

Chapter 17 Environmental Justice

1 What is environmental justice?

The concept of “environmental justice” has been discussed publicly for decades, and has its roots in the civil rights movements of the 1960s and the federal Civil Rights Act of 1964. Environmental justice is an approach that is meant to avoid decisions that can have disproportionately greater negative human health and environmental effects on low income or minority communities than on the population as a whole.

With transportation projects, negative effects can include disruptions in community cohesion, restricted access to a publicly funded facility, safety concerns, higher exposures to hazardous materials, raised noise levels, increased water and air pollution, and other adverse effects. Environmental justice principles also consider how projects can be developed to benefit low income or minority communities. To address both positive and potential negative effects of projects, effective environmental justice approaches emphasize ways to involve affected communities throughout a project’s development.

2 Why is environmental justice being addressed in this FEIS?

This FEIS has been prepared pursuant to Washington state’s State Environmental Policy Act (SEPA), which does not require analysis of environmental justice. However, existing regional and local policies support the concept of environmental justice, and many of the projects implemented

Which elements of WAC 197-11-444 are addressed in this chapter?

This chapter is not required by the State Environmental Policy Act (SEPA) and does not specifically address any elements of the environment listed in WAC 197-11-444. This chapter is included to provide information on an important topic of interest and to respond to requests made during the public scoping process.



Racial and ethnic minority populations are protected from disproportionately high negative effects of transportation projects through the environmental justice process.

Source: PSRC

What is community cohesion?

Community cohesion is defined as the linkages that people in a community have with their neighbors and social resources such as schools, community centers, recreational facilities, and churches.

through Transportation 2040 will need to comply with federal environmental justice regulations during their individual project-level environmental review processes. PSRC recognizes that large transportation projects have the potential to cause disproportionate impacts to environmental justice populations. Therefore, PSRC has prepared this environmental justice chapter to promote the principles of environmental justice, continue current environmental justice efforts, and facilitate any future environmental justice analysis on projects identified in the Preferred Alternative.

3 Which laws govern environmental justice analyses for environmental review?

In 1994, President Clinton issued Executive Order 12898, requiring federal agencies to incorporate environmental justice principles into planning activities.

In response, the U.S. Department of Transportation (USDOT) ordered transportation agencies to consider environmental justice in all environmental documents pursuant to National Environmental Policy Act (NEPA).

The USDOT Order requires 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.

Relationship of Executive Order 12898 to Title VI of the Civil Rights Act

Title VI of the Civil Rights Act of 1964 requires that “no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied

Why is this EIS required?

For more information on SEPA and the requirements of this EIS, please refer to Chapter 2: Introduction and Background.

What is NEPA?

The National Environmental Policy Act (NEPA) is the basic national charter for protection of the environment. NEPA establishes policy, sets goals, provides means for carrying out policy, and contains provisions to ensure that federal agencies act according to the letter and spirit of the law.

Producing environmental documentation is often called the NEPA process. These procedures ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. Accurate scientific analysis, comments from expert agencies, and public scrutiny are essential to implementing NEPA.

What is PSRC's Title VI policy?

For more information about PSRC's policy regarding Title VI and Executive Order 12898, refer to psrc.org.

the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

Executive Order 12898 is a renewed focus on Title VI with respect to minority populations, and adds emphasis on low-income populations.

PSRC’s policy is to fully comply with Title VI, Executive Order 12898, and related statutes and regulations in all programs and activities.

4 What are the demographics of the study area?

Transportation 2040 includes projects located within the four-county region that are intended to serve and benefit the entire region. Individuals residing near planned projects would likely receive the greatest impacts as well as the greatest benefits. PSRC examined census tracts within the study area in order to identify the presence of minority and low-income individuals..

The environmental justice study area is the four-county central Puget Sound region, comprising 553 census tracts. Using the most recent available data from the 2000 U.S. Census, Exhibits 17-1, 17-2, and 17-4 through 17-15 summarize the minority and poverty status characteristics for the census tracts. At the regional scale, the 2000 Census information represents the best data currently available. When the projects contained in the Transportation 2040 alternatives undergo future project-level environmental review, more recent information on demographic conditions at the project level should be available to help supplement Census data. The upcoming 2010 U.S. Census will also provide updated information.

Exhibit 17-1 Minority Population Summary in 2000

County	Minority (Number)	Minority (Percent)
King	461,907	27
Kitsap	41,218	18
Pierce	167,886	24
Snohomish	100,826	17
Total	771,837	24

Source: U.S. Census Bureau, 2000

Exhibit 17-1 shows the distribution of minority populations in the central Puget Sound region. Minorities, including Native

What is the U.S. Department of Transportation (USDOT) definition for low-income?

Low-income is defined as a person whose household income is at or below the U.S. Department of Health and Human Services poverty guidelines, which follow below for 2009:

Persons in family	Poverty guideline
1	\$10,830
2	\$14,570
3	\$18,310
4	\$22,050
5	\$25,790
6	\$29,530
7	\$33,270
8	\$37,010

What is the USDOT definition of a minority?

- Black (a person having origins in any of the black racial groups of Africa)
 - Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race)
 - Asian (a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent)
 - American Indian or Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition)
 - Native Hawaiian or Other Pacific Islander (a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands)
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Americans, make up 24 percent of the total population in the region.

Census tracts with high percentages of minority populations can be found throughout the region (Exhibits 17-4 through 17-7). The census tracts with the greatest percentage of minority residents are located in Bellevue, Bremerton, Burien, Des Moines, Everett, Federal Way, Kent, Lakewood, Lynnwood, Normandy Park, Renton, SeaTac, Seattle, Tacoma, and Tukwila (listed alphabetically). Because of the regional scale of this analysis, some communities with a high percentage of minority populations may not be apparent. They would be identified in project-level analyses.

There are eight federally recognized tribes (Stillaguamish, Tulalip, Port Gamble S'Klallam, Port Madison Suquamish, Nisqually, Puyallup, Muckleshoot, Snoqualmie) in the central Puget Sound region and one tribe (Duwamish) pursuing recognition. Tribal reservations, other tribal lands, and tribal economic enterprises are an integral part of the region's economic and environmental landscape.

There is at least one tribal sovereign nation in each of the four counties. In every case, roads on tribal lands connect to county road networks.

Many tribal enterprises are located along interstate and state highways and both contribute to roadway congestion and benefit from the regional system. At least two tribal governments operate paratransit systems that are available to the general public.

Tribal leaders hold seats on PSRC boards and are invited to participate in the discussions on growth management, economics, and transportation.

PSRC staff participates in the Tribal Transportation Planning Organization (a statewide group of tribal leaders and planners) and through its leadership has an ongoing relationship with tribal leaders.

Exhibit 17-2 depicts the location of tribal reservations and lands in the central Puget Sound region.

What is the timeline for the 2010 U.S. Census?

- **Spring 2009:** Census employees go door-to-door to update address list nationwide.
 - **Fall 2009:** Recruitment begins for census takers needed for peak workload in 2010.
 - **February – March 2010:** Census questionnaires are mailed or delivered to households.
 - **April 1, 2010:** Census Day
 - **April – July 2010:** Census takers visit households that did not return a questionnaire by mail.
 - **December 2010:** By law, Census Bureau delivers population counts to President for apportionment.
 - **March 2011:** By law, Census Bureau completes delivery of redistricting data to states.
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Exhibit 17-2. Tribal Lands in the Central Puget Sound Region



Census data on poverty status were used to identify low-income populations. In response to public comments, low-income designation was divided into the two categories described below.

- Very low-income: These are individuals living below the poverty level. Following the Office of Management and Budget's Directive 14, the U.S. Census Bureau uses a set of income thresholds (in dollar amounts) that varies by family size and composition to detect who is poor. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being below the poverty level.
- Low-income: These are individuals living at or near the poverty level (between 1 and 1.99 times the poverty level). In urban areas, the low-income category is more representative of the functionally poor populations than just those at or below the federal poverty level.

As shown in Exhibit 17-3, in 1999, the regional population had 9 percent in the very low-income category and 12 percent in the low-income category. Pierce County has the highest percentage in the very low-income (10 percent) and low-income categories (16 percent), followed by Kitsap County with 9 percent very low-income and 15 percent low-income.

Exhibit 17-3

Low-Income Population Summary by County in 1999

	Very Low- Income ¹ (Total)	Very Low- Income ¹ (Percent)	Low- Income ² (Total)	Low- Income ² (Percent)	Combined ³ (Total)	Combined ³ (Percent)
King	142,546	8	191,879	11	334,425	20
Kitsap	19,601	9	33,583	15	53,184	24
Pierce	71,316	10	105,718	16	177,034	26
Snohomish	41,024	7	68,969	12	109,993	18
Total	274,487	9	400,149	12	674,636	21

¹ Very low-income indicates the number or percentage of individuals living below the poverty level.

² Low-income indicates individuals living between 1 and 1.99 times the poverty level.

³ Combined indicates the number of individuals living below two times the poverty level, representing both low-income and very low-income populations.

Source: U.S. Census Bureau, 2000

The percentage of low-income residents in each census tract (Exhibits 17-8 through 17-15) ranged from 3 to 20 percent. The census tracts with the highest percentages of low-income and very low-income residents are located in Auburn, Bremerton, Des Moines, Everett, Kent, Lakewood, Seattle, Sumner, and Tacoma (listed alphabetically). Because of the regional scale of this analysis, some communities with high percentages of low-income and very low-income populations may not be apparent. They would be identified in project-level analyses.

