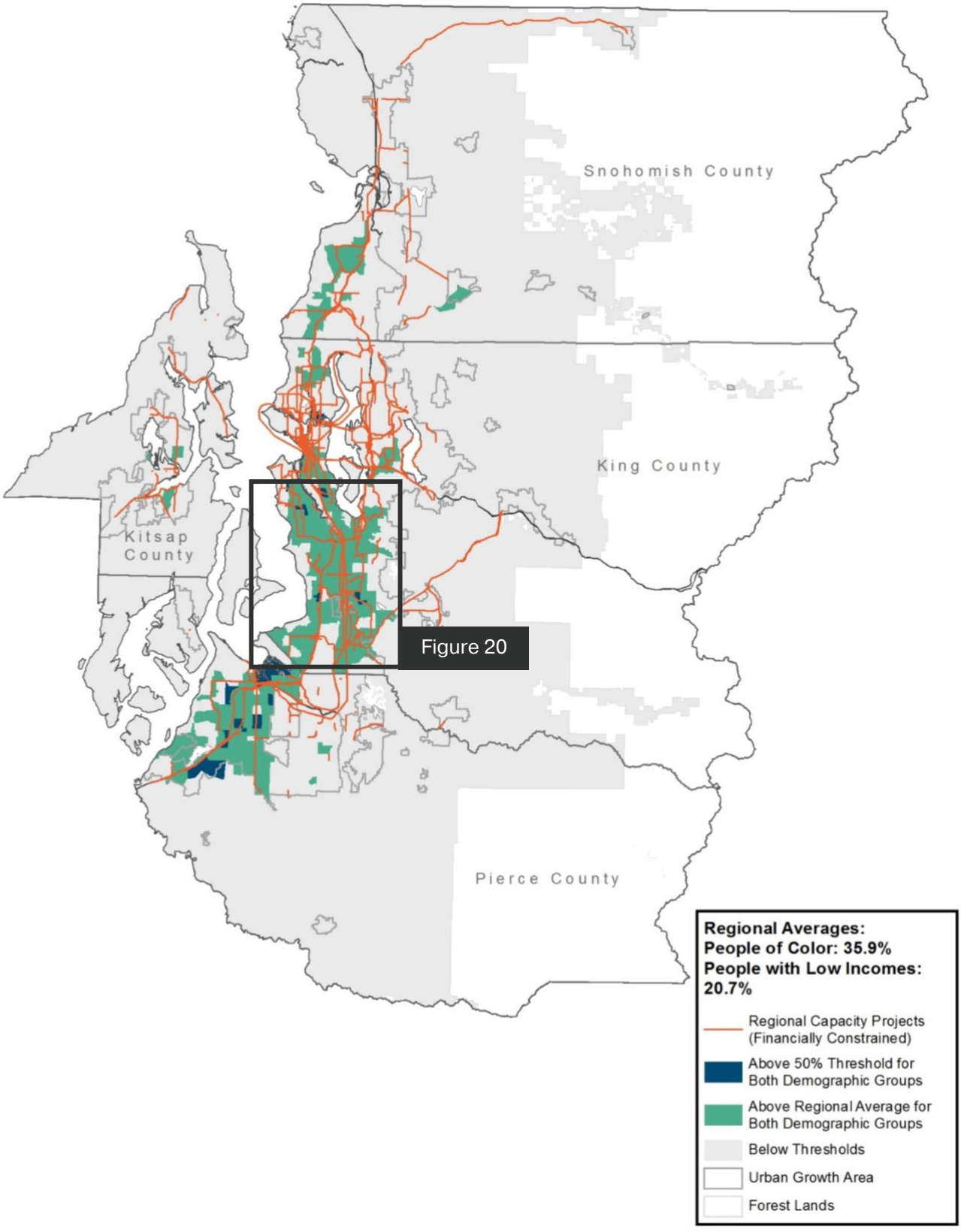
Of the 314 total 2022-2050 Regional Capacity Projects that are financially constrained, 289 (92%) could be assigned to a geographic location and are analyzed in this section. The remaining 25 projects could not be mapped. Examples include Intelligent Transportation Systems (ITS), park and ride expansions, Complete Streets projects, and others that are programmatic.

