



Puget Sound Regional Council

Appendix F

Equity Analysis

October 26, 2020

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Appendix F: Equity Analysis for the 2021-2024 Regional Transportation Improvement Program

Introduction

The following report presents the results of PSRC's equity analysis conducted for the Draft 2021-2024 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, 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

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.

¹ The analysis was conducted on the Draft TIP as of September 2020.

² "Environmental Justice Strategy," U.S. Department of Transportation, November 2016, Web accessed August 2020: <https://www.transportation.gov/transportation-policy/environmental-justice/environmental-justice-strategy>

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 2021-2024 Regional TIP³ are examined in relation to their proximity to populations identified in PSRC's demographic profile.

Incorporating Equity in Planning

VISION 2040 and VISION 2050

VISION 2040 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 2040 includes policies and actions that emphasize social equity and environmental justice. VISION 2050, which is scheduled to be adopted by PSRC's General Assembly in October 2020, significantly advances the region's commitment to equity. Social equity is a foundational premise for the policies and actions in VISION 2050, and new and enhanced analysis tools were developed such as a displacement risk tool and updated opportunity mapping. In addition, significant efforts were made to expand outreach and community engagement to gather different perspectives. This work, and future efforts related to a Regional Equity Strategy and ongoing engagement, will guide planning, programming and equity analyses as described below.

Regional Transportation Plan

The development of the 2018 Regional Transportation Plan included focused attention on evaluating potential burdens and benefits to communities of color, households with low incomes, and households with special transportation needs. The plan was developed with substantial input from community leaders representing these communities, and an analysis was performed on the projects in the Regional Transportation Plan to estimate their relative benefits to different user groups in the region. A summary of the community outreach and analysis can be found in *Chapter 3 of the Regional Transportation Plan Appendix B, Equity Analysis Report*. 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 people with special transportation needs. The plan invests heavily in transit and paratransit services and continues to invest in other special needs transportation services, and implementation of the plan is not anticipated to result in disproportionate impacts at the regional scale. More information on this analysis can be found in the *Regional Transportation Plan Final EIS Addendum* and [*Appendix K, System Performance Report*](#).

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.

³ The analysis was conducted on the Draft 2021-2024 Regional TIP, containing project data through July 2020. The final TIP will incorporate additional project revisions through October 2020, through PSRC's normal routine amendment process and reflecting obligations of federal funds.

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 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 2004.⁴ Additional populations have since been incorporated, including older adults and persons with disabilities. These criteria were included as part of the regional evaluation criteria for PSRC's 2020 project selection process, which recommended projects to receive FHWA and FTA funds managed by PSRC for federal fiscal years 2023-2024. The regional evaluation criteria used during the project selection process cover a variety of topics and can be found in Appendix B of the Draft 2021-2024 Regional TIP.

Data and Methods

Demographic Data

PSRC developed a baseline Demographic Profile as an initial step toward better integrating 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 US Census Bureau 2014-2018 American Community Survey (ACS) 5-year Estimates.

Executive Order No. 12898 directs federal agencies to specifically identify and address impacts on people of color and people with low incomes. However, discussions of other populations protected by Title VI and related nondiscrimination statutes are encouraged in addressing equity in federally sponsored transportation programs, policies, and activities. In this appendix, PSRC has expanded on previous analyses, which only looked at people of color and people with low incomes, to also include older adults and persons with disabilities. These groups have been included because of their potentially unique transportation needs. The regional distribution of people with Limited English Proficiency and households without vehicles 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 demographic groups investigated in this appendix are defined as:

- ***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

⁴ The definition of people with low incomes was changed in 2020 for the Draft 2021-2024 Regional TIP Analysis. Low income includes households with incomes below 200 percent of the federal poverty level (the federal poverty threshold applied at the household level).

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.

- **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.
- **Older Adults:** Individuals were classified as older adults if they were aged 65 years or over.
- **Persons with Disabilities:** Individuals were classified as having a disability if they belonged to the civilian noninstitutionalized population and they were 5 years and over and had a sensory, physical, mental, or self-care disability; 16 years and over and had a go outside home disability; and/or 16 to 64 years old and had an employment disability.

TIP Project Data

The analyses discussed in this appendix are based on the projects included in the Draft 2021-2024 Regional TIP. This includes all projects with current funding within the 4-year time span, including those funded with PSRC funds, as well as those with other funding sources.

Of the 315 total projects, 207 could be assigned to a geographic location and are included in this analysis. The remaining 108 projects could not be mapped 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: Project Improvement Types

Improvement Type	Project Count	Percentage
Multimodal	35	17%
Highway Improvement	11	5%
Preservation	82	40%
Bicycle / Pedestrian	40	19%
Transit	22	11%
ITS	5	2%
Other	12	6%
Total	207	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

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 tracts⁶, a total population of 4.2 million individuals⁷.

Table 2 below identifies the percentage of the total regional population that are people with low incomes, people of color, older adults and persons with disabilities. For the purposes of this report, the overall regional percentage by population group will be referred to as the “regional threshold.” In order to understand how transportation investments may benefit or burden different population groups, this equity analysis evaluates Census tracks containing percentages of people with low incomes, people of color, older adults and persons with disabilities at higher levels than the regional threshold. The analysis then considers the distribution of the transportation projects within and to those areas.

For the purposes of this report, any tract with a percentage above the regional threshold for a given demographic group is categorized as an “Equity Tract.” For example, in the central Puget Sound region, people of color comprise 34.2% of the total population. Therefore, any tract with

⁵ “Glossary: Census Tract”, U.S. Census Bureau, Web Accessed August 2020: https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_13.

⁶ “2014-2018 American Community Survey 5-Year Estimates”, U.S. Census Bureau, 2018

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

more than 34.2% of its population being people of color would be considered an equity tract for that population group. Table 2 provides detail on the regional thresholds for all the populations examined in this analysis, as well as the proportion of census tracts in the region deemed Equity Tracts for each demographic group. In the analyses on individual populations, tracts that surpass the corresponding regional threshold may be referred to as “low income tracts,” “people of color tracts,” “older adults tracts,” or “persons with disabilities tracts.” However, an individual tract may appear under more than one of these groups if it exceeds the regional threshold for more than one population group.

Table 2: Regional Population Percentages

	Demographic Groups			
	People with Low Incomes*	People of Color	Older Adults 65+	Persons with Disabilities
Percent of Regional Population by Group (<i>Regional Threshold</i>)	22.5%	34.2%	13.4%	11.4%
Percent of Total Equity Tracts by Group	41.2% (319 out of 773)	43.3% (335 out of 773)	46.9% (363 out of 773)	45.7% (354 out of 773)
Percent of Total Equity Tracts (>50%) by Group	4.0% (31 out of 773)	19.1% (148 out of 773)	0.1% (1 out of 773)	0% (0 out of 773)

*: The definition of people with low incomes was updated for the Draft 2021-2024 Equity analysis. People with low income includes households with incomes below 200 percent of the federal poverty level.

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. Region wide, 425 tracts were touched by one or more projects, representing 54.9% of all populated census tracts.

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 a population of 24, six of whom are low income, would both be counted equally as a “people with low incomes tract.” 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.