Exhibit 17-4. Minority Populations by Census Tract for King County

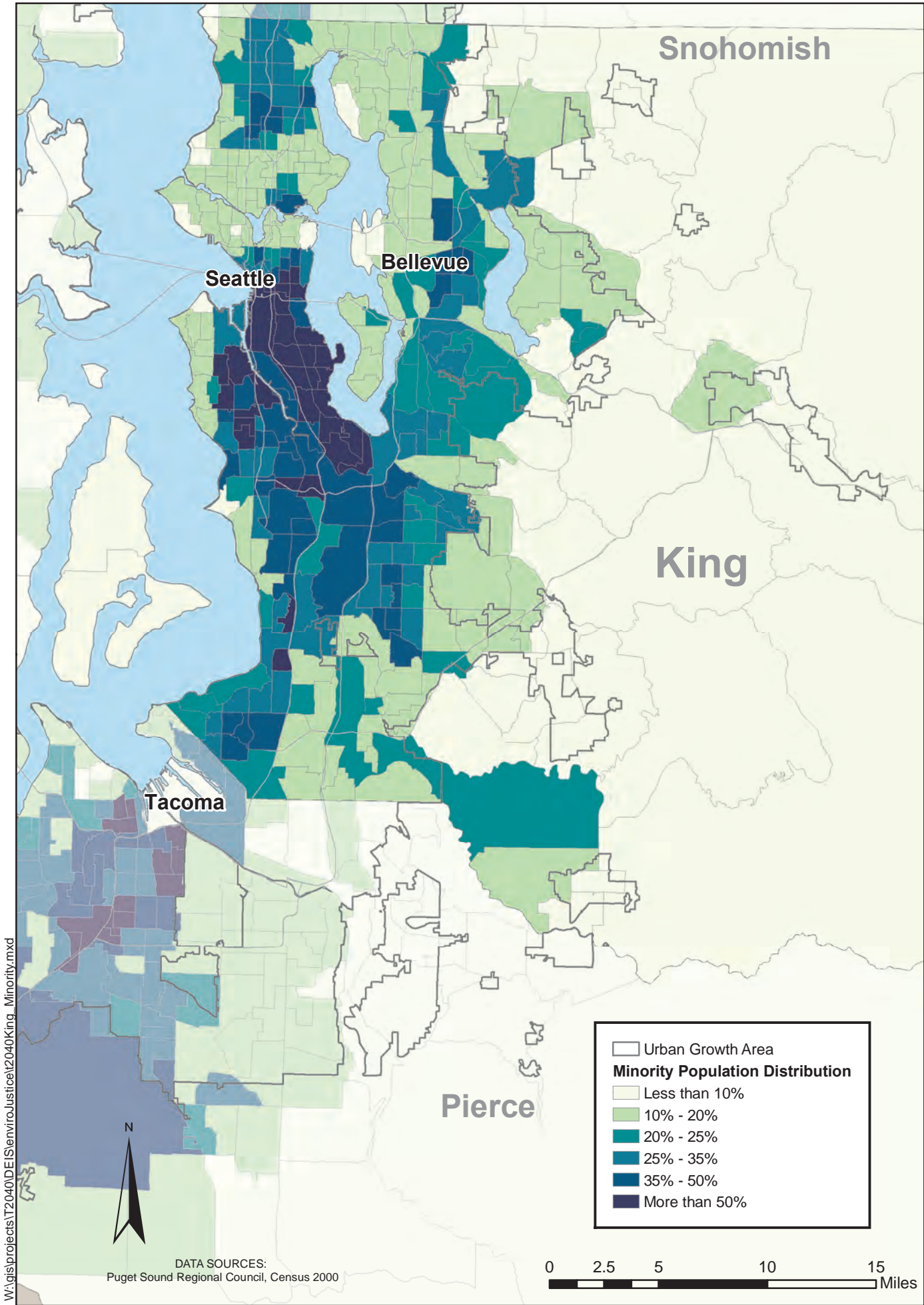


Exhibit 17-5. Minority Populations by Census Tract for Pierce County

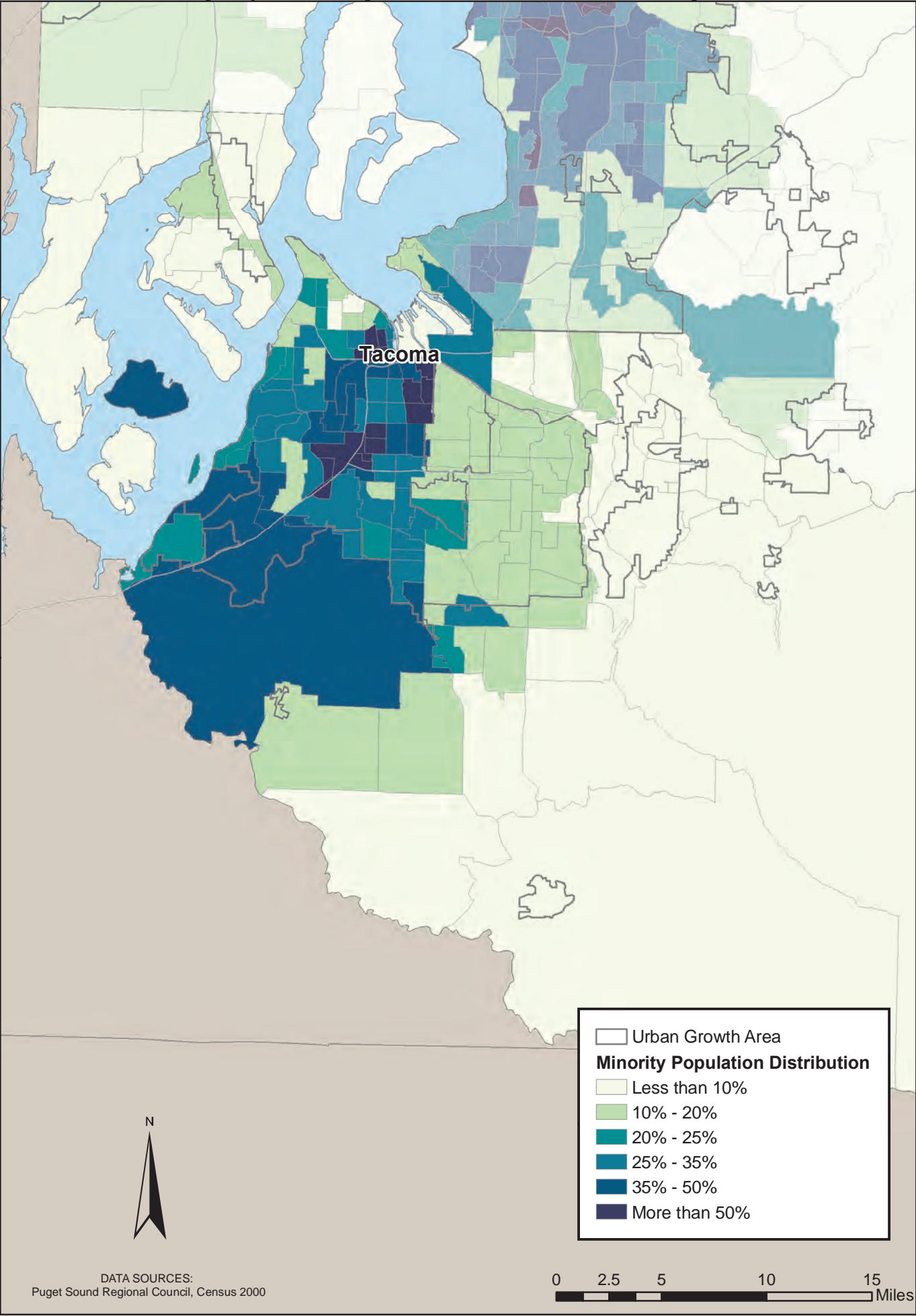


Exhibit 17-6. Minority Populations by Census Tract for Snohomish County

