

2023 – 2026

TIP

TRANSPORTATION IMPROVEMENT PROGRAM



Appendix F

Equity Analysis

October 27, 2022



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Funding for this document provided in part by member jurisdictions, grants from the U.S. Department of Transportation, Federal Transit Administration, Federal Highway Administration and Washington State Department of Transportation.

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September 2022



Appendix F: Equity Analysis for the Draft 2023-2026 Regional Transportation Improvement Program

Introduction

The following report presents the results of PSRC's equity analysis conducted for the Draft 2023-2026 Regional Transportation Improvement Program (TIP).¹ The concept of equity, derived from Title VI of the Civil Rights Act of 1964 and other civil rights statutes, was first put forward as a national policy goal by presidential Executive Order No. 12898: Federal Actions to Address Environmental Justice in Minority Populations and Poverty Populations, issued in 1994. It directs "each federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and poverty populations." This concept is distinct from Title VI, which provides legal protection from discrimination on the basis of race, color, or national origin in federal programs.

The U.S. Department of Transportation (USDOT) issued its internal Order to Address Environmental Justice in Minority Populations and Low-income Populations in 1997 and issued an updated Order in May 2012 (U.S. Department of Transportation Order 5610.2(a)), which continues to promote the principles of environmental justice in all Departmental programs, policies, and activities. In this analysis, "people of color" is used in lieu of the term "minority." In addition, the USDOT published an Environmental Justice Strategy in November 2016 describing the Department's framework and guiding principles, which are:

- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process;
- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority or low-income populations; and
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority or low-income populations.²

In early 2021, President Biden signed Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, 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

¹ The analysis was conducted on the Draft TIP as of September 2022.

² "Environmental Justice Strategy," U.S. Department of Transportation, November 2016, Web accessed August 2022: <https://www.transportation.gov/transportation-policy/environmental-justice/environmental-justice-strategy>

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.

Also in January 2021, President Biden issued Executive Order 14008: Tackling the Climate Crisis at Home and Abroad President, 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.

Transportation investments can have both positive and negative impacts on nearby communities, with outcomes varying on a project-by-project basis. Negative effects can include disruption in community cohesion, restricted access to publicly funded facilities, safety concerns, higher exposure to hazardous materials, raised noise levels, increased water and air pollution, and other adverse effects. Transportation projects can also benefit communities by reducing travel times, increasing travel options, and improving mobility through increased access to jobs, schools, shopping, and other community destinations.

This appendix first provides an overview of how PSRC has integrated equity considerations into the agency’s long-range regional planning work and the development of the Regional TIP. Subsequent sections describe how projects in the Draft 2023-2026 Regional TIP³ are examined in relation to their proximity to equity focus populations identified in PSRC’s Regional Transportation Plan.

Incorporating Equity in Planning

VISION 2050

[VISION 2050](#) is the overarching policy framework for the region that, among other things, guides the development of the Regional Transportation Plan and the Regional TIP. VISION 2050 significantly advances the region’s commitment to equity. Advancing racial and social equity is a foundational premise for all of the policies and actions in VISION 2050. Development of the plan was supported by new and enhanced analysis tools, improved data, and significant efforts were made to expand outreach and community engagement to gather different perspectives. PSRC’s ongoing work to develop a [Regional Equity Strategy](#) is described in more detail below.

³ The analysis was conducted on the Draft 2023-2026 Regional TIP, containing project data through July 2022. The final TIP will incorporate additional project revisions through October 2022, through PSRC’s normal routine amendment process and reflecting obligations of federal funds.

Regional Transportation Plan

The development of the [Regional Transportation Plan](#) adopted in May 2022 included focused attention on evaluating potential burdens and benefits of the current and future transportation system to communities of color, households with low incomes, and other households with mobility challenges. The plan was developed with substantial input from community leaders representing historically underserved communities, and an equity analysis was performed on the Regional Transportation Plan to estimate the relative benefits to different communities in the region. The analysis showed that, at the regional scale, greater than average positive changes are generally seen for areas with higher concentrations of people of color, people with low incomes, and other populations with mobility challenges. The plan invests heavily in expanding and improving access to the region's transit system and implementation of the plan is not anticipated to result in disproportionate impacts on historically underserved communities at the regional scale. More information on this analysis can be found in Appendix F, Regional Equity Analysis and Appendix K, System Performance Report. A summary of the community outreach can be found in Appendix E, Public Outreach and Engagement.

The TIP implements the Regional Transportation Plan. All projects in the TIP must first be included in the adopted Regional Transportation Plan, either as explicitly identified regional capacity projects or as part of the plan's programmatic elements. These projects must also be derived from local, state or transit agency planning processes, for example local comprehensive plans which have undergone local public engagement processes.

It is important to note that the regional scale analyses conducted for the plan and as described in this document do not address project or site-specific impacts – either positive or negative. More specific benefits and burdens are better addressed during the development and implementation of individual projects.

Project Selection Process for PSRC's Federal Funds

Consideration of people of color and people with low incomes has been included in the regional project evaluation criteria used in PSRC's project selection processes since 2004. Additional equity focus populations have since been incorporated, including people with mobility challenges due to their age or ability. As part of PSRC's 2022 project selection process the equity criterion was further strengthened to more directly address disparities, gaps and outreach with affected communities. The regional evaluation criteria used during the project selection process cover a variety of other policy areas, as well, and can be found in Appendix B of the Draft 2023-2026 Regional TIP.

Data and Methods

Demographic Data

PSRC developed a baseline [Demographic Profile](#) as an initial step toward centering equity into its transportation work program. The demographic profile presents key demographic data describing the central Puget Sound region and identifies population groups and communities to be considered for equity analyses and activities. This report is based on data from the U.S. Census Bureau 2015-2019 5-year American Community Survey (ACS) Estimates.

The analysis of the Draft 2023-2026 Regional TIP addresses PSRC's identified equity focus populations, including people of color, people with low incomes, older adults and people with disabilities, to further build upon PSRC's commitment to center equity in our work. These groups have been included because of their potentially unique transportation needs. The regional distribution of youth and people with Limited English Proficiency was also evaluated. Due to high overlaps with other demographic groups stated above, particularly people of color and people with low incomes, this appendix will only focus on the aforementioned population groups.

The equity focus groups addressed in this analysis are defined as:

- **People of Color:** A person was counted as a person of color if he or she claimed any of the following identities in their census return: Black, American Indian or Alaskan Native, Asian, Native Hawaiian or Other Pacific Islander, or Hispanic.
- **People with Low Incomes:** Any person whose annual income fell below 200 percent of the Federal Poverty level in the American Community Survey was counted as low income. These thresholds vary by family size and range. If a family's total income is less than the federal threshold, then that family and every individual in it is considered low income. In 2019, the federal poverty level for a family of four was \$25,750 and the 200% threshold was \$51,500. People with low incomes are sometimes referred to as "low-income" to be consistent with the terms used by the U.S. Census Bureau.
- **Older Adults:** Individuals were classified as older adults if they were aged 65 years or over.
- **People with Disabilities:** Individuals were classified as having a disability if they belonged to the civilian noninstitutionalized population and had one of six disability types included in the U.S. Census Bureau's ACS. These include difficulties with hearing, vision, cognitive, ambulatory, self-care, and independent living difficulties.⁴

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>

TIP Project Data

The analyses discussed in this appendix are based on the projects included in the Draft 2023-2026 Regional TIP. This includes all projects with current federal funding within the 4-year time span, including those funded with PSRC funds, as well as those with other funding sources.

Of the 393 total projects, 309 could be assigned to a geographic location (identified as “mappable”) and are included in this analysis. The remaining 84 projects could not be mapped (identified as “unmappable”) because their scope of work is not tied to specific locations. Examples include maintenance, transit operations, and others that are programmatic in nature.

Mapped projects were assigned one of seven “improvement type” classifications to reflect the primary scope of work included in the project. Table 1 lists these types and the number of projects included in each classification.

Table 1: Mappable TIP Project Improvement Types

Improvement Type	Project Count	Percentage
Multimodal	79	26%
Highway Improvement	6	2%
Preservation	120	39%
Bicycle / Pedestrian	56	18%
Transit	24	8%
ITS	3	1%
Other	21	7%
Total	309	100%

“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, or transit amenities. The other categories in the chart above represent projects that are more singular in scope. For example, the “preservation” category includes both pavement preservation as well as asset replacement, and the “ITS” – i.e., Intelligent Transportation Systems – category includes projects such as signalization and other traffic management features. The “transit” category includes capital expansion as well as preservation related investments such as equipment replacement. The “other” category includes items such as planning studies,

as well as miscellaneous investments such as environmental improvements (e.g., removal of fish passage barriers) and safety improvements (e.g., guardrails, cable barriers, and curb ramps).

The geographic location of projects included in this analysis can be viewed through PSRC's Online TIP Web Map, available on the website at <https://www.psrc.org/ourwork/funding/transportation-improvement-program>. The web map provides a way to view the projects' locations in relationship to the different demographic groups included in this appendix, as well as other information. This interactive map allows projects to be displayed at a range of scales and includes descriptions and funding information for each project.

Geographic Proximity Analyses

Equity Focus Areas

This appendix summarizes data for all populations by census tracts. Census tracts are "small, relatively permanent statistical subdivisions of a county or equivalent entity" that generally have a population size between 1,200 and 8,000 people. Their spatial size varies widely, depending on the density of settlement, with boundaries generally following visible and identifiable features.⁵ Based on the latest demographic data, the PSRC region is made up of 773 census tracts,⁶ with a total population of 4.2 million individuals.⁷

Table 2 below identifies the percentage of the total regional population that are people of color, people with low incomes, older adults, and people with disabilities. For the purposes of this report, the overall regional percentage by population group will be referred to as the "regional average." In order to understand how transportation investments may benefit or burden different equity focus populations, this analysis evaluates census tracts containing percentages of people of color, people with low incomes, older adults, and people with disabilities at higher levels than the regional average.