The analysis in this appendix describes various summaries of tracts that are "touched" by one or more Regional Capacity Projects. A tract was said to be touched by a project if any part of that project was located within 100 feet of the boundary of the tract. Regionwide, 552 tracts were touched by one or more mappable projects, representing 71% of all 773 populated census tracts. As illustrated in Figure 19, 203 tracts that are classified as the people of color and people with low incomes EFAs were touched by one or more mappable projects, representing 90% of those total EFAs (225). All the EFAs with higher concentrations (50%) of people of color and people with low incomes were touched by at least one project. Mapped projects were then assigned one of five classifications to reflect the primary scope of work. Table 6 lists these types and the number of mappable projects included in each project type.

Table 6. 2022-2050 Regional Capacity Project Types (Financially Constrained)

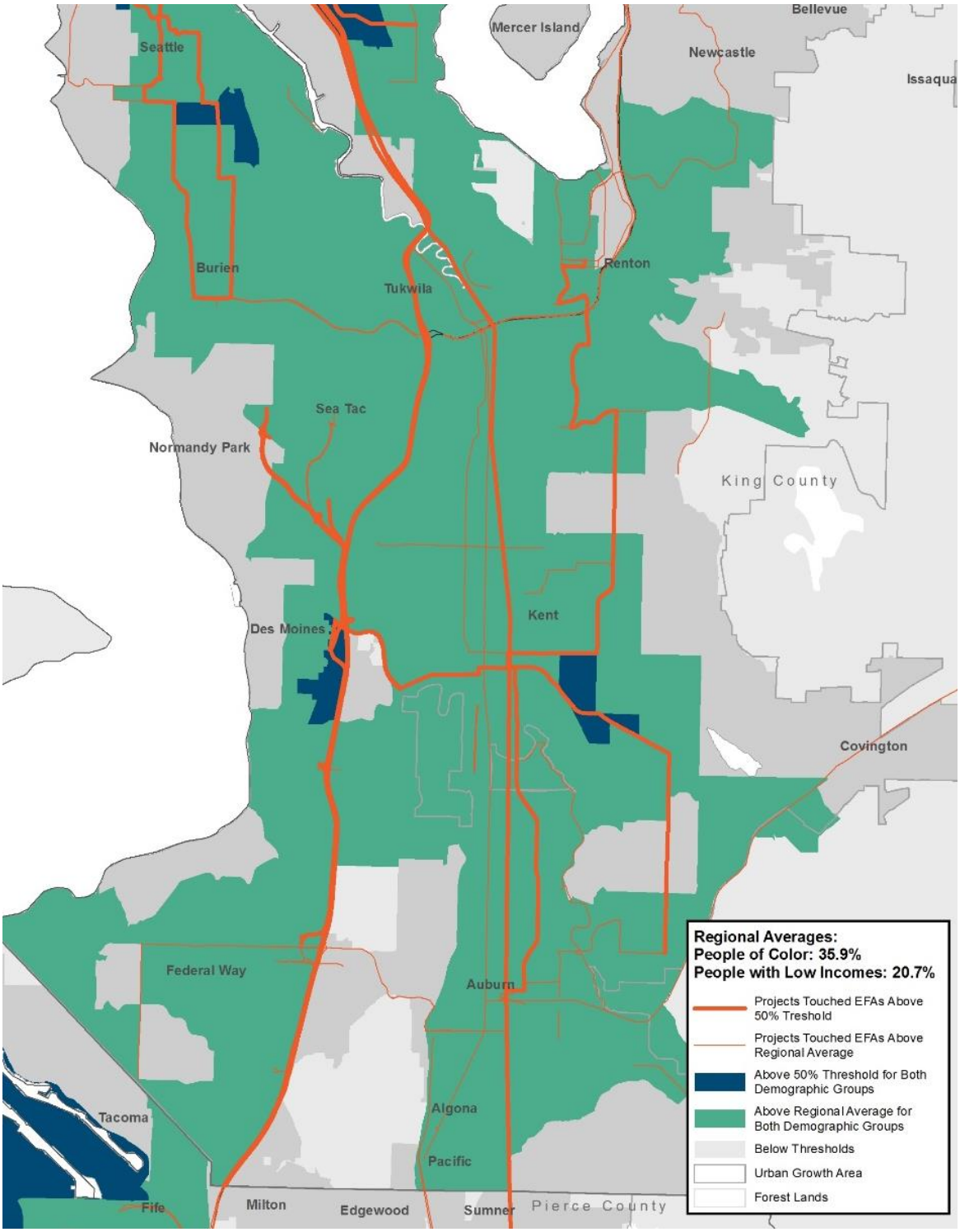
Type	Project Count (All)	Project Count (Mappable)	Project Count (Touched People of Color and People with Low Incomes EFAs Above Regional Average)	Project Count (Touched People of Color and People with Low Incomes EFAs Above 50%)
Multimodal	162	156	81	19
Transit/Ferry	70	59	44	25
Bike/Ped	32	27	16	3
Roadway Capacity	26	26	10	1
Roadway Operational	24	21	9	3
Total	**314**	**289**	**160**	**51**