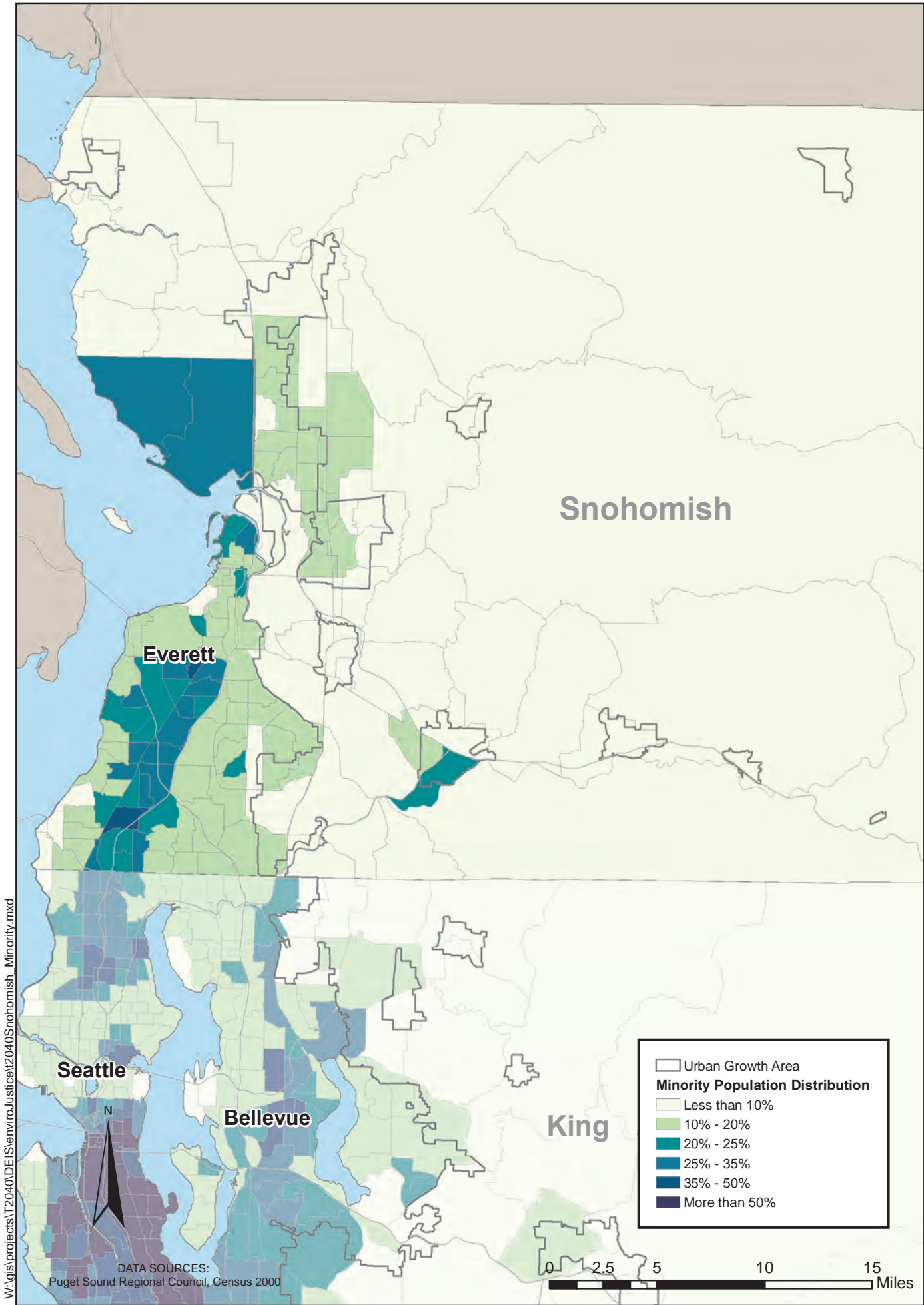


Exhibit 17-7. Minority Populations by Census Tract for Kitsap County

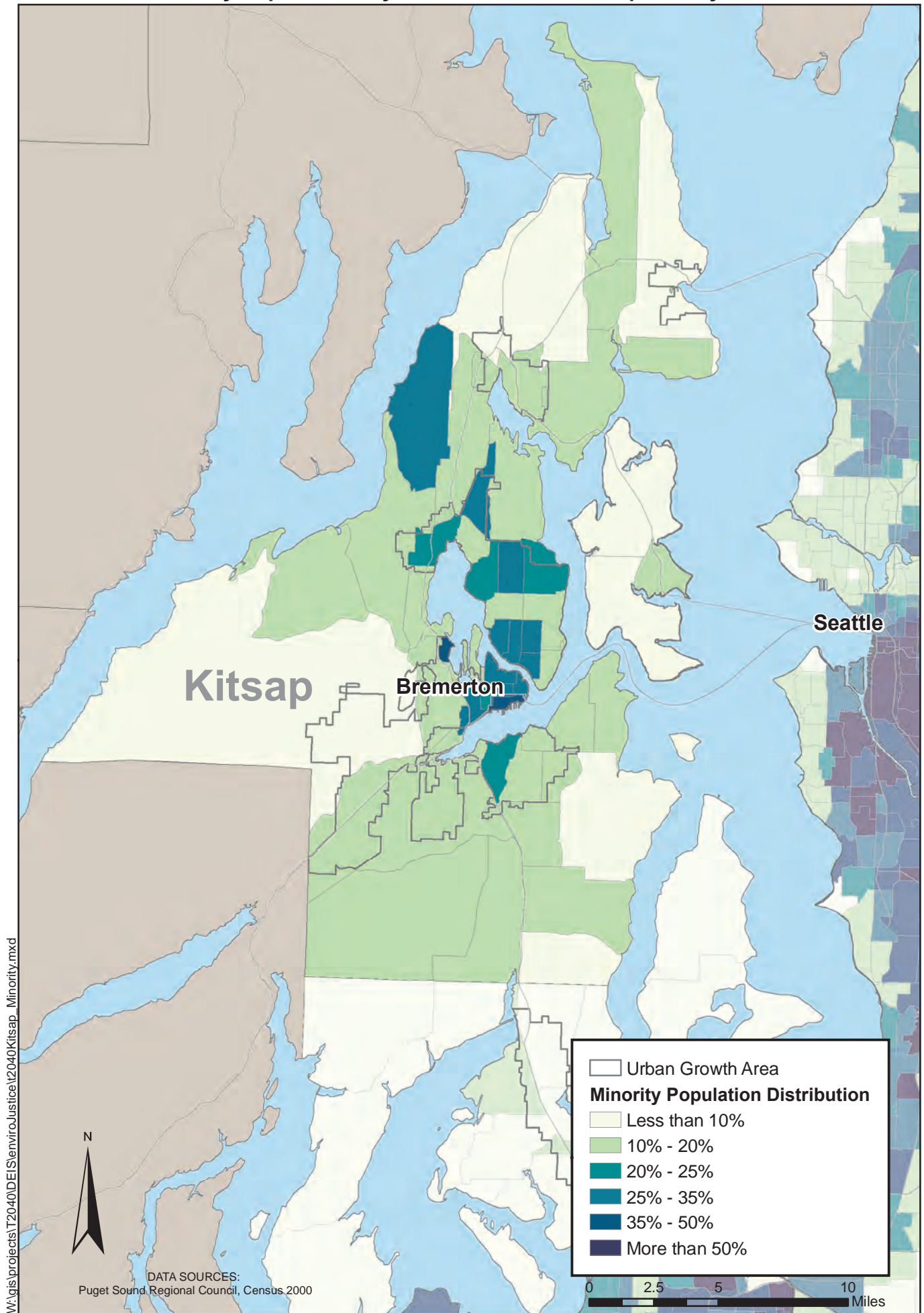
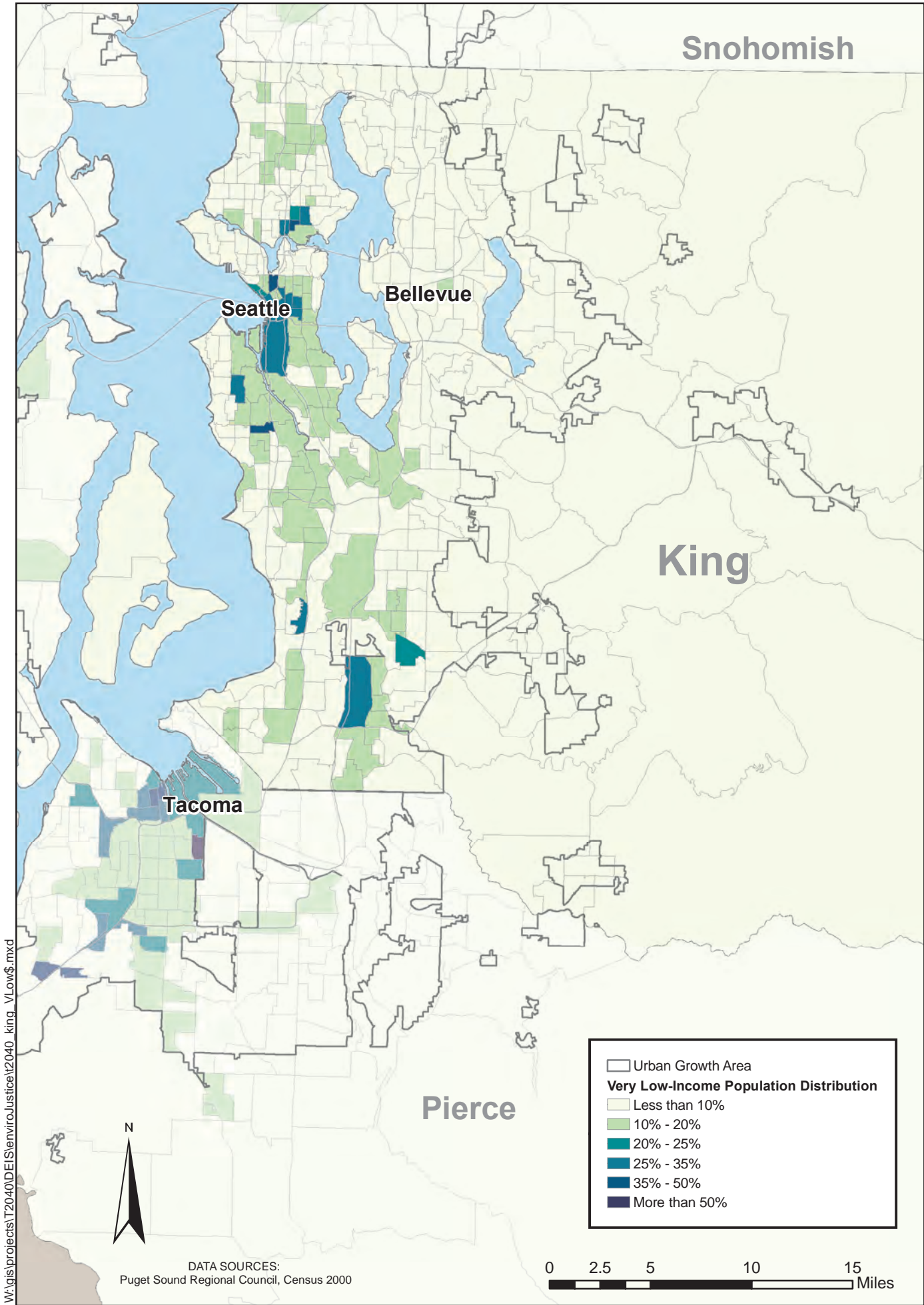
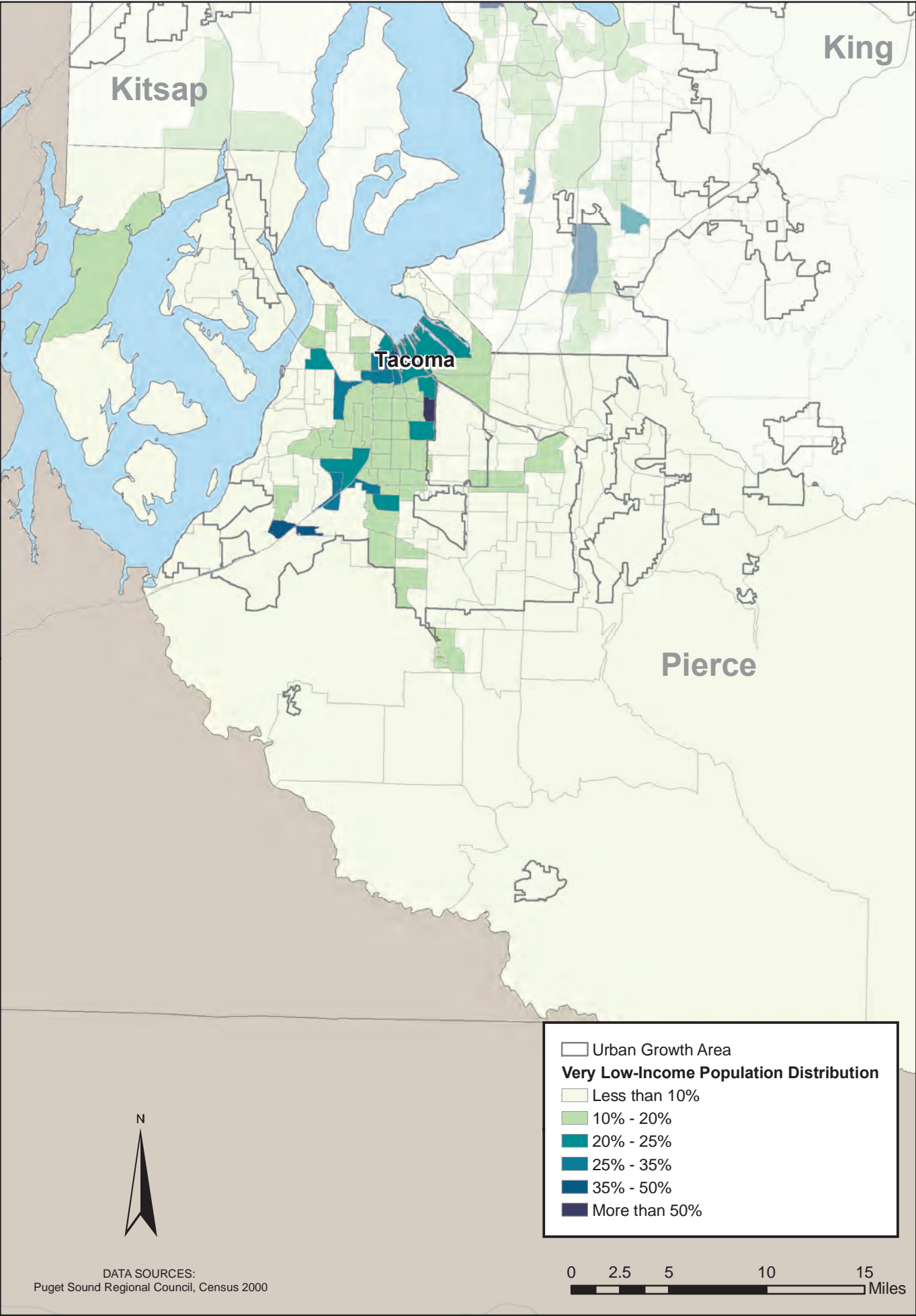