For the purposes of this report, any tract with a percentage above the regional average for a given demographic group is categorized as an "Equity Focus Area" or "EFA." 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 Equity Focus Area (EFA) for that population group. Table 2 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 EFAs for each demographic

⁵ "Glossary: Census Tract", U.S. Census Bureau, Web Accessed August 2022: https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_13.

⁶ "2015-2019 American Community Survey 5-Year Estimates", U.S. Census Bureau, 2019

⁷ "Population & Demographics", Washington State Office of Financial Management, April 1, 2019

group. In the analyses of individual populations, tracts that surpass the corresponding regional threshold may be referred to as “low-income EFAs,” “people of color EFAs,” “older adults EFAs,” or “people with disabilities EFAs.” However, an individual tract may appear under more than one of these groups if it exceeds the regional average for more than one population group.

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 areas with a higher concentration of these populations. Since there are no or only a few tracts that are above the 50% threshold for older adults and people with disabilities, the 50% threshold was not used for those two equity focus populations. This analysis method allows PSRC to use a more focused lens to analyze the impacts of transportation investments on these historically marginalized and underserved communities.

Table 2: Equity Focus Areas (2019)

	Equity Focus Demographic Groups			
	People of Color	People with Low Incomes*	Older Adults 65+	People with Disabilities
Regional Average	35.9%	20.7%	13.4%	11.0%
Percent of Tracts Above Regional Average	42.8% (331 out of 773)	43.1% (333 out of 773)	49.0% (379 out of 773)	47.7% (369 out of 773)
Percent of Tracts Above 50% Threshold	20.1% (155 out of 773)	2.8% (22 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.

Geographic analysis is commonly used in these types of assessments because it is easily interpretable and provides a means for visualization of spatial patterns of different population groups. However, a limitation of this level of analysis is that it 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 low-income, and a tract with 20 people, 5 of whom are low-income, would both be counted equally as a “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 because this methodology categorizes census tracts based on whether or not they surpass a threshold (either regional average or 50% threshold), rather than quantifying how much they do or do not surpass a threshold. 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 tract-level analysis does not account for the relative proportion of equity focus populations within census 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 EFAs,” although there is wide variation in their proportionate population. For this reason, the analysis of each individual group includes a histogram chart that displays the distribution of the population percentages across every census tract in the region. In addition, an assessment of tracts with greater than 50% of any population group was conducted, with particular emphasis on people of color and people with low incomes EFAs; this is described later in the appendix.

The analysis discussed in this appendix describes various summaries of tracts that are “touched” by one or more 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, 453 tracts were touched by one or more TIP projects, representing 58.6% of all populated census tracts. As noted earlier, the geographic location of projects included in this analysis can be viewed through PSRC’s Online TIP Web Map, available on the website at <https://www.psrc.org/ourwork/funding/transportation-improvement-program>.

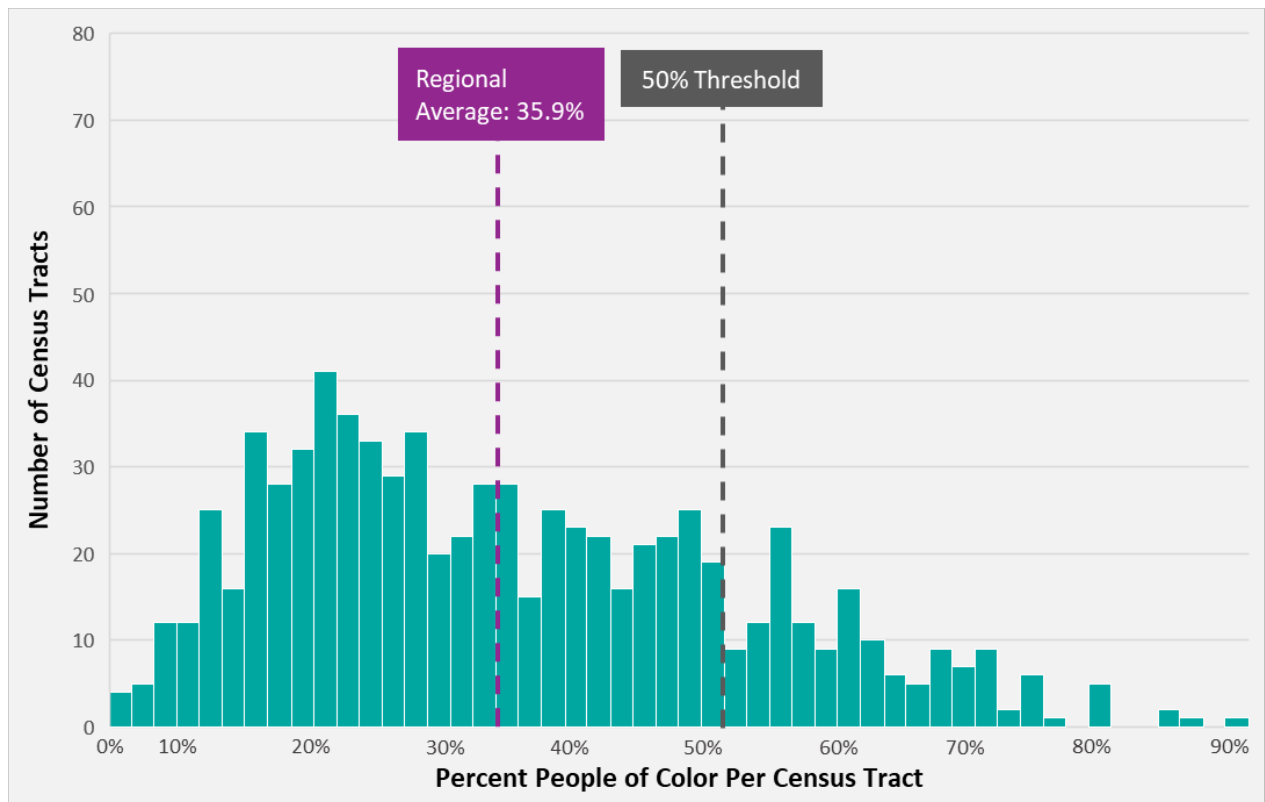
The following sections first determine which census tracts surpass the regional average for each equity focus population and how many of those tracts are touched by TIP projects. Projects are also described in terms of their improvement types and examined for their distribution across EFAs.

People of Color EFAs

Regionwide, 35.9% of the population are people of color, as previously defined. Compared to the regional average, households with a householder of color are less likely to own a vehicle (11% vs. 8.4%). 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. Additionally, almost half of the region’s youth population are youth of color (48.1%) and 30.4% of them are low-income, which is a higher rate than the regional average (20.7%). These percentages suggest a greater reliance on transportation alternatives such as frequent and reliable transit service.

Of all tracts regionwide, 42.8% of the tracts were classified as people of color EFAs and 20.1% classified as tracts with over 50% of people of color. Figure 1 provides a graphic representation of the people of color percentages for all individual census tracts in the region, illustrating the number of tracts that exceed both thresholds for this demographic group.

Figure 1: Distribution of People of Color Percentages



Source: American Community Survey, 2015-2019 5-Year Estimates

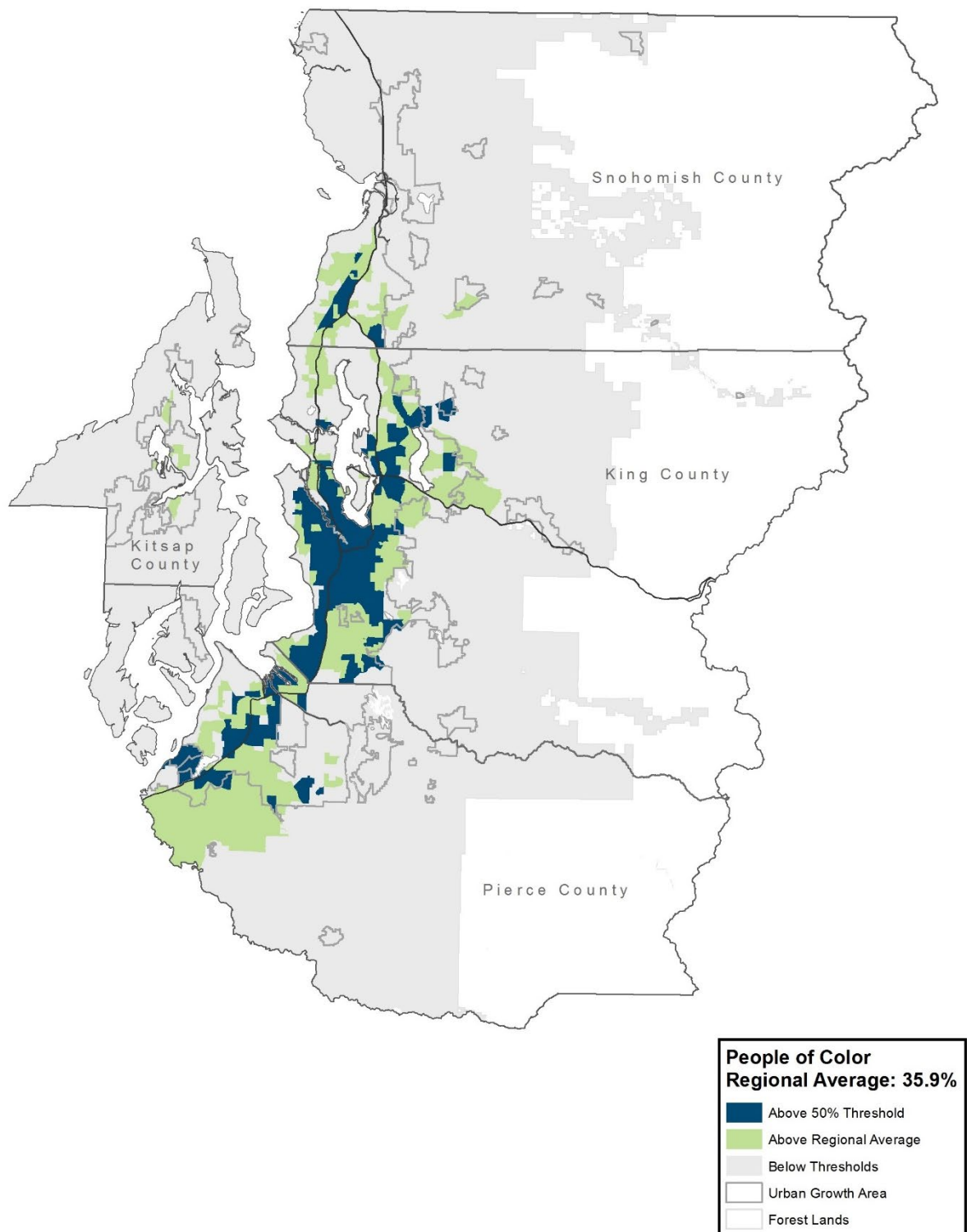
The map in Figure 2 displays the tracts in the PSRC region that fall below and above the regional average threshold for people of color. People of color EFAs are generally in the more urban areas of the region, particularly along the Interstate 5 (I-5) and Interstate 405 (I-405) corridors and in the central, south and east part of King County; in East Bremerton and Silverdale in Kitsap County; in central and south Tacoma in Pierce County; and along State Route 99 (SR 99) and the southeast part of Snohomish County. Also, tracts with over 50% of people of color are seen in the Kent Valley; central and south Seattle; east King County; along the I-5 corridor in Pierce County including Tacoma; and Bothell, Lynnwood, and Paine Field in Snohomish County.

