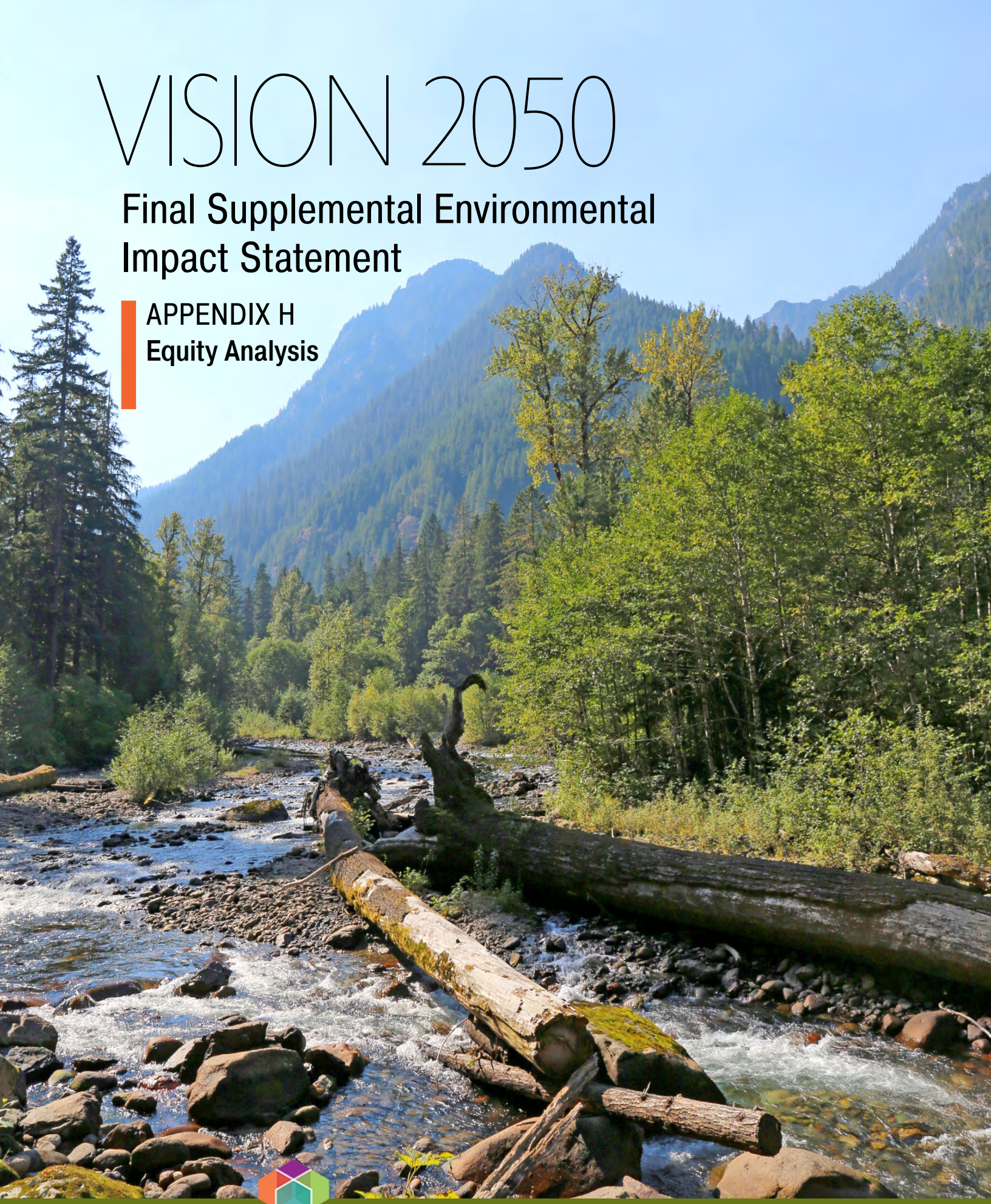
VISION 2050

Final Supplemental Environmental Impact Statement

APPENDIX H
Equity Analysis



Puget Sound Regional Council

MARCH 2020

Appendix H: Equity Analysis

Contents


PSRC

Appendix H: Equity Analysis

Part 1: Introduction

VISION

VISION 2040 is the region's prior plan for managing growth forecast through the year 2040. The plan includes overarching goals, an environmental framework, a strategy to sustainably guide growth in the region, and multicounty planning policies. It also includes implementation actions at the regional, county, and local levels. As required under the state Growth Management Act (GMA), VISION 2040 has policy chapters addressing the environment, development patterns, housing, the economy, transportation, and public services.

The region has had important successes implementing VISION 2040. At the same time, the region continues to face challenges, including the rising cost of housing and increased travel times that can reduce access to jobs and services. While recent economic growth has been at historic levels, prosperity has not benefited everyone or all parts of the region. Race and income are still two strong predictors of life outcomes. They predict everything from if we survive our birth to when we will die, and both race and income can significantly limit the likelihood of enjoying regional prosperity.[1]

Since the adoption of VISION 2040 in 2008, PSRC has taken a closer look at how to evaluate plans and policies for their potential outcomes for different populations and has provided tools, information, and guidance for local jurisdictions. However, PSRC is not the first to explore issues related to social equity in the central Puget Sound region. Marginalized communities have worked for generations with jurisdictions to address these issues. Their work in this arena served as the foundation for much of what PSRC has done. This analysis has been completed as part of PSRC's Title VI plan.

PSRC is updating VISION 2040, the region's growth management, economic, and transportation strategy, to reflect new information, priorities, and other changes since it was adopted in 2008, including information on the region's changing demographics.

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[1] Lorch, Scott and Elizabeth Enlow. (2016). The Role of Social Determinants in Explaining Racial/Ethnic Disparities in Perinatal Outcomes. https://www.nature.com/articles/pr2015199; Mode, Nicolle, Michelle Evans, and Alan Zonderman. (2016). *Race, Neighborhood Economic Status, Income Inequality and Mortality*. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0154535.

The updated plan, VISION 2050, will provide a guide for sustaining a healthy environment, thriving communities, and a strong economy through 2050.

PSRC's members and community stakeholders have identified a heightened concern for racial and social equity, elevating the different impacts that regional growth alternatives may have on people of color and people with low incomes in discussion of how the region should grow over the long term.

Final Supplemental Environmental Impact Statement

The VISION 2050 Final Supplemental Environmental Impact Statement (Final SEIS) evaluates the impacts the Regional Growth Strategy alternatives might have across a variety of measures. The analysis in this appendix includes special emphasis on how the alternatives may affect people of color and people with low incomes. To evaluate and compare the alternatives, the Final SEIS considers impacts in areas with particularly high concentrations of those communities today, looking at areas with over 50 percent people of color or over 50 percent people with low incomes where possible. These areas are referred to as "equity geographies" throughout this document. This analysis includes a selection of the land use, transportation, and housing measures drawn from the Final SEIS.

This appendix consolidates these measures to more thoroughly understand the impacts on people with low incomes and people of color in the region. The analysis of alternatives for the equity geographies is based on current demographics in the region. Although the locations of people of color and people with low incomes is unknown for 2050, this analysis provides a window on how continued growth may impact current and future residents and their ability to maintain existing communities and access to jobs, transit, and other community amenities.

To support the analysis of alternatives in the Final SEIS, additional demographic information is included on populations with special needs, including special transportation needs. This includes data on race and ethnicity, age, disability, limited English proficiency, and zero vehicle households. These demographics are displayed in a series of maps in Part 5 showing geographic distribution by census tract in 2000, 2016, and the percent change between 2000 and 2016. While the demographic section looks at individual and household characteristics, people may fall into more than one of these categories. It is important to consider how these intersecting characteristics may affect the ability for people to access the region's opportunity and benefits of regional growth.

This appendix also provides information about housing affordability, including cost burden and combined housing and transportation costs. This information is important

to consider in the context of analyzing displacement risk and access to opportunity in the region.

To varying degrees, the alternatives in the Final SEIS concentrate growth in regional growth centers and near high-capacity transit. These areas generally have higher concentrations of people of color and people with low incomes. This appendix includes demographic characteristics of regional growth centers and high-capacity transit station areas to help better understand how the amount of growth in these locations may impact existing communities.

Definitions

This appendix uses terms to describe specific populations related to equity. These terms are defined below.

Environmental Justice

Equal protection from environmental hazards for individuals, groups, or communities regardless of race, ethnicity, or economic status. This applies to the development, implementation, and enforcement of environmental laws, regulations, and policies, and implies that no population of people should be forced to shoulder a disproportionate share of negative environmental impacts of pollution or environmental hazard due to a lack of political or economic strength. Environmental justice also promotes equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

Environmental Justice Populations

Populations included in Environmental Justice are defined by Executive Order 12898, *Federal Actions to Address Environmental Justice Populations in Minority Populations and Low-Income Populations.*[2] This includes minority populations, referred to in this document as people of color, or Black, Hispanic/Latinx[3], Asian, American Indian, Alaskan Native, Native Hawaiian, other, Pacific Islander, or two or more races or ethnicities. Also included in this definition are low-income populations with household income at or below U.S. poverty guidelines. States and localities may, however, adopt a higher threshold for low income as long as the higher threshold is not selectively

[2] Executive Order 12898 of February 11, 1994, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. Code of Federal Regulations, Title 3. Available at: https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf.

[3] Latinx is a gender-neutral term used in this document for a person of Latin American origin or descent.

implemented and is inclusive of all persons at or below the U.S. Department of Health and Human Services poverty guidelines. This analysis uses a threshold of 200 percent.

Equity (also Social Equity)

All people have the resources and opportunities to improve the quality of their lives and reach their full potential. Differences in life outcomes cannot be predicted by race, class, or any other identity. Those affected by poverty, communities of color, and historically marginalized communities are engaged in decision-making processes, planning, and policy making.

Equity Geographies

Areas where impacts can be differentiated between the entire regional population and social equity populations. Examples are:

1. People of color equity geographies – census tracts where over 50 percent of the residents are people of color.
2. Low-income equity geographies – census tracts where over 50 percent of the households earn less than 200 percent of the federal poverty level.

People of Color

Individuals who report as Black, Hispanic/Latinx, Asian, American Indian, Alaskan Native, Native Hawaiian, other, Pacific Islander, or two or more races or ethnicities. People of color are sometimes referred as "minority populations" in other PSRC publications or elsewhere.

People with Low Incomes

Individuals with a household income less than 200 percent of the federal poverty level. Note that this designation applies only to those people whose poverty status can be determined.

Special Needs Populations

Federal orders on environmental justice require consideration of people of color and people with low incomes. Other populations are protected by Title VI and related nondiscrimination statutes, such as the elderly, disabled, etc. These are referred to as "special needs populations" and are addressed through environmental justice and Title VI in federally sponsored transportation programs, policies, and activities. State law also identifies special needs populations, including people with disabilities, youth, seniors and seniors aging in place, limited-English proficient residents, homeless school-aged children, families who have experienced domestic violence, veterans, and limited literacy residents.

Part 2: Existing Conditions

This section describes the existing conditions and trends of regional demographics. Additional demographic information can be found in PSRC's Demographic Profile, available at: https://www.psrc.org/sites/default/files/demographicprofile.pdf.

Regional Demographics

Between 2000 and 2016, the region's population grew by more than 650,000 people. This growth led to changing demographics in the region, which are highlighted below. Additional maps showing these demographics can be found in Part 5.

People of Color

People of color make up about one-third of the region's current population and increased by 543,000 residents, or 70 percent, from 2000 to 2016. This increase in population is over twice the size of the existing population in Kitsap County. The White population in the region has grown at a much slower rate of just 4 percent (Table 1). People of color represent 83 percent of the region's population growth since 2000.

Table 1. People of Color, 2000-2016

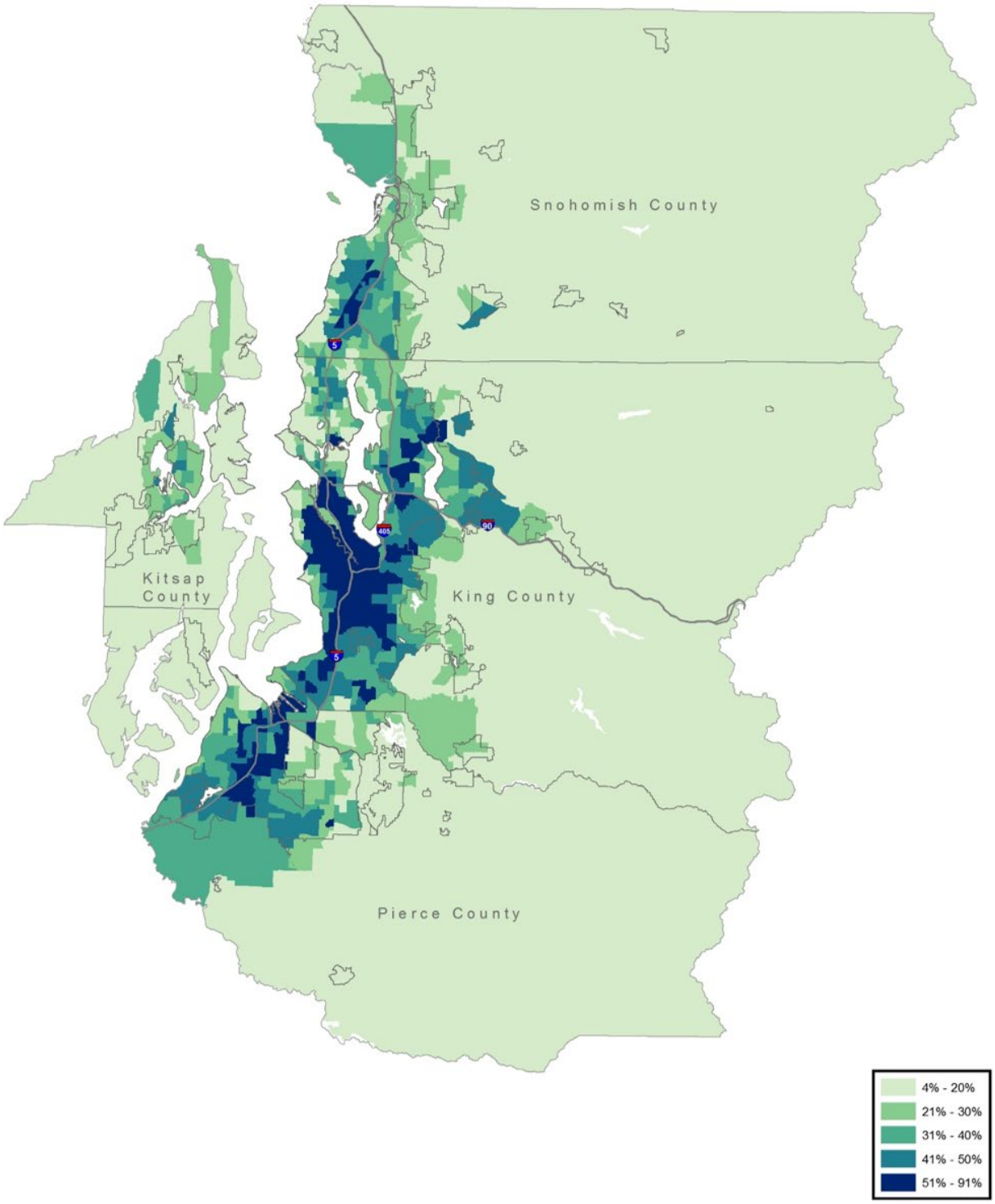
	2000		2016		2000-2016 Change	
	#	%	#	%	#	% change
People of Color[4]	774,000	24%	1,316,900	34%	542,800	70%
White (Alone)	2,501,800	76%	2,611,700	66%	109,900	4%
Total	3,275,800	100%	3,928,600	100%	652,700	20%

Source: 2000 US Decennial Census, 2012-16 ACS 5-Year Estimates

Figure 1 shows the share of people of color by census tract in the region. People of color are concentrated in the denser areas of the region, particularly along the Interstate 5, Interstate 405, SR 99 and SR 520 corridors and in southwest King County and northwest Pierce County.

[4] Per the US Census Bureau, racial categories included in the census questionnaire generally reflect a social definition of race recognized in this country and not an attempt to define race biologically, anthropologically, or genetically. People may choose to report more than one race to indicate their racial mixture, such as "American Indian" and "White." People who identify their origin as Hispanic, Latinx, or Spanish may be of any race. For more information, please see the US Census Bureau website.

Figure 1. People of Color, Central Puget Sound: 2016



Source: American Community Survey 5-year estimates

People with Low Incomes

The number of residents with low incomes increased by about 40 percent in the region between 2000 to 2016 (as seen in Table 2). Residents are considered to have low incomes if their total family income is below 200 percent of the Federal Poverty Level.[5] About 24 percent of residents have income below this threshold in the region.