Exhibit 17-8. Very Low Income Populations by Census Tract for King County



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Exhibit 17-9. Very Low Income Populations by Census Tract for Pierce County



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Exhibit 17-10. Very Low Income Populations by Census Tract for Snohomish County



Exhibit 17-11. Very Low Income Populations by Census Tract for Kitsap County



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Exhibit 17-12. Low and Very Low Income Populations by Census Tract for King County

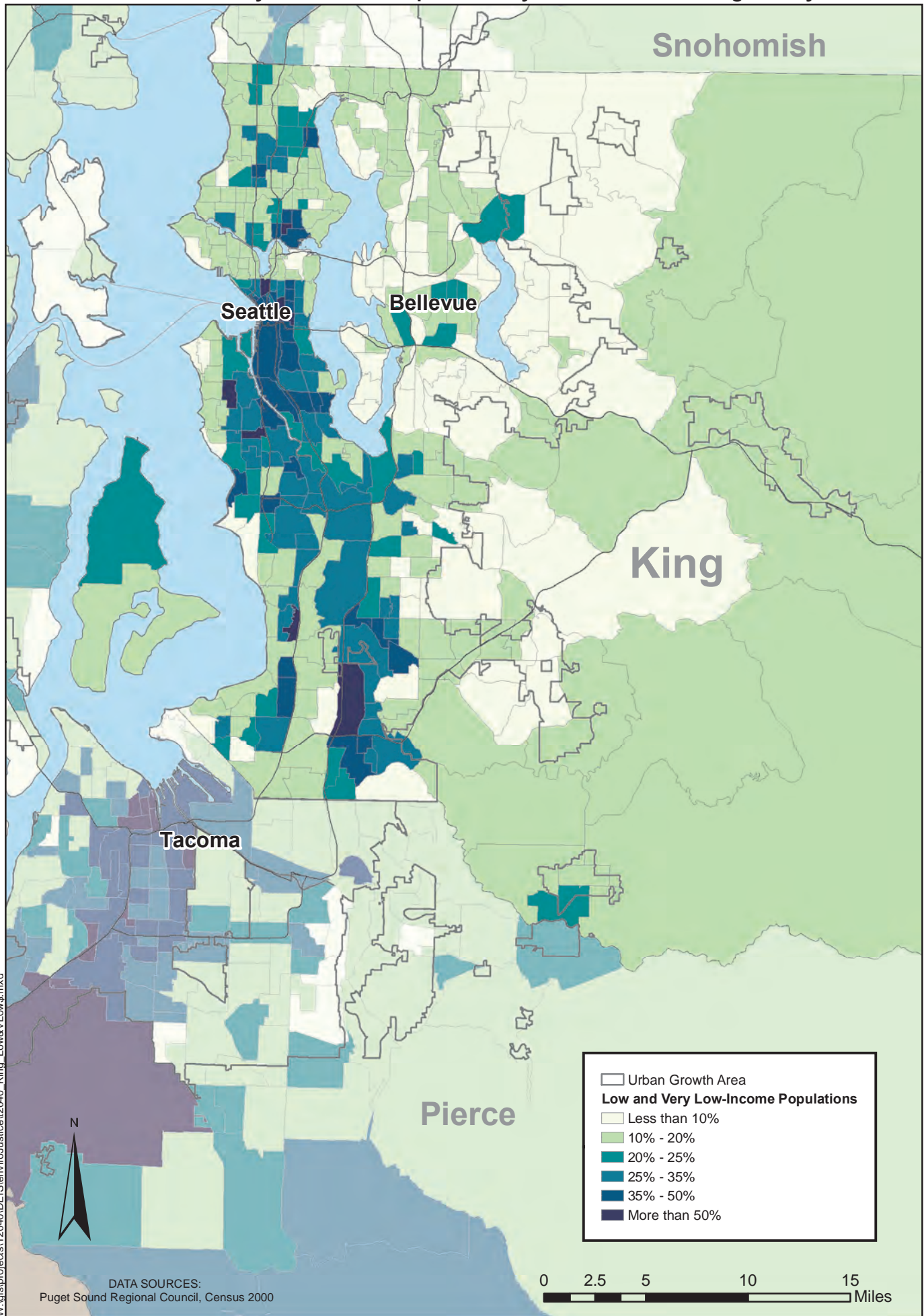


Exhibit 17-13. Low and Very Low Income Populations by Census Tract for Pierce County