Of all census tracts touched by projects, 48.8% are classified as people of color EFA tracts, which is moderately higher than the regional average of 42.8% for people of color. Given that these tracts are concentrated in the urban population core, the presence of transportation investments in these locations seems logical. Correspondingly, among the total 309 mappable projects, 58.3% (180 projects) touch at least one people of color EFA tract. The types of projects in these areas are identified below; this distribution is consistent with the distribution regionwide as illustrated in Table 1.

Table 3: TIP Projects Touching People of Color EFAs

Improvement Type	Number of Projects Touching People of Color EFAs	Percentage	Number of Projects Touching People of Color EFAs (>50%)	Percentage
Multimodal	46	26%	24	23%
Highway Improvement	5	3%	4	4%
Preservation	70	39%	42	41%
Bicycle / Pedestrian	35	19%	16	16%
Transit	18	10%	15	15%
ITS	1	1%	0	0%
Other	5	3%	2	2%
Total	180	100%	103	100%

Figure 2: People of Color EFAs

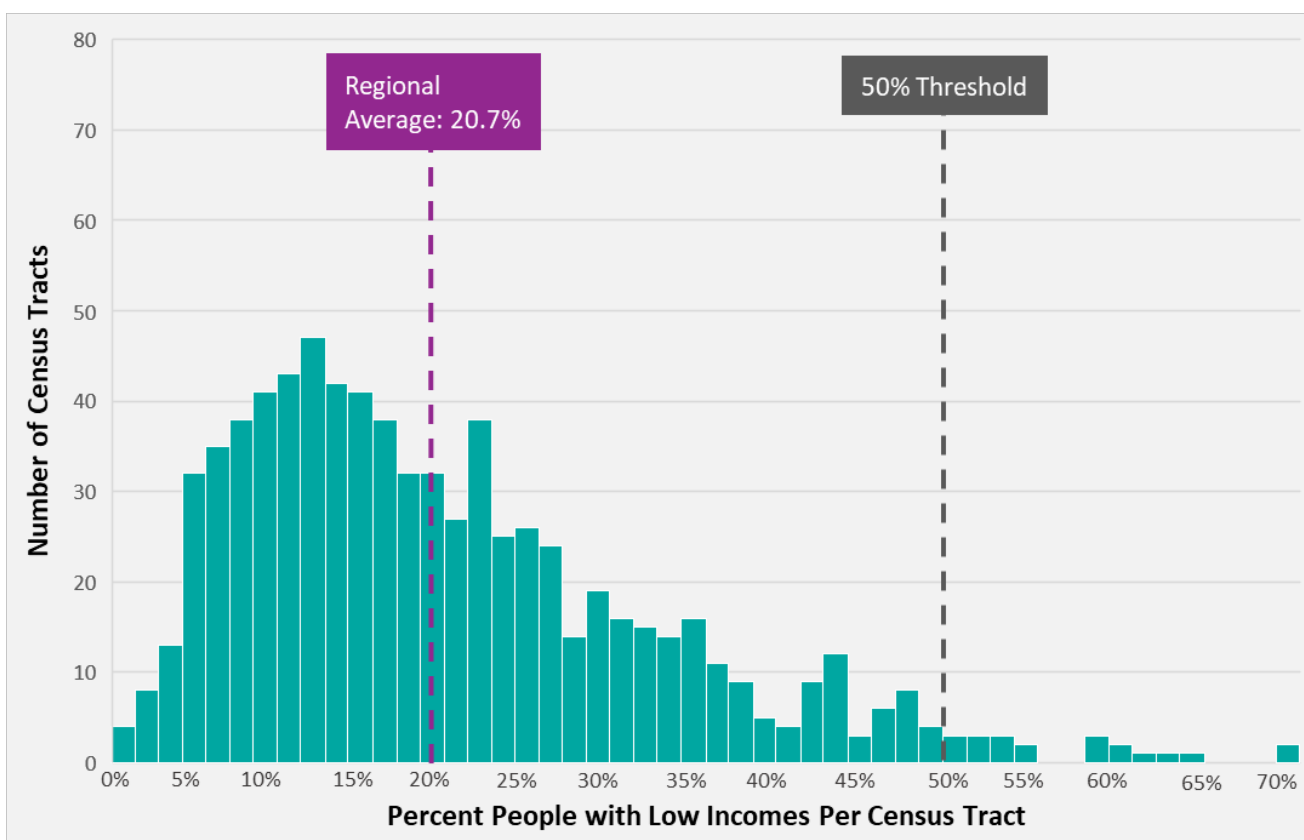


Source: American Community Survey, 2015-2019 5-Year Estimates

People with Low Incomes EFAs

Regionally, 20.7% of the population is low-income. Of all tracts region-wide, 43.1% were classified as people with low incomes EFAs and 2.8% were classified as tracts with over 50% of people with low incomes. Compared to the regional average, households with a low-income householder are less likely to own a car than their higher income counterparts, potentially due to the high cost of owning and maintaining a personal vehicle. To get a better indication of the distribution of these populations, Figure 3 provides a graphic representation of the percentages of people with low incomes for all individual census tracts in the region, illustrating the number of tracts that exceed both thresholds for this demographic group.

Figure 3: Distribution of People with Low Income Percentages



Source: American Community Survey, 2015-2019 5-Year Estimates

The map in Figure 4 displays the tracts throughout the PSRC region that fall below and above the regional average threshold for people with low incomes. Concentrations of people with low incomes can be seen throughout the region's urban core, particularly along the I-5 corridor and in central and south Seattle; in south King County; several communities throughout Kitsap County; in central and south Tacoma and rural Pierce County; and in communities along the SR 99 corridor in Snohomish County. Also, tracts

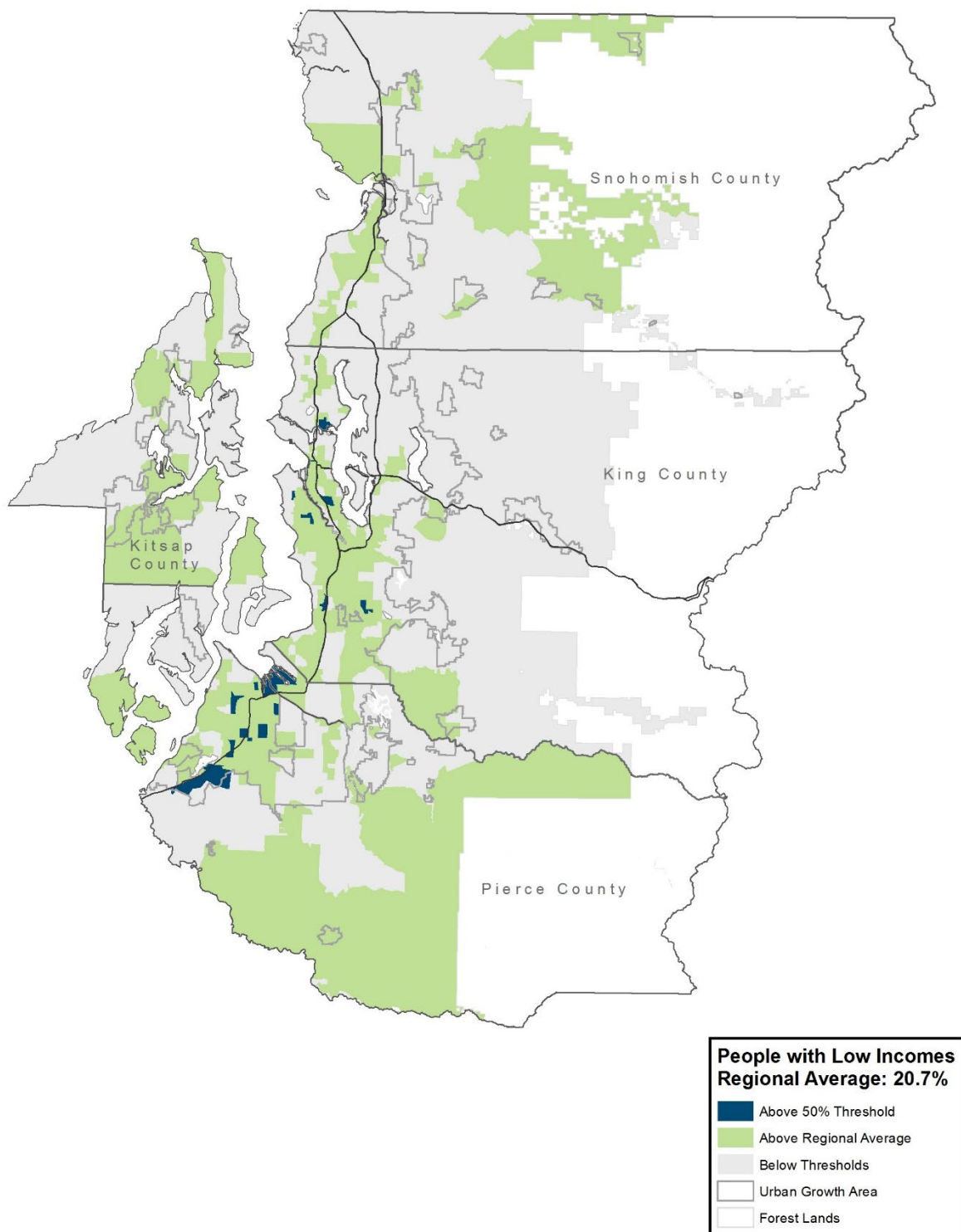
with over 50% of people with low incomes are seen in Kent; the University District in Seattle; High Point in King County, and communities along the I-5 corridor in Pierce County including Tacoma and Joint Base Lewis-McChord (JBLM).