Table 2. People with Low Incomes

	2000		2016		2000-2016	
	#	%	#	%	#	% change
Low-Income Population	674,600	21%	942,400	24%	267,800	40%
Non-Low-Income Population	2,533,500	79%	2,922,500	76%	389,000	15%
Total	3,208,200	100%	3,865,000	100%	656,800	20%

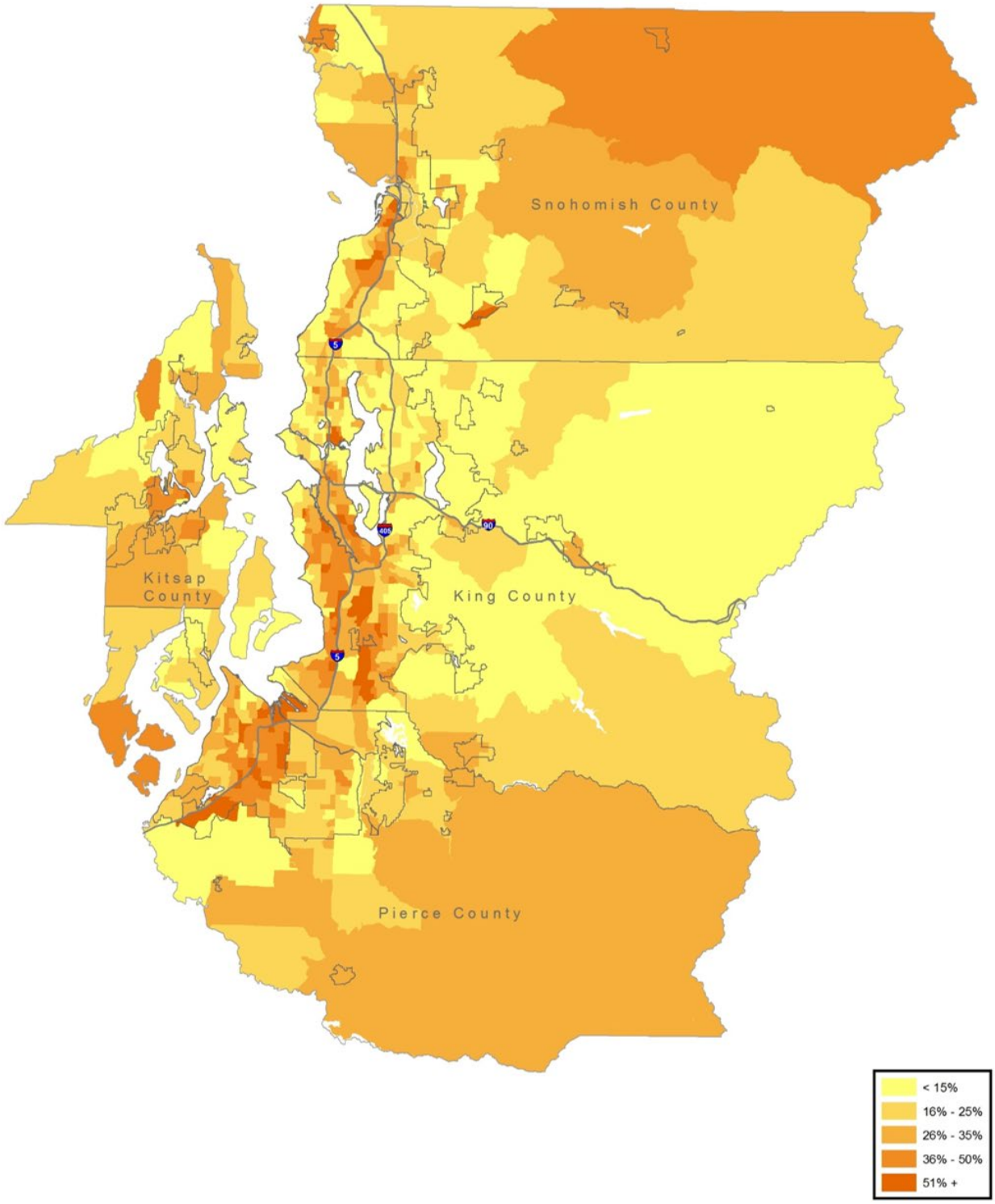
Source: 2000 US Decennial Census, 2012-16 ACS 5-Year Estimates

Note: Total for whom poverty status is determined.

Figure 2 shows the share of residents with low incomes for each census tract. Many of the concentrations of people with low incomes are located similarly to those where concentrations of people of color reside, concentrated in areas along the Interstate 5 corridor in Snohomish County and in central and south Seattle, southwest King County, Bremerton, and northwest Pierce County.

[5] The poverty threshold for a family of four is $24,036. See "Computations for the 2016 HHS Poverty Guidelines" at https://aspe.hhs.gov/computations-2016-poverty-guidelines.

Figure 2. People with Low Incomes, Central Puget Sound: 2016



Source: American Community Survey 5-year estimates

Limited English Proficiency

The region has also seen growth in the number of people that report speaking English less than "very well." This group has grown by about 51 percent between 2000 and 2016 and accounts for 8 percent of the total population of the region (Table 3).

Table 3. Limited English Proficiency (LEP)

	2000		2016		2000-2016	
	#	%	#	%	#	% change
People with LEP	203,800	7%	307,200	8%	103,400	51%
Non-LEP	2,859,400	93%	3,374,300	92%	514,900	18%
Total	3,063,200	100%	3,681,600	100%	618,400	20%

Source: 2000 U.S. Decennial Census, 2012-16 ACS 5-Year Estimates

Note: Total is for Population 5 years and over.

Age Groups

Since 2000, the region has seen an increase in the number of people 65 years old or older. This group grew at a rate of 47 percent between 2000 and 2016 and makes up about 12 percent of the region's population (Table 4). Conversely, the rate of growth for people under the age of 18 is lower at 7 percent, well below the regional population growth rate of 20 percent (Table 4).

Table 4. Age Groups

	2000		2016		2000-2016	
	#	%	#	%	#	% change
Under 18	806,900	25%	864,600	22%	57,800	7%
18-64	2,136,000	65%	2,573,000	65%	437,000	20%
Age 65+	333,000	10%	491,000	12%	158,000	47%
Total	3,275,900	100%	3,928,600	100%	653,000	20%

Source: 2000 U.S. Decennial Census, 2012-16 ACS 5-Year Estimates

Persons with Disabilities

Persons with disabilities ages 18 or older make up about 14 percent of the total population of the region (Table 5).[6]

Table 5. Persons with a Disability Ages 18 and Older

	2016	
	#	%
People with a Disability	404,200	14%
Remainder of Population	2,586,700	86%
Total	2,990,900	100%

Source: 2012-16 ACS 5-Year Estimates

Note: Total is for Non-institutionalized civilians over 18.

Zero Vehicle Households

The percentage of households that have a vehicle has stayed constant between 2000 and 2016. About 92 percent of households in the region have a vehicle, while 8 percent do not (Table 6).

Table 6. Households without a Vehicle

	2000		2016		2000-2016	
	#	%	#	%	#	% change
Households without a vehicle	101,400	8%	119,400	8%	18,000	18%
Households with a vehicle	1,181,600	92%	1,396,600	92%	215,000	18%
Total	1,283,000	100%	1,516,000	100%	233,000	18%

Source: 2000 US Decennial Census, 2012-16 ACS 5-Year Estimates

Demographic Trend Analysis

The central Puget Sound region is becoming more diverse, with people of color making up an increasing share of the population. Although the region is often characterized by economic growth, the number of people with incomes below 200 percent of the Federal Poverty Line has increased since 2000. It appears that more and more people are being excluded from enjoying the prosperity of the region. Finally, the proportion of the

[6] The 2000 Census documented the population of people with disabilities ages 16 and older. Since the Decennial Census and American Communities Survey questions differ, there is no comparable data set to measure change from 2000 to 2016.

region's population that is 65 or older is growing. The region's changing demographic groups may have different needs to be able to fully benefit from the anticipated growth between now and 2050. As the region becomes more diverse, addressing the unique needs of these demographics becomes increasingly critical not only for these individuals but for regional health and resilience. Research has found that reducing inequities can improve both individual and regional prosperity.[7]

Housing Affordability and Transportation

Many factors contribute to how affordable it is to live in this region. As the largest expense for most households, housing is an important data point to understand. Further understanding of job accessibility and transportation costs is also important, as these are major contributors to household income and spending.

More information on housing affordability in the region can be found in the 2018 VISION 2050 Housing Background Paper[8] on the PSRC website.

Cost Burden

A household is considered cost-burdened if it pays more than 30 percent of its income on housing. This includes rent or mortgage payments and utilities. A household is considered severely cost-burdened if it pays more than 50 percent of income on housing. Cost burden is a relative metric; a high-income, cost-burdened homeowner is most likely in a different financial position than a low-income cost-burdened renter. Lower-income individuals have less disposable income to manage changing housing costs and other household expenses. They are regularly forced to make impossible decisions: Fill the gas tank or the refrigerator? Keep the lights on or the heat?

Across the region, about 30 percent of homeowners and 45 percent of renters are cost-burdened or severely cost-burdened.[9] Generally, renters across the region experience higher levels of cost burden than homeowners.

Cost burden varies by the race/ethnicity of households, as highlighted in Figures 3 and 4.

For renter households, over half of Black and almost half of Hispanic/Latinx renters were either cost-burdened or severely cost-burdened in 2014. Those proportions

[7] Ostry, Jonathan, Andrew Berg, and Charalambos Tsangarides. (2014). *Redistribution, Inequality, and Growth*. Available at https://relooney.com/NS4053/00_NS4053_140.pdf.

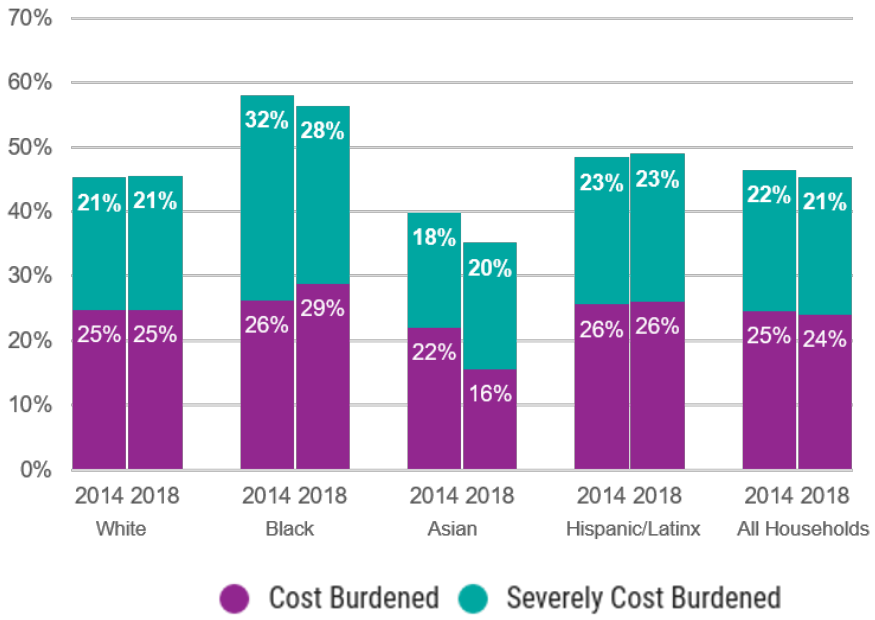
[8] PSRC. 2018g. VISION 2050 Housing Background Paper. Puget Sound Regional Council. Seattle, WA. June 2018.

[9] CHAS (Comprehensive Housing Affordability Strategy) data.

remained relatively the same in 2018. Asian renter households continued to be the least likely to experience any level of cost burden in the region (Figure 3).

Cost burden varies by the race/ethnicity of households, as highlighted in Figure 3. Over half of Black and Hispanic/Latinx renters were either cost-burdened or severely cost-burdened in 2014. Those proportions remained relatively the same for Black renters and were slightly reduced for Hispanic/Latinx renters in 2018 (Figure 3). Asian residents continued to be the least likely to experience any level of cost burden in the region.

Figure 3. Cost-Burdened Renters by Race/Ethnicity, 2014 and 2018

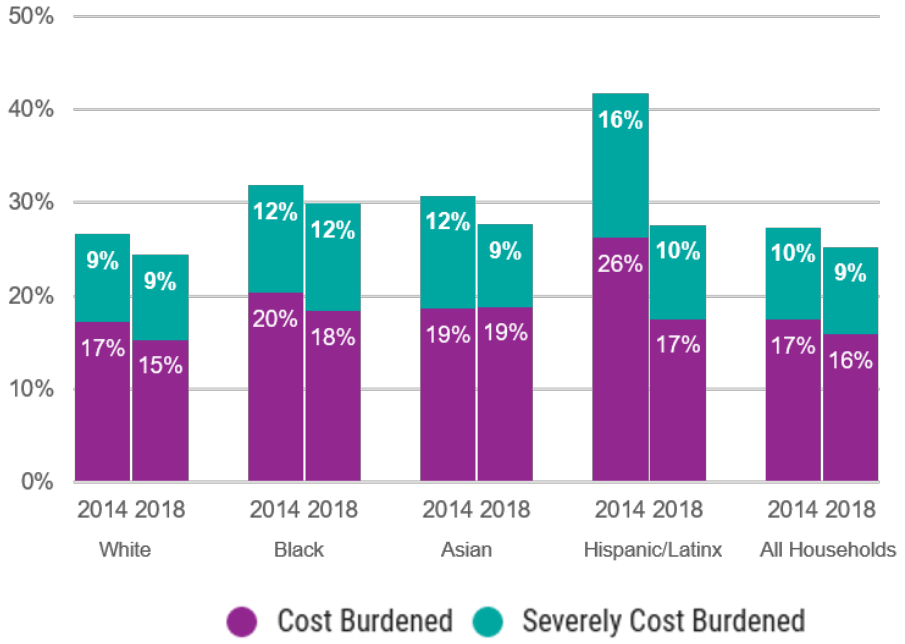


Source: U.S. Census, PUMS

The racial/ethnic narrative is slightly different for homeowners. Between 2014 and 2018, each racial/ethnic group experienced a decline in the share of households that were either cost-burdened or severely cost-burdened, although some groups' declines were greater than others. In 2014, Black (32 percent) and Asian (31 percent) households were more likely to experience some level of cost burden than their White (27 percent) counterparts. However, Hispanic/Latinx (42 percent) households were the most likely to have this experience. By 2018, Hispanic/Latinx households saw a 14 percent decline and experienced rates that were similar to those of Black and Asian households. However, White households continued to be the least likely to experience some level of cost burden (Figure 4).

Although the share of cost-burdened households has decreased for all renter and owner households between 2014 and 2018, the number of households has increased.

Figure 4. Cost-Burdened Owners by Race/Ethnicity, 2014 and 2018

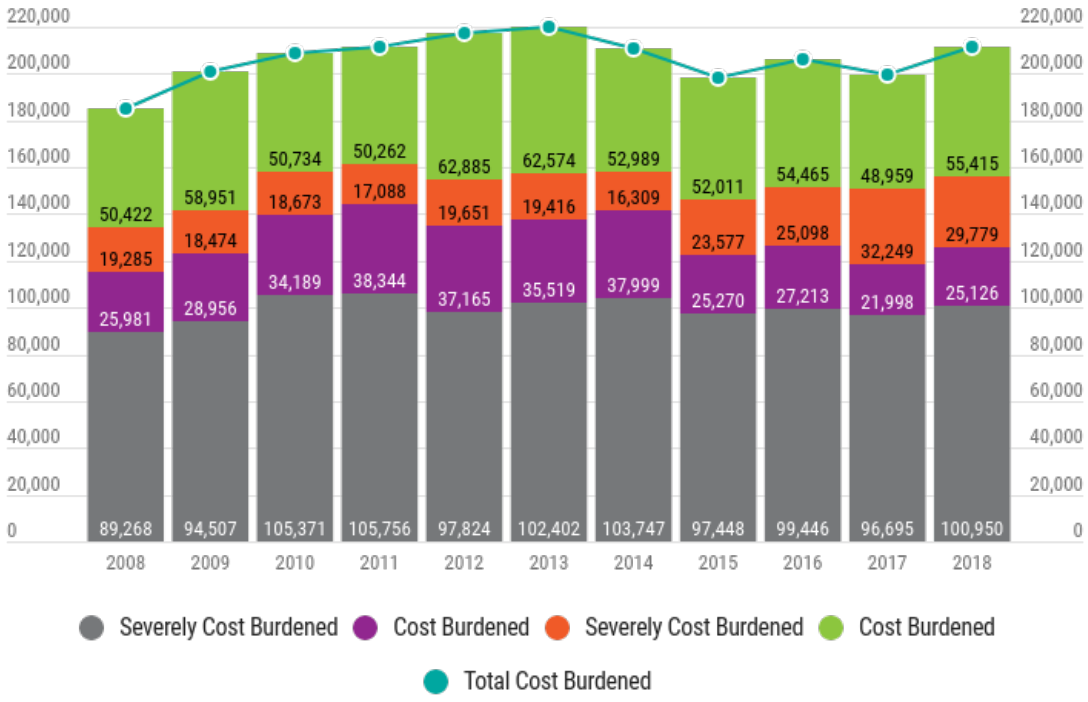


Source: U.S. Census, PUMS

The number of cost-burdened households making less than 50 percent of the area median income increased by about 35,000 households from 2008 to 2013, fluctuating between about 198,000 and 211,000 households since 2014 (Figure 5). However, this group's proportion of the region has gradually declined since 2013, moving to about a third of the region's renter households (Figure 6). Cost-burdened households are often the most at risk to lose their housing and experience homelessness. National research shows a connection between rent increases and homelessness; a $100 increase in rent is associated with an increase in homelessness of between 6 and 32 percent.[10]

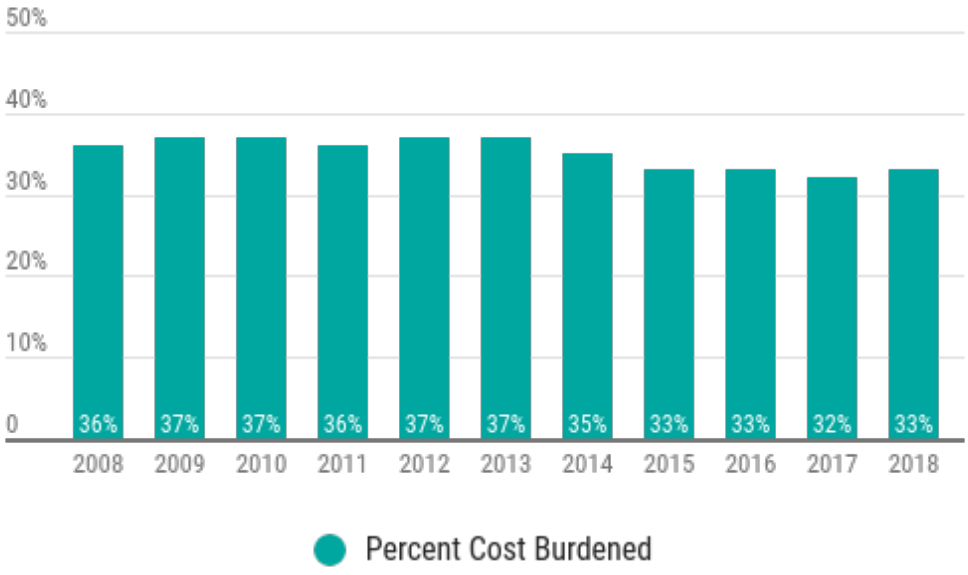
[10] Housing Development Consortium. 2018. https://www.housingconsortium.org/.