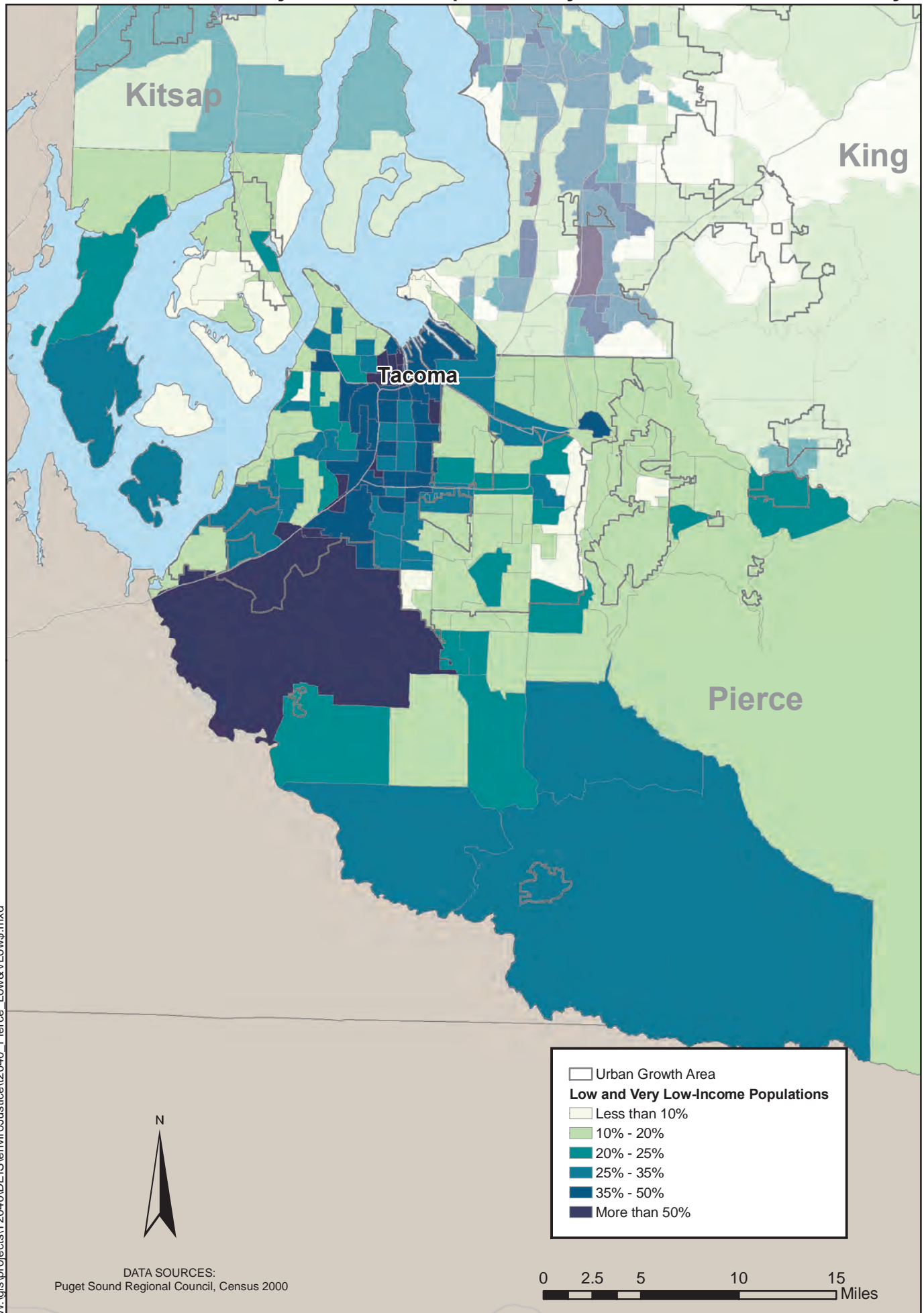


Exhibit 17-14. Low and Very Low Income Populations by Census Tract for Snohomish County

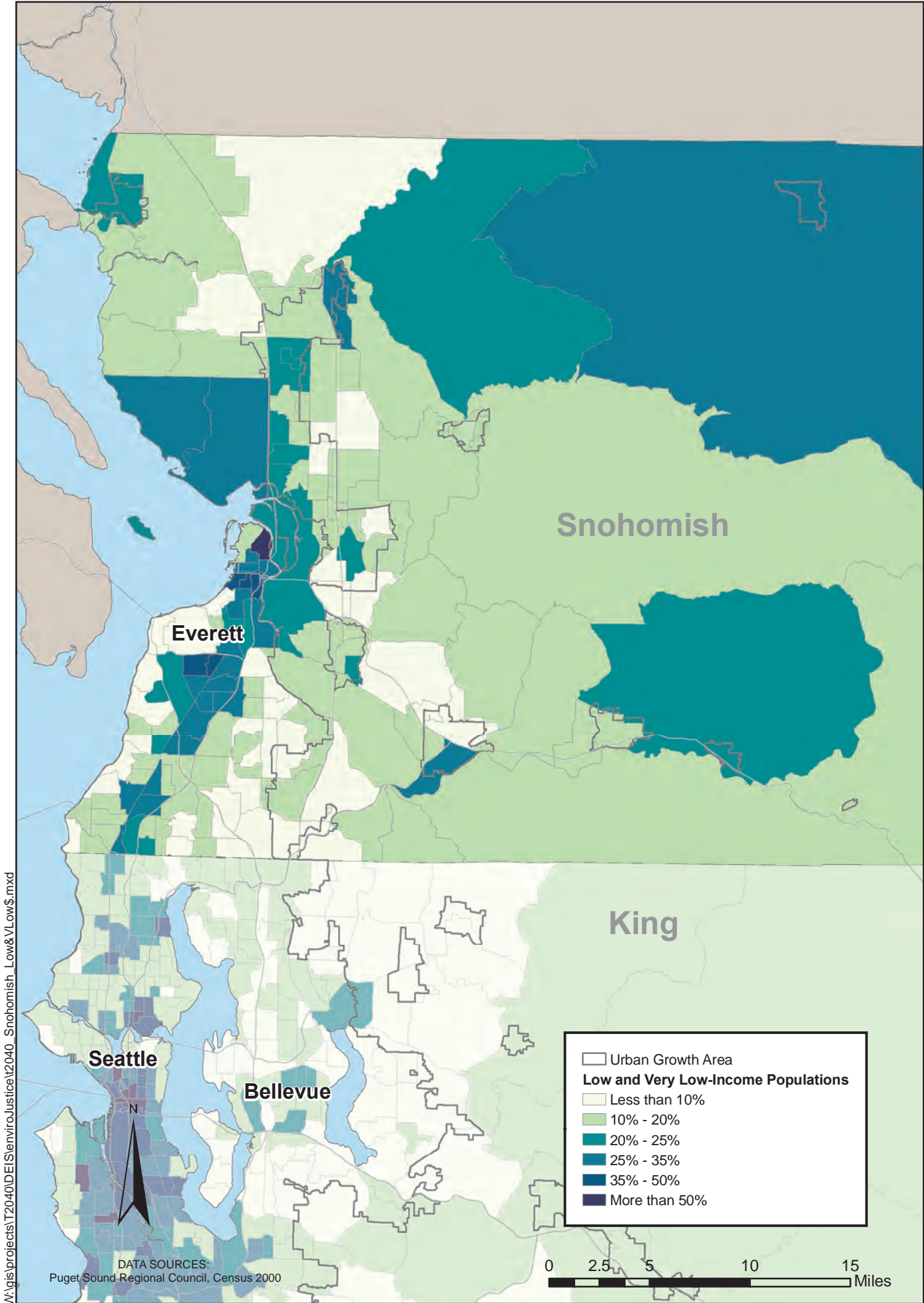
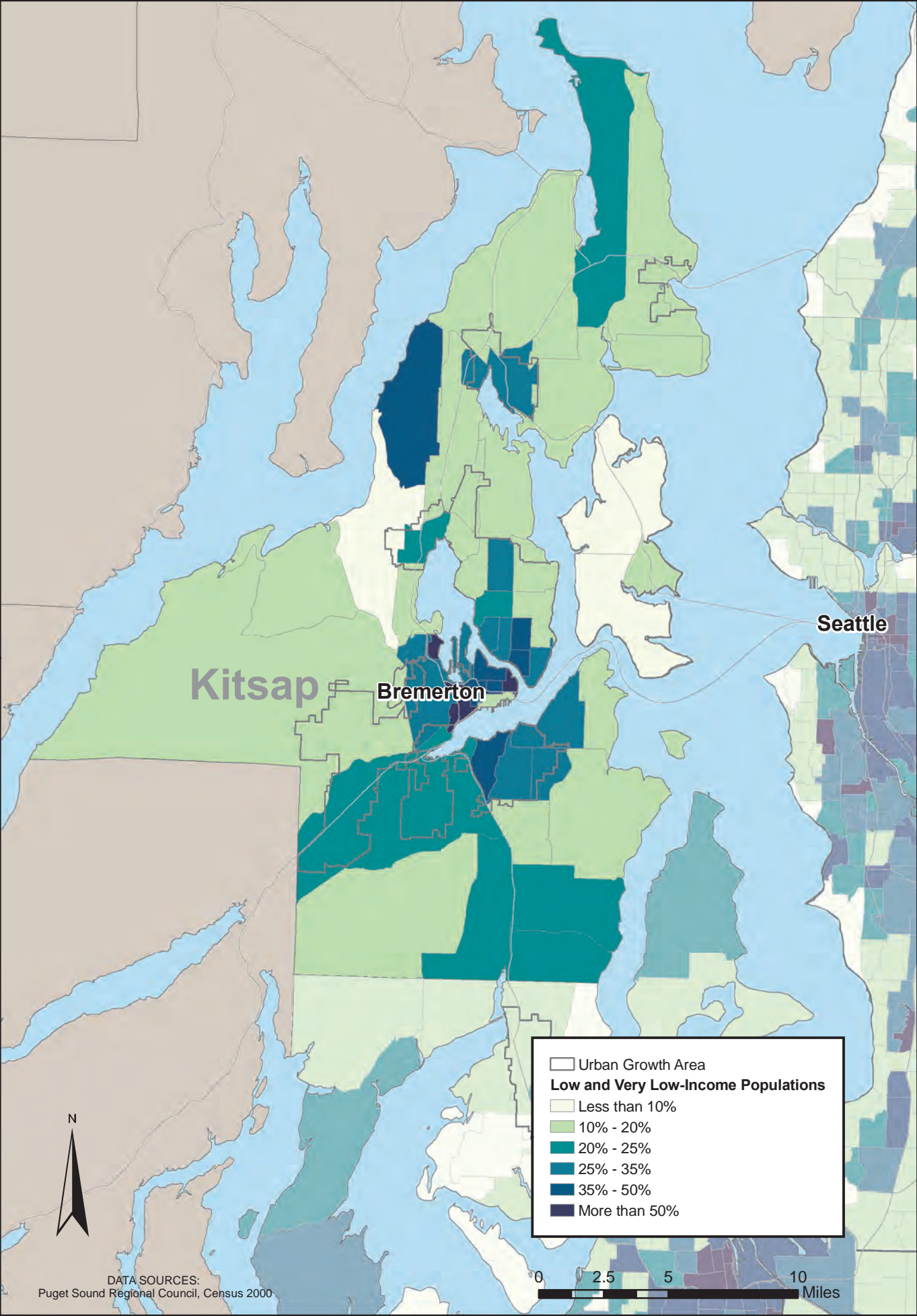