Of all census tracts touched by projects, 50.1% are classified as people with low incomes EFAs, which is modestly higher than the regional average of 43.1% of all low-income EFAs in the region. Correspondingly, among the total 309 mappable projects, 65.7% (203 projects) touched at least one people with low incomes EFA tract. The types of projects in these areas are identified below; this distribution is consistent with the distribution regionwide as illustrated in Table 1. Table 1 also illustrates the distribution of projects touching people with low incomes EFA tracts above the 50% threshold, indicating a higher percentage of transit investments in these areas.

Table 4: TIP Projects Touching People with Low Incomes EFAs

Improvement Type	Number of Projects Touching Low Income EFAs	Percentage	Number of Projects Touching Low Income EFAs (>50%)	Percentage
Multimodal	59	29%	3	14%
Highway Improvement	3	1%	1	5%
Preservation	72	35%	9	41%
Bicycle / Pedestrian	37	18%	2	9%
Transit	20	10%	7	32%
ITS	3	1%	0	0%
Other	9	4%	0	0%
Total	203	100%	22	100%

Figure 4: People with Low Incomes EFAs



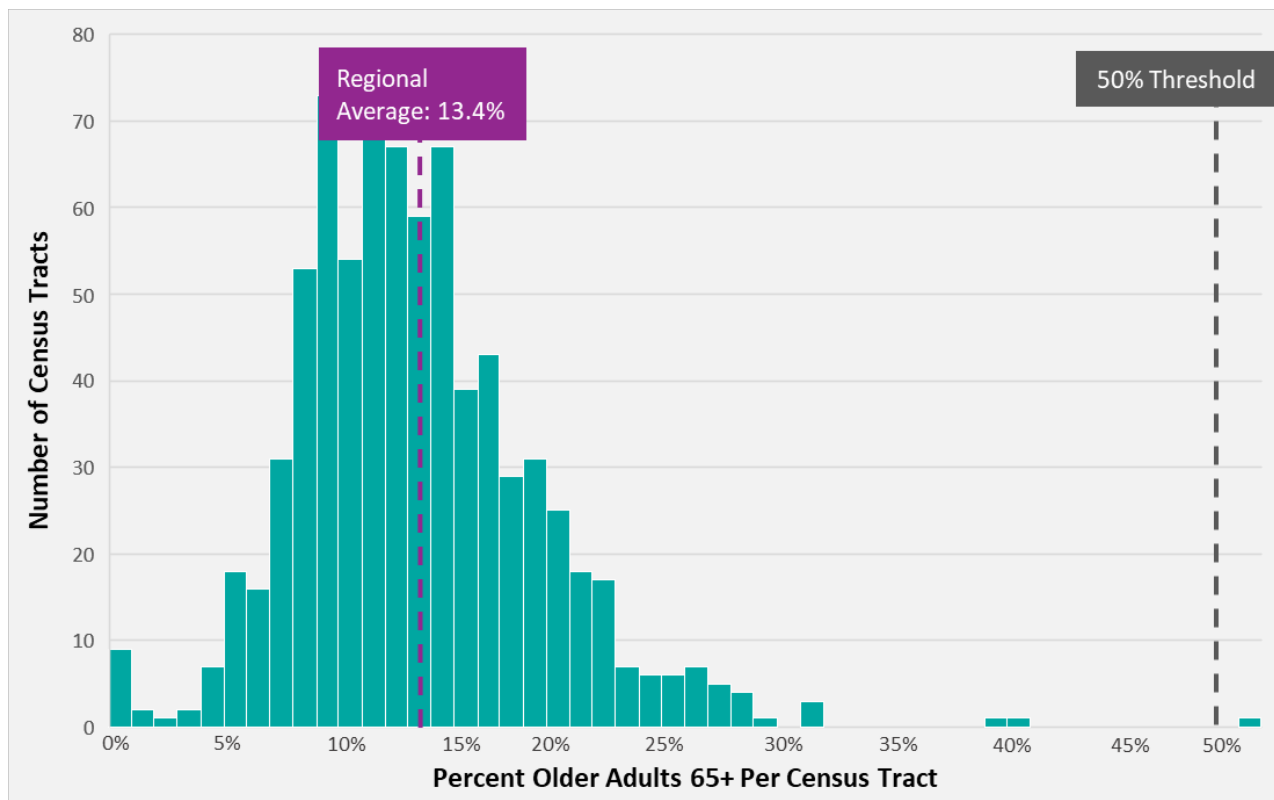
Source: American Community Survey, 2015-2019 5-Year Estimates
areas

Older Adults (Aged 65 and Above) EFAs

Regionwide, 13.4% of the population is classified as older adults, defined as individuals aged 65 and older. 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%). It is important to note that the disability rate is also higher for older adults (30%) compared to the regional average (11%). Also, about 20% of the region's individuals with limited English proficiency, who do not speak English "very well," are over the age of 65 and they may experience language and cultural barriers to accessing transportation. Moreover, older adults are expected to grow 85% by 2050 in the region, at a much faster rate than the growth in the general population (30%), from the share of 13% today to over 20% in 2050.

Of all tracts regionwide, 49.0% were classified as older adults EFAs and 0.1% classified (1 tract out of 773 tracts) of tracts were classified with over 50% of older adults. Figure 5 provides a graphic representation of the older adults percentages for all individual census tracts in the region, illustrating the number of tracts that exceed both thresholds for this demographic group.

Figure 5: Distribution of Older Adults Percentages



Source: American Community Survey, 2015-2019 5-Year Estimates

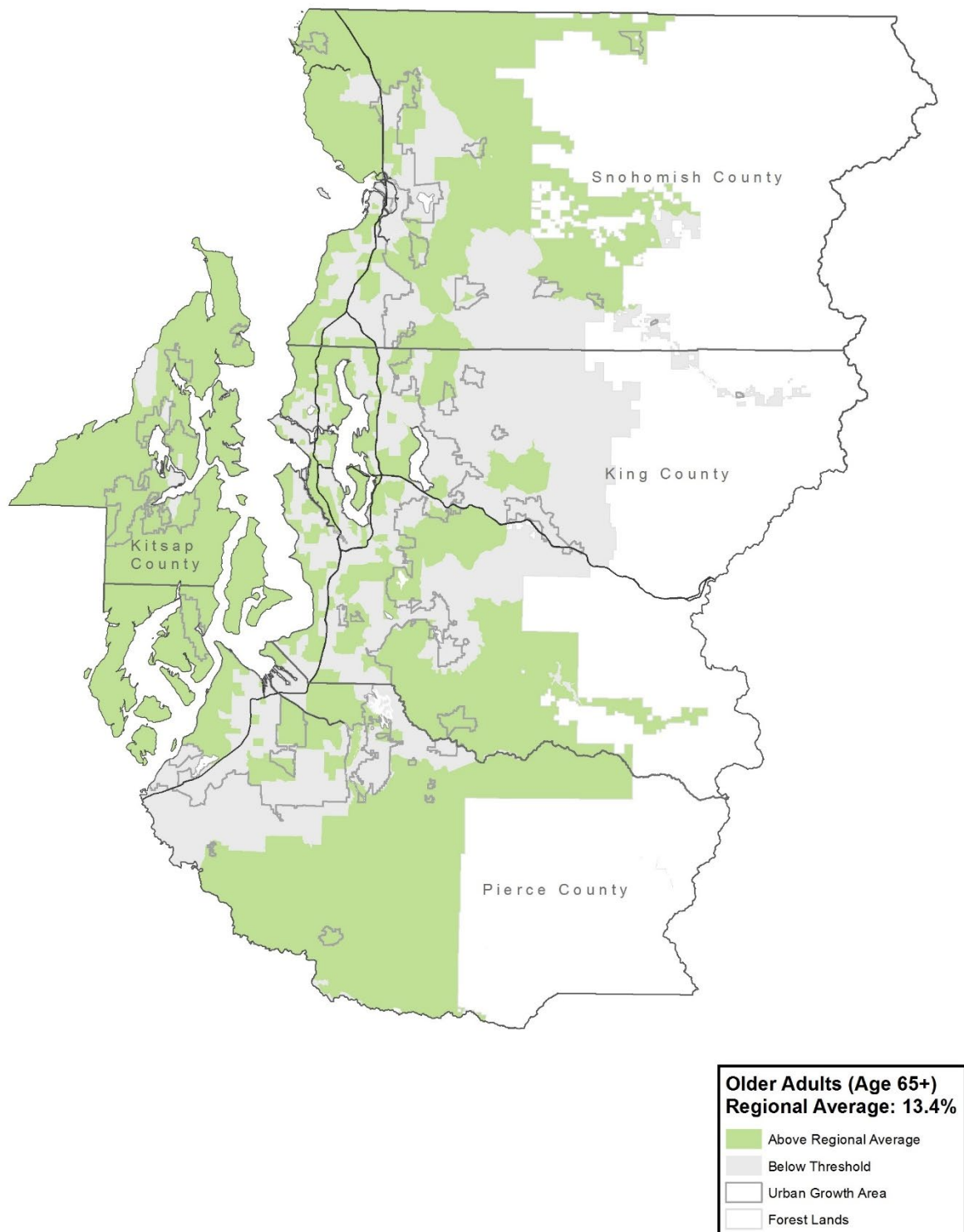
The map in Figure 6 displays the tracts in the PSRC region that fall below and above the regional average for older adults. Unlike people of color and people with low incomes EFAs, tracts with higher concentrations of older adults can be seen in large tracts in the more sparsely populated suburban and rural areas. Also, a high concentration of older adult population is shown in the less dense area of King County.