Figure 5. Low-Income Cost-Burdened Renters, 2008-2018



Source: U.S. Census, PUMS

Figure 6. Low-Income Cost-Burdened Renters as a Share of all Renters, 2008-2018



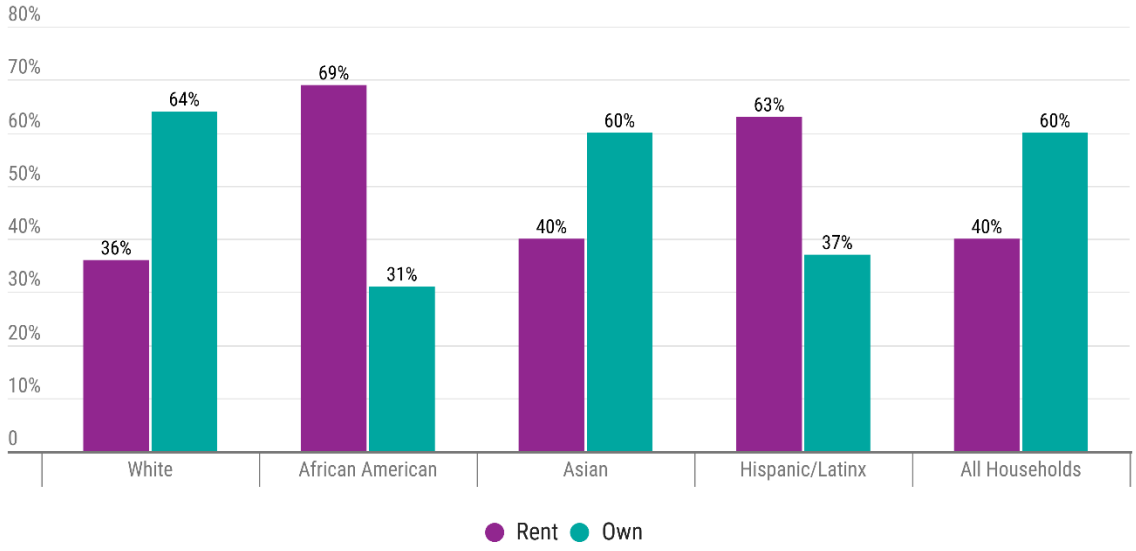
Source: U.S. Census, PUMS

Housing Tenure

The majority of households in the region, 60 percent, own their homes.[11] However, the percentage of homeowners dropped during the recession of 2007-2009 and has marginally improved since. One factor driving this trend is the relatively low supply of homes for sale. Other demand factors, such as the influx of job-seeking renters and Millennials waiting longer to buy homes than previous generations, are likely in play as well.

There are variations in housing tenure when analyzed by the race/ethnicity of the households. The majority of Black and Hispanic/Latinx households are renters, while the majority of White and Asian households are homeowners, as shown in Figure 7. In fact, the Black homeownership rate is half the size of the White homeownership rate, which can lead to an increased susceptibility to displacement and less ability to develop intergenerational wealth. These racial variations in homeownership cannot be attributed to a single factor. Past overtly discriminatory government policies, such as redlining; modern practices, such as mortgage loan discrimination; and existing neutral policies that do not recognize the uneven playing field are some of the factors contributing to these present inequities. These factors and others require many solutions, some of which may begin to be addressed through VISION 2050 or continued work by PSRC and local jurisdictions.

Figure 7. Housing Tenure by Race/Ethnicity



Source: ACS

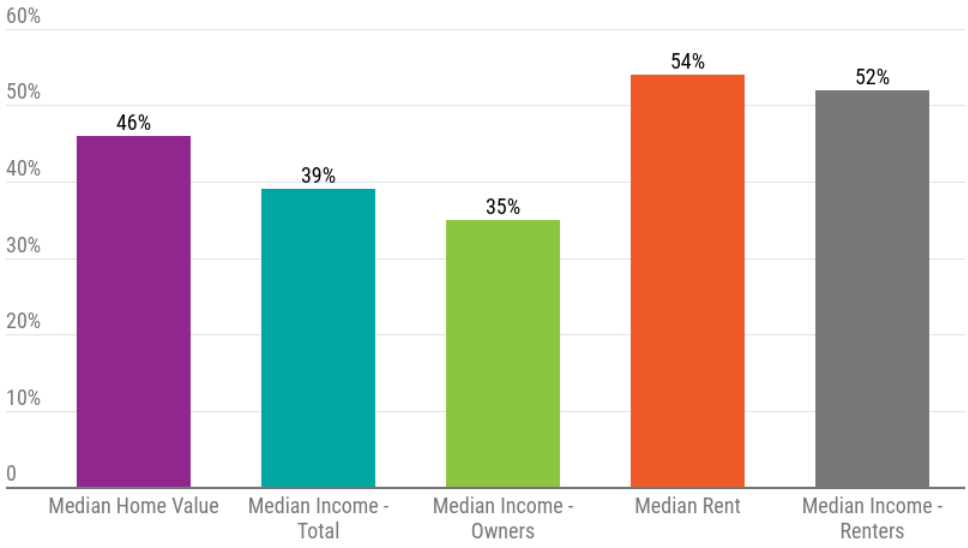
[11] PSRC. 2018. VISION 2050 Housing Background Paper. Puget Sound Regional Council. Seattle, WA. June 2018.

Housing Costs

Affordable housing[12] is commonly defined as housing costs not exceeding 30 percent of household income. Paying more than 30 percent of income on housing costs reduces a household's budget available for other basic necessities.

With a surge in demand for housing that has outpaced the increase in housing supply, the region is experiencing an affordability crisis.[13] Many middle- and lower-income households struggle to find housing that fits their income in an increasingly competitive and expensive housing market. Since 2010, while the median home value has increased by about 46 percent, the median income has only increased by 39 percent (Figure 8). As families struggle to find homes that fit their budget, households are forced to move farther from their jobs and communities, resulting in increased traffic congestion and fragmentation of communities. Average commute times have increased by over 15 percent since 2010.

Figure 8. Percent Change in Home Value, Rent, and Income, 2010-2018



Source: U.S. Census

[12] This appendix refers to "affordable housing" as any housing that meets the threshold of not exceeding 30% of a household's income. Housing that is deemed affordable because of subsidies or income/rent restrictions is expressly noted.

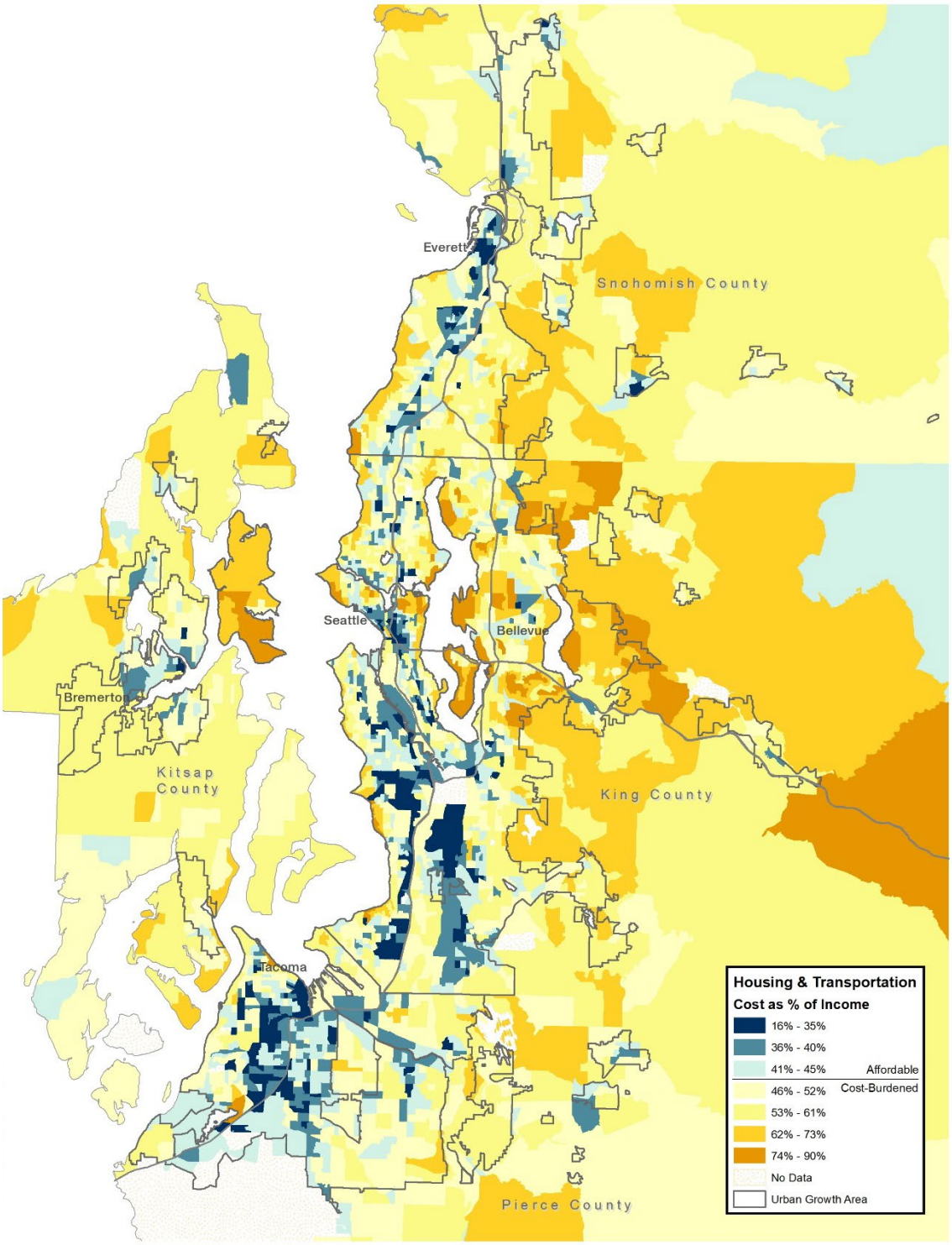
[13] City of Seattle. (2015) Housing Affordability and Livability Agenda. Available at: http://murray.seattle.gov/wp-content/uploads/2015/07/HALA_Report_2015.pdf.

Housing and Transportation Costs

Since 1984, the Bureau of Labor Statistics has reported that transportation costs are the second largest expense for households after housing.[14] A more complete understanding of household cost burden looks at housing and transportation costs together (H+T). A household is considered cost-burdened if its combined housing and transportation costs exceed 45 percent of income. Factoring in the recommended 30 percent of income spent on housing, the formula allows for 15 percent of a household's income to be spent on transportation costs. Figure 9 shows estimated housing plus transportation affordability for a household earning the area median income. Some areas along the I-5 corridor are least likely to experience this type of cost burden. Although the cost of housing is often relatively more expensive in these communities, the median incomes in some of these areas are relatively higher and access to transit and other travel options can greatly reduce transportation costs for a household. However, there are also pockets of poverty along the I-5 corridor where households spend a considerable share of their income on housing and transportation. This experience is illustrated by the census tracts highlighted in yellow next to I-5. Conversely, several communities in the western portion of Pierce County have low H+T costs relative to their income, which is likely the result of the relatively affordable homes in this area.

[14] Bernstein, Scott, Carrie Makarewicz, and Kevin McCarty. (2005) *Driven to Spend.* Available at: http://www.busadvocates.org/articles/householdcosts/Driven_to_Spend_Report.pdf.

Figure 9. Housing and Transportation Costs as Percentage of Income



Source: Center for Neighborhood Technology

Housing Need

PSRC's forecast anticipates the region will add about 1.8 million more people by 2050. That growth will result in about 830,000 new households. While most current residents have been able to rent or purchase a home, many are living in homes that are beyond their financial means or do not meet needs, such as those that are too small for their family size or lack accommodation for aging residents. A significant challenge facing the region is producing enough new housing units as the population grows and providing more affordable housing that matches the needs of current residents.

Future household incomes cannot be accurately predicted but, for this analysis, are assumed to be similar to the current distribution. Today, 31 percent of the region's households pay at least 30 percent of their income towards housing, and 60 percent of these cost-burdened households have moderate to low income. In the future, demand by households with lower income is assumed to be similar to today, with 27 percent of households being very low income and 45 percent low income.[15]

Applying these shares to the future needs of 830,000 additional households in the region means that the region needs to house more than 370,000 households at 80 percent or less of area median income (AMI) by 2050 (Figure 10).

Figure 10. Anticipated Households Growth by Income Group

Source: ACS, PUMS

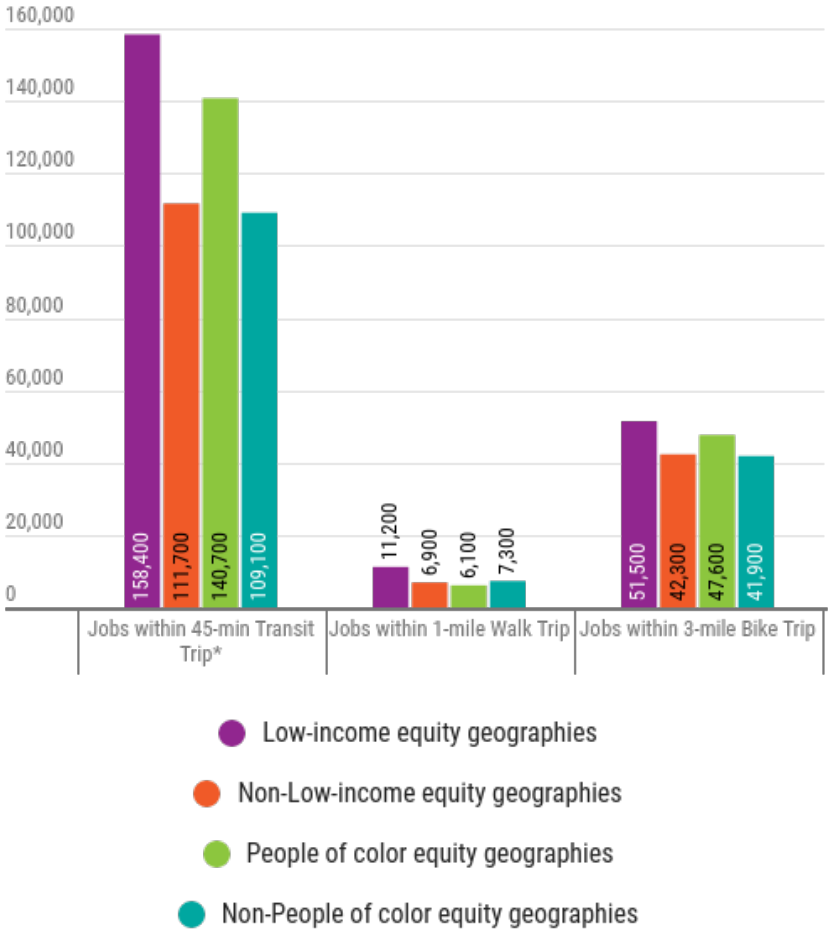
[15] 2016 ACS 1-YEAR PUMS.

Assuming a constant rate of growth of 1.22 percent, housing these new residents would require the region to produce about 20,500 housing units in 2018, growing annually up to 30,300 units in 2050. In 2017, approximately 23,300 housing units were produced, exceeding the annual need. However, this current increase in production follows a long, slow economic recovery when housing production did not keep up with demand. To serve different household incomes, the region should be producing about 9,225 units a year that are accessible to those earning 80 percent or less of the area median income. Of that amount, more than 5,500 new housing units are needed each year for very low-income households earning less than 50 percent of the area median income.

Jobs Accessible by Mode

Communities with higher concentrations of people with low incomes and people of color generally have access to more jobs within 45 minutes of transit, a 1-mile walk, or a 3-mile bike trip than the rest of the population. This is consistent with data that show these residents are more concentrated in centers and high-capacity transit station areas in King, Snohomish, and Pierce counties.

Figure 11. Jobs Accessible by Mode, 2017



Source: PSRC

Note: Values represent the average number of jobs accessible per capita (resident) by home location. *A 45-minute transit trip includes walk, wait, and in-transit time.

Additional existing conditions related to transportation accessibility can be found in the Alternatives Analysis section of this document.

Centers and Station Areas

Centers and station areas are places surrounding regional growth centers and high-capacity transit stations (Figure 12). Concentrating growth in these areas is a key strategy to achieve VISION's 2050 goals for regional mobility, economic prosperity, and environmental sustainability. Providing a variety of housing choices, employment types, and access to opportunity for all residents in centers and transit station areas is critical to achieving equitable outcomes in VISION. This highly concentrated planning around transit and in regional growth centers can present significant opportunities and challenges. Increasing residential and employment capacity in these areas could allow more people access to their many economic, environmental, and social benefits.

However, for existing communities, increased growth without appropriate mitigation could lead to displacement.

To better understand who is currently living in these areas, the demographics described in this section compare population shares and demographics to the rest of the region. This analysis includes two types of places: regional growth centers and areas around high-capacity transit stations. They have the following characteristics:

Regional growth centers. The 29 regional growth centers designated by PSRC are focal points for new growth and are identified to receive a sizable portion of the region's population and employment growth. Regional growth centers are expected to achieve densities sufficient to support high-capacity transit through long-term growth and development.

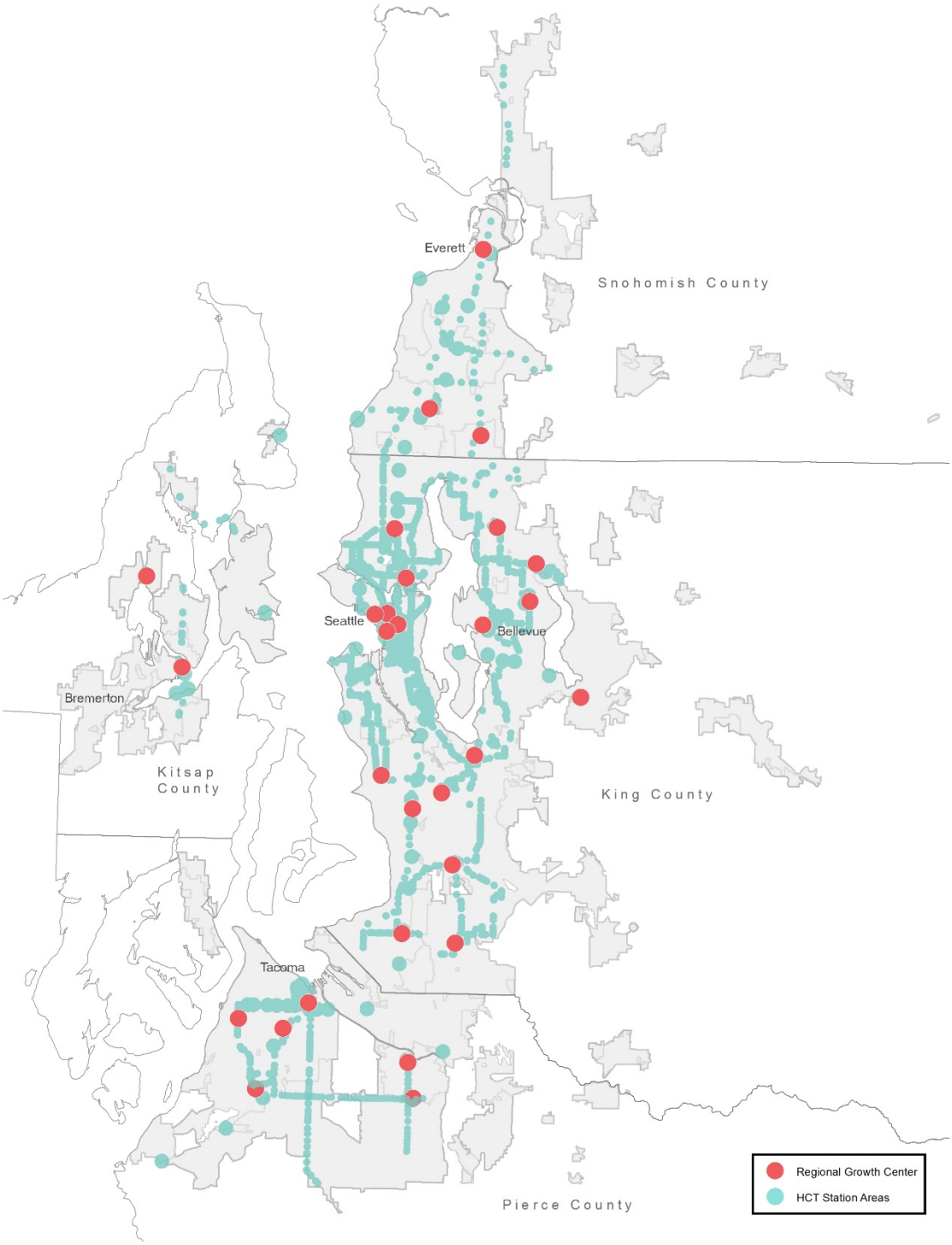
High-capacity transit station areas. These include areas ½ mile around light rail stations, commuter rail stations, streetcar stops, and ferry terminals and ¼ mile around bus rapid transit stations.