Exhibit 17-15. Low and Very Low Income Populations by Census Tract for Kitsap County



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5 How is PSRC involving minority and low-income populations while creating the Transportation 2040 plan?

To best understand the possible effects on low-income or minority populations for any of the six action alternatives in the Transportation 2040 plan, PSRC held five roundtable discussions with population leaders in the four counties that are members of the Puget Sound Regional Council—King, Kitsap, Pierce, and Snohomish.

Although the public was welcome to attend any of the roundtable discussions, specific invitations were extended to leaders representing low-income and minority populations. Consistent with PSRC policy, invitations were also extended to leaders representing elderly, special needs populations, limited-English proficient (LEP) residents or business owners, people who are completely reliant on public transit, and social service providers.

Roundtable discussions were held at Americans with Disabilities Act (ADA)-accessible facilities. PSRC announced the discussions on the PSRC website and through a regionwide mailing to leaders identified in PSRC's contact database that represent minority and low-income populations. This database has been created over the years by PSRC as it has conducted outreach activities. Follow-up telephone calls and emails were made to population leaders to encourage attendance and participation.

Roundtable discussions were held during the formal public comment period for the Draft EIS (DEIS), which began on May 28, 2009 and concluded on July 31, 2009. Nearly 60 people representing more than 40 organizations and local governmental units participated in the roundtable discussions.

PSRC is hosting five follow-up discussions with population leaders to present the plan, share how PSRC incorporated their feedback into the plan, identify ways in which the plan may benefit or affect their communities, and discuss ways in which they could stay engaged in the implementation.

Environmental Justice outreach

For more information about Environmental Justice outreach, refer to Appendix M: Environmental Justice Public Outreach Summary Report

Key themes emerging from the roundtable discussions included:

- The need to coordinate land use and transit planning
- The need to ensure equity and fairness in tolling practices
- The need to dramatically expand transit service and improve travel connectivity and convenience
- The need to preserve and improve air quality in low-income and minority communities

PSRC recognizes the importance of these issues. This EIS highlights these issues for analysis in future project-level environmental review, but can not analyze these issues at the plan-level.

6 What effects on minority and low-income populations are common to all alternatives?

With the exception of the Baseline Alternative, all alternatives include continued expansion of transit and rideshare services, as well as projects that provide improvements for nonmotorized travel. These services, systems, and facilities provide improved mobility at a lower cost than travel by private automobile. Overall improvements to the regional system would benefit low-income and minority populations although specific benefits resulting from individual projects would vary depending on the project location. Benefits include shorter travel times and better connections to and from residential areas, employment centers, and educational, health, recreational, and community service facilities.

7 How would minority and low-income populations be affected by the individual alternatives?

In other chapters, this FEIS discusses the potential effects on the natural and built environment that could result from the Transportation 2040 alternatives and describes the methods that could be used to mitigate these impacts. As noted in the sidebar, this FEIS is not intended to identify all effects likely to result from the hundreds of projects and programs contained in

What is the difference between plan-level and project-level environmental review?

This FEIS is a plan-level (rather than a project-level) EIS. Accordingly, alternatives are defined and environmental effects are evaluated at a relatively broad level. More detailed project-specific environmental review will be developed as appropriate in the future for projects identified in the Transportation 2040 plan that are selected for implementation by their sponsors: Washington State Department of Transportation (WSDOT), transit agencies, counties and cities.

Why does this FEIS not list the specific environmental effects caused by each alternative?

Each of the Transportation 2040 alternatives contains hundreds of individual projects. If constructed in the future, these projects could affect the region's built and natural environments.

For some environmental disciplines, such as transportation or air quality, these projects could affect the environment in the vicinity of the project and also could collectively affect the regional environment. For these disciplines, this FEIS contains an analysis to evaluate the potential regional effects of these projects. The localized effects for these environmental disciplines will be identified in a future project-level environmental review.

For other environmental disciplines, individual resources could be affected by the projects in their vicinity, but would not be affected by projects elsewhere in the region. Therefore, this EIS does not contain a regionwide analysis for these disciplines. Future project-level environmental review will identify the specific localized effects on these environmental areas.

each of the Transportation 2040 alternatives. Rather, this FEIS seeks to identify the types of effects that could result from the implementation of these projects. Whether these effects from individual projects would have a disproportionate impact on minority or low-income populations would be determined in future project-level environmental reviews. Potential effects are summarized below:

Transportation

Projects in the Transportation 2040 alternatives would affect travel patterns of transportation users throughout the Puget Sound region. These effects are discussed extensively in Chapter 4: Transportation. The analysis of transportation effects uses the following measures to evaluate the effects of the plan alternatives:

- Vehicle trips by time of day
- Average daily trip times and lengths
- Freeway and arterial vehicle miles traveled, vehicle hours traveled, and delay
- Peak, off-peak, freeway, and arterial speeds
- Mode share for work, nonwork, and all trips
- Person trips by mode
- Morning and midday transit service
- Increase in morning and midday transit service hours
- Daily transit boardings
- Auto and passenger ferry routes
- Auto and passenger ferry boardings
- Investment in walking and bicycling facilities
- Nonmotorized trips
- Annual benefits to commercial and passenger users
- Annual transportation mobility benefits

- Annual accident reduction benefits
- Annual user benefits by regional sub-area
- Annual benefits by income
- Annual benefits by user type

For more information about the evaluations listed above, refer to Chapter 4: Transportation. For a discussion of the effects of tolling on environmental justice populations, refer to Question 8.

Land Use, Population, Employment, and Housing

The amount of population and employment growth does not vary among alternatives. From 2006 to 2040, all alternatives assume an additional 1.5 million people, an additional 1.2 million jobs, and approximately 800,000 additional housing units. In addition, all seven of the alternatives are consistent with VISION 2040. Therefore, none of the alternatives would result in impacts to land use, employment, population, or housing beyond those described in the VISION 2040 Final Environmental Impact Statement.

The transportation alternatives do vary in how they interact with this amount of forecasted growth, as well as with existing land use and development regulations. Accessibility, development constraints, and household and employer location choices have the potential to yield different urban development patterns, and, consequently, the potential for marginal differences in overall regional urban form.

For more information, refer to Chapter 5: Land Use, Population, Employment, and Housing.

Air Quality and Climate Change

Under the federal Clean Air Act, EPA established National Ambient Air Quality Standards for six principal, or criteria, pollutants considered harmful to public health and the environment. Primary standards set limits to protect public health; secondary standards set limits to protect the environment, including protection against decreased visibility and damage to wildlife, plants, and buildings. The six criteria

pollutants are carbon monoxide, lead, nitrogen dioxide, particulate matter (PM₁₀ and PM_{2.5}), ozone (nitrogen oxides and volatile organic compounds), and sulfur oxides.