Figure 19. 2022-2050 Regional Capacity Projects (Financially Constrained) Map



It was noted earlier in the appendix that south King County has higher concentrations of both people of color as well as people with low incomes compared to other areas of the region; Figure 20 provides a closer look at this part of the region.

Figure 20. 2022-2050 Regional Capacity Projects in South King County



Focusing on the area in the middle of the map, the EFAs with greater than 50% of both people of color and people with low incomes have twelve Regional Capacity Projects through and touching the areas. These projects include the following:

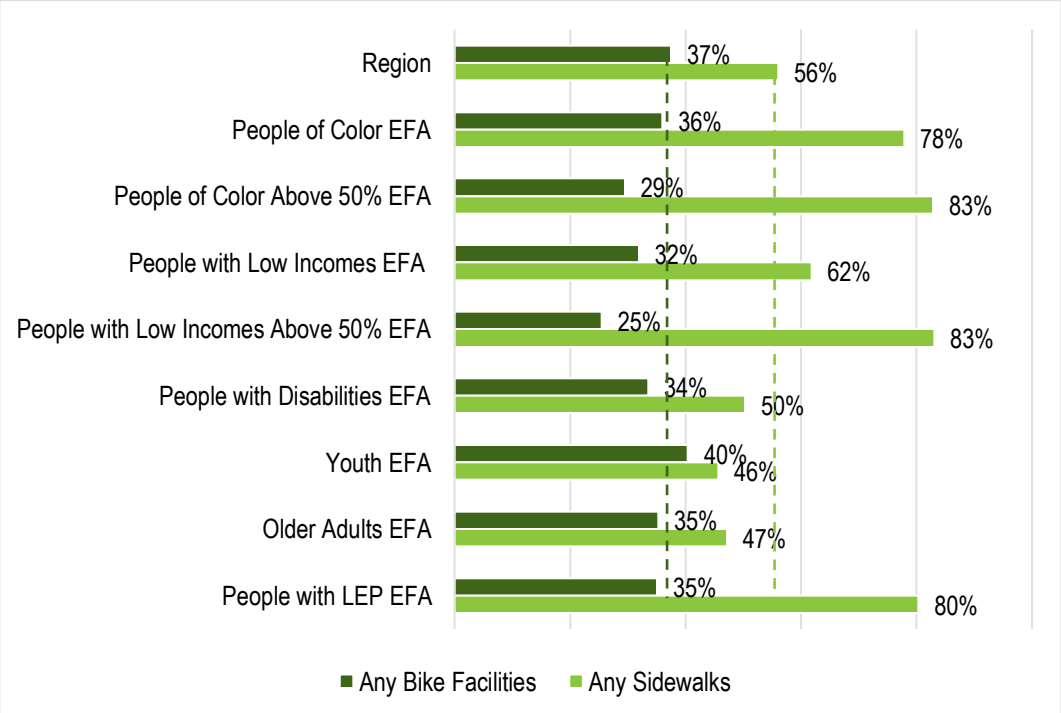
- Seven high-capacity transit projects (5 new and 2 expansions)
- Three state highway improvement projects
- A nonmotorized access improvement project
- A transit speed and reliability improvements project

These projects are expected to provide mobility and accessibility benefits to the historically marginalized and underserved communities in South King by 2050.