These areas (regional growth centers and high-capacity transit) represent less than 2 percent of the land area in the region and 12 percent of the land area in the Urban Growth Area.

This analysis focuses on transit-oriented places. Although manufacturing/industrial centers are important job locations for the region, they are not included in this analysis. Manufacturing/industrial centers are often difficult to serve by transit and are not intended for residential or non-industrial commercial activity.

As the region continues to invest in its high-capacity transit system, knowing more about communities in station areas will help us better understand the needs of their current and future residents, as well as begin the process of mitigation to avoid displacement.

Figure 12. Regional Growth Centers and High-Capacity Transit Station Areas



Source: PSRC

Population

Table 7. Population – Regional Growth Centers & High-Capacity Transit

	Centers & High-Capacity Transit		Non-Centers & High-Capacity Transit		Region
	#	%	#	%	
Total Population	751,300	19%	3,177,300	81%	3,928,600

Source: 2012-16 ACS 5-Year Estimates

The share of population residing in the region's centers and HCT station areas is 19 percent, while 81 percent currently live outside these areas.

Demographics

Table 8. People of Color and People with Low Incomes – Regional Growth Centers & High-Capacity Transit

	Centers & High-Capacity Transit	Non-Centers & High-Capacity Transit	Region
People of Color	42%	31%	34%
People with Low Incomes	32%	23%	24%

Source: 2012-16 ACS 5-Year Estimates

Overall, people living in proximity to high-capacity transit are more diverse and have lower incomes than the region's population as a whole. Forty-two percent of people living in regional growth centers and high-capacity transit station areas are people of color, compared to 34 percent of the total regional population. Similarly, a higher concentration of people who are low income live in these areas (32 percent) compared to the rest of the region (24 percent).

Low- and moderate-income households are often at potential risk of displacement in transit communities where increased market strength and gentrification may accompany transit system development.

While transit stations provide greater connectivity throughout the region and to areas of opportunity, not everyone who lives in these areas may be able to access this infrastructure. Limitations, such as access via safe walking and biking routes or local transit infrastructure, fare payments, and education on transit service and use are considerations for understanding who can access the regional transit network.

Table 9. Additional Demographics – Regional Growth Centers & High-Capacity Transit

	Centers & High-Capacity Transit	Non-Centers & High-Capacity Transit	Region
Limited English Proficiency	12%	8%	8%
65+	11%	13%	12%
Under 18	17%	23%	22%
Persons with a disability	13%	14%	14%
Households with no vehicle	18%	5%	8%

Source: 2012-16 ACS 5-Year Estimates

Regional growth centers and high-capacity transit station areas have higher concentrations of households with zero vehicles than the rest of the region. There are also more people with limited English proficiency. Consideration of the needs of these communities in accessing transit infrastructure is important for ensuring that the region's most vulnerable residents can benefit from these neighborhoods and infrastructure.

These areas have fewer youth under the age of 18, elderly and people with disabilities. Many people in these populations may benefit from living in the region's centers and transit station areas.

Rent in Centers vs City

Apartment rents within regional growth centers, overall, are higher than the regional average. However, there is great variability in rents among centers. Centers in Seattle, Bellevue, and Redmond, all of which have seen significant new multifamily development,[16] have the highest average rents, pushing above $2,000 in some locations. At the lower end are centers which contain some of the region's most affordable market rate housing, typically in older buildings.

[16] PSRC Residential Permits Database, 2016.

Table 10. Average Rent in Regional Growth Centers, 2017

	Average Rent	Difference - Center and City Avg. Rent
Total Units in Centers	$1,871	17%
Bothell Canyon Park	$1,736	-1%
Redmond-Overlake	$2,220	10%
Silverdale	$1,565	15%
Bellevue	$2,260	12%
Redmond Downtown	$2,078	3%
Sea-South Lake Union	$2,234	17%
Kent	$1,627	16%
Sea-Downtown	$2,261	18%
Renton	$1,613	4%
Kirkland Totem Lake	$1,712	-12%
Sea-Uptown	$1,834	-1%
Sea-First Hill/Cap Hill	$1,790	-4%
Bremerton	$1,484	23%
Sea-Northgate	$1,539	-21%
Sea-University	$1,677	-11%
Tacoma Downtown	$1,319	5%
Puyallup South Hill	$1,388	8%
Tacoma Mall	$1,268	1%
Everett	$1,285	-3%
University Place	$1,141	1%
Auburn	$1,423	12%
Lakewood	$1,046	-1%
SeaTac	$1,212	-11%
Burien	$1,058	-17%
Lynnwood	$1,370	-1%
Puyallup Downtown	$1,042	-23%

Source: Dupre + Scott

The alternatives presented in the Final SEIS include varying levels of growth to regional growth centers and transit station areas, with the Transit Focused Growth Alternative concentrating 75 percent of future regional population and employment growth in these areas. Analysis of demographics can help identify existing conditions, potential for displacement, and strategies to address high allocations of growth in these communities.

Health Equity

VISION 2050 emphasizes the importance of health equity. The Washington State Department of Health has developed a "Health Disparities Map," which is an interactive mapping tool that compares communities across the state for environmental health disparities. The map shows pollution measures such as diesel emissions and ozone, proximity to hazardous waste sites, and social vulnerability to hazards. In addition, it displays information regarding poverty and cardiovascular disease. The interactive mapping tool can be found at: https://fortress.wa.gov/doh/wtn/WTNIBL/.

In general, environmental health disparities are high throughout much of the region. These disparities are present in communities of color and low-income communities.

Equity Geographies

"Equity geographies" are areas with higher percentages of people of color and/or people with low incomes. In this document, areas are referred to as "equity geographies" under the following conditions:

1. People of color equity geographies – Census tracts that are greater than 50 percent people of color.
2. Low-income equity geographies – Census tracts where over 50 percent of the households are low income.

The equity geographies were determined using data from the 2012-2016 American Community Survey 5-year estimates series. The thresholds were set based on a similar equity analysis[17] performed by the Metropolitan Transportation Commission in the San Francisco Bay area and qualitative judgements to select a reasonably descriptive and unique set of geographies.

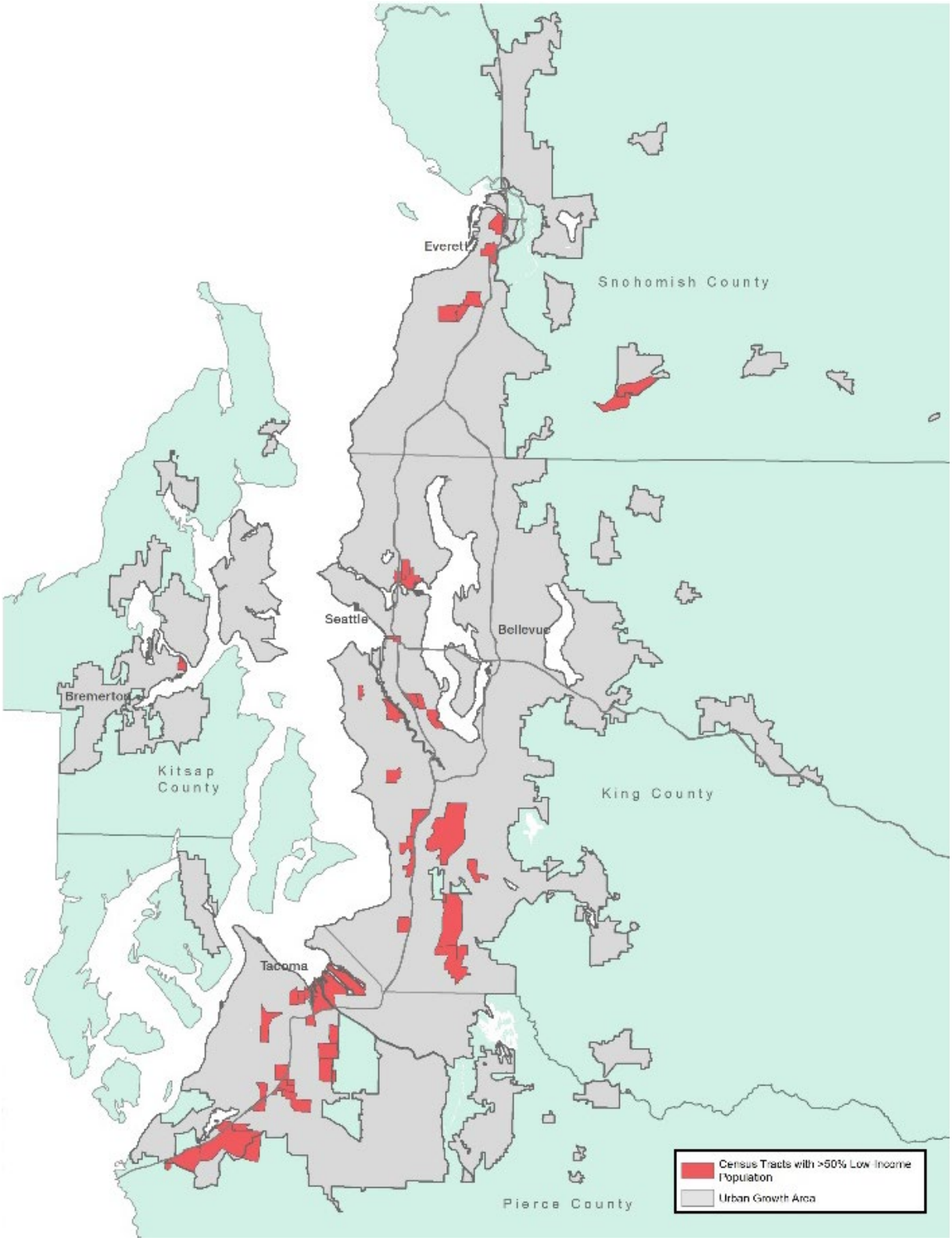
The locations of the equity geographies are illustrated in Figures 13 and 14. Social equity considerations are provided for several topics where impacts can be differentiated between the entire regional population and the equity geographies. These impacts are discussed in detail in Part 3 of this document.

As stated previously, there are some limitations in this analysis that are important to understand. PSRC does not forecast future distribution of race and income, so the

[17] Metropolitan Transportation Commission. 2017. Plan Bay Area Equity Analysis. Available at: https://www.planbayarea.org/2040-plan/plan-details/equity-analysis.

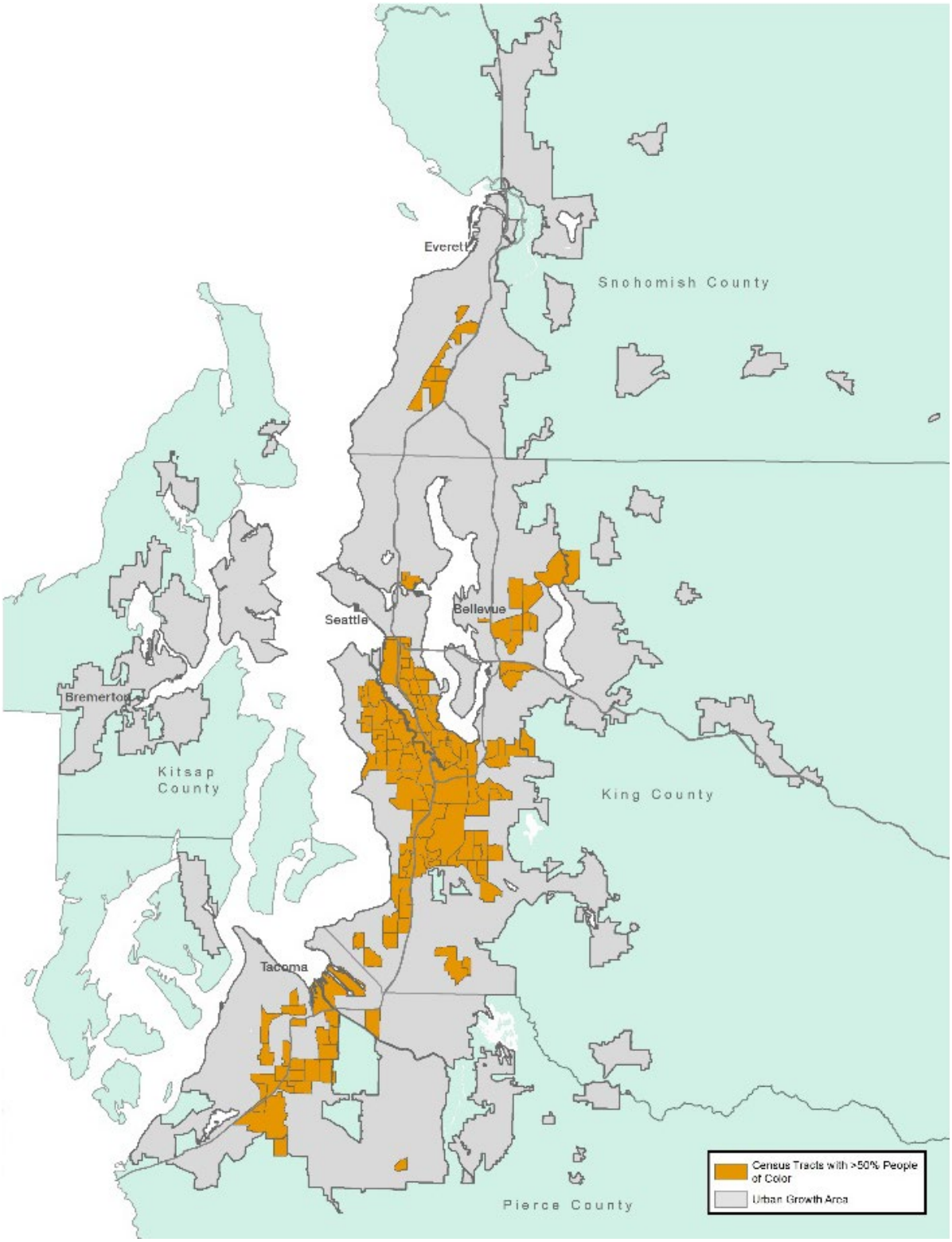
equity geographies identify a geographic area based on current demographics in the region. Because of the use of census data, the analysis includes residents in census tracts who may be neither low income nor a person of color and does not include low-income residents or people of color located elsewhere in the region. While there are limitations to this approach, there is also significant interest in better understanding the potential equity implications of the alternatives. The equity geographies allow additional understanding of how the alternatives may affect existing communities in the region and provide a method to measure change over time in the region.

Figure 13. Low-Income Equity Geographies



Source: U.S. Census Bureau, PSRC

Figure 14. People of Color Equity Geographies



Source: U.S. Census Bureau, PSRC

The low-income equity geographies represent a small share of the overall regional population at 6 percent. These census tracts are dispersed throughout the region, with concentrations along Interstate 5 in Snohomish and Pierce counties and in south King County and Bremerton.

Seventeen percent of the region's population lives in the people of color equity geographies. These census tracts are found in Snohomish County along SR 99, in south and east King County, and along Interstate 5 in Pierce County.

Table 11. Regional Population Share of Equity Geographies

	Total Population in Geography	Total Regional Population	Regional Share in Geography
Low-income equity geographies	233,800	3,928,600	6%
People of color equity geographies	681,700	3,928,600	17%

Source: 2012-16 ACS 5-Year Estimates

People with Low Incomes

Table 12 provides additional demographic information on the low-income equity geographies compared to the rest of the region for different demographic characteristics.

Table 12. Low-Income Equity Geographies – Demographics

	Low-income equity geographies	Remainder of the region	Region
Low-income population	57%	22%	24%
People of Color	57%	32%	34%
Limited English proficiency	19%	8%	8%
65+	9%	13%	12%
Under 18	23%	22%	22%
Persons with disability	18%	13%	14%
Zero vehicle households	22%	7%	8%

Source: 2012-16 ACS 5-Year Estimates

A higher share (57 percent) of people living in the low-income equity geographies are people of color than in other communities. Similarly, higher concentrations of people with limited English proficiency, persons with disabilities, and households with zero vehicles live in these areas.

Communities of Color

Table 13 provides additional demographic information on people of color equity geographies compared to the rest of the region for different demographic characteristics.

Table 13. People of Color Equity Geographies – Demographics

	People of color equity geographies	Remainder of the region	Region
Low-income population	40%	21%	24%
People of color	62%	28%	34%
Limited English proficiency	20%	6%	8%
65+	11%	13%	12%
Under 18	24%	22%	22%
Persons with disability	15%	13%	14%
Zero vehicle households	12%	7%	8%

Source: 2012-16 ACS 5-Year Estimates

A higher concentration of people with low incomes (40 percent) live in the people of color equity geographies than the region as a whole (24 percent). These areas also have a much higher share of people with limited English proficiency and households without a vehicle.

Part 3: Alternatives Analysis

The analysis in this appendix consolidates data from the main document of the Final SEIS, focusing on the equity geographies compared to the rest of the region. It includes additional information on these measures and their potential significance for current and future residents of these areas. It also includes a qualitative discussion of impacts that can be differentiated between communities of color and low-income communities and the population as a whole, along with potential mitigation measures.