Carbon monoxide reduces the blood's oxygen-carrying capability. Acute health effects include headaches, slowed reflexes, weakened judgment, and impaired perception. Lead in the ambient air is no longer considered a public health concern, and it has not been monitored in the region since 1999. Health effects of particulate matter include respiratory illnesses, such as aggravated asthma, chronic bronchitis, and decreased lung function. Ozone is an eye and respiratory tract irritant and increases the risk of respiratory and heart diseases.

At this time, there are no federal standards related to greenhouse gases. There may be future federal and state legislation that sets requirements for reducing greenhouse gas emissions and/or VMT, pertinent to the transportation and growth management planning activities conducted by PSRC. In the absence of such requirements, PSRC has taken an active stance to address the state's climate change goals in the VISION 2040 policies and in the development of Transportation 2040.

Expected consequences from climate change include an increase in global temperatures, resulting in a rising of the sea level. Other effects include a change in precipitation and impacts to local climates, which could alter forests, crop yields, and water supplies. Climate change may also affect human health, animals, and many types of ecosystems.

For more information and results of the air quality analysis, refer to Chapter 6: Air Quality and Climate Change.

Noise

Projects in the Transportation 2040 alternatives would likely affect traffic patterns in the Puget Sound region. For example, widening a highway would likely increase traffic and associated noise levels on the highway and on nearby feeder roads. The effect of transportation-generated noise depends on the proximity of noise-sensitive land uses to the noise source.

Noise during construction could be bothersome to nearby residents and businesses. Construction workers also would be subject to construction noise while working on the site. Construction noise would vary widely both in its range and hours over the course of implementing the program. Individual projects would generate disturbances in their general vicinity during construction. For more information, refer to Chapter 7: Noise.

Visual and Aesthetic Resources

Some transportation facilities would affect the views and visual character of some residential neighborhoods, natural areas, and open spaces. However, impact levels would generally be reduced where improvements are located along existing freeways and arterials, at existing park-and-ride lots, in activity centers, and in other aesthetically compatible locations.

Some transportation facilities, such as recreational trails or other nonmotorized facilities, could result in positive effects on the visual environment when they are placed in natural settings. Transportation projects that replace existing aging facilities with more aesthetically pleasing modern facilities can also result in improvements to the visual environment, such as removing view-blocking structures or using context-sensitive design principles.

Construction of transportation facilities would cause visual impacts by removing or altering existing visual resources that contribute to the quality of the visual environment. Examples include clearing vegetation, grading, and demolishing structures. For more information, refer to Chapter 8: Visual and Aesthetic Resources.

Water Quality and Hydrology

Adverse water quality and hydrology impacts, if identified, would primarily affect the region's water resources, not its inhabitants. Therefore, effects of the Transportation 2040 alternatives on water quality and hydrology are not expected to affect minority and low-income populations differently than populations that are not minority or low income.

Ecosystems and Endangered Species Act Issues

Adverse effects on ecosystems and impacts related to the Endangered Species Act, if identified, would primarily affect the region's plants and wildlife, not its human inhabitants. Therefore, effects of the Transportation 2040 alternatives on ecosystems and impacts relating to the Endangered Species Act are not expected to affect minority and low-income populations differently from populations that are not minority or low income.

Energy

Adverse energy impacts, if identified, would primarily affect the region's energy supply, not its inhabitants. Therefore, effects of the Transportation 2040 alternatives on energy are not expected to affect minority and low-income populations differently from populations that are not minority or low income.

Earth

Adverse impacts to soils, topography, and geologic features, if identified, would primarily affect the region's physical environment, not its inhabitants. Therefore, effects of the Transportation 2040 alternatives on soils, topography, and geologic features are not expected to affect minority and low-income populations differently from populations that are not minority or low income.

Environmental Health

Operation and maintenance of the region's transportation system will involve materials that can affect environmental health and human health. Oil-based lubricants, vehicle batteries, parts-cleaning fluids, paints, solvents, and fuels are among the products typically used in the maintenance and operation of transportation vehicles. All vehicles are subject to fluid leaks. Because the region's transportation system includes aviation, surface, and marine transportation, releases to the environment could affect a range of environmental media, including soils, groundwater, surface water, and sediments.

For all construction projects identified in the plan alternatives, persons involved in construction excavating, trenching, or

moving soil may be affected by hazardous waste release sites. Persons living or working near such sites may also be exposed through skin contact, ingestion, or inhalation of soil particles, dust, or vapors. If safe work practices are followed in site preparation and development, the impact risk would be low. For more information, refer to Chapter 13: Environmental Health.

Public Services and Utilities

Given the minor land use differences among the alternatives (as discussed in Chapter 3: Plan Alternatives), few land use-related effects are expected on public services and utilities from the alternatives. These effects could include solid waste generation, sanitary sewer generation, water supply usage, and school enrollments. There could be differences among the alternatives in terms of safety, access, and mobility for fire, police, and health services, as well as safety, access, and mobility to schools. For more information, refer to Chapter 14: Public Services and Utilities.

Parks and Recreation

If acquisition of parkland is required for specific transportation projects, the amount of available parkland may be reduced. Although parks and recreational facilities would typically be avoided, use of parklands or other direct impacts may occur, particularly when other physical constraints limit the location of infrastructure.

Parks and recreational facilities in proximity to transportation projects can be affected in a number of ways, including temporary trail closures and temporary restrictions on park use and access. For more information, refer to Chapter 15: Parks and Recreation.

Historic and Cultural Resources

Traditional cultural properties in the central Puget Sound region are primarily associated with Native American tribes. Both federally and nonfederally recognized tribes are allowed to identify traditional cultural properties. Consultation with the appropriate tribe is done at the project level by the lead agency with the assistance of the Department of Archaeology and

Historic Preservation and the Washington state Governor's Office of Indian Affairs to avoid or minimize impacts to traditional cultural properties. With proper planning, all of the Transportation 2040 alternatives have the potential to avoid or minimize effects on traditional cultural properties. Because of this, effects of the Transportation 2040 alternatives on historic and cultural resources are not expected to affect minority and low-income populations differently from populations that are not minority or low income.

Human Health

Death and injuries on the transportation system represent a fundamental link between human health and transportation. Successful safety programs at the metropolitan planning level require collaboration with many different partners including law enforcement agencies, local and state jurisdictions, transit agencies, emergency service responders, and advocacy organizations.

The link between transportation and health is an emerging national issue. Public health professionals at the local, state, and national levels are evaluating ways for the built environment to help people incorporate physical activity into their daily routine. For more information, refer to Chapter 18: Human Health.

8 Does tolling represent a disproportionate impact on minority or low-income populations?

The tolling schemes included in the Transportation 2040 alternatives represent a sampling of the possible tolling schemes that could be implemented in the future. As noted above in Question 7, determining whether individual projects or programs like tolling would have disproportionate impacts on minority or low-income populations would be determined in future project-level environmental reviews. As noted below in Question 11, many opportunities exist to measure tolling at the project-level.

During the plan-level environmental review conducted for Transportation 2040, some preliminary analyses were

conducted on the effects of tolling on environmental justice populations.

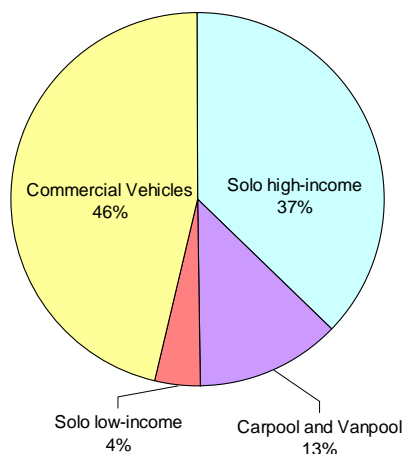
Tolling could have adverse impacts but could also bring benefits to low-income populations. USDOT Order 5610.2 and Federal Highway Administration (FHWA) Order 6640.23 apply two criteria to determine whether an effect would be disproportionately high and adverse:

- Low-income or minority populations would predominantly bear the effect; or
- Low-income or minority populations would suffer the effect, and the effect would be considerably more severe or greater in magnitude than the adverse effect suffered by the general population.

In response to the first criterion, Exhibit 17-16 shows, in terms of total tolls paid, higher-income solo drivers and commercial vehicle classifications would predominantly bear the effect of the tolls.

Exhibit 17-16

Percent of Tolls Paid by Vehicle Classification (Preferred Alternative)



Source: PSRC

Low-income solo drivers would bear a lesser burden. Transit riders, walkers, and bike users would not pay tolls.

In response to the second criterion, it is more difficult to determine whether the effect on low-income or minority populations would be considerably more severe or greater in magnitude than the effect suffered by the general population. This difficulty is due to the following factors:

- It is clear, as discussed in Question 9, that toll payment represents a burden for low-income users. What is not clear, and presents an opportunity for future research, is whether paying for transportation improvements through tolling is more or less equitable than through gas taxes or other traditional funding sources.
- Often, tolling projects are coupled with transportation infrastructure or transit service improvements within the tolled corridor. It is unclear at the plan level whether the benefits of these improvements would outweigh the burden of the tolls.
- Tolling improves mobility, which results in travel time benefits for all populations. This effect is discussed in more detail below in Question 10.

9 How would toll payment represent a burden on low-income, minority, or LEP populations?

Toll payment would not affect minority populations differently than the general population. However, there are two principal ways in which toll payment would adversely affect low-income or LEP populations. Question 14 describes possible mitigation strategies.