Of all tracts throughout the region touched by TIP projects, 48.3% are classified as older adult EFAs. This is substantially the same as the regional average for older adults (49.0%). Correspondingly, among the total 309 mappable projects, 69.9% (216 projects) touched at least one older adults EFA tract. The types of projects in these areas are identified below; this distribution is consistent with the distribution regionwide as illustrated in Table 1.

Table 5: TIP Projects Touching Older Adults EFAs

Improvement Type	Number of Projects Touching Older Adults EFAs	Percentage
Multimodal	59	27%
Highway Improvement	5	2%
Preservation	75	35%
Bicycle / Pedestrian	36	17%
Transit	21	10%
ITS	3	1%
Other	17	8%
Total	216	100%

Figure 6: Older Adults EFAs



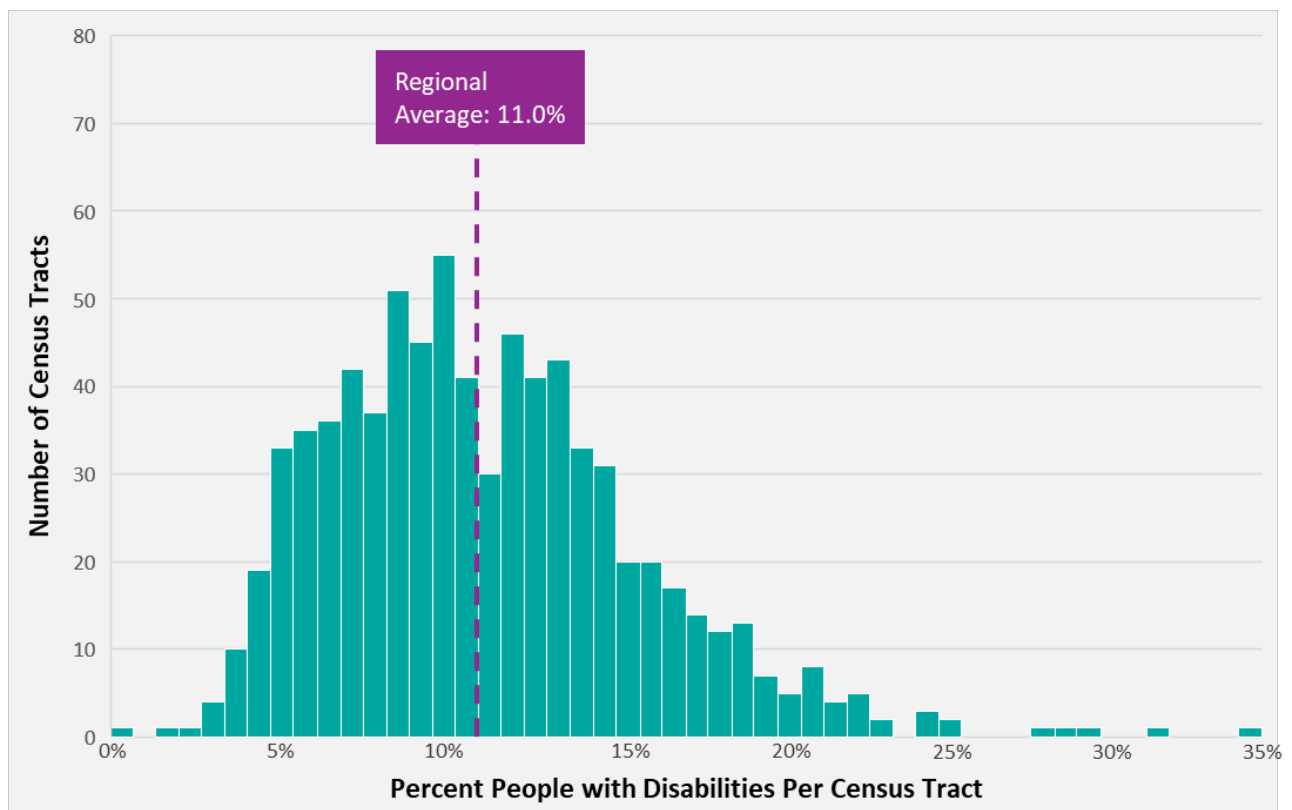
Source: American Community Survey, 2015-2019 5-Year Estimates

People with Disabilities EFAs

Regionally, 11.0% of the population is classified as persons with disabilities. People with disabilities may face barriers getting to places they need to go, including education, employment, and medical destinations, as there may be limited transportation options available to them. Moreover, a substantially higher share of the households with one or more persons with disabilities does not own a vehicle (15.4%) compared to the regional average (8.4%).

Of all tracts regionwide, 47.7% were classified as people with disabilities EFAs; no tracts contained greater than 50% of people with disabilities. Figure 7 provides a graphic representation of the people with disabilities percentages for all individual census tracts, illustrating the number of tracts that exceed both thresholds for this demographic group.

Figure 7: Distribution of People with Disabilities Percentages



Source: American Community Survey, 2015-2019 5-Year Estimates

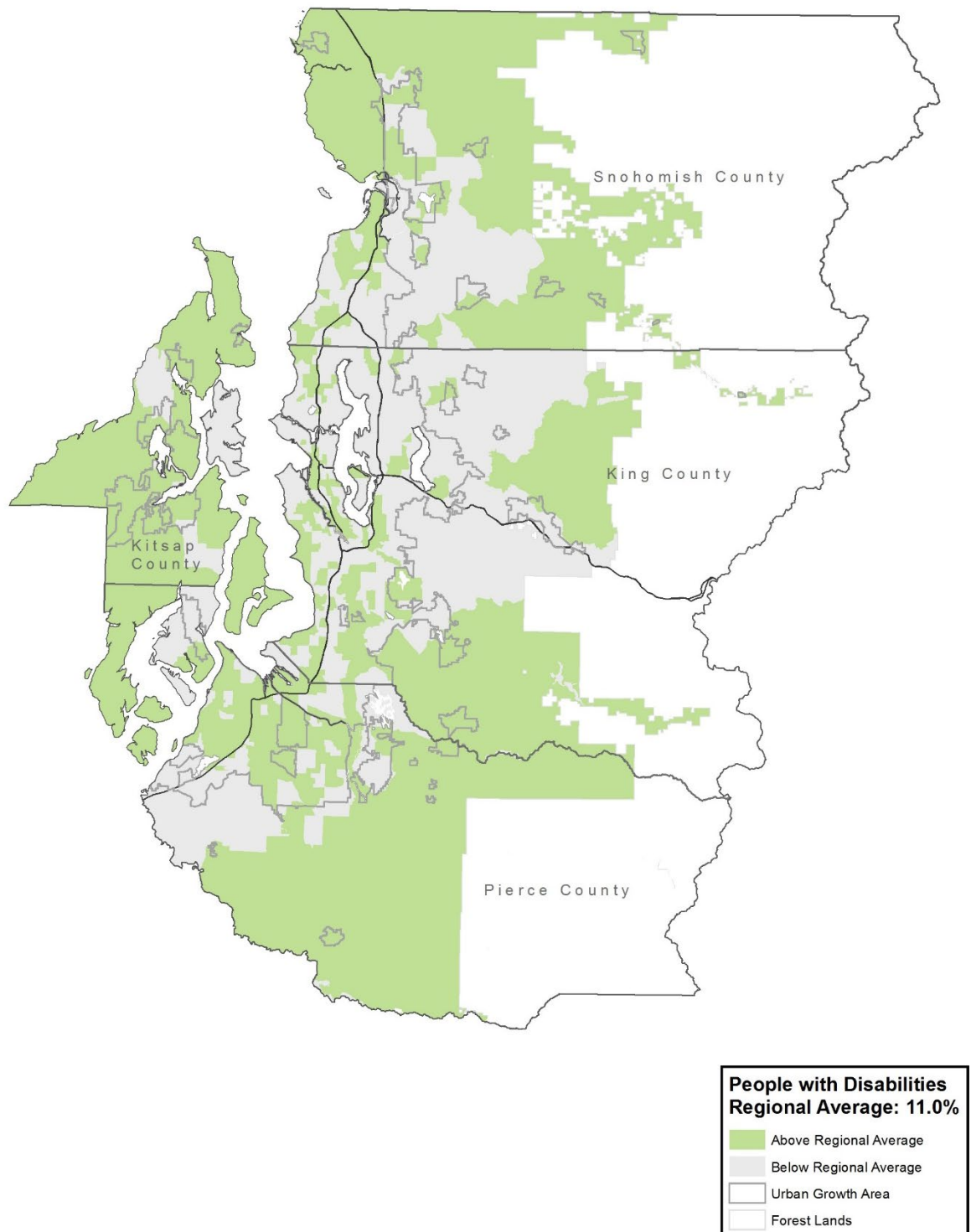
The map in Figure 8 illustrates the census tracts above the regional average for people with disabilities. Similar to older adults EFAs, more people with disabilities EFAs are found in the less populated areas of King, Kitsap, Pierce, and Snohomish counties and some communities along the I-5 and the SR 99 corridors in King and Snohomish counties.

Of all tracts in the region touched by TIP projects, 53.0% are classified as people with disabilities EFAs, which is moderately higher than the regional average for people with disabilities (49.0%). Correspondingly, among the total 309 mappable projects, 72.5% (224 projects) touched at least one people with disabilities EFA tract. The types of projects in these areas are identified below; this distribution is consistent with the distribution regionwide as illustrated in Table 1.