Regional Bicycle and Pedestrian Facilities

Improving bicycle and pedestrian network connectivity will help increase transportation options for equity focus populations in the region. Based on the PSRC's 2018 Bicycle and Pedestrian Facility Inventory, for the nearly 3,000 miles of arterials in the region, 37% and 56% of the arterials have bicycle facilities and sidewalks respectively, either complete or partial. These rates are relatively higher in areas with high concentrations of people of color, people with low incomes, and people with limited English proficiency (Figure 21). It is also important to note that arterials within these areas have sidewalks at around 80% coverage, and this will increase by 2050 when many of the communities in the region will have more improvements on nonmotorized facilities, along with accessibility improvements to the regional transit network.

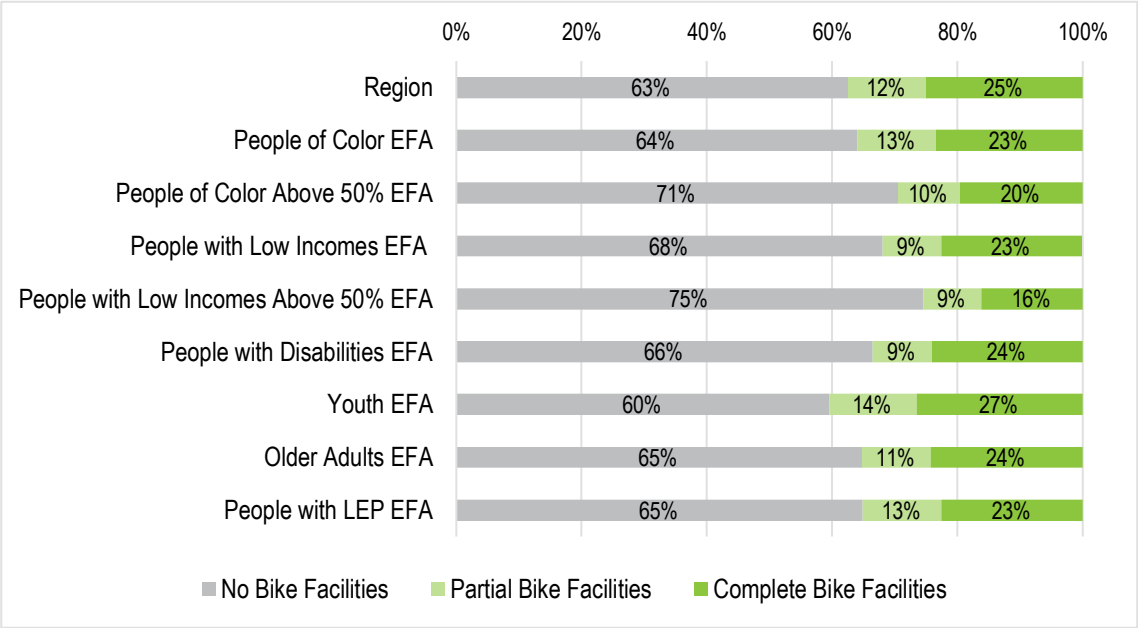
Figure 21. Percentage of Regional Bicycle and Pedestrian Facilities on Arterials, 2018



Looking at the completeness of the bicycle facilities, about a quarter of arterials in the region have