Another limitation of tract-level analysis is that it does not account for the relative proportion of populations of interest within census tracts. For example, a tract with 75% people of color and a tract with 35% people of color would both be counted equally as “people of color tracts,”

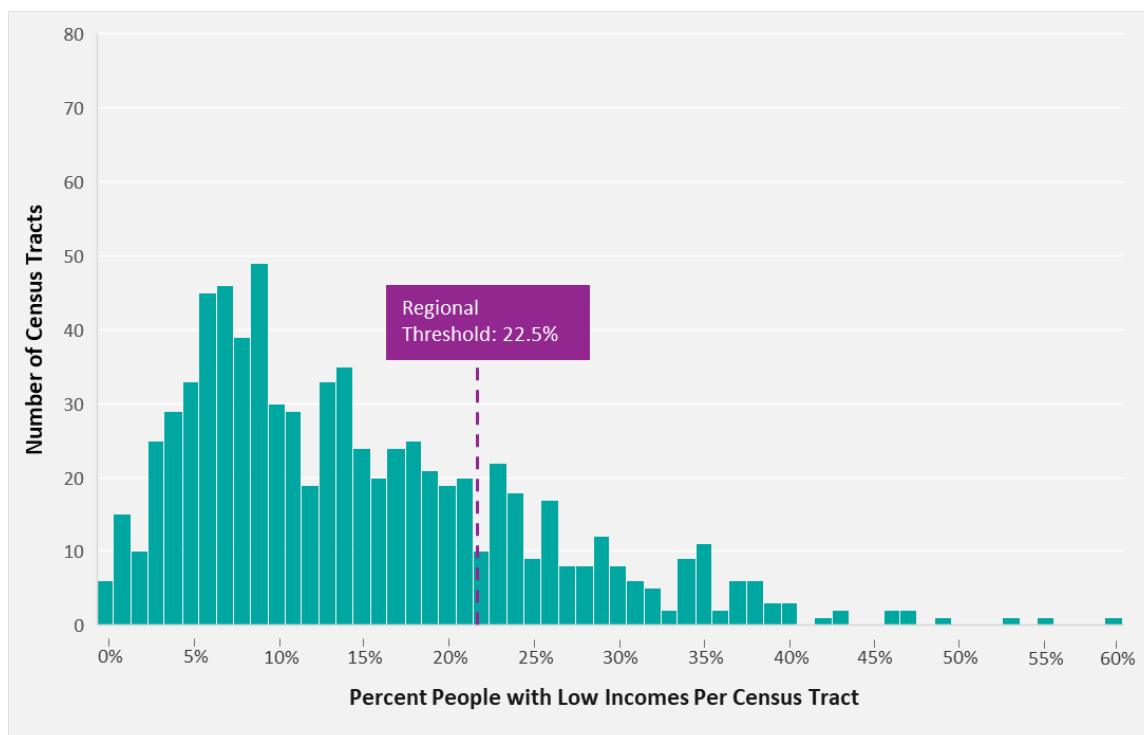
although there is wide variation in their proportionate population. For this reason, the analysis of each individual group includes a histogram chart that displays the distribution of the population percentages across every census tract in the region. In addition, an assessment of tracts with greater than 50% of any population group was conducted, with particular emphasis on people of color and with low income; this is described later in the appendix.

The following section first looks at each population of interest individually to determine which census tracts surpass the regional threshold for each group 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 proximity to census tracts that contain various numbers of concentrations of populations of interest.

People with Low Incomes Analysis

Regionally, 22.5% of the population is low income. Of all tracts region-wide with populations above zero, 41.2% were classified as low income tracts and 4% classified as tracts with over 50% of people with low incomes. To get a better indication of the distribution of these populations, Figure 1 provides a graphic representation of the percentages of people with low income for all individual census tracts in the region, illustrating that fewer tracts exceed the regional threshold for this demographic group.

Figure 1: Distribution of Low Income Population Percentages



The map in Figure 2 displays the tracts throughout the PSRC region that fall below and above this regional threshold. Concentrations of people with low incomes can be seen throughout the

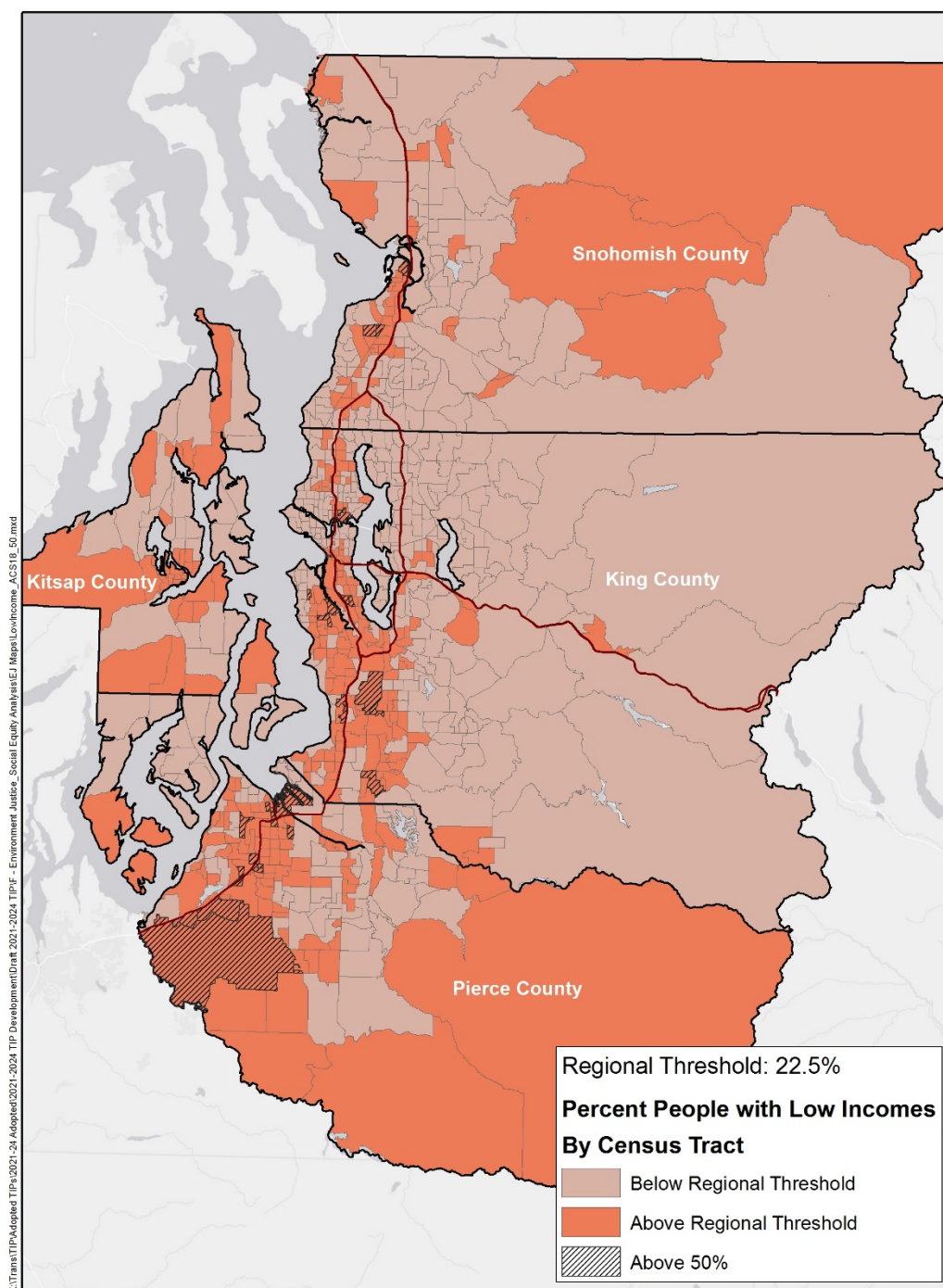
region's urban core, particularly along the Interstate 5 corridor and in central and south Seattle, the University District, south King County, Bremerton, central and south Tacoma, and communities along the State Route 99 in Snohomish County. Also, tracts with over 50% of people with low incomes are seen in Kent, the University district, High Point, communities along the Interstate 5 corridor in Pierce County including Tacoma and Joint Base Lewis-McChord (JBLM), and Paine Field and Everett in Snohomish County.

As mentioned previously, of all census tracts in the region, 425 tracts are touched by at least one TIP project. Of these, 49% are classified as people with low incomes tracts, which is modestly higher than the regional threshold of 41.3% of all low income tracts in the region. Correspondingly, among the total 207 mappable projects, 60% (124 projects) touched at least one low income tract. The types of projects in these areas is identified below; this distribution is consistent with the distribution regionwide as illustrated in Table 3.