Table 6: TIP Projects Touching People with Disabilities EFAs

Improvement Type	Number of Projects Touching Persons with Disabilities EFAs	Percentage
Multimodal	60	27%
Highway Improvement	3	1%
Preservation	80	36%
Bicycle / Pedestrian	41	18%
Transit	22	10%
ITS	3	1%
Other	15	7%
Total	224	100%

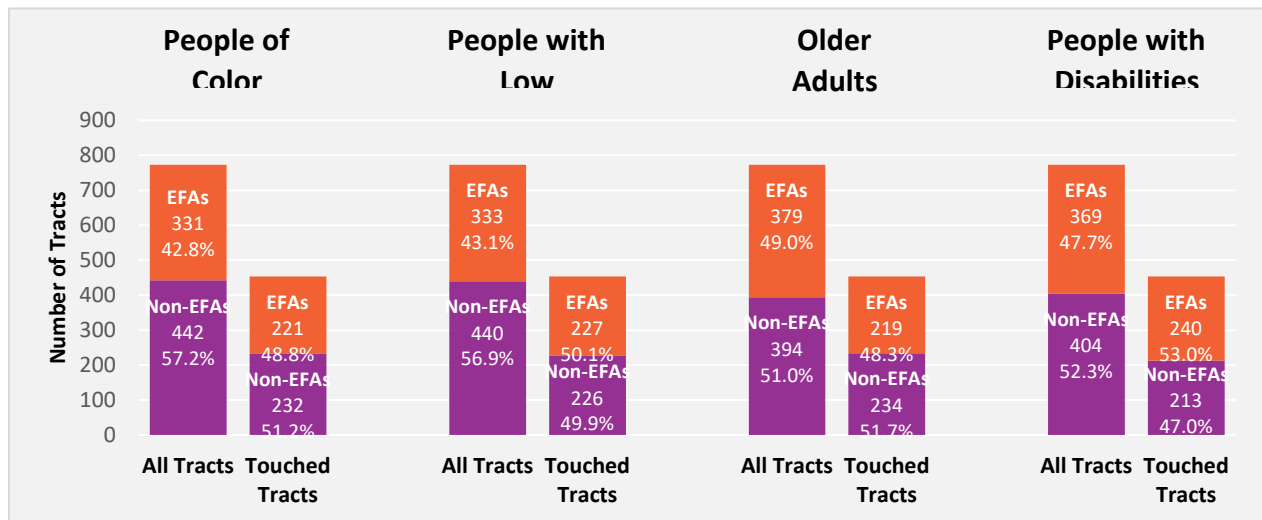
Figure 8: People with Disabilities EFAs



Source: American Community Survey, 2015-2019 5-Year Estimates

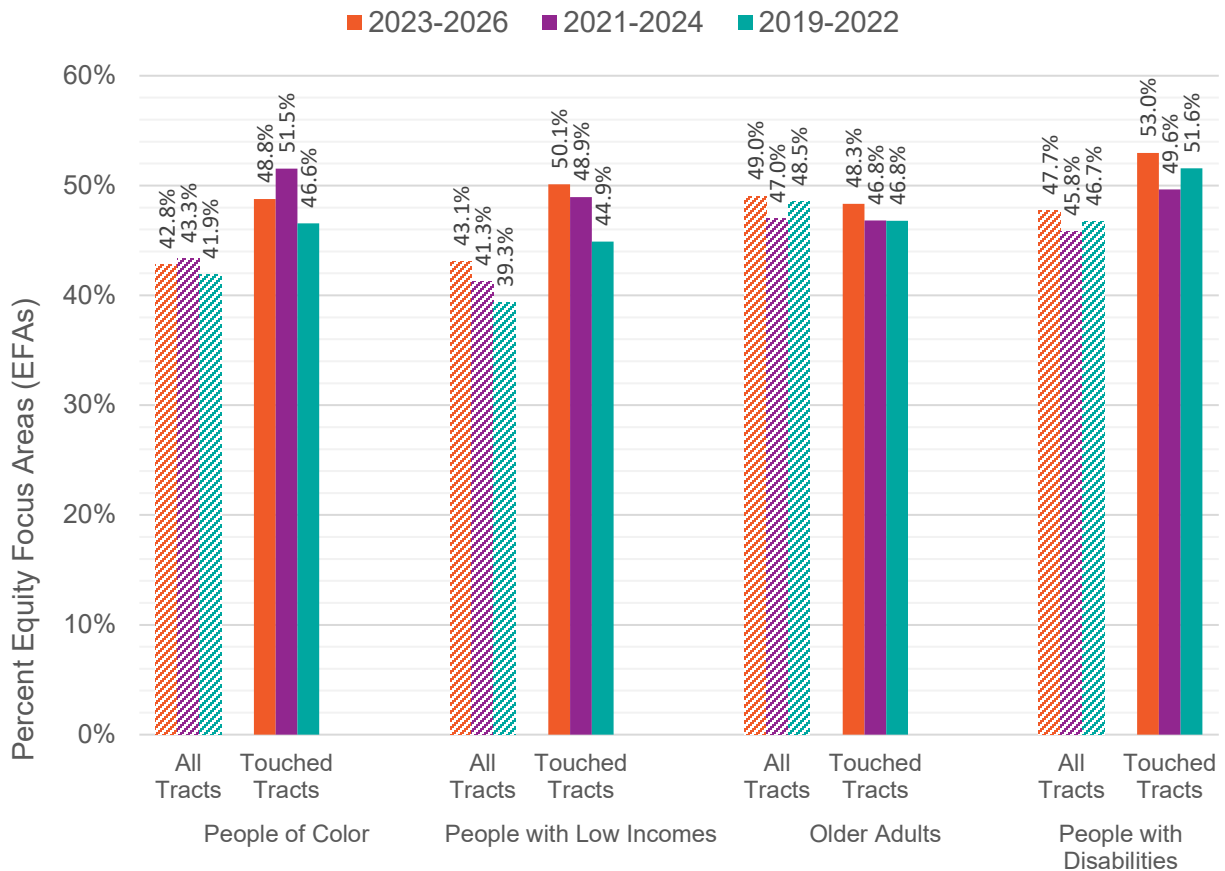
Figure 9 summarizes the data for each population group, illustrating the proportion of each group compared to the region as a whole, and the proportion of census tracts regionwide touched by TIP projects that are Equity Focus Areas. As shown below, the percentages of the EFAs touched by at least one mappable TIP project are the same or moderately higher than the regional averages for all equity focus populations. Likewise, compared to the regional averages, a greater share of the 2023-2026 Regional TIP projects will serve or impact the key EFAs in the region.

Figure 9: Comparison of EFAs and Non-EFAs Touched by Projects



In addition, the trends over the last several TIPs was reviewed, as illustrated in Figure 10. Overall, the distribution of projects to EFAs has been relatively consistent over the last several cycles, with a higher distribution of investments in EFAs compared to the regional averages.

Figure 10: Comparative Trends Over Time



Aggregate EFA Analysis

In addition to the above analyses for individual demographic categories, an analysis was conducted on census tracts that surpassed regional thresholds for both people of color and people with low incomes. Figure 11 illustrates these areas, including the 18 tracts that contain greater than 50% of both of these demographic groups, which represent 3.1% of the regional total.

Of all 453 EFA tracts touched by at least one TIP project, 33.8% (159 tracts) surpassed regional averages for both people of color and people with low incomes. These tracts are concentrated in the region's urban core, mostly along the I-5 and SR 99 corridors. Correspondingly, among the total 309 mappable TIP projects, 45.6% (141 projects) touched these tracts.

Looking beyond just the regional averages, among the total 309 mappable projects 6.1% (19 projects) touched tracts that contain greater than 50% of both these equity

focus populations. These areas are highlighted in Figure 11. These EFAs are located in urban areas of the region including the University District and South Beacon Hill in Seattle; communities in West Seattle and Kent Valley in King County; and Tacoma and along I-5 in Pierce County.

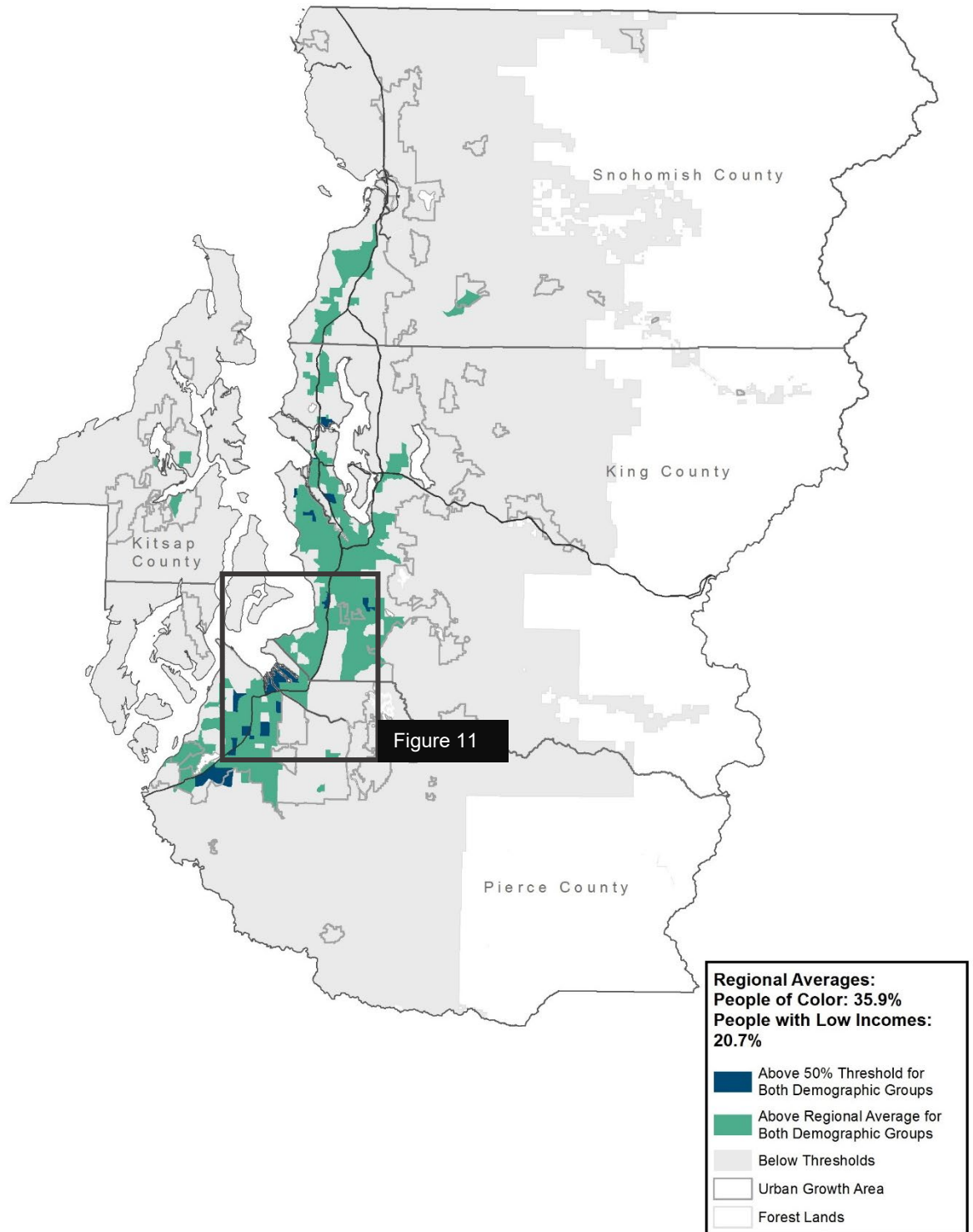
The types of projects in these areas are identified in Table 7. Compared to the regionwide distribution as illustrated in Table 1, the following is noted:

- The overall distribution of projects touching tracts with percentages higher than the regional thresholds for both people of color and those with low incomes is consistent with the overall distribution seen in Table 1.
- There is a larger proportion of transit projects in tracts with over 50% both people of color and low income than the regional distribution, but it is important to note, however, that there is overall a relatively modest number of projects in these areas.

Table 7: TIP Projects Touching Both People of Color and People with Low Incomes EFAs

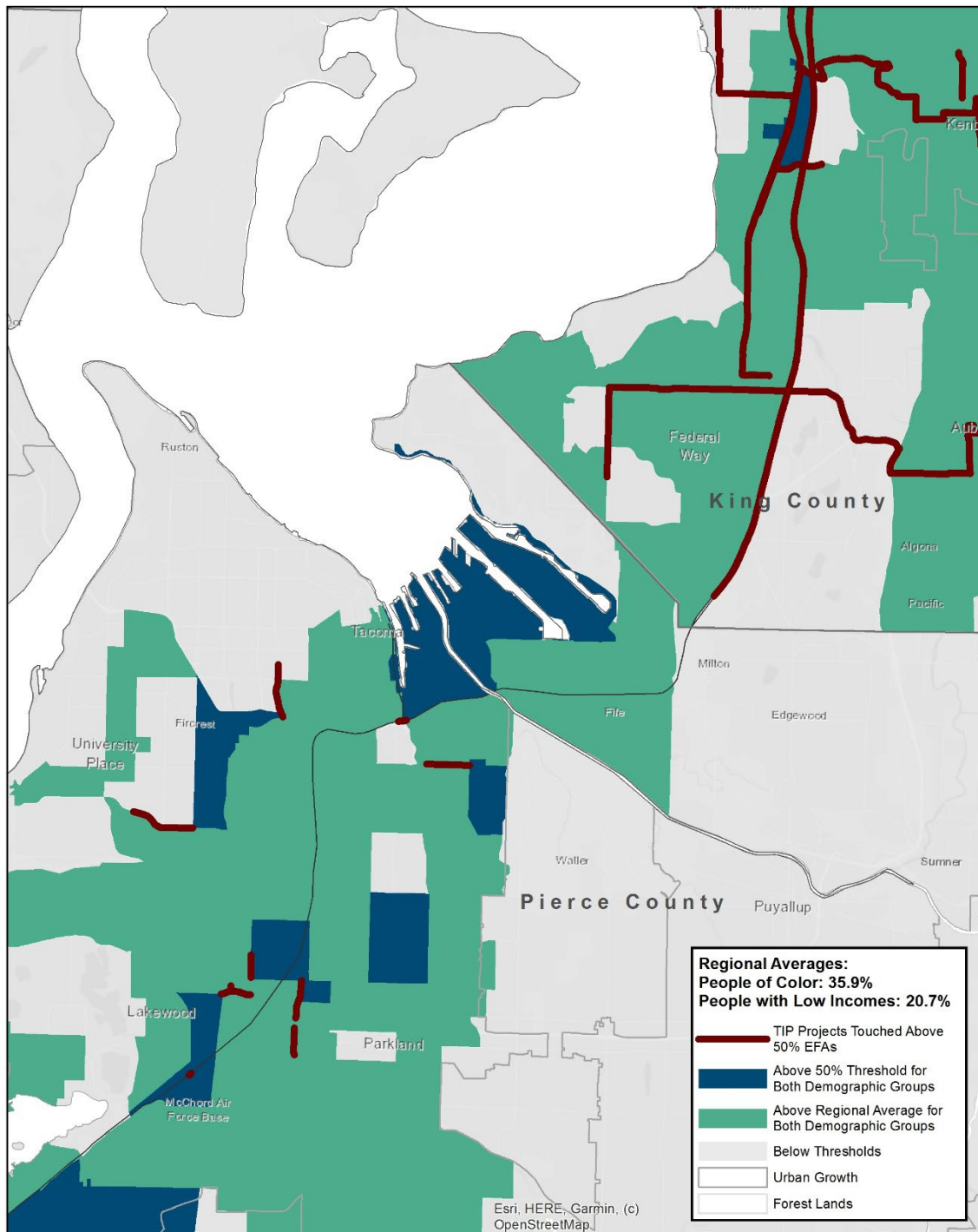
Improvement Types	Number of Projects Touching Both People of Color & People with Low Incomes EFAs	Percentage	Number of Projects Touching People of Color & People with Low Incomes EFAs (>50%)	Percentage
Multimodal	38	27%	3	16%
Highway Improvement	3	2%	0	0%
Preservation	52	37%	9	47%
Bicycle / Pedestrian	27	19%	1	5%
Transit	17	12%	6	32%
ITS	1	1%	0	0%
Other	3	2%	0	0%
Total	141	100%	19	100%

Figure 11: Tracts Above the People of Color and People with Low Incomes Regional Averages and 50% Threshold



Source: American Community Survey, 2015-2019 5-Year Estimates

Figure 12: Tracts Above the People of Color and People with Low Incomes Regional Averages and 50% Threshold in South King County and Tacoma, Pierce County



It was noted earlier in the document that south King County and Tacoma in Pierce County have higher concentrations of both people of color as well as people with low incomes, so Figure 12 zooms into these areas for a closer look. The navy-colored area with greater than 50% of both EFA populations has several TIP projects through and touching the area. These projects include the following:

- Eight roadway or bridge preservation projects
- Two roadway safety projects with bicycle and pedestrian infrastructure improvements
- One safety project with active transportation enhancements
- Two transit speed and reliability improvements projects
- A transit re-alignment project
- Three multimodal projects

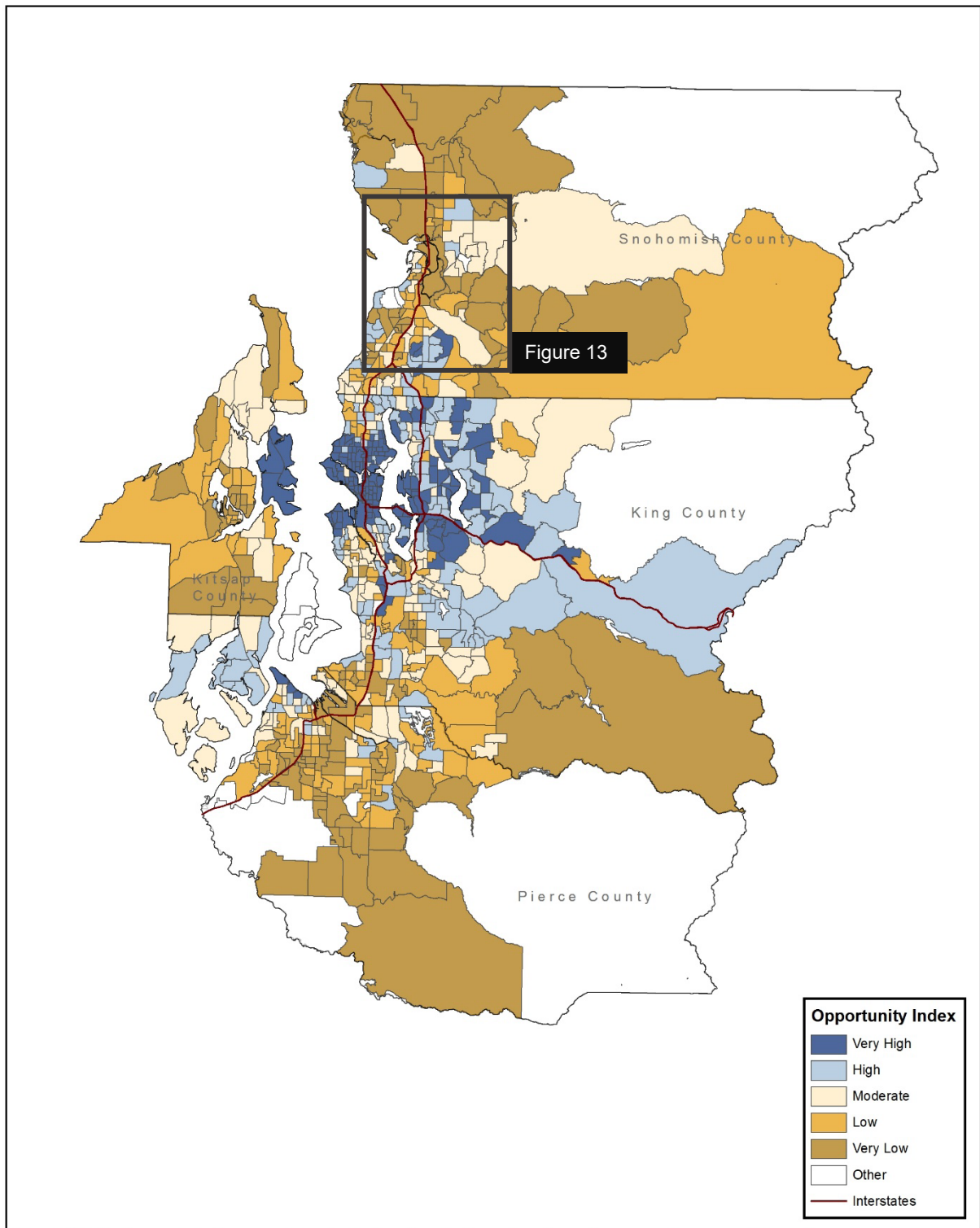
In general, these projects would be expected to provide better mobility and accessibility benefits for these communities.