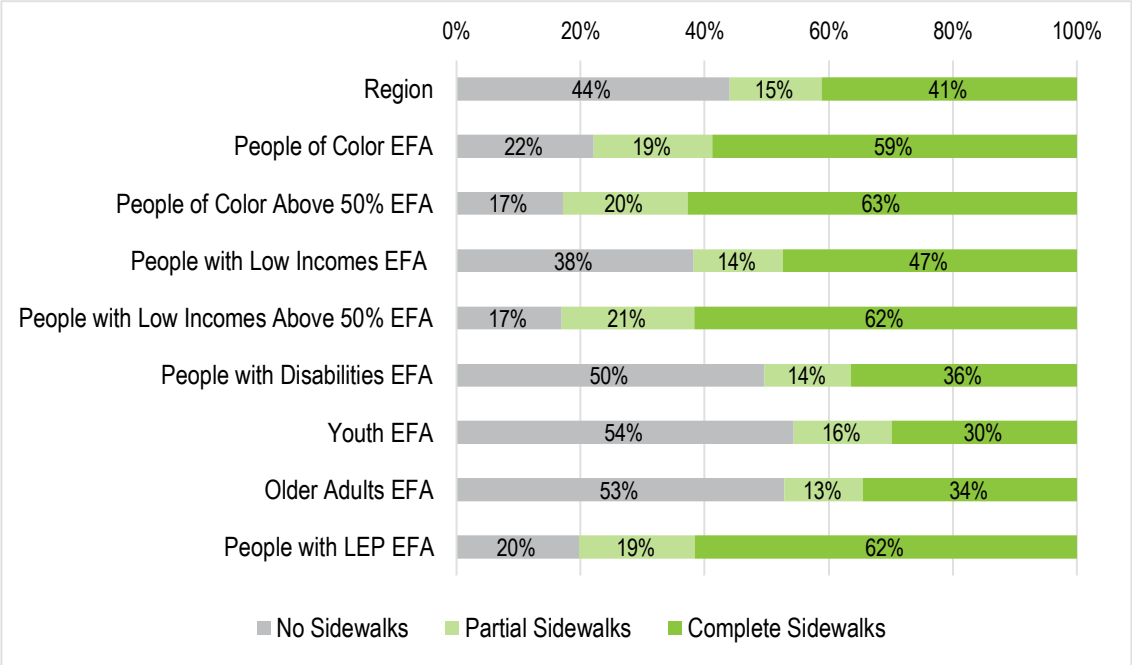
complete bicycle facilities, meaning both sides of the street have bicycle facilities. Arterials in youth EFAs have the highest percentage of complete bicycle facilities (27%) at a rate slightly higher than the regional average (25%), as shown in Figure 22.

Figure 20. Percentage of Bicycle Facilities on Arterials by Completeness, 2018



For complete sidewalks, where both sides of the street have sidewalks and thus safer than streets without or partial sidewalks, people of color, people with low incomes, and people with LEP EFAs have complete sidewalks at higher rates than the regional average (41%) (See Figure 23).

Figure 23. Percentage of Sidewalks on Arterials by Completeness, 2018



Looking out to 2050, it is expected that improved bicycle and pedestrian facilities will further enhance access to the regional transit system and connectivity to other modes of transportation for the region

and those areas historically marginalized and underserved. See the Bicycle and Pedestrian section of the plan for more information. Also, the PSRC's Transportation System Visualization Tool provides information on planned investments in transit, nonmotorized facilities and demographic information covered in this analysis.

Potential Regional Transportation Plan Benefits and Opportunities for Improvement

The Regional Transportation Plan is committed to advancing racial and social equity in central Puget Sound through the implementation of equitable transportation investments in historically marginalized and underserved communities. Demographic trends show that the region is becoming more racially diverse, residents are living longer, and the number of people with transportation challenges due to socioeconomic characteristics will continue to grow by 2050. Moreover, currently, a higher share of people of color are low-income compared to the regional average and Black or African American households are more likely to be cost-burdened than any other race. To provide a better quality of life and improved health outcomes for these growing populations, the region will need to continue adapting transportation services and create more places with opportunities in easy reach.

As demonstrated earlier, improvements in the regional transportation system are forecast to provide an array of benefits to equity focus areas. The positive takeaways from RTP investments include, but are not limited to:

- Major improvements in transit networks will lead to better transit accessibility and more walking and biking opportunities for residents within equity geographies.
- While residents in the EFAs already have better access to transit than the regional average, the planned investments further enhance their accessibility to transit. Also, a majority of the residents are forecast to walk or bike to transit daily. Providing multiple choices to get to transit will increase the use of the transit to get to regional destinations by meeting the unique transportation needs of different communities in the region.
- Residents in EFAs will have better access to more reliable and high-quality transit by 2050 than the regional average. Additionally, about 80% of the areas with high concentrations of people of color and people with low incomes will be within a half-mile distance of HCT stations. Moreover, residents of people of color and people with low incomes EFAs will have a higher share of employment locations within a half-mile distance to and from HCT stations in 2050 than today. Proximity to reliable and high-quality transit could mean easier access to regional destinations and opportunities.
- It is expected that the percentage of people walking or biking for transportation will increase by 2050 for those in EFAs. When effectively integrated, walking or biking for transportation can help access regional transit networks and advance environmental, health, and congestion-mitigating benefits for communities.
- Investments for transportation choices and strategic capacity expansion will provide options that lessen the distance and time driving a personal vehicle across the region and for residents in EFAs.