Table 3: TIP Projects Touching Low Income Tracts

Improvement Type	Number of Projects Touching Low Income Tracts	Percentage
Multimodal	20	16%
Highway Improvement	7	6%
Preservation	48	39%
Bicycle / Pedestrian	25	20%
Transit	15	12%
ITS	3	2%
Other	6	5%
Total	124	100%

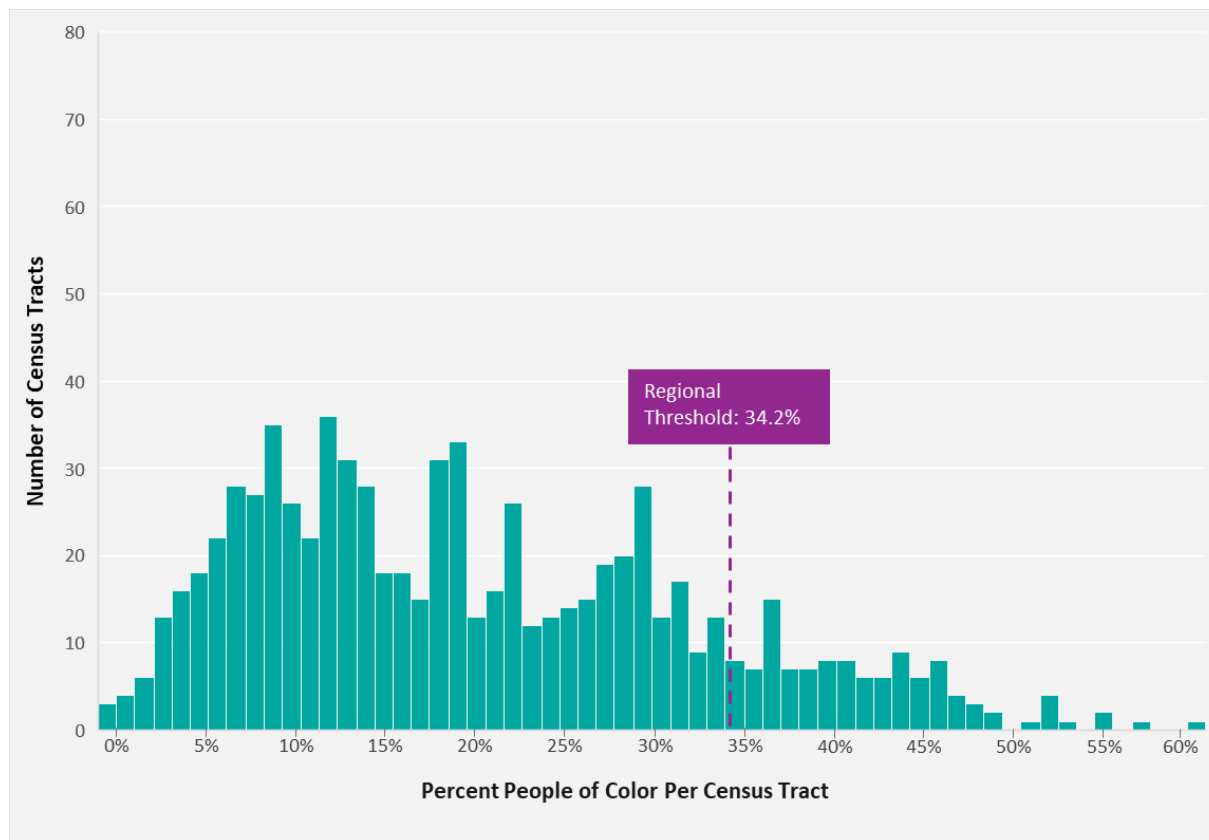
Figure 2: People with Low Incomes Tracts



People of Color Analysis

Regionwide, 34.2% of the population are people of color, as previously defined. Of all tracts region-wide with populations above zero, 43.3% were classified as people of color tracts and 19.1% classified as tracts with over 50% of people of color. Figure 3 provides a graphic representation of the people of color percentages for all individual census tracts in the region, illustrating that fewer tracts exceed the regional threshold for this demographic group.

Figure 3: Distribution of People of Color Percentages



The map in Figure 4 displays the tracts in the PSRC region that fall below and above the regional threshold for people of color. Populations of color can be seen to be concentrated in the more urban areas of the region, particularly along the Interstate 5 and Interstate 405 corridors and in central, south and east part of King County; East Bremerton and Silverdale in Kitsap County; central and south of Tacoma in Pierce County; and along State Route 99 and the southeast part of Snohomish County. Also, tracts with over 50% of people of color are seen in the Kent Valley; central, south, and west Seattle; east King County; along the Interstate 5 corridor in Pierce County including Tacoma; and Bothell, Lynnwood, and Paine Field in Snohomish County.

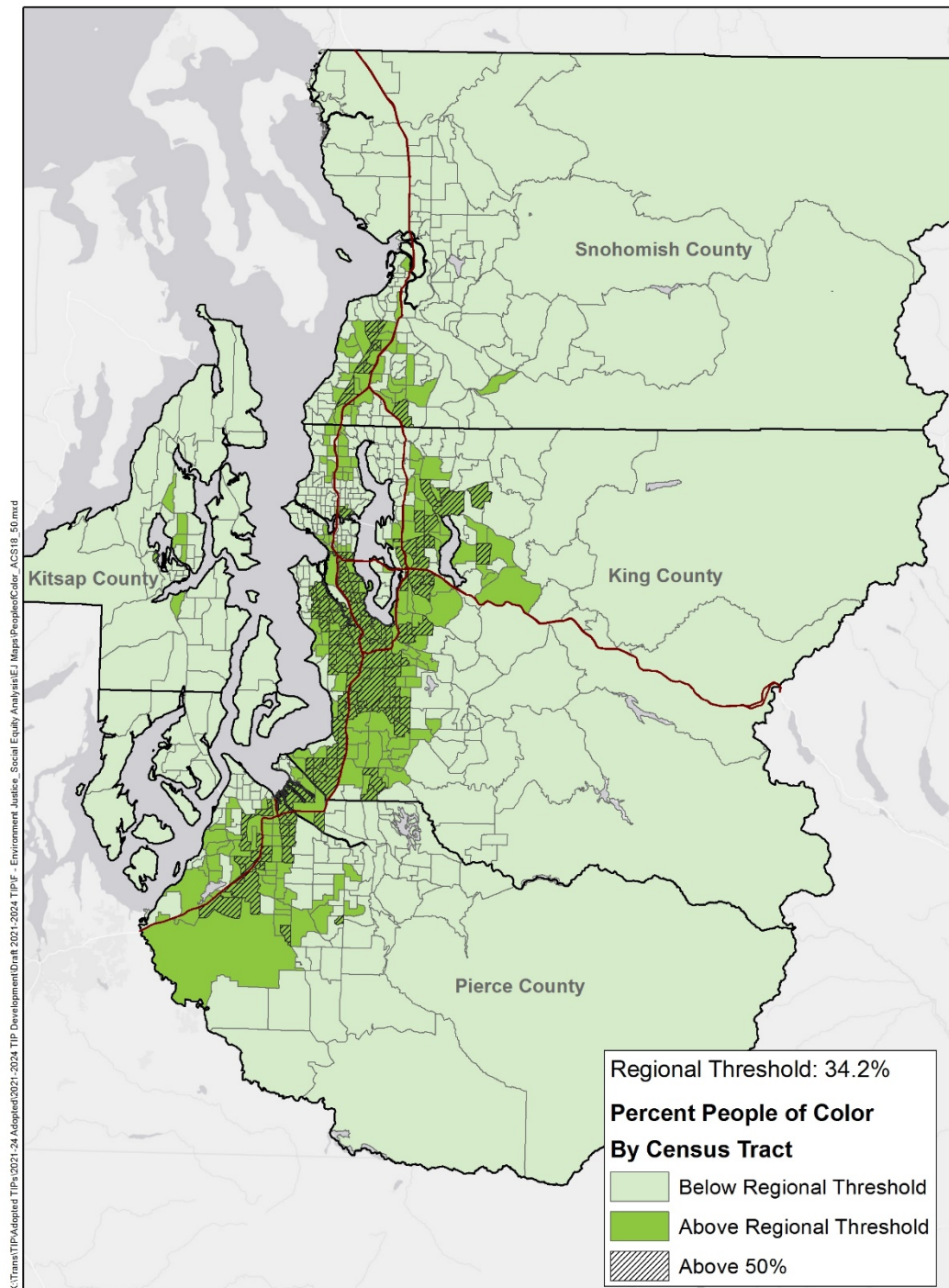
Of all census tracts touched by projects, 52% are classified as people of color tracts, which is moderately higher than the regional threshold of 43.3% for people of color. Given that these tracts are concentrated in the urban population core, the presence of transportation investments in these locations seems logical. Correspondingly, among the total 207 mappable

projects, 58% (121 projects) touch at least one people of color tract. The types of projects in these areas is identified below; this distribution is consistent with the distribution regionwide as illustrated in Table 4.