Another aspect of the analysis was the consideration of the overlap of TIP projects with PSRC's Opportunity Mapping tool. This map displays areas by their opportunity "score" relative to five measures: education, economic health, housing, and neighborhood quality, mobility and transportation, and health and environment. More information on Opportunity Mapping can be found on PSRC's website at:

<https://www.psrc.org/opportunity-mapping>.

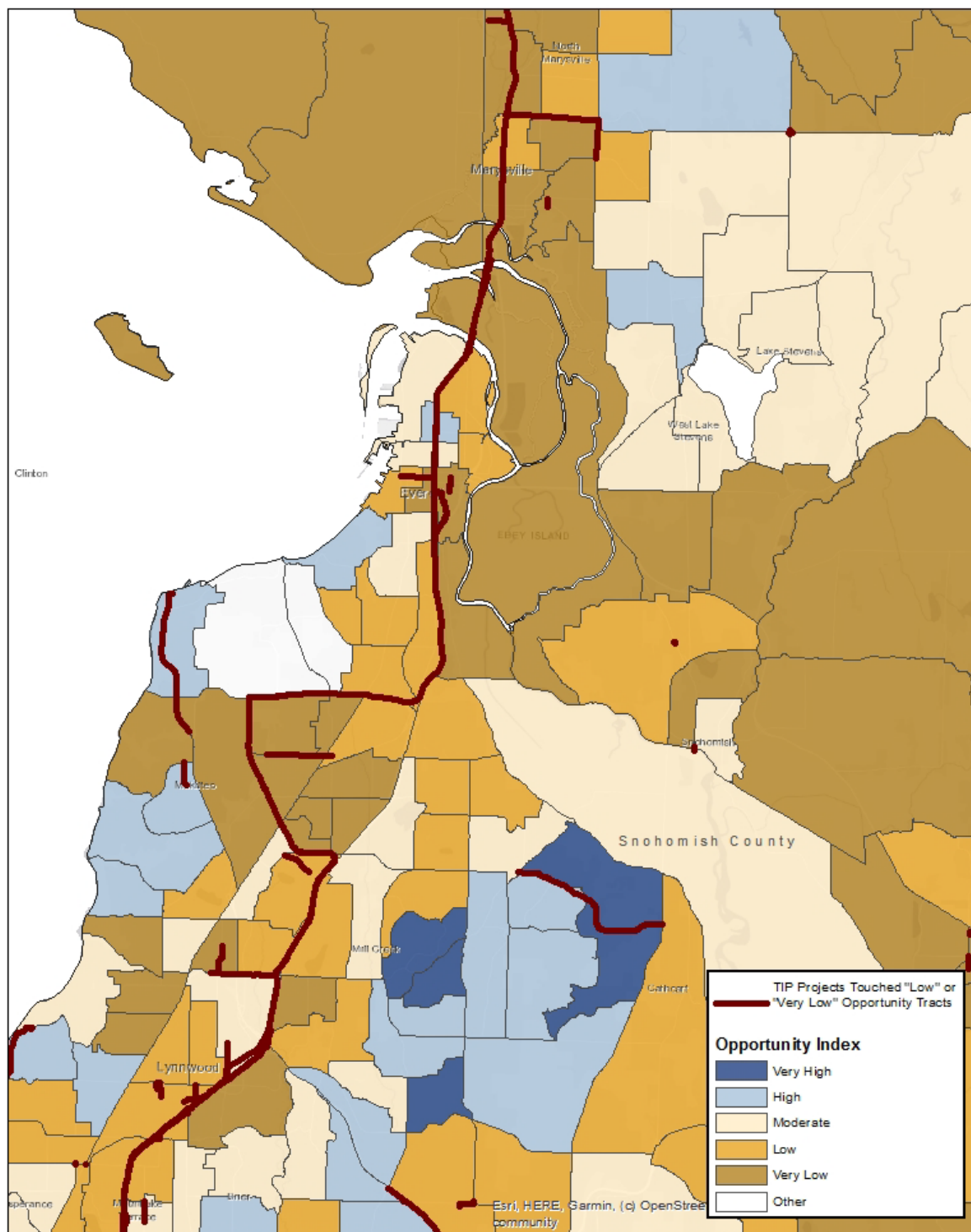
Figure 13 illustrates the regional Opportunity Map, with scores identified from very low to very high. Selecting another area of the region for a closer look, Figure 14 zooms in on areas of very low and low opportunity in Snohomish County and illustrates projects in the Draft 2023-2026 Regional TIP that touch these areas. The Online TIP Web Map provides the full list of mapped projects and additional layers such as the Opportunity Map for further exploration: <https://psrc.org/opportunity-mapping>.

Figure 13: Regional Opportunity Map



NOTE: "Other" opportunity areas include federal parks/forest, military bases, and areas without data

Figure 14: “Low” or “Very Low” Opportunity Tracts in Snohomish County



Examples of projects that will serve or impact either “Low” or “Very Low” opportunity areas illustrated in Figure 14 include the following:

- Roadway and bridge preservation projects
- Expansion of high-capacity transit
- Intersection improvements and roundabouts

Generally, the above projects will improve the mobility of residents within these “Low” or “Very Low” opportunity areas. However, it is important to note that the direct correlation between these types of projects and benefits or burdens that may result in these areas is more difficult to establish. It is also difficult to draw specific conclusions from this particular aspect of the analysis, but additional information and trends can be monitored over time.

Summary and Conclusions

As previously described, the TIP implements the Regional Transportation Plan, which itself underwent a substantial equity review, analysis, and community outreach. All projects in the TIP must first be included in the Regional Transportation Plan, either as explicitly identified regional capacity projects or as part of the plan’s programmatic elements. The Regional Equity Analysis conducted for the plan concluded that there are no disproportionate burdens expected to the EFAs from the future planned transportation system. It is important to note that the TIP represents a four-year snapshot that is a small part of the long-range transportation plan. In addition, the TIP does not reflect every transportation investment to be implemented over the four-year period. Also, projects are typically included in the TIP based on the year that project phases will begin, so the TIP does not reflect the overall progress of these projects through to completion.

The overlay analysis discussed in this appendix is an investigation into the physical proximity of the projects in the Draft 2023-2026 Regional TIP in relationship to census tracts with higher concentrations of key equity focus populations than the regional averages. Regional analyses of this kind do not directly assess benefits and burdens related to outcomes of specific projects or programs; that level of analysis would be made during the environmental analysis of individual projects conducted by project implementers at the local level.

Projects may be viewed via PSRC’s Online TIP Web Map, and it is important to note a few points for consideration. First, the map does not account for the population density of the census tracts. Secondly, the Draft 2023-2026 Regional TIP only contains projects with funding over that four-year period. Some census tracts that are not currently touched by any projects may be touched by projects from previous TIPs, which do not appear on the map, or will have future investments made. In addition, the relative amounts of investments in different transportation modes will shift over time. One TIP

may have heavier investments in transit, while another may be more focused on roadways or other improvements. Assessment of the relative distribution of projects over time can help project sponsors to evaluate where they should prioritize future modal investments if they see areas being underserved.

The results of this analysis indicate a fairly even distribution of projects across the region and within areas with higher percentages of key equity focus populations. Given the location of many of these populations within the densely populated urban core, with higher regional concentrations of population and employment, it is reasonable that transportation investments would be more heavily focused in these areas. A summary of the analysis includes the following:

- 65.7%, or 203, of the projects touch at least one people with low incomes EFA tract, consistent with the regionwide distribution.
- 58.3%, or 180, of the projects touch at least one people of color EFA tract, consistent with the regionwide distribution.
- 69.9%, or 216, of the projects touch at least one older adults EFA tract, consistent with the regionwide distribution.
- 72.5%, or 224, of the projects touch at least one people with disabilities EFA tract, consistent with the regionwide distribution.
- 45.6%, or 141, of the projects touch tracts with percentages higher than the regional thresholds for both people of color and those with low incomes, consistent with the regionwide distribution.

Based upon this data, the planned transportation improvements in the Draft 2023-2026 Regional TIP are shown to invest in EFAs throughout the region in a manner consistent with the regional distribution of equity focus populations, without disproportionate concentration or lack of investments compared to the region as a whole, and meeting federal objectives to equitably invest in and serve disadvantaged communities.

Ongoing and Future Work

PSRC 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 mobility challenges due to socioeconomic characteristics will continue to grow by 2050. PSRC continues to advance work on equity, both in terms of outreach and engagement as well as analytical tools.

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. Potential 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.

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 that PSRC manages. Also, PSRC is in the process of developing its Equity Tracker Tool, which will help regional partners to better measure life outcome disparities between communities and to track performance over time in closing equity gaps. 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 also continue to collaborate with its members and community partners to advance equity to meet the region's equity goals.