The equity analysis performed in this document did not reveal any disproportionate burdens of transportation investments on equity focus areas. However, potential opportunities could include:

- Investments in transit can provide an opportunity for underserved communities to have greater access to affordable and reliable public transportation services, and the opportunities these may provide. However, these investments could increase displacement pressures on current residents due to development pressure from improved access and resulting in increased housing and commercial space costs. When these costs rise, many households and businesses are forced to move to less expensive areas that are often farther from jobs, essential services, and their established communities. Therefore, more careful mitigation considerations when prioritizing transportation investments in areas with a higher share of equity demographics should be performed. The PSRC's Displacement Risk Mapping tool can also help identify areas where residents are at greater risk of displacement. The Washington Environmental Health Disparities Map is another good resource for local jurisdictions and project implementers to assist in the spatial evaluation of local community needs.
- Residents in equity focus areas, especially the people of color and people with low incomes equity areas, are more likely to walk or bike to get around than the regional average. However, it is especially important to ensure equitable access to safe bicycle and pedestrian facilities, like protected bike lanes or sidewalks with accessible curb ramps, for these areas.
- As mentioned, a large portion of the transportation investments will be made on transit, and it is expected that a high share of the households within EFAs will have better access to transit by 2050. However, this may not align well with the needs of the communities and therefore, continued outreach to these communities will help identify the actual transportation needs of the underrepresented communities. More specific planning to address the transportation needs of populations with mobility challenges due to age, income, or ability can be found in the Coordinated Mobility Plan Appendix.
- In 2050, residents in people of color and people with low incomes EFAs are forecast to face an increase in annual transportation cost at a lower rate than the regional average. Additionally, residents in high concentrations of people with low incomes will continue to pay far less for transportation than those living outside of the low-income above 50% EFA. However, this measure can be deceiving as these costs represent a higher proportion of household incomes, and while nominal costs may be lower, they can have a greater impact on a household with lower income. More coordinated regional reduced fare options for lower income families and targeted outreach to historically marginalized and underserved communities can help mitigate the cost burden of these groups.
- As described in the VISION 2050 Final Supplemental Environmental Impact Statement (SEIS), environmental health inequities exist in the region, and health outcomes vary by place, race, and income. Residents in people of color and people with low incomes EFAs may experience localized air quality and noise impacts from proximity to transportation infrastructure. Increased access to transit and denser and more walkable communities could provide increased benefits to marginalized communities if mitigation measures are successfully implemented to prevent displacement. Mitigation measures specific to environmental health, air quality, and noise should be identified by transportation project implementers as local projects are designed and developed. Also, PSRC will continue to explore more tools and data to better analyze the environmental impacts of various transportation investments.

- Areas with high concentrations of people of color and people with low incomes are forecast to continue to drive less and take more transit than the regional average, potentially due to the high cost of owning a car. It is important to note that the cost burden of taking transit can be high for these communities, even with the regional reduced fare options. For example, multiple family members taking transit multiple times throughout the day can cost high for low-income communities in the region. To ensure that transportation choices are equitable, they must be affordable for residents. In some cases, the most effective travel mode may be a personal vehicle, and transportation implementers should consider ways to ensure equitable access to tolled facilities.

Transportation can play a key role in creating pathways to opportunity for communities that are historically marginalized and underserved. PSRC will continue thoughtful consideration of who benefits or is a burden from a transportation investment when prioritizing projects.

Implications of Financial Strategy

The potential impact of the plan's financial strategy will be determined by policy that will guide the implementation of user fees. When designing and implementing user fees, such as a Road Usage Charge (RUC), the design should be careful to consider the financial implication on different populations, particularly those with low incomes, or who live in remote areas with few reliable transportation options. Existing regional reduced fare programs, such as the ORCA Lift and Regional Reduced Fare Permits, have been designed by transit providers to offer reduced fares for people with low incomes, youth, older adults, and people with disabilities. These could serve as a model for how to consider fare structures for other user fees.

PSRC has a work program focused on advancing equity which will continue to explore how the agency evaluates the planning work relative to equitable outcomes. PSRC will also continue public engagement to ensure working with the communities to identify their transportation needs.