Table 4: TIP Projects Touching People of Color Tracts

Improvement Type	Number of Projects Touching People of Color Tracts	Percentage
Multimodal	19	16%
Highway Improvement	8	7%
Preservation	48	40%
Bicycle / Pedestrian	25	21%
Transit	14	12%
ITS	2	2%
Other	5	4%
Total	121	100%

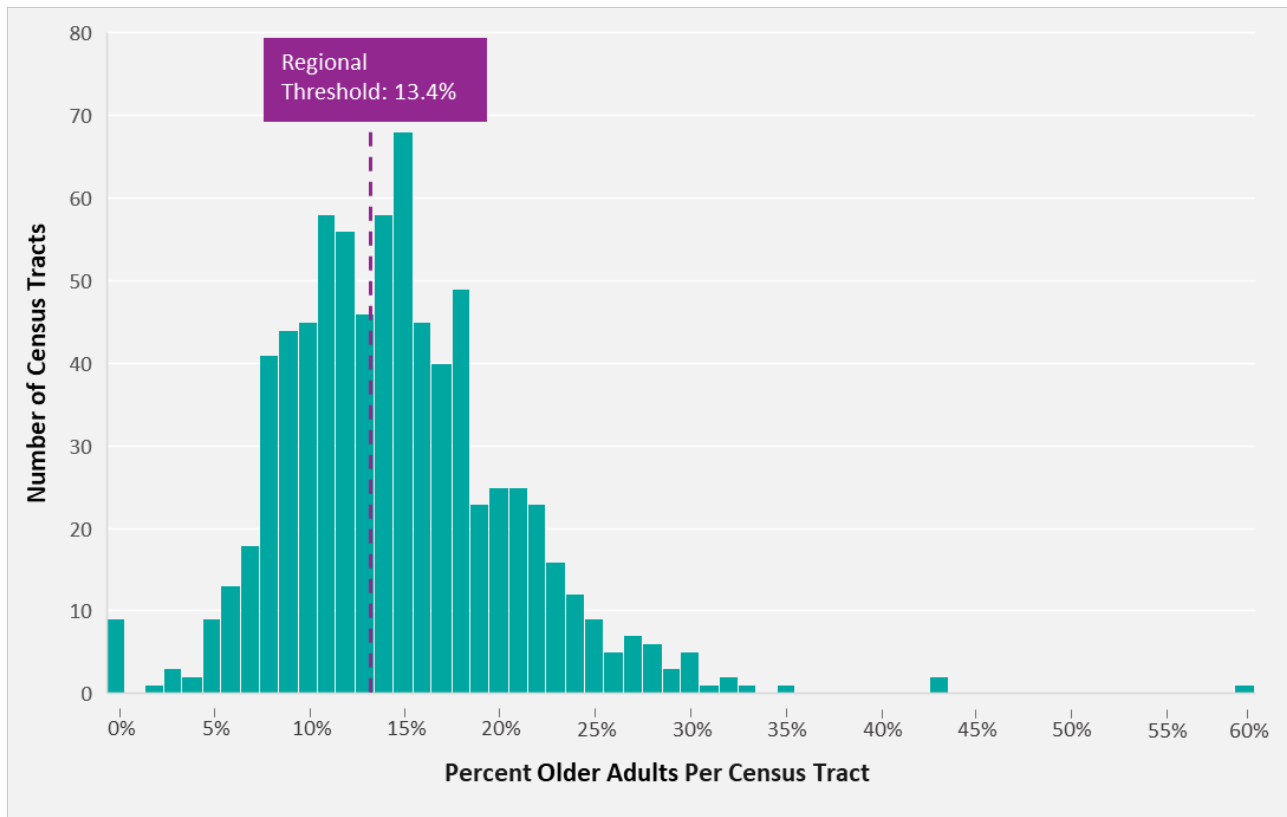
Figure 4: People of Color Tracts



Older Adults Analysis

Regionwide, 13.4% of the population is classified as older adults, defined as people 65 and older. Of all tracts region-wide with populations above zero, 46.9% were classified as older adults tracts and 0.1% classified as tracts 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 there is a greater number of tracts exceeding the regional threshold for this demographic group.

Figure 5: Distribution of Older Adults Percentages



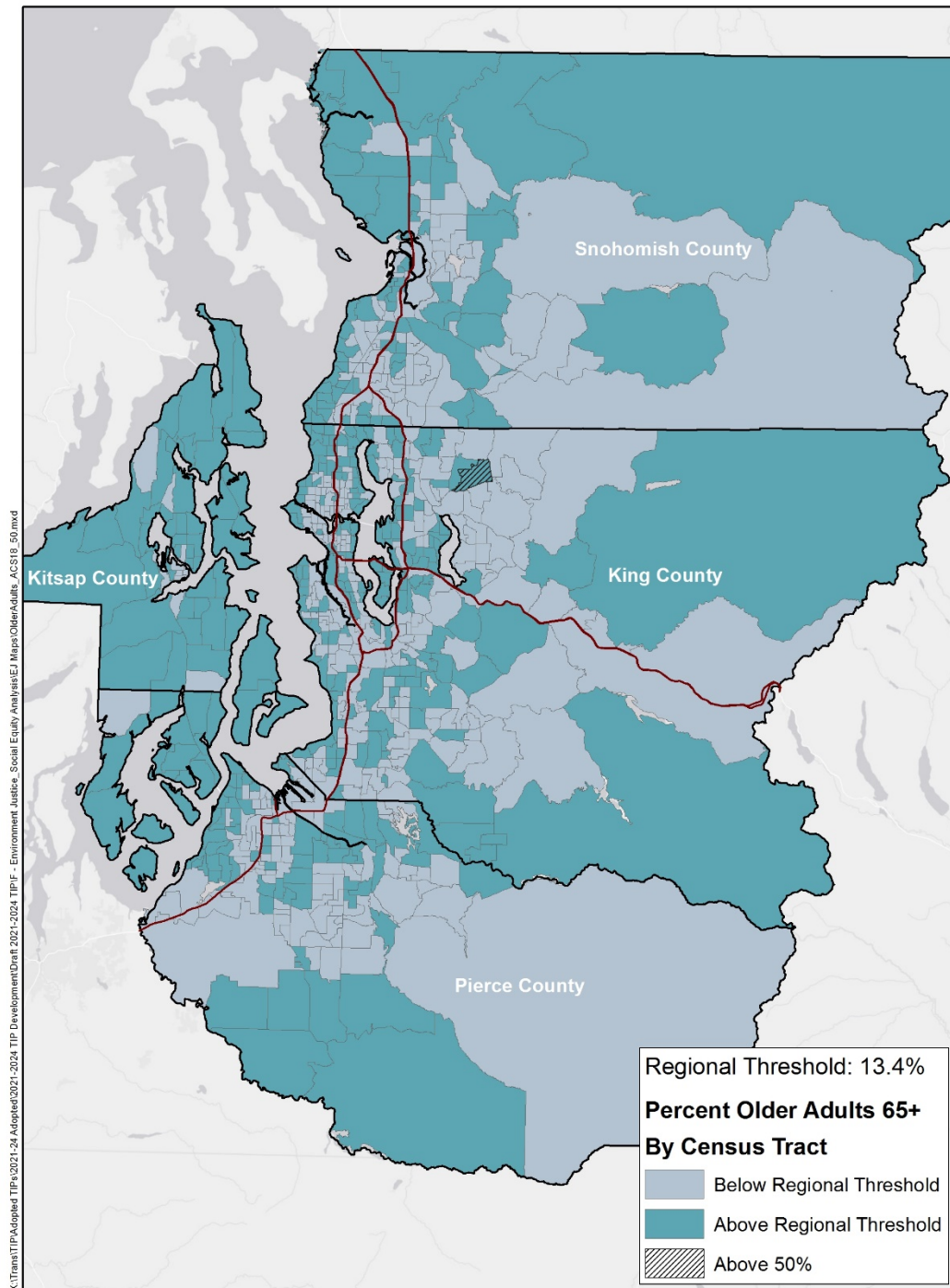
The map in figure 6 displays the tracts in the PSRC region that fall below and above the regional threshold for older adults. Unlike low income and people of color tracts, tracts with higher concentrations of older adults can be seen in large tracts in the more sparsely populated suburban and rural areas. Also, a very 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, 47% are classified as older adult tracts. This is the same percentage as the regional threshold for older adults. Correspondingly, among the total 207 mappable projects, 71.4% (148 projects) touched at least one older adults tract. The types of projects in these areas is identified below; this distribution is consistent with the distribution regionwide as illustrated in Table 5.