As mentioned previously, discussions of impacts to the equity geographies are modeled using existing locations of concentration of people of color and people with low incomes. It is likely that the locations of these communities would change by 2050, but the general impacts described would remain similar.

For the elements of earth and visual quality and aesthetic resources, impacts or burdens are not anticipated to be different between alternatives at the regional level for the equity geographies or for communities of color and low-income communities generally.

Mitigation measures are procedures or actions taken to avoid, minimize, and mitigate project effects. Mitigation in the context of this Final SEIS includes potential measures that have informed policies and actions developed as part of VISION 2050 to implement the Regional Growth Strategy. Other mitigation measures provide a framework for continued policy discussions for the region.

Description of Alternatives

VISION 2050 extends the growth strategy an additional 10 years and considers adjustments that may account for changes to the region, growth patterns, and new policy direction. This Final SEIS considers a no action alternative (Stay the Course), and three growth pattern alternatives, Transit Focused Growth, Reset Urban Growth, and Preferred Growth, that provide distinct options for analysis and consideration, while falling within the range of growth alternatives considered in the VISION 2040 Final Environmental Impact Statement.

The Preferred Growth Alternative considers a compact growth pattern based on the VISION 2040 Regional Growth Strategy that assumes accelerated growth near the region's existing and planned transit investments. The Preferred Growth Alternative is primarily based on the Transit Focused Growth Alternative, with adjustments to some growth allocations, regional geographies, and the high-capacity transit growth goal to reflect growth trends and local planning considerations. This alternative was developed

based on the analysis presented in the Draft SEIS, public comments, supplemental data, and perspectives of PSRC's Growth Management Policy Board.

The Stay the Course Alternative is a direct extension of the VISION 2040 Regional Growth Strategy and assumes a compact growth pattern, focused in the largest and most transit-connected cities in the region with designated regional growth centers. Stay the Course serves as the required "no action alternative" that must be evaluated in accordance with the State Environmental Policy Act.

The Transit Focused Growth Alternative considers a more compact growth pattern that assumes accelerated growth near the region's existing and planned transit investments.

The Reset Urban Growth Alternative shares similarities with actual growth patterns that occurred from 2000 to 2016 and assumes a more distributed growth pattern throughout the urban area.

The four alternatives assign varying amounts of growth to the equity geographies. The varied distribution of growth between the four alternatives would have different levels of impact on these areas in comparison to the base year. The analysis below compares the impacts of the alternatives on these areas and provides potential mitigation measures.

Population

All alternatives assume the same amount of regional growth in population and employment from 2017 to 2050—1.8 million additional people and 1.2 million additional jobs. The difference between alternatives is how the growth is allocated among the regional geographies—Metropolitan Cities, Core Cities, HCT Communities, Cities & Towns, Urban Unincorporated, and Rural areas—and among the region's four counties (described in detail in Sections 3.2 through 3.4 of the Final SEIS).

These patterns of growth distribution impact how much growth goes into the equity geographies.

Table 14. 2017-2050 Population Change by Alternative

	Base Year	Preferred Growth		Stay the Course		Transit Focused Growth		Reset Urban Growth	
	Population 2017	Population Change 2017-2050	% change	Population Change 2017-2050	% change	Population Change 2017-2050	% change	Population Change 2017-2050	% change
Low-income equity geographies	239,000	171,000	72%	153,000	64%	186,000	78%	131,000	55%
Non-Low-income equity geographies	3,828,000	1,586,000	41%	1,603,000	42%	1,571,000	41%	1,625,000	42%
People of color equity geographies	698,000	344,000	49%	282,000	40%	352,000	50%	311,000	45%
Non-People of color equity geographies	3,369,000	1,414,000	42%	1,474,000	44%	1,405,000	42%	1,446,000	43%
Region	4,067,000	1,756,000	43%	1,756,000	43%	1,756,000	43%	1,756,000	43%

Source: PSRC

Transit Focused Growth directs the most growth to the equity geographies. Reset Urban growth directs the least amount of growth to low-income equity geographies and Stay the Course directs the least to people of color equity geographies.

Figure 15. 2017-2050 Population Change by Alternative, Equity Geographies

Growth between now and 2050 will affect the communities living in these census tracts. The following sections describe the potential impacts of the growth patterns associated with the alternatives to better understand implications for these areas compared to the rest of the region.

Employment and Housing

Table 15. Summary of Impacts and Benefits to Equity Geographies: Employment and Housing

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Jobs-housing balance: The Preferred Growth Alternative shows a better balance of jobs and housing for the equity geographies compared to Stay the Course and Reset Urban Growth. The ratio is still well above the regional average, indicating these communities are jobs-rich and housing may be less affordable or available. **Housing densities:** Growth in moderate-density housing accounts for 15 percent of added housing at a regional level for the Preferred Growth Alternative, tied with Stay the Course. This alternative has the second-highest level of moderate-density housing stock growth overall for the equity geographies.	**Jobs-housing balance:** Tied with Reset Urban Growth, Stay the Course shows less improvement in the balance of jobs and housing for the equity geographies compared to the Preferred Growth Alternative and Transit Focused Growth. The equity geographies are estimated to be in very jobs-rich areas in 2050, with jobs-housing indices well over the regional average of 1.0, indicating housing may be unaffordable or unavailable. **Housing densities:** Growth in moderate-density housing accounts for 15 percent of added housing at a regional level, tied with the Preferred Growth Alternative. This alternative has the third-highest level of moderate-density housing stock growth overall for the equity geographies.	**Jobs-housing balance:** Transit Focused Growth shows a better balance of jobs and housing for the equity geographies compared to the other alternatives but is still well above the regional average. **Housing densities:** Growth in moderate-density housing accounts for 16 percent of added housing at a regional level for Transit Focused Growth, the highest of the alternatives. This alternative has the highest level of moderate-density housing stock growth overall for the equity geographies.	**Jobs-housing balance:** Tied with Stay the Course, Reset Urban Growth shows less improvement in the balance of jobs and housing for the equity geographies compared to the Preferred Growth Alternative and Transit Focused Growth, with jobs-housing ratios well over the regional average of 1.0, indicating housing may be unaffordable or unavailable. **Housing densities:** Growth in moderate-density housing accounts for 14 percent of added housing at a regional level for Reset Urban Growth, the lowest level of the alternatives. Alternative has the lowest level of moderate-density housing stock growth overall for the equity geographies.

Housing affordability, displacement risk, and growth pressures are issues throughout the region for many people of color and people with low incomes. Housing affordability is described in Section 2.3 of the Final SEIS and in the existing conditions section of this appendix. The region is experiencing an affordability crisis that has a large impact on these communities.

The continued population growth out to 2050 in the region may contribute to greater stress on the housing availability for the region's residents.

Jobs-Housing Balance

Jobs-housing balance is a planning concept that advocates for housing and employment to be located close together. A jobs-housing ratio (here, indexed to the regional average) compares the number of jobs in relation to the number of housing units in a given area. A lack of housing, especially housing affordable to moderate- and low-income households close to job centers, will push demand for affordable homes to more distant areas, increasing commute times and development pressure outside of the urban growth area, which could lead to natural resource impacts and higher household transportation costs. A "balance" of jobs and housing is achieved when a community attains roughly the regional average ratio of 1.0.

Table 16. Jobs-Housing Index, Equity Geographies

	Base Year	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
	2017	2050	2050	2050	2050
Low-income equity geographies	2.07	1.66	1.67	1.59	1.73
Non-Low-income equity geographies	0.94	0.94	0.94	0.94	0.94
People of color equity geographies	1.58	1.38	1.50	1.37	1.42
Non-People of color equity geographies	0.89	0.90	0.89	0.91	0.90
Region	1.00	1.00	1.00	1.00	1.00

Source: PSRC

Note: An index of 1.0 indicates a regional average ratio between jobs and housing.

The jobs-housing ratios in the equity geographies show improvement from the 2017 Base Year under all alternatives. The equity geographies are estimated to be jobs-rich areas in 2050 in comparison to other census tracts, with jobs-housing ratios well over the regional average of 1.0. A high jobs-housing ratio indicates that housing for these communities may be unaffordable or unavailable and could lead to housing affordability challenges and competition over existing units, leading to potential displacement of residents. The jobs-housing ratio for the equity geographies show the most improvement under Transit Focused Growth compared to the other alternatives.

Housing Density

Since VISION 2040 was adopted in 2008, the region's housing market has experienced highs and lows, from the precipitous drop in housing prices and foreclosures during the last recession to the recent economic upswing and job growth that has led to rapid increases in rents and home prices.

Homeownership opportunities are becoming less accessible to middle- and lower-income households. A recent case study completed by PSRC indicates that moderate density housing tends to offer more affordable ownership options than either low or higher density housing options; however, today, moderate density occurs in smaller quantities throughout the region.[18]

In 2017, there were relatively large proportions of moderate-density housing in the equity geographies compared to the region as a whole. By 2050 it is anticipated that the strong growth in high-density housing will decrease the overall percentage of moderate-density housing. Large amounts of growth in high-density housing and nominal growth in moderate-density housing in the equity geographies could indicate pressure on the availability of lower cost housing choices and the risk of displacing existing communities of color and households with low incomes unless mitigated.

[18] PSRC. 2018. "Middle" Housing is Scarce in Region. Puget Sound Regional Council. Seattle, WA. October 2018. Available at: https://www.psrc.org/whats-happening/blog/%E2%80%9Cmiddle%E2%80%9D-housing-scarce-region.

People with Low Incomes

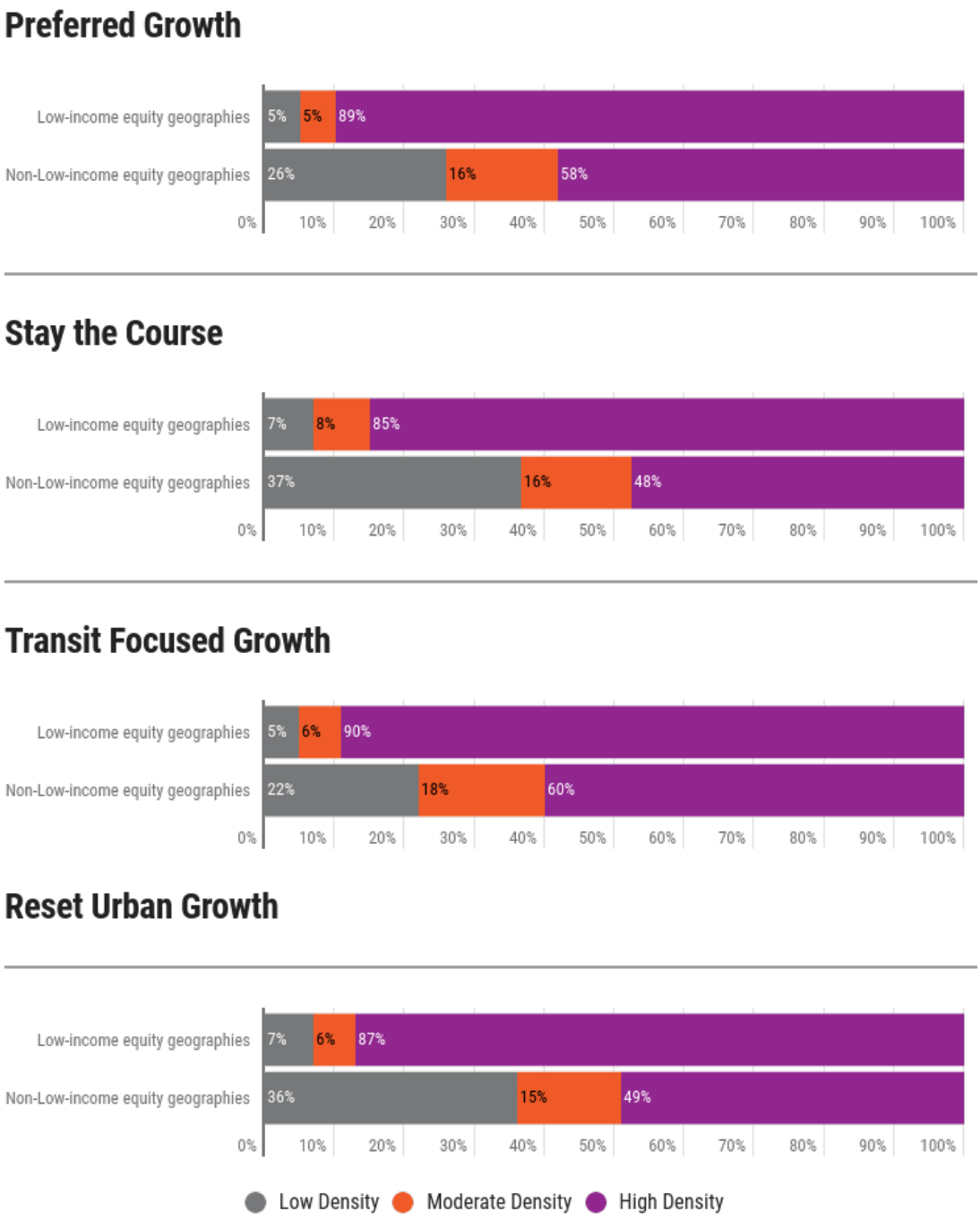
Table 17. Housing Growth in Areas Zoned for Low-, Moderate-, and High-Density Development, Equity Geographies

		Base Year	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
		2017	2017-2050	2017-2050	2017-2050	2017-2050
Low-income equity geographies	Low Density	31%	5%	7%	5%	7%
	Moderate Density	35%	5%	8%	6%	6%
	High Density	34%	89%	85%	90%	87%
Non-Low-income equity geographies	Low Density	66%	26%	37%	22%	36%
	Moderate Density	19%	16%	16%	18%	15%
	High Density	15%	58%	48%	60%	49%
Region	Low Density	64%	24%	34%	20%	34%
	Moderate Density	20%	15%	15%	16%	14%
	High Density	16%	61%	51%	63%	52%

Source: PSRC

In each of the alternatives, the low-income equity geographies have large amounts (ranging from 85 to 90 percent) of growth in areas zoned for high-density. This increase in high-density housing could put greater stress on the residents of these areas due to the often-high cost of high-density housing and displacement pressures on existing communities. Growth in areas zoned for moderate density housing, which tends to be more affordable, is significantly less (ranging from 5 to 8 percent less) in the low-income equity geographies compared to the rest of the region.

Figure 16. Housing Growth in Areas Zoned for Low-, Moderate-, and High- Density Development, Low-Income Equity Geographies, 2017-2050



Source: PSRC

Note: Low density is defined as less than 12 units/acre, moderate density as 12-49 units/acre, and high density as 50+ units/acre. These groupings generally translate to single-family development; duplex, triplex, townhome, and low-rise apartment/condo buildings; and high-rise apartment/condo buildings.

People of Color

Table 18. Housing Growth in Areas Zoned for Low-, Moderate-, and High-Density Development, People of Color Equity Geographies

		Base Year	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
		2017	2017-2050	2017-2050	2017-2050	2017-2050
People of color equity geographies	Low Density	46%	10%	13%	9%	13%
	Moderate Density	37%	12%	14%	13%	12%
	High Density	17%	78%	74%	77%	75%
Non-People of color equity geographies	Low Density	68%	28%	39%	24%	39%
	Moderate Density	17%	15%	15%	17%	14%
	High Density	15%	56%	46%	59%	47%
Region	Low Density	64%	24%	34%	20%	34%
	Moderate Density	20%	15%	15%	16%	14%
	High Density	16%	61%	51%	63%	52%

Source: PSRC

In each of the alternatives, the people of color equity geographies have large amounts of growth (ranging from 74 to 78 percent) in areas zoned for high-density. This is much larger than the amount of growth in these zoned areas than the rest of the region. Growth in moderate density housing is less (ranging from 1 to 4 percent less) in these areas under each alternative compared to the rest of the region.


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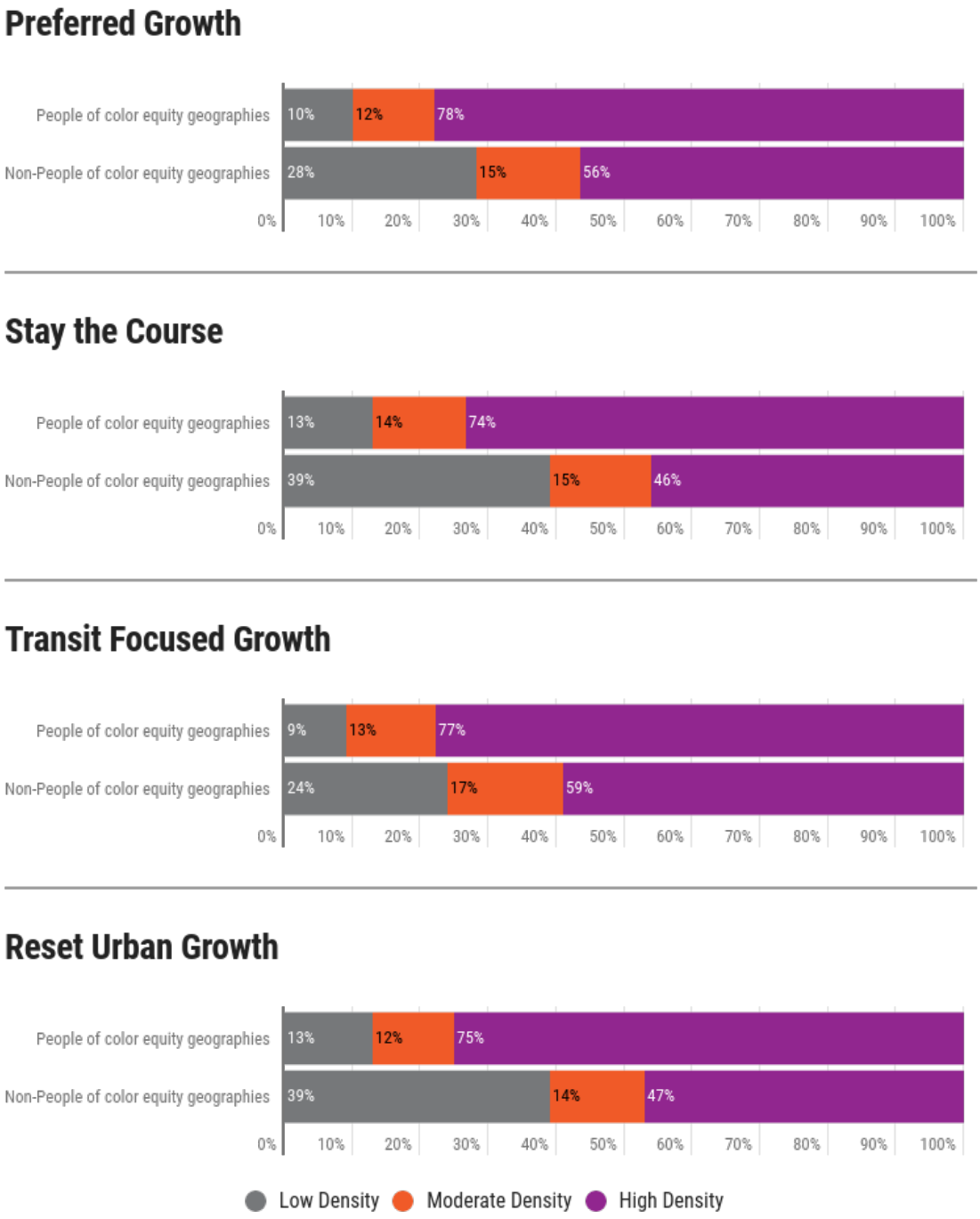
Figure 17. Housing Growth in Areas Zoned for Low-, Moderate-, and High-Density Development, People of Color Equity Geographies, 2017-2050



Source: PSRC

Note: Low density is defined as less than 12 units/acre, moderate density as 12-49 units/acre, and high density as 50+ units/acre. These groupings generally translate to single-family development; duplex, triplex, townhome, and low-rise apartment/condo buildings; and high-rise apartment/condo buildings.