Moving forward, PSRC will continue to expand on equity in all aspects of regional transportation planning. PSRC's Equity Advisory Committee has begun implementation of the Regional Equity Strategy and the agency has integrated equity into the policy framework for the distribution of the federal funds PSRC manages. More information on PSRC's equity strategy and related work programs can be found on PSRC's Equity website.

Resources for Project-Level Analysis and Mitigation

As part of the development of the Regional Transportation Plan, PSRC created an online resource called the PSRC's Transportation System Visualization Tool, which has data on various aspects of the transportation system, including bicycle and pedestrian facilities, regional freight assets, traffic signals, Transportation Demand Management Programs, specialized transportation services and other information. The tool has been developed to display these data sets in context with other regional information such as demographics, regional centers, and transit stations, among others. Demographic layers include people with low incomes, people of color, older adults, persons with disabilities, youth, people with limited English proficiency, and a combined layer of areas with people with low incomes and people of color. The tool should be useful for local jurisdictions and transportation agencies in understanding the demographics in areas with proposed transportation

projects.

The Washington Environmental Health Disparities Map is another good resource for local jurisdictions and project implementers to assist in the spatial evaluation of local community needs. Jurisdictions are encouraged to use these resources in transportation project development.

In the development of VISION 2050 and recent work to update the 2022 Policy Framework for PSRC's Federal Funds, PSRC's members and community stakeholders identified a heightened concern for racial and social equity, elevating the different impacts that regional and local transportation investments may have on people of color and people with low incomes. Additionally, many stakeholders note past harms that communities have suffered from previous investments, such as freeways built through neighborhoods or environmental exposure due to proximity to airports and freeways. These, too, should be addressed when opportunities to make improvements to existing infrastructure arise. Implementation of appropriate mitigation strategies will be necessary to avoid disproportionately high and adverse effects on historically disadvantaged communities.

One resource identifying potential mitigation measures is the VISION 2050 Final SEIS. The mitigation measures highlighted throughout the Final SEIS and the policies and actions in VISION 2050 are critical steps to ensure that the region's growth between now and 2050 does not adversely affect its residents, especially those with the highest needs. The goal should be to determine how transportation investments should be made to best support those in need by considering both history and current conditions and for future positive outcomes to be equitably distributed.

The potential mitigation measures described below are drawn from the VISION 2050 FSEIS and are specific to efforts to address environmental justice for people of color, people with low incomes, and other historically marginalized communities. Additional mitigation measures related to environmental justice and social equity can be found in Chapter 4 of the VISION 2050 FSEIS within the mitigation tables associated with specific elements of the environment.

Environmental Justice Mitigation Measures

- Incorporate demographic analyses and community involvement with people of color and people with low incomes at the local level and project level.
- Interview social service providers to verify demographic analyses and understand specific local needs and effective methods for outreach and public involvement.
- Perform additional and ongoing outreach to involve people of color and people with low incomes.
- Use demographic analyses and outreach results to prevent new or expanded uses and other public infrastructure from having a disproportionate impact on environmental justice populations.
- Implement planning and design efforts to improve areas where living conditions and land uses erode good health.
- Develop programs to maintain and expand the supply of affordable housing.
- Promote planning processes that account for living-wage jobs within reasonable commute distances.

- Support affordable housing initiatives in proximity to employment centers.
- Promote local programs to develop and support community anchoring activities like job training and small business development programs, job search services, community gardens, food banks and community low-income support service centers.
- Provide a supportive environment for business startups, small businesses, and locally owned businesses.
- Promote planning processes and partnerships to create pathways to living wage careers.
- Engage with the Legislature to expand local tools and funding to support affordable housing in transit station areas.

What's Ahead?

Moving forward, PSRC will continue to expand on equity in all aspects of regional transportation planning. PSRC's Equity Advisory Committee has begun implementation of the Regional Equity Strategy and the agency has integrated equity into the policy framework for the distribution of the federal funds PSRC manages. PSRC will continue to work on ways to better assess equitable outcomes, both regionally and through the development of data, tools, and resources for use by PSRC members, community-based organizations, community members, and other stakeholders. PSRC will continue to collaborate with its members and community partners to advance equity to meet the region's equity goals.