Table 5: TIP Projects Touching Older Adults Tracts

Improvement Type	Number of Projects Touching Older Adults Tracts	Percentage
Multimodal	28	19%
Highway Improvement	8	5%
Preservation	52	35%
Bicycle / Pedestrian	26	18%
Transit	18	12%
ITS	5	3%
Other	10	7%
Total	147	100%

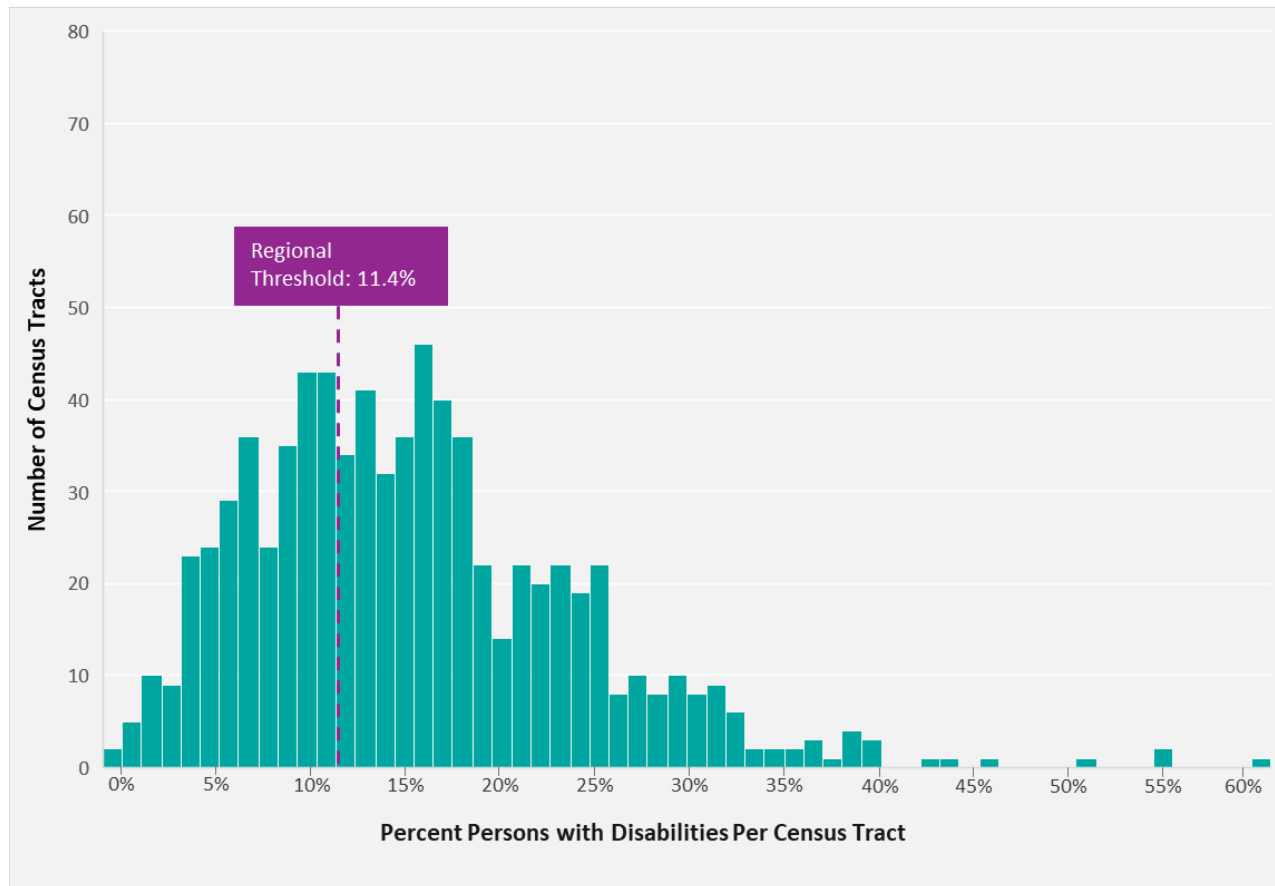
Figure 6: Older Adults Tracts



Persons with Disabilities Analysis

Regionally, 11.4% of the population is classified as persons with disabilities. Of all tracts region-wide with populations above zero, 45.7% were classified as persons with disabilities tracts; no tracts contained greater than 50% of persons with disabilities. Figure 7 provides a graphic representation of the persons with disabilities percentages for all individual census tracts, illustrating a greater number of tracts exceeding the regional threshold for this population group.

Figure 7: Distribution of Persons with Disabilities Percentages



The map in Figure 8 illustrates the census tracts above the regional threshold for persons with disabilities. Similar to older adults, more tracts are found in the less populated areas of King, Kitsap, Pierce, and Snohomish counties and some areas along the Interstate 5 and the State Route 99 corridors in King and Snohomish counties.

Of all tracts in the region touched by TIP projects, 50% are classified as persons with disabilities tracts, which is moderately higher than the regional threshold for persons with disabilities. Correspondingly, among the total 207 mappable projects, 74% (154 projects) touched at least one persons with disabilities tracts. The types of projects in these areas is identified below; this distribution is consistent with the distribution regionwide as illustrated in Table 6.

Table 6: TIP Projects Touching Persons with Disabilities Tracts

Improvement Type	Number of Projects Touching Persons with Disabilities Tracts	Percentage
Multimodal	25	16%
Highway Improvement	10	6%
Preservation	57	37%
Bicycle / Pedestrian	30	19%
Transit	17	11%
ITS	5	3%
Other	10	6%
Total	154	100%