Potential Mitigation Measures

Without targeted intervention and local action, there's potential for inequitable outcomes for residents of the equity geographies under each of the alternatives. To improve the jobs-housing ratio, planning processes that account for living-wage jobs within reasonable commute distances could be promoted in addition to affordable housing initiatives in proximity to employment centers. Measures to address cost barriers to attaining and preserving housing, including preservation and tenant protections, could be enacted. Potential mitigation measures and tools can be found in Table 19.

Table 19. Potential Mitigation Measures: Housing and Employment

Topic: Preserve and Encourage the Creation of Affordable Housing
Potential Mitigation Measures: • Encourage planning practices to analyze and track housing issues and needs.* • Pursue design guidelines, design approaches, new technology, and alternative design approaches for small-lot development, zero lot line development, and reduced setback requirements.* • Encourage regulatory approaches such as zoning changes, minimum density ordinances, performance zoning, and inclusionary zoning.* • Fund a grant program to incentivize the planning and creation of affordable housing zones. • Provide financial incentives such as fee exemptions, density bonuses, tax credits, or transfer of development rights programs.* • Develop consistent definitions for "affordable," "low-income," and "moderate-income" among jurisdictions.* • Encourage the adoption of affordable housing targets by local jurisdictions.* • Establish housing targets specific to identified regional growth centers.* • Perform regular review and updates to local land use regulations to ensure consistency with affordable housing goals.* • Prioritize regional funding for transportation projects that support affordable housing. • Rezone for increased density near transit and services. • Expand housing diversity, particularly moderate-density housing. • Increase housing supply with access to employment. • Streamline regulations and reduce development restrictions, such as minimum parking requirements. • Increase funding available for affordable housing through federal low-income housing tax credits, local or countywide housing levies, or other similar measures. • Prevent displacement and preserve "naturally occurring" affordable housing through sales tax waivers, low-interest loans/revolving loan funds for preservation, and code enforcement. • Pursue tenant protections by providing multi-jurisdiction support for local enforcement of codes and affordability, support local implementation and enforcement to prevent source of income discrimination, and create legal defense funds for local jurisdictions. Include pursuing protections against discrimination for the use of Section 8 and other vouchers. • Create rental property safety programs that ensure that all rental housing units comply with life and safety standards ensuring a safe place for tenants to live. • Assess, monitor, and report housing data and trends.

Table 19. Potential Mitigation Measures: Housing and Employment (continued)

Topic: Preserve and Encourage the Creation of Affordable Housing
• Encourage a wider range of affordable housing for seniors, for special needs populations, and housing that accommodates a variety of family sizes. • Seek to create collaborative public/private partnerships to increase affordable housing development and development of tenant protection policies. • Develop and use form-based codes and allow affordable housing by-right to streamline the approval process. • Create a Housing Trust Fund that can tap private or public funds or money from the fee-in-lieu of development option to create affordable housing. • Create land banks to acquire, hold, manage and develop vacant properties for affordable housing. • Develop lease-purchase programs. This allows residents to rent homes they will eventually own, locking in lower interest and mortgage rates, while improving their credit history and increasing their savings prior to taking ownership of the homes. • Enable tax increment financing or other value capture financing (e.g., Community Revitalization Financing, Local Infrastructure Financing Tool, Local Revitalization Financing, Landscape Conservation and Local Infrastructure Program, and Local Improvement District) in places most likely to experience gentrification to fund affordable housing. • Set up impact investing opportunities to fund affordable housing projects. • Allocate increased funding for tenant and project-based vouchers. • Encourage the use of location-efficient mortgages. • Prioritize housing resources for long-term residents to prevent displacement. • Adopt microunit or single-room occupancy policies. • Defer property tax payments for long-time homeowners until they sell. • Protect developers from legal action once their project is approved to reduce the risk and cost of creating affordable housing. • Deed-restrict affordable housing to prevent rent from increasing when areas become more attractive. • Permit a developer to pay cash (equal to the value of affordable housing on the site) to the jurisdiction in lieu of providing the affordable units, which will go to financing developments of affordable housing. • Provide upzones in exchange for affordable housing. • In negotiations for contributions from a jurisdiction (e.g., financing, contributing parking, environmental cleanup costs) the jurisdiction should require affordable housing units or a fee in lieu of this affordable housing in exchange. • Incorporate an affordability requirement for Transfer of Development Rights programs. • Preserve affordable housing by tracking the expiration dates of subsidized apartment complexes and facilitating efforts to renew these contracts or the sale of these units to owners that will renew them. • Offer incentives to owners to fix up their properties in need of repair. In exchange for these incentives, the owner would agree to set aside units for affordable housing. • Waive code enforcement fines in exchange for the owner completing rehabilitation and making affordability commitments. • Eliminate unnecessary large minimum lot size requirements. • Eliminate zoning that only allows for single-family lots. • Adopt Just Cause eviction ordinances which allow tenants to be evicted only for specific reasons (“just causes”). Legal evictions under these policies can include such things as a failure to pay rent or violation of the lease terms. • Strengthen renter protections. • Offer foreclosure assistance programs that assist homeowners (financially or otherwise) when they are at risk of foreclosure. These programs may be funded with federal grants.

Table 19. Potential Mitigation Measures: Housing and Employment (continued)

Topic: Preserve and Encourage the Creation of Affordable Housing
• Charge commercial linkage fees and affordable housing impact/linkage fees (charges on developers per square foot of new market-rate, for commercial development and residential developments, respectively). These revenues are used to develop or preserve affordable housing. • Adopt station area plans and/or policies for all HCT Communities that are expected to attract significant new population or employment growth. • Conduct an inventory of existing housing, including the cost, size, condition, and use of subsidies of existing units, as part of the housing needs assessment. Use this information to identify potential sites for preservation and/or replacement. • Identify properties that contain affordable units that are at risk of displacement or conversion. • Explore options for contributing capital to a transit-oriented development property acquisition fund. • Expedited permitting for projects that include affordable units.

Land Use

Table 20. Summary of Impacts and Benefits to Equity Geographies: Land Use

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Land Use: Similar to Transit Focused Growth, the equity geographies have a larger percentage of population and employment growth located in proximity to **high-capacity transit** (87 percent and 92 percent) compared to Stay the Course, Reset Urban Growth, and the region as a whole (69 percent). The equity geographies have a larger percentage of population and employment growth located in proximity to **all transit service** (87 percent and 90 percent, respectively) compared to Stay the Course, Reset Urban Growth, and the region as a whole (76 percent).	**Land Use:** The equity geographies have lower percentages of population and employment growth located in proximity to **high-capacity transit** (62 percent and 68 percent) compared to the Preferred Growth Alternative and Transit Focused Growth but higher compared to Reset Urban Growth and the region as a whole (46 percent). These communities would have improved access to transit but would likely experience elevated risk of displacement. Absolute values were taken into consideration for this analysis (see Appendix B). The equity geographies have lower percentages of population and employment growth located in proximity to **all transit service** (76 percent and 82 percent) compared to the Preferred Growth Alternative and Transit Focused Growth but higher compared to Reset Urban Growth and the region as a whole (65 percent).	**Land Use:** The equity geographies have the highest percentages of population and employment growth located in proximity to **high-capacity transit** (89 percent and 92 percent) compared to the other alternatives and the region as a whole (75 percent). The equity geographies have the highest percentages of population and employment growth located in proximity to **all transit service** (88 percent and 90 percent) compared to the other alternatives and the region as a whole (81 percent).	**Land Use:** The equity geographies have lower percentages of population and employment growth located in proximity to **high-capacity transit** (63 percent and 68 percent) compared to the other alternatives but higher compared to the region as a whole (45 percent). The equity geographies have lower percentages of population and employment growth located in proximity to **all transit service** (75 percent and 79 percent) compared to the other alternatives but higher compared to the region as a whole (61 percent).

Land use policies drive urban and rural growth. The investments in high-capacity transit between now and 2050 provide an opportunity for people of color and people with low incomes to have greater access to transportation options and the opportunities and affordability these may provide. However, these investments could increase displacement pressures on current residents.

Growth around existing and planned[19] high-capacity transit—light rail, commuter rail, bus rapid transit, and ferry terminals—can encourage transit-oriented development. Transit-oriented development can result in numerous benefits such as reducing vehicle use, promoting walking and biking, and reducing sprawl.

Transit stations can serve as a link between land use and transportation—connecting residents and workers to jobs and services in the rest of the region and offering access to nearby civic and public spaces. Well-designed transit-oriented communities, the areas immediately surrounding high-capacity transit service, can lead to a range of substantial social and environmental benefits. Transit-oriented communities have the potential to:

- Provide economic benefit to the region
- Promote health and safety by encouraging walking and biking, cutting air pollution, reducing motor vehicle collisions, and increasing access to healthy food
- Lower household expenses for transportation, and support housing affordability
- Reduce municipal infrastructure costs
- Help meet the growing demand for "walkable communities"
- Reduce sprawl and thereby help conserve farms and natural ecosystems and protect water quality
- Cut energy consumption and greenhouse gas emissions associated with both transportation and the built environment

[19] Planned transit investments included those anticipated in the 2040 Regional Transportation Plan.

Table 21. Population and Employment in Proximity to High-Capacity Transit, Equity Geographies

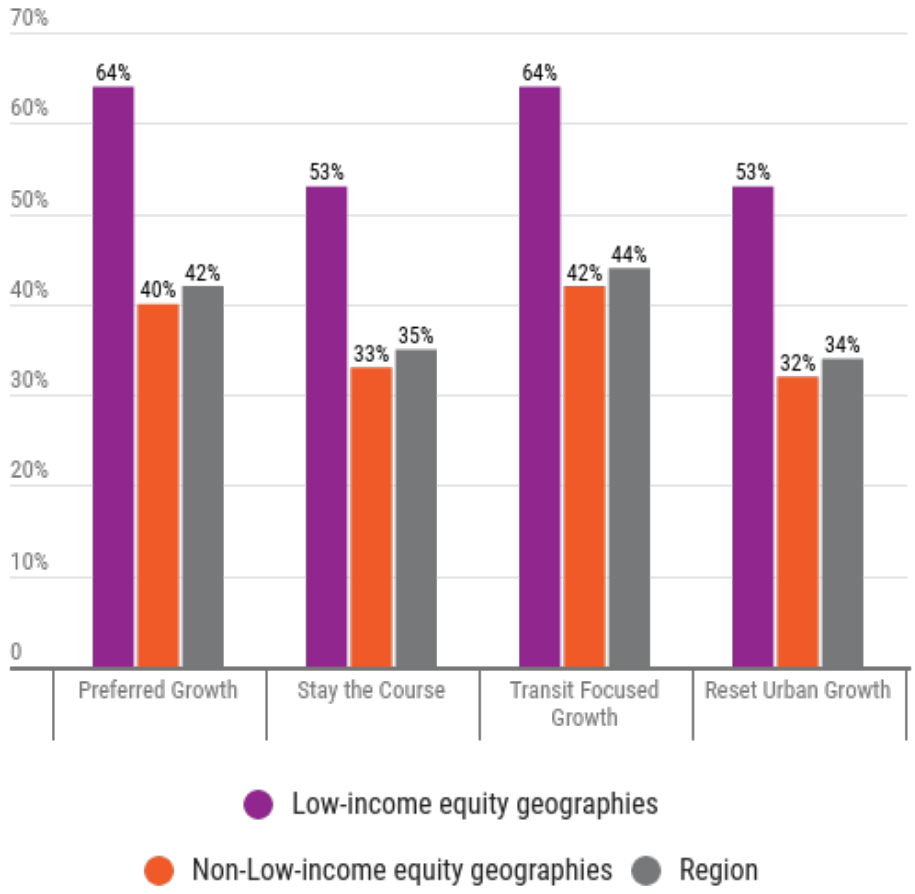
	Base Year	Preferred Growth		Stay the Course		Transit Focused Growth		Reset Urban Growth	
	2017	2017-2050	2050	2017-2050	2050	2017-2050	2050	2017-2050	2050
Low-income equity geographies	44%	92%	64%	68%	53%	92%	64%	68%	53%
Non-Low-income equity geographies	28%	66%	40%	44%	33%	73%	42%	43%	32%
People of color equity geographies	42%	87%	57%	62%	48%	89%	57%	63%	49%
Non-People of color equity geographies	26%	64%	38%	42%	31%	71%	40%	40%	30%
Region	29%	69%	42%	46%	35%	75%	44%	45%	34%

Source: PSRC

Note: Proximity to high capacity transit service is defined as within designated regional growth centers; within 1/2 mile of light rail stations, commuter rail stations, and ferry terminals in the UGA; and within 1/4 mile of bus rapid transit stops in the UGA.

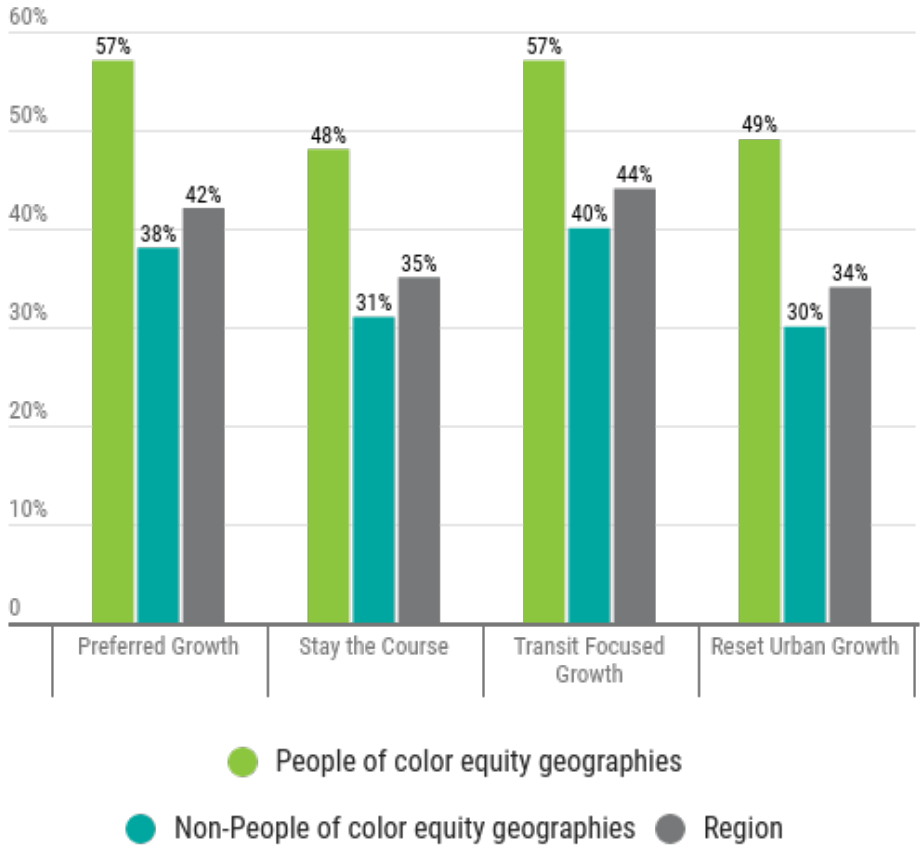
The equity geographies have a larger share of population and employment located in proximity to high-capacity transit compared to the region as a whole. This indicates that residents in these communities would have improved access to transit but also could experience an elevated risk of displacement. The measure evaluating the risk of displacement is examined later in this document. Under Transit Focused Growth, the equity geographies would see the largest increase of growth in proximity to transit.

Figure 18. Population and Employment in Proximity to High-Capacity Transit, Low-Income Equity Geographies, 2050



Source: PSRC

Figure 19. Population and Employment in Proximity to High-Capacity Transit, People of Color Equity Geographies, 2050



Source: PSRC

Transportation

Table 22. Summary of Impacts and Benefits to Equity Geographies: Transportation

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
For the equity geographies, transportation benefits under the Preferred Growth Alternative are generally slightly less than Transit Focused Growth and better than Stay the Course and Reset Urban Growth. Benefits to these areas are better than the region as a whole. These benefits include less driving and time spent in traffic, increased walking, and greater access to jobs via walking, biking, and transit.	For the equity geographies, transportation benefits under Stay the Course are generally slightly better than Reset Urban Growth and less than the Preferred Growth Alternative and Transit Focused Growth. Benefits to the equity geographies are better than the region as a whole.	For the equity geographies, transportation benefits under Transit Focused Growth are slightly better than the Preferred Growth Alternative and better than Stay the Course, Reset Urban Growth, and the region as a whole.	For the equity geographies, transportation benefits under Reset Urban Growth are generally slightly less than Stay the Course and noticeably less than the Preferred Growth Alternative and Transit Focused Growth. Benefits to these areas are better than the region as a whole.

With continued regional population and employment growth between now and 2050, increased demand will be placed on the transportation system. To model travel behavior in 2050, all investments planned in the Regional Transportation Plan[20] are assumed to be in place. This provides a backdrop for comparing effects of each regional growth alternative. The following sections describe transportation system performance for the following measures:

- **Average daily vehicle miles and minutes** – how far the average person is driving each day by car and how much time is spent in a car for both commuting and personal trips
- **Average annual vehicle delay** – the amount of time the average person spends in congestion each year
- **Transportation mode share** – the percentage of both commute and non-commute trips made by people driving alone, carpooling, using transit and school buses, walking, or biking
- **Jobs accessible by transit, biking, and walking** – number of jobs located within a 45-minute transit trip, a 1-mile walk trip, or a 3-mile bike trip

[20] PSRC. 2018. The Regional Transportation Plan—2018. Puget Sound Regional Council. Seattle, WA. May 2018.