- **Cost of Toll Payment:** Toll costs could present a burden to low-income users. If tolls are the same amount for all users, regardless of income, toll payment would require a higher proportion of income from low-income users.
- **Method of Payment:** Tolling schemes requiring drivers to purchase a transponder and set up an account to pay the toll could present a burden to low-income and LEP users. Many

low-income and LEP populations do not have a credit card or checking account, which is often required for activation of a transponder. The instructions and procedures required for transponder activation and maintenance might also present difficulties for LEP populations.

10 What are the benefits of tolling?

There are two ways in which implementation of the Transportation 2040 Preferred Alternative would benefit all users, including low-income, minority, and LEP populations:

- All drivers, including low-income, minority, and LEP drivers, would benefit from increased traffic speed and trip reliability.
- All bus transit users sharing travel lanes with other vehicles, including low-income, minority, and LEP users, would benefit from improved transit speed, reliability, and accessibility.

Specifically related to environmental justice populations, focus group interviews of low-income drivers for the Urban Partnership SR 520 Variable Tolling Project indicated that some low-income drivers believed that a \$3.50 toll would be worth it for a faster, more reliable trip. This is consistent with other studies on the equity of high-occupancy toll lanes, which also found that some lower income people supported congestion pricing if it ensured a faster, more reliable trip. Researchers hypothesized in these studies that lower income people who worked for hourly wages or depended on child care would choose to pay a toll to avoid losing wages or paying high late fees at their child care facilities. For many lower income people who are juggling multiple jobs and child care, traffic delays may pose an even bigger burden than a toll (WSDOT, 2009).

Some low-income populations are auto-dependent for other reasons that cannot be mitigated by transit. For example, they may have special needs and drive a specially outfitted vehicle; hold multiple jobs or work at different job sites, such as a housecleaner or home-health worker; or they might have a

large family, etc. These populations might benefit from increased speeds and trip reliability.

Distribution of benefits to environmental justice populations

Annual user benefits were calculated for environmental justice (low-income and minority) populations (that is, geographic areas that are correlated with observed percentages of minority and low-income populations greater than the regional average).

The analysis shown in Exhibit 17-17 indicates the action alternatives would produce positive benefits for both minority and low-income populations compared to the Baseline Alternative. The Preferred Alternative (constrained) and Preferred Alternative would produce the greatest annual benefit to both low-income and minority populations, ranging from just under \$700 million to nearly \$1 billion.

Exhibit 17-17¹

Annual Benefits to Environmental Justice Populations

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Preferred Alternative (Constrained)	Preferred Alternative
	(millions of 2008 dollars)						
Low-Income Populations	\$ 141	\$ 244	\$ 328	\$ 252	\$ 158	\$692	\$876
Minority Populations	\$ 180	\$ 290	\$ 378	\$ 320	\$ 197	\$747	\$946

¹ This exhibit has changed since the DEIS.



Benefits per person vehicle trip were calculated for low-income and minority populations, as well as for the region as a whole, for each of the alternatives. Compared to the Baseline Alternative, the action alternatives show greater benefits, as does the entire region. Under the Preferred Alternative, geographic areas with higher percentages of low-income and minority populations were found to have greater user benefits than the region as a whole.

11 During future project-level environmental review, what analyses could be performed to effectively evaluate the impact of tolling upon minority and low-income populations?

Community Resource Mapping

Neighborhood resources within and near the study area that fit the following commonly accepted neighborhood resource categories could be identified and mapped: parks, schools, locally and nationally recognized historic structures, and emergency services. The maps could help community members and the project team determine how these resources would be affected.

Displacement Surveys

Location-specific surveys could help to determine the characteristics of the population being directly affected by the

project and whether there would be a disproportionate impact on environmental justice populations.

Traffic Diversion Analysis

For projects that include tolled facilities near alternative untolled facilities, traffic analyses could be performed to determine the effects of the diverted traffic on the communities that contain the untolled facilities.

Opportunity Equity Analysis

Geographical comparisons of tolls collected and benefits gained by geographic area could be conducted to ensure that the communities experiencing the burden of the tolls are also benefiting from the reinvested revenue.

12 How will Transportation 2040 affect transportation provisions for special needs populations?

PSRC promotes and maintains an open dialogue among special needs transportation funding agencies, providers, and brokers in the region by facilitating discussions at the regional and local levels. This communication is of paramount importance to providing coordinated transportation for those with special needs.

As part of that coordination, PSRC has developed and adopted a regional plan addressing special needs transportation services—the PSRC Coordinated Transit-Human Services Transportation Plan (Coordinated Plan). The Coordinated Plan serves as a unified, comprehensive strategy for public transportation service delivery that identifies the transportation needs of individuals with disabilities, older adults, and individuals with limited incomes.

The Coordinated Plan also lays out strategies for meeting those needs, and prioritizes services and implementation strategies to guide investment decisions, particularly for the federal Job Access and Reverse Commute (JARC) and New Freedom programs administered by PSRC.

For more information, refer to Chapter 4: Transportation as well as online at psrc.org.

What are special needs populations?

Special needs populations are those whose mobility is affected due to age, income, disability, or physical condition. In the state of Washington, people with special transportation needs are defined in Revised Code of Washington 47.06B as those "including their personal attendants, who because of physical or mental disability, income status, or age are unable to transport themselves or purchase transportation."

13 What cumulative effects on minority and low-income populations could occur if the Transportation 2040 actions coincide with other planned actions?

The demographics discussion above reflects past and present cumulative effects on minority and/or low-income populations. Future cumulative effects on environmental justice populations could be affected by other regional plans and actions. Local jurisdictions throughout the region may revise their existing land use plans to be consistent with VISION 2040 and complement the Transportation 2040 Preferred Alternative. New development resulting from these plans could have both positive and negative effects on the environment.

PSRC has performed an analysis of the development pattern changes that could result from the transportation alternatives (refer to Chapter 5: Land Use, Population, Employment, and Housing) and has concluded that none of the Transportation 2040 alternatives would induce future land use and development pattern changes that are substantively different than the Baseline Alternative. In addition, all of the Transportation 2040 alternatives are consistent with the adopted VISION 2040 regional growth strategy.

The development pattern analysis did not address the possible effect of transit expansion upon affordable housing. It is possible that housing prices near new transit facilities will rise, which would affect low-income populations currently living near these facilities or wishing to move near these facilities unless efforts are made to maintain affordable housing near transit.

14 How can the effects on minority and low-income populations be mitigated?

Specific measures should be considered to mitigate any adverse impacts that tolling could potentially have on environmental justice populations. The measures fall into the categories of outreach, assistance, accessible toll collection methods, and monitoring. Inclusive, early public involvement should be

What are cumulative effects?

Cumulative effects address the impact on the environment that results from the incremental impact of the action being considered when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

implemented so that people could make choices based on the knowledge that transportation costs would increase if they use the tolled facilities.

Assistance programs that aid low-income populations with travel options, tolling assistance, bus passes, and bicycles should be considered, depending on which tolling schemes are chosen. There are several programs in the central Puget Sound region that are designed to assist special groups of individuals with the costs and challenges of transportation. In order to mitigate the impacts of the tolls, assistance could be provided to these programs, so their levels of service could increase and aid more people taking alternative travel modes.

Before and after a toll facility opens, WSDOT should provide information on how to obtain transponders, and how to receive transportation assistance.

Some options for improving low-income drivers' access to the transponders include:

- Locate venues for acquiring transponders close to lower income neighborhoods.
- Enable people without credit cards or checking accounts to obtain a transponder.
- Share information with and through other public service providers.
- Consider subsidizing or providing transponders to individuals and families below the poverty line. Alternatively, transponders could be provided as an additional service, cooperatively with an existing public service provider (e.g., food stamps).
- Include rideshare opportunities.

The following four strategies are commonly used by transportation project sponsors to address equity concerns (Weinstein and Sciara, 2004):

- Conduct a highly proactive public involvement and educational campaign.

- Perform various equity analyses (e.g., demographic characteristics of corridor/travel shed; origin/destination studies; and existing transit options/alternative driving routes, including commitments to collect data and/or monitor effects for years into project operations).
- Monitor and evaluate projects to ensure equity effects are acceptable.
- Create revenue expenditure plans that fund beneficial projects or programs for lower-income stakeholders who would be adversely affected by the project.

In 2005, PSRC conducted workshops with minority and low-income population community leaders as part of the VISION 2040 (PSRC, 2005) environmental justice outreach. PSRC learned that participants support increased transportation funding and tolls if they are accompanied by beneficial transportation options. The participants said that increased access to transit is especially important for low-income populations, but that language barriers prevent some non-English-speaking people from using transit. When low-income people move to outlying areas to seek lower-cost housing, they often find transit services lacking.

15 Are there any significant unavoidable adverse impacts to minority and low-income populations?

Significant unavoidable adverse impacts are discussed by discipline under each element of the environment, elsewhere in this FEIS. The effect of tolling on low-income and minority populations is an area of emerging research, so the relative regressivity of paying for transportation improvements through tolling versus taxes on gas or sales is not well understood. Specific toll rates, facility locations, methods of toll payment, and use of toll revenues are topics likely to be discussed in detail in future project-level environmental review. In some instances, there may be significant unavoidable adverse impacts to specific groups of minority and low-income populations. If so, mitigation would be developed to partially offset these impacts.