Figure 8: Persons with Disabilities Tracts

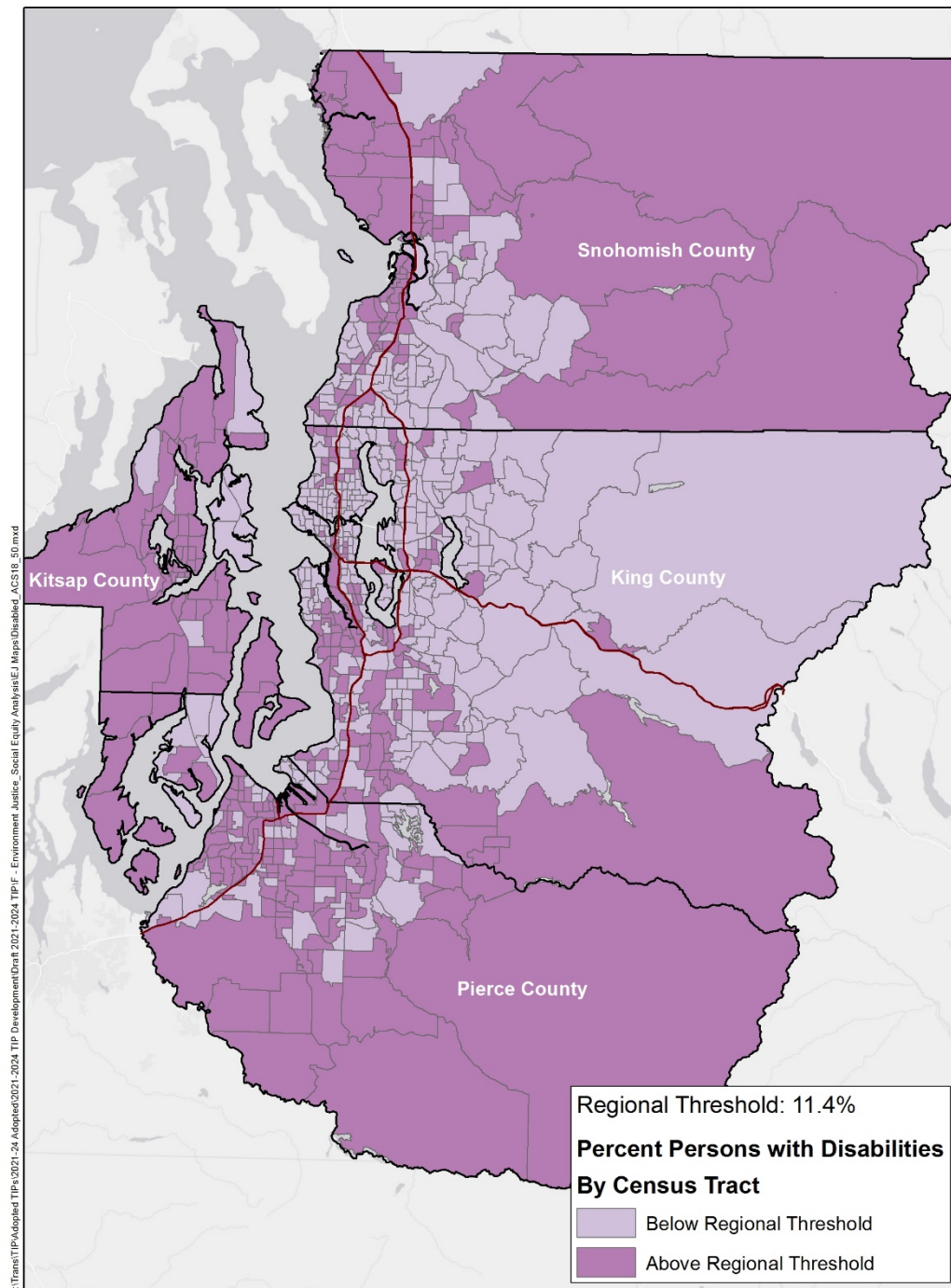
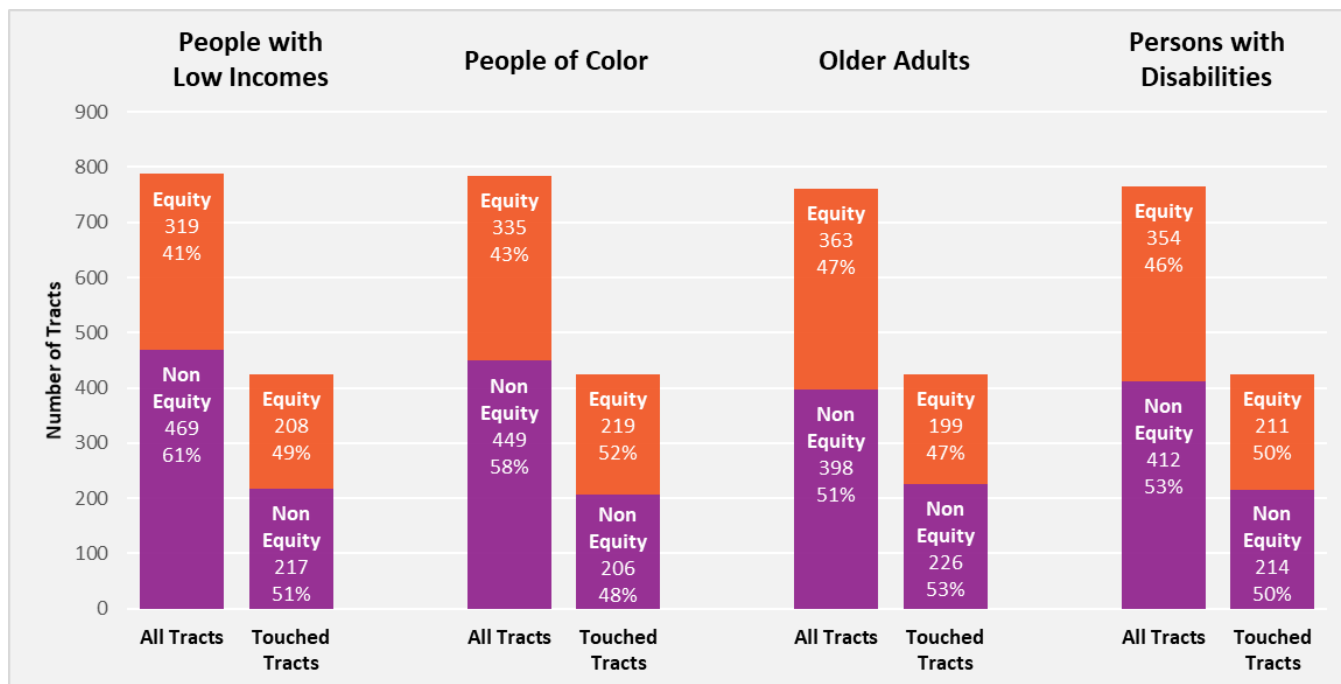


Figure 9 summarizes the data for each population group, illustrating the proportion of each group compared to the region as a whole, and the proportion of census tracts regionwide touched by TIP projects that are Equity tracts.

Figure 9: Ratio of Equity Tracts to Regionwide Tracts



Aggregate Population of Interest 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 with low incomes and people of color. Figure 10 on the next page illustrates these areas, including the 25 tracts that contain greater than 50% of both of these demographic groups, which represent 3.2% of the regional total.

Of all 425 tracts touched by at least one TIP project, 50.1% (213 tracts) of the tracts surpassed regional thresholds for both of these population groups. These tracts are concentrated in the region's urban core, mostly along the Interstate 5 and State Route 99 corridors. Correspondingly, among 207 mappable TIP projects, 43% (88 projects) touched these tracts.

Looking beyond just the regional thresholds among the total 207 mappable projects, 14% (29 projects) touched tracts that contain greater than 50% of these demographic groups. These areas are highlighted in orange in Figure 10. These tracts are located in urban areas of the region including the University District and South Beacon Hill in Seattle; communities in West Seattle, Kent Valley, and Auburn in King County; Tacoma and along Interstate 5 in Pierce County; and Everett in Snohomish County.

The types of projects in these areas is 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 highway improvement, preservation, and transit projects in tracts with over 50% both people of color and low income than the regional distribution, and fewer multimodal, bicycle/pedestrian, ITS and other types of projects. It is important to note, however, that this is a relatively modest number of overall projects.

Table 7: TIP Projects Touching Both Low Income and People of Color Tracts

Improvement Types	Number of Projects Touching Both Low Income & People of Color Tracts	Percentage	Number of Projects Touching Low Income & People of Color Tracts (>50%)	Percentage
Multimodal	12	14%	3	10%
Highway Improvement	6	7%	5	17%
Preservation	36	41%	13	45%
Bicycle / Pedestrian	16	18%	2	7%
Transit	13	15%	5	17%
ITS	1	1%	0	0%
Other	4	5%	1	3%
Total	88	100%	29	100%