Personal vehicle travel costs households a significant amount of money in vehicle ownership, operation, and maintenance. Reducing time spent in a vehicle could decrease these costs along with increasing time for other activities. Households with low incomes could be most impacted by these high costs and may benefit most by shorter trip distances and times, the availability of other more affordable modes of travel, and jobs within close proximity to where they live.

Average Daily Vehicle Minutes Traveled and Delay by Residents

Table 23. Average Daily Vehicle Minutes Traveled by Residents, Equity Geographies

	Base Year	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
	2014	2050	2050	2050	2050
Low-income equity geographies	27.1	22.2	23.4	22.2	23.7
Non-Low-income equity geographies	38.1	33.9	35.2	33.6	35.7
People of color equity geographies	32.3	28.2	29.1	28.4	29.5
Non-People of color equity geographies	38.6	34.2	35.5	33.7	36.1
Region	37.5	33.2	34.5	32.8	34.9

Source: PSRC

Note: This measure is calculated for all trips that use a private vehicle (both drive alone and shared ride) for residents in each defined geography. This metric does not include miles driven by trucks or by people who live outside the region.

Table 24. Average Annual Vehicle Delay Hours by Residents, Equity Geographies

	Base Year	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
	2014	2050	2050	2050	2050
Low-income equity geographies	14.6	17.7	19.1	17.3	19.7
Non-Low-income equity geographies	21.7	28.9	31.0	28.3	31.9
People of color equity geographies	18.4	23.2	23.7	23.3	25.2
Non-People of color equity geographies	21.9	29.3	31.5	28.5	32.4
Region	21.3	28.2	30.2	27.5	31.2

Source: PSRC

Note: This measure is calculated for all trips that use a private vehicle (both drive alone and shared ride) for residents in each defined geography. This metric does not include delay for trucks or for people who live outside the region. Delay is measured as the difference between travel in the middle of the night (considered "free-flow") and travel during a specific time of day.

Under all alternatives, residents in equity geographies drive less and spend less time in traffic compared to the region as a whole.

Mode Share

Table 25. Share of Commute Trips by Travel Mode, Equity Geographies

		Base Year	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
		2014	2050	2050	2050	2050
Low-income equity geographies	SOV	71%	56%	59%	56%	59%
	HOV	14%	13%	13%	13%	13%
	Transit	6%	11%	9%	11%	10%
	Walk	6%	15%	14%	16%	13%
	Bike	4%	5%	5%	5%	5%
People of color equity geographies	SOV	72%	61%	63%	60%	62%
	HOV	14%	14%	14%	14%	14%
	Transit	7%	11%	10%	11%	10%
	Walk	5%	10%	9%	10%	9%
	Bike	3%	5%	4%	5%	4%
Region	SOV	71%	62%	63%	61%	64%
	HOV	14%	13%	13%	13%	13%
	Transit	6%	10%	9%	10%	9%
	Walk	6%	11%	10%	11%	10%
	Bike	3%	4%	4%	4%	4%

Source: PSRC

SOV – single-occupancy vehicle

HOV – high-occupancy vehicle

Table 26. Share of Non-Commute Trips by Travel Mode, Equity Geographies

		Base Year	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
		2014	2050	2050	2050	2050
Low-income equity geographies	SOV	32%	25%	27%	25%	27%
	HOV	40%	35%	35%	35%	36%
	Transit/School Bus	6%	7%	7%	7%	7%
	Walk	20%	31%	29%	31%	28%
	Bike	2%	2%	2%	2%	2%
People of color equity geographies	SOV	33%	28%	29%	28%	29%
	HOV	43%	39%	39%	39%	39%
	Transit/School Bus	5%	7%	7%	7%	7%
	Walk	17%	25%	23%	25%	23%
	Bike	1%	2%	2%	2%	2%
Region	SOV	33%	28%	29%	28%	29%
	HOV	42%	39%	40%	39%	40%
	Transit/School Bus	5%	6%	6%	6%	6%
	Walk	18%	25%	23%	25%	23%
	Bike	1%	2%	2%	2%	2%

Source: PSRC

SOV – single-occupancy vehicle

HOV – high-occupancy vehicle

Residents of the low-income equity geographies drive alone less and walk more for both work and personal trips compared to the region as a whole. Residents of the people of color equity geographies have a similar mode share compared to the region as a whole.

Access to Jobs

Table 27. Average Jobs Accessible per Resident by Travel Mode, Equity Geographies

		Base Year	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
		2014	2050	2050	2050	2050
Low-income equity geographies	Jobs within 45-min Transit Trip*	158,400	396,200	361,800	384,600	386,100
	Jobs within 1-mile Walk Trip	11,200	30,900	27,800	30,100	27,400
	Jobs within 3-mile Bike Trip	51,500	106,600	104,000	103,500	104,900
Non-Low-income equity geographies	Jobs within 45-min Transit Trip*	111,700	281,300	243,200	286,200	254,500
	Jobs within 1-mile Walk Trip	6,900	19,500	16,600	19,700	17,600
	Jobs within 3-mile Bike Trip	42,300	86,000	77,700	86,400	80,500
People of color equity geographies	Jobs within 45-min Transit Trip*	140,700	386,100	351,800	383,300	362,900
	Jobs within 1-mile Walk Trip	6,100	17,900	15,600	17,700	15,800
	Jobs within 3-mile Bike Trip	47,600	100,300	95,600	99,500	96,800
Non-People of color equity geographies	Jobs within 45-min Transit Trip*	109,100	268,700	231,300	273,900	242,300
	Jobs within 1-mile Walk Trip	7,300	20,800	17,700	21,100	18,800
	Jobs within 3-mile Bike Trip	41,900	84,700	76,300	85,000	79,000
Region	Jobs within 45-min Transit Trip*	114,300	289,600	251,400	293,600	263,100
	Jobs within 1-mile Walk Trip	7,100	20,300	17,400	20,500	18,300
	Jobs within 3-mile Bike Trip	42,800	87,500	79,600	87,700	82,100

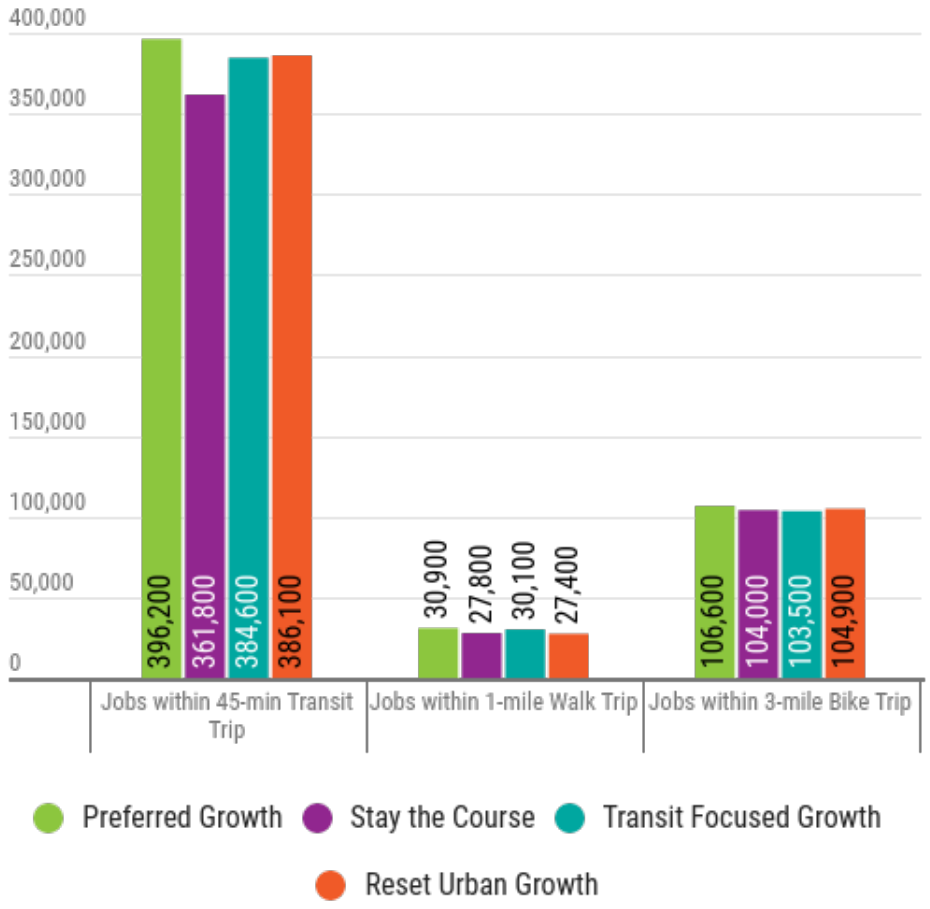
Source: PSRC

Note: Values represent the average number of jobs accessible per capita (resident) by home location.

*A 45-minute transit trip includes walk, wait, and in-transit time.

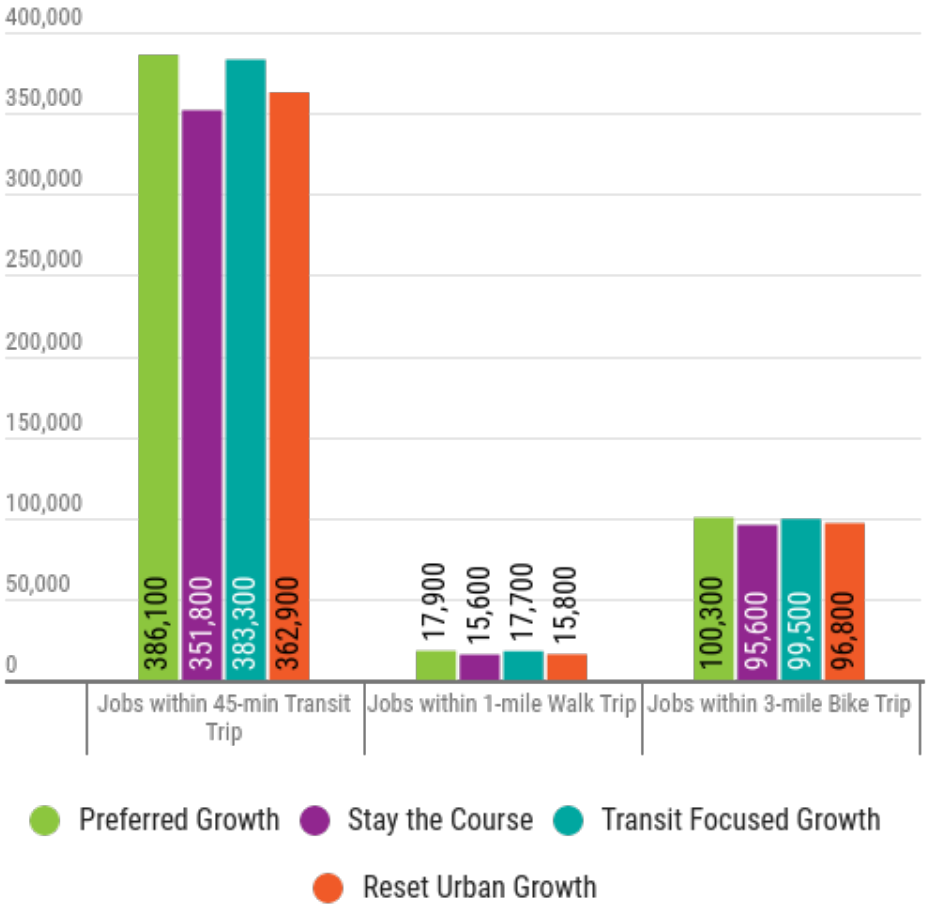
More residents of the low-income equity geographies have greater access to jobs via walking, biking, or transit than residents who live in the rest of the region. More residents of the people of color equity geographies have greater access to more jobs via transit and biking, but not walking.

Figure 20. Average Jobs Accessible per Resident by Travel Mode, Low-Income Equity Geographies, 2050



Source: PSRC

Figure 21. Average Jobs Accessible per Resident by Travel Mode, People of Color Equity Geographies, 2050



Source: PSRC

Potential Mitigation Measures

Although the equity geographies perform well under all alternatives in the transportation measures, ensuring that the benefits associated with these measures are felt by existing residents may require some intervention. Mitigation measures for all of the alternatives are listed in Table 4.3-3 of the Final SEIS. Some of these measures will be important for these communities, including increasing access to low income fares (ORCA Lift) and including safety considerations in transportation facilities, among others. Other mitigation measures in Table 19 related to the preservation of affordable housing are also applicable for ensuring that communities have access to these benefits.

Ecosystems, Water Quality, and Hydrology

Past growth and development have degraded ecosystems, water quality, and hydrology, and led to declines of many plant and animal species. Many organizations are working on efforts to restore these resources and prevent future impacts.

For all alternatives, impacts from growth that degrade water quality and habitat can contribute to the decline of salmon and other plant and animal species of significance to tribes in the region[21]. Impacts to fisheries also affect low-income communities who fish to augment their food supply.

Measures to mitigate impacts to ecosystems, water quality, and hydrology are listed in Tables 4.5-1 and 4.6-2.

Public Services and Utilities, Energy

Table 28. Summary of Impacts and Benefits to Low-Income Communities: Public Services and Utilities, Energy

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
For the Preferred Growth Alternative, similar to Stay the Course and Transit Focused Growth, compact development where existing utilities are located would help keep utility and living costs down, a benefit to low-income communities.	For Stay the Course, similar to the Preferred Growth Alternative and Transit Focused Growth, compact development where existing utilities are located would help keep utility and living costs down, a benefit to low-income communities.	For Transit Focused Growth, similar to the Preferred Growth Alternative and Stay the Course, compact development where existing utilities are located would help keep utility and living costs down, a benefit to low-income communities.	More dispersed development may require more expansion or development of utilities and services compared to the other alternatives, which could add utility and living costs, an adverse impact to low-income communities.
For all alternatives, growth would require expansion or development of new facilities.			

As the region adds approximately 1.8 million people and 1.2 million jobs between now and 2050, there will be demand for additional utilities, including energy, solid waste, sanitary sewer, water, and stormwater. In addition, general expansions of fire and police services, health and medical services, schools, and other services are anticipated.

Compact development patterns where pre-existing utilities are located would help keep utility and living costs down for all residents of the region—especially beneficial for residents with low incomes. The Preferred Growth and Transit Focused Growth alternatives would result in the most compact development patterns and less growth in

[21] Treaty Indian Tribes in Western Washington. 2011. Treaty Rights at Risk. Olympia, WA. Available at: http://treatyrightsatrisk.org/. July 2011.

Rural and Urban Unincorporated areas. The more dispersed development pattern associated with Reset Urban Growth may require extensions to underserved areas and could add utility and living costs, an adverse impact to low-income populations. Measures to mitigate impacts to public services, utilities, and energy are listed in Table 4.7-1 and 4.10-1.

Parks and Recreation

Table 29. Summary of Impacts and Benefits to Equity Geographies: Parks and Recreation

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Local parks resources: In the equity geographies, the Preferred Growth Alternative results in the second-highest access to parks for residents. Access would be higher than the region as a whole.	**Local parks resources:** In the equity geographies, Stay the Course results in the lowest access to parks for residents. Access would be higher than the region as a whole.	**Local parks resources:** In the equity geographies, Transit Focused Growth results in the highest access to parks for residents. Access would be higher than the region as a whole.	**Local parks resources:** In the equity geographies, Reset Urban Growth results in the third-highest access to parks for residents. Access would be higher than the region as a whole.
Regional parks resources: Regional park access would be similar for all alternatives for the equity geographies.			

Impacts common to parks, open space, and recreational facilities within the urban growth areas under all alternatives are similar to those described in the VISION 2040 FEIS. The addition of 1.8 million people to the region would impact existing park and recreation resources unless new parks and facilities are added at both the local and regional level. These impacts would include:

- Increased use, and in some locations, crowding. Increased use could lead to degradation of the recreational experience and potential degradation of the natural and open space resources.
- Increased demand for jurisdictions to redevelop existing parks and develop, operate, and maintain new facilities, which would increase capital expenses.
- The additional use of and demand for resources would likely increase conflicts between different types of recreational users and reduce the convenience of access.
- New development not properly planned with consideration of parks and open space needs, such as those identified in the Regional Open Space Conservation Plan, would lack access to parks, open spaces, and recreational resources within the urban growth area.

In addition to impacts to parks as described in the VISION 2040 FEIS, there is potential for impacts at a regional level for facilities outside of the urban growth area. At a regional level, access to wild open spaces such as national parks, forests, and wilderness areas would experience similar adverse impacts under all alternatives. The population growth in the region could substantially strain management of these resources, including trail and road maintenance and vegetation and ecosystem preservation. Because many people arrive at these resources by car, access would increase carbon emissions, and without mitigation, trailheads would likely become increasingly congested, impacting natural resources around access points and creating safety concerns.

In particular, the necessity of having a car to access regional parks, open space, and recreational resources creates a barrier for people with lower incomes, as they are less likely to own a car. Other barriers for people with low incomes include the cost of access passes, lack of leisure time, equipment, and familiarity with hiking and camping.[22]

Urban Growth Area population in proximity to parks providing local urban access

Under all alternatives and compared to the region as a whole, more growth would occur in equity geographies with access to local parks. In the equity geographies, Transit Focused Growth results in the highest access to parks for residents compared to the other alternatives. If not mitigated, people with lower incomes, who have fewer options to travel beyond their local parks than people with higher incomes, could be more affected by growth.

[22] PSRC. 2018. Regional Open Space Conservation Plan. Puget Sound Regional Council. Seattle, WA. June 2018. Available at: https://www.psrc.org/open-space.