Figure 10: Tracts Surpassing Low Income and People of Color Thresholds

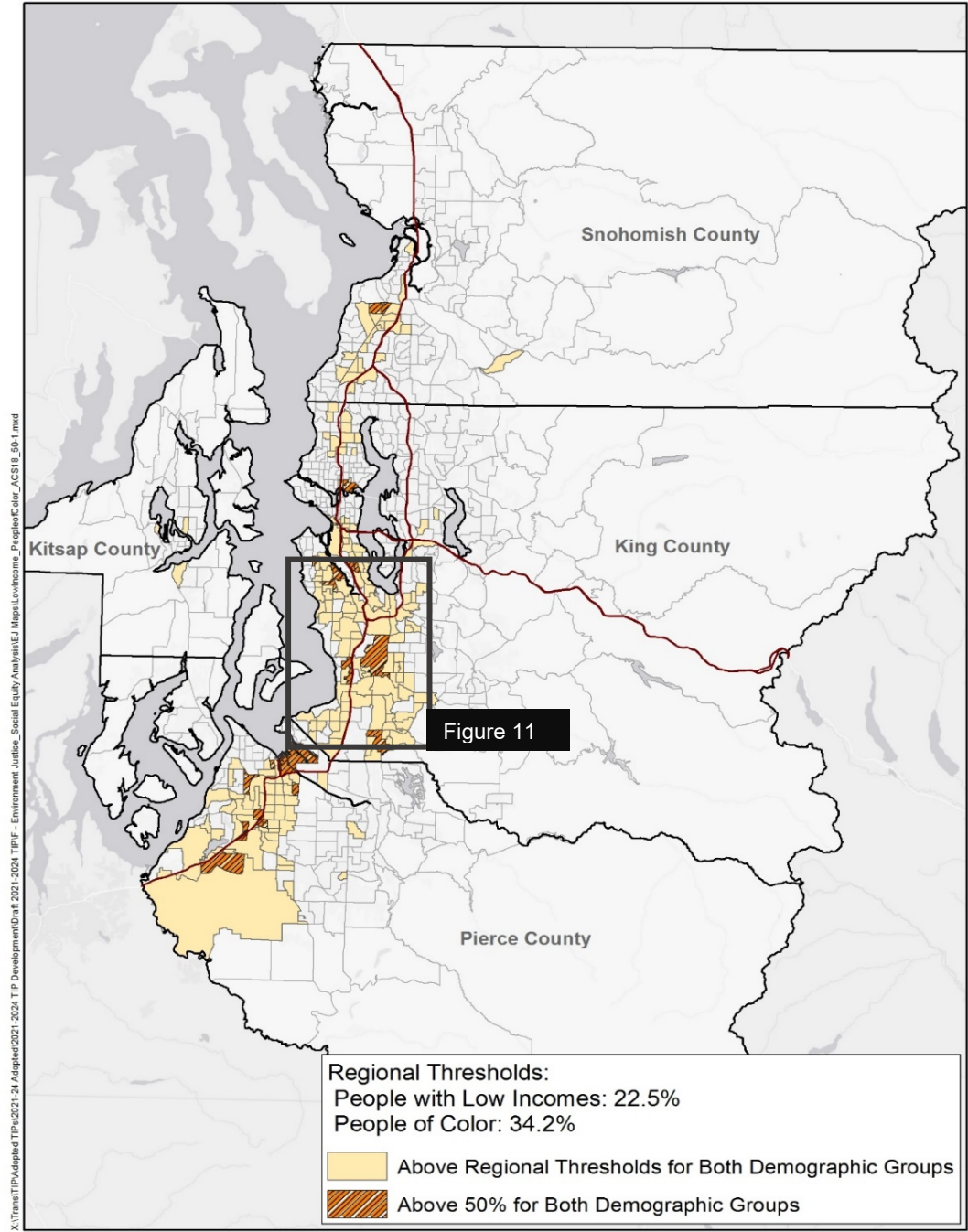
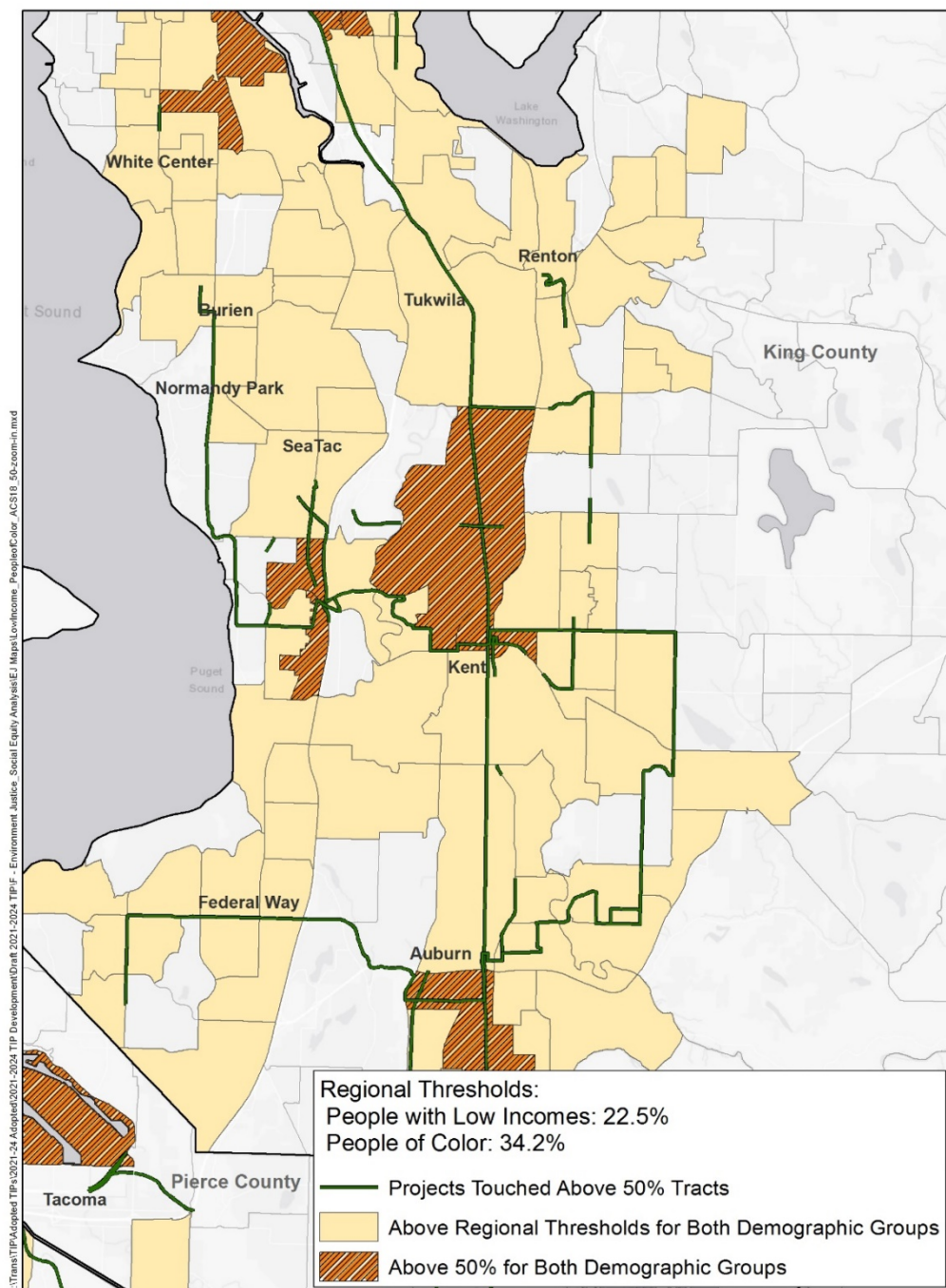


Figure 11: Tracts Surpassing Threshold for Both Low Income and People of Color in South King County



It was noted earlier in the document south King County has higher concentrations of both people with low incomes as well as people of color, so Figure 11 zooms into this area for a closer look. Focusing on the area in the middle of the map, the cross hatched area with greater than 50% of both population groups has several TIP projects through and touching the tract. These projects include the following:

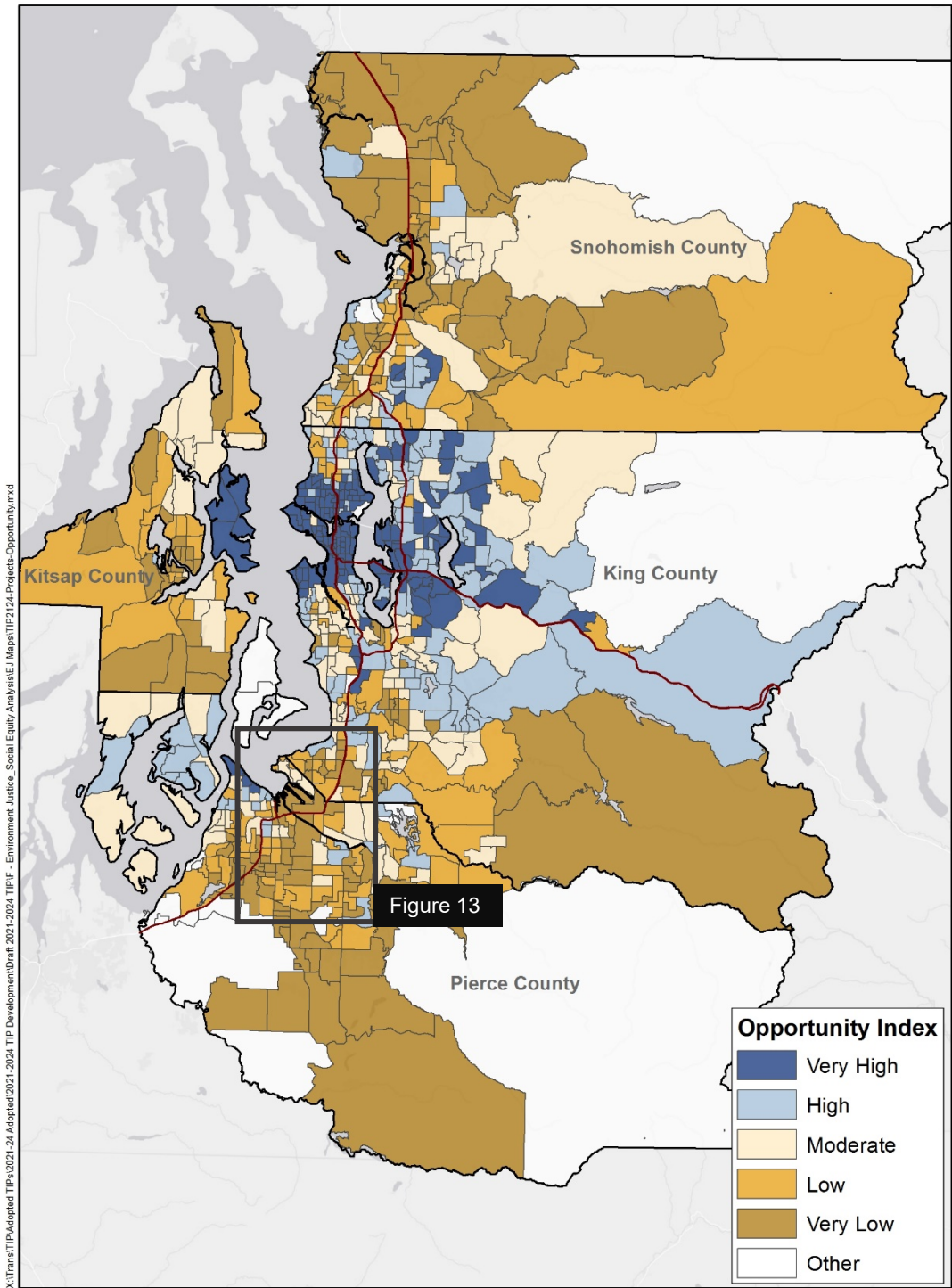
- Three roadway preservation projects
- A transit speed and reliability improvements project
- A high capacity transit expansion project

In general, these projects would be expected to provide mobility and accessibility benefits within this area.

Another aspect of the analysis was 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 maybe found on PSRC's website at: <https://www.psrc.org/opportunity-mapping>.

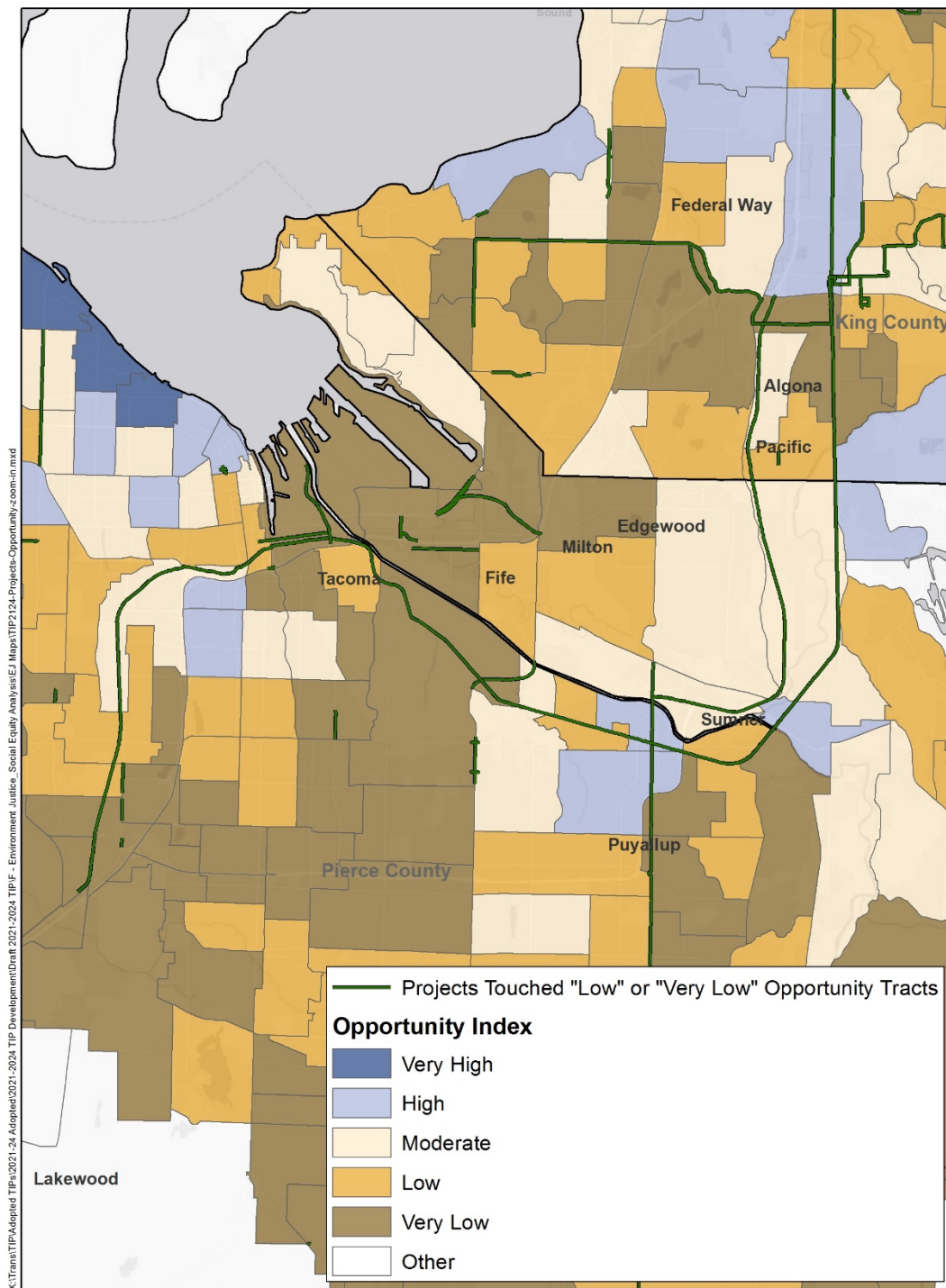
Figure 12 illustrates the regional Opportunity Map, with scores identified from very low to very high. Selecting another area of the region for a closer look, Figure 13 zooms in on areas of very low and low opportunity in Pierce County and illustrates projects in the Draft TIP that touch these areas. The *Online TIP Web Map* provides the full list of mapped projects and additional layers such as the Opportunity Map for further exploration.

Figure 12: Regional Opportunity Map



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

Figure 13: "Low" or "Very Low" Opportunity Tracts in Pierce County



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

Examples of projects in the areas illustrated in Figure 13 include the following:

- Preservation projects
- Freight supportive highway improvements
- Expansion of high capacity transit
- Roadway safety improvements

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 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 overlay analysis discussed in this appendix is an investigation into the physical proximity of the projects in the Draft 2021-2024 Regional TIP in relationship to census tracts with higher percentages of key demographic groups than the regional thresholds. 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.

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 2021-2024 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. Also, the map does not portray current transportation services and conditions in census tracts.

The results of this analysis indicate for the most part a fairly even distribution of projects across the region and within areas with higher percentages of key demographic groups. 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:

- 60%, or 124, of the projects touch at least one people with low incomes tracts, consistent with the regionwide distribution.

- 58%, or 121, of the projects touch at least one people of color tract, consistent with the regionwide distribution.
- 71.4%, or 148, of the projects touch at least one older adults tract, consistent with the regionwide distribution.
- 74%, or 154, of the projects touch at least one persons with disabilities tracts, consistent with the regionwide distribution.
- 14%, or 29, of the projects touch tracts that contain greater than 50% of both people of color and those with low incomes. There is a larger proportion of highway improvement, preservation, and transit projects in these tracts, and fewer multimodal, bicycle/pedestrian, ITS and other types of projects than the regionwide distribution.

PSRC continues to advance work on equity, both in terms of outreach and engagement as well as analytical tools. VISION 2050 calls for the development of a Regional Equity Strategy, and new methodologies and practices continue to evolve. PSRC is committed to learning from this work and continuing to improve upon equity analyses for future plans and Transportation Improvement Programs.