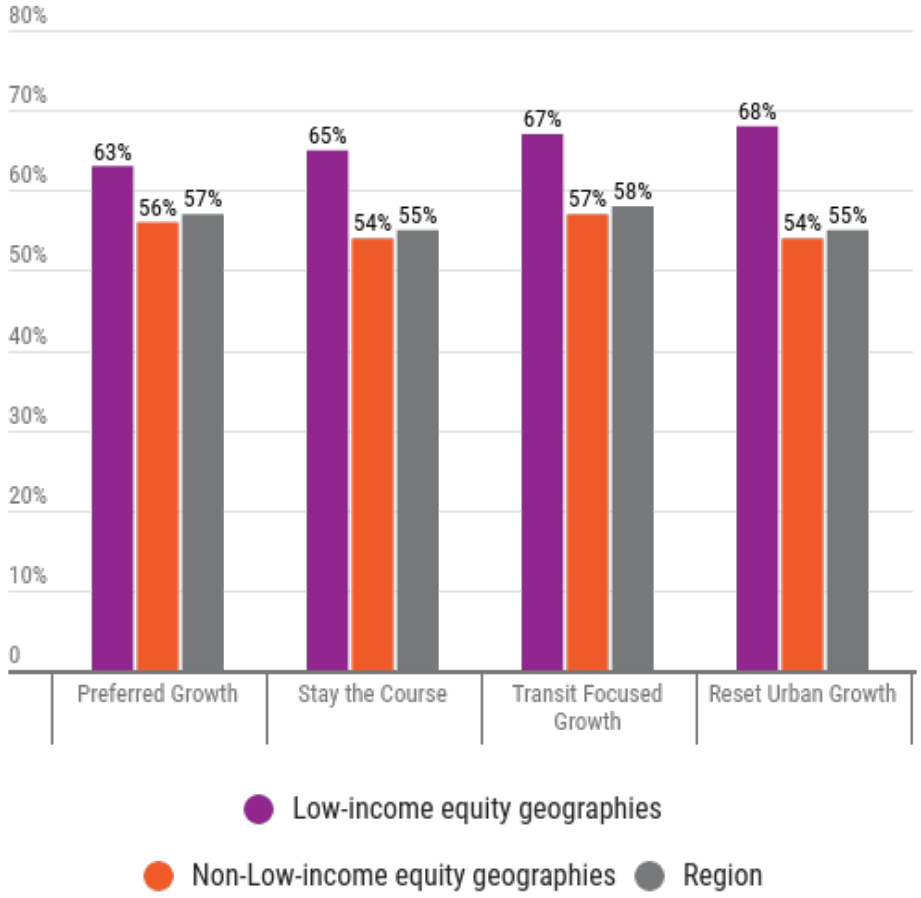
Table 30. Urban Growth Area Population in Proximity to Parks Providing Local Urban Access, Equity Geographies

	Base Year		Preferred Growth		Stay the Course		Transit Focused Growth		Reset Urban Growth	
	UGA Population 2017	Percent in Proximity to Parks	UGA Population Change 2017-2050	Percent Change in Proximity to Parks	UGA Population Change 2017-2050	Percent Change in Proximity to Parks	UGA Population Change 2017-2050	Percent Change in Proximity to Parks	UGA Population Change 2017-2050	Percent Change in Proximity to Parks
Low-income equity geographies	140,000	60%	108,000	63%	99,000	65%	124,000	67%	89,000	68%
Non-Low-income equity geographies	1,963,000	60%	871,000	56%	806,000	54%	882,000	57%	825,000	54%
People of color equity geographies	421,000	60%	196,000	57%	161,000	57%	211,000	60%	185,000	60%
Non-People of color equity geographies	1,682,000	59%	783,000	57%	744,000	54%	795,000	58%	729,000	54%
Region	2,096,000	59%	979,000	57%	905,000	55%	1,006,000	58%	914,000	55%

Source: PSRC

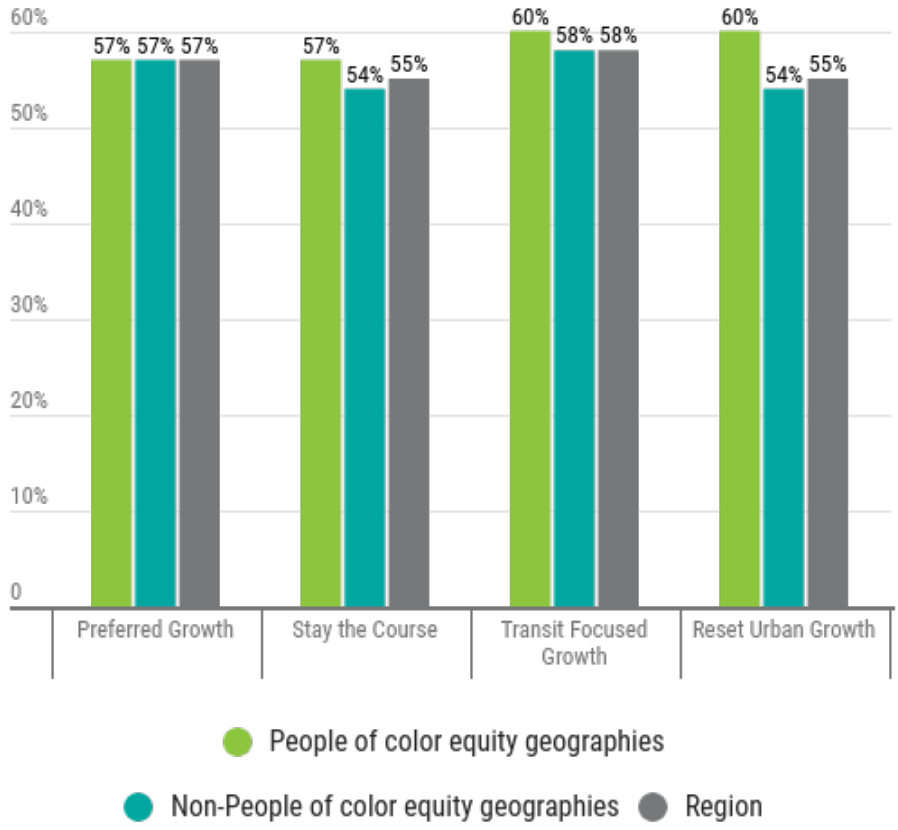
Note: Proximity is defined as within 1/4 mile; parks providing local urban access is defined as currently existing parks, trails, and other open space facilities located in the urban growth area or within 1/4 mile of the urban growth area boundary.

Figure 22. Urban Growth Area Population in Proximity to Parks Providing Local Urban Access, Low-Income Equity Geographies, Change 2017-2050



Source: PSRC

Figure 23. Urban Growth Area Population in Proximity to Parks Providing Local Urban Access, People of Color Equity Geographies, Change 2017-2050



Source: PSRC

Potential Mitigation Measures

Mitigation measures for the entire region are applicable to the equity geographies and are listed in Table 4.8-1. Examples of these mitigation measures include:

- Commit to planning, funding, and constructing new and updated parks and recreational facilities
- Adopt local park development, enhancement, and maintenance levies
- Plan for and provide public transportation, sidewalks, and trail systems that enhance access to recreational facilities
- Identify open space and recreation needs within communities of color and low-income communities to design appropriate and affordable parks and recreation programs Consider scholarships and collaborate with health professionals to prescribe Park Rx to foster the use of parks and recreation services among the underserved
- Plan for accommodating changes to park uses as demographics shift over time
- Coordinate open space protections and trail construction with anti-displacement strategies
- Investigate alternative transportation modes to access regional park resources, and support specialized transit options to access recreational opportunities

Environmental Health

The environmental health analysis of impacts considers potential redevelopment of contaminated sites, physical activity, access to open space, and noise and air quality impacts. As described in Sections 2.11.2 and 5.4.6, environmental health inequities exist, and health outcomes vary by place, race, and income. Based on locations of people of color and people with low incomes, these populations may experience localized air quality and noise impacts from proximity to transportation infrastructure. At a regional level, there are no discernable environmental health differences between alternatives on the equity geographies. Increased access to transit, denser and more walkable communities, and increased access to parks and open space could provide increased benefits to the equity geographies if mitigation measures are successfully implemented to prevent displacement of these vulnerable populations. Mitigation measures specific to environmental health, air quality, and noise are applicable and are listed in Tables 4.4-2, 4.9-1, and 4.14-1. One example is monitoring health outcomes and identifying and addressing health disparities.

Historic, Cultural, and Archaeological Resources

For all alternatives, development could alter landscapes and properties with archaeological, cultural, or historic resources. Archaeological and traditional cultural properties in the region are primarily associated with local tribes. Growth can also lead to gentrification and displacement, resulting in loss of cultural resources for communities of color and low-income communities. See the displacement section for a more specific analysis of displacement risk. Measures to mitigate impacts to historic, cultural, and archaeological resources are listed in Table 4.11-1.

Climate Change

As discussed in the VISION 2040 FEIS, the effect of climate change is complex and interrelated. Climate change is of growing urgency, and intersects with many resources including air quality, ecosystems, and water.

For all alternatives, climate impacts or hazards from events such as heat waves, floods, and droughts pose challenges for all communities, as described in Chapter 4. However, communities of color and low-income communities may be more vulnerable and have more exposure to climate change risks and, therefore, have a reduced ability to cope with the impacts of these climate-related events compared to the region as a whole. Communities of color and low-income communities are also at increased risk based on their location (e.g., in floodplains and urban areas). They are also at increased risk based on their livelihoods (e.g., agriculture, fisheries, construction). However, at a regional level, there are no discernable differences between alternatives on the equity geographies. Compared to the region as a whole, communities of color and low-income communities may be disproportionally burdened under any of the alternatives, and local and regional decision-makers should consider mitigation strategies for these large-scale impacts. Climate change mitigation measures are listed in Table 4.4-2.

Growth in Opportunity Areas

Table 32. Summary of Impacts and Benefits to Equity Geographies and Region: Growth in Opportunity Areas

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
For the low-income equity geographies, growth in opportunity areas (moderate to very high opportunity) would be lower (50%) under the Preferred Growth Alternative than Transit Focused Growth and more than Stay the Course and Reset Urban Growth. For the people of color equity geographies under the Preferred Growth Alternative, growth in opportunity areas is the same as Transit Focused Growth (63%) and higher than Stay the Course and Reset Urban Growth.	For the equity geographies, growth in opportunity areas would be lower (40% and 54%, respectively) under Stay the Course than the other alternatives.	For the low-income equity geographies, growth in opportunity areas would be higher (55%) under Transit Focused Growth than the other alternatives. For the people of color equity geographies, growth in opportunity areas is the same under the Transit Focused Growth as the Preferred Growth Alternative (63%) and higher than Stay the Course and Reset Urban Growth.	For the equity geographies, growth in opportunity areas would be higher (46% and 62%, respectively) under Reset Urban Growth than Stay the Course and lower than the Preferred Growth Alternative and Transit Focused Growth.

For the equity geographies, growth will occur in areas of opportunity for all of the alternatives which could improve access to opportunity but may elevate growth pressures. Mitigation measures would need to be considered to help prevent displacement of vulnerable populations.

Opportunity Mapping Tool

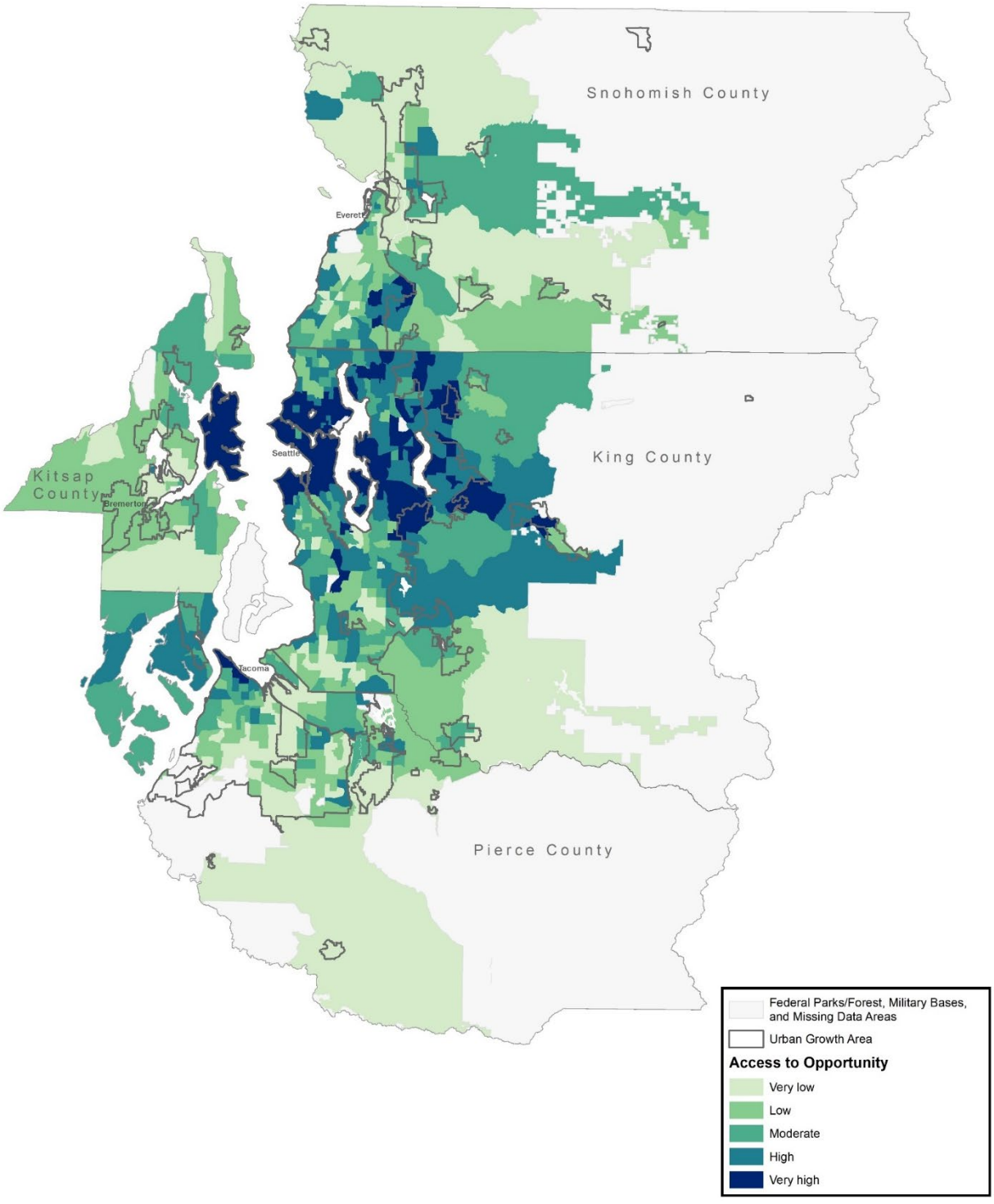
To assess the amount of opportunity that exists in neighborhoods today, PSRC developed the opportunity mapping tool.[23] This tool allows the analysis of growth that may take place in areas with moderate to high opportunity.

Growth in areas of opportunity is based on the "Opportunity Index," which represents a comprehensive index of five key elements of neighborhood opportunity and positive life outcomes: education, economic health, housing and neighborhood quality, mobility and transportation, and health and environment. The level of opportunity score (very low, low, moderate, high, very high) is determined by sorting all census tracts into quintiles based on their index scores. Opportunity areas for this measure are defined as those areas that score "Moderate to Very High Opportunity"—which represents the top 60 percent of scores among all tracts. Opportunity areas that experience greater proportions of growth may experience an increased risk of displacement.

Additional detail on the opportunity index measures and methodology can be found in Appendix C of the Final SEIS.

[23] PSRC. Opportunity Mapping. https://www.psrc.org/opportunity-mapping

Figure 24. Map of Opportunity Index



Source: PSRC

Table 33. Population in Opportunity Areas, Equity Geographies

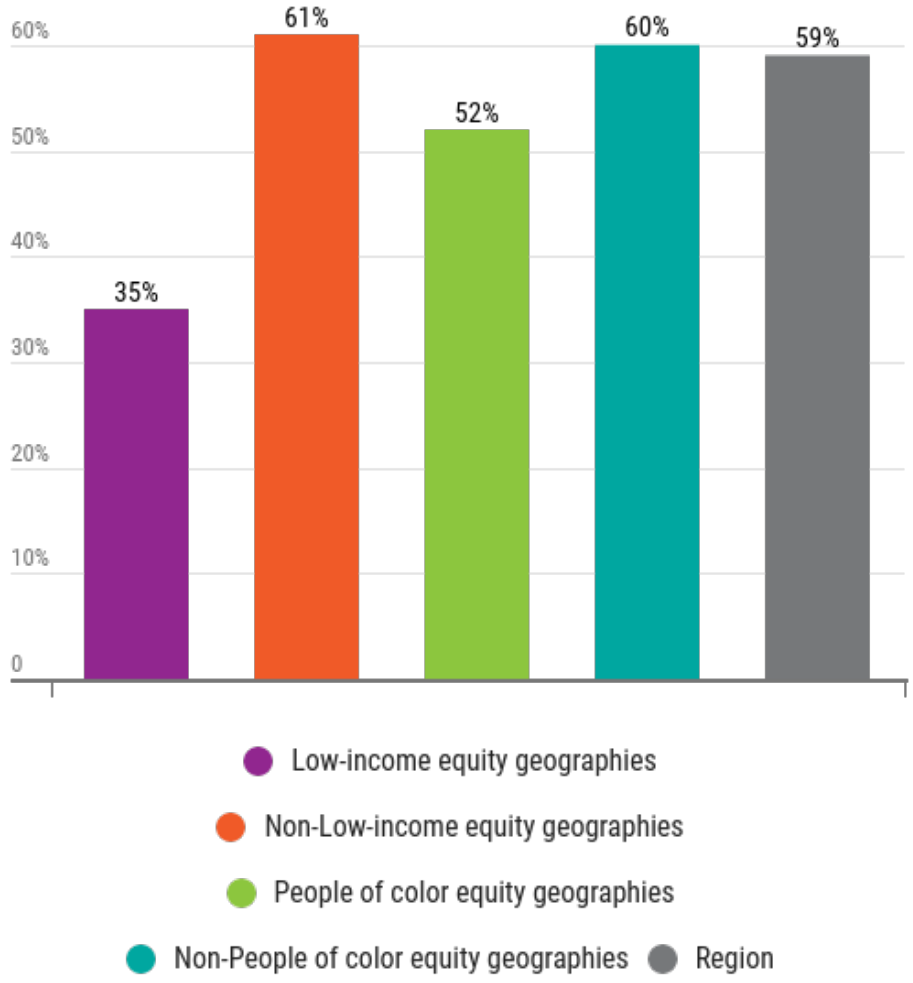
	Base Year	Preferred Growth		Stay the Course		Transit Focused Growth		Reset Urban Growth	
	2017	2017-2050	2050	2017-2050	2050	2017-2050	2050	2017-2050	2050
Low-income equity geographies	83,000	86,000	169,000	62,000	145,000	101,000	184,000	61,000	144,000
	35%	50%	41%	40%	36%	55%	43%	46%	38%
Non-Low-income equity geographies	2,317,000	975,000	3,292,000	895,000	3,212,000	969,000	3,286,000	973,000	3,290,000
	61%	61%	61%	56%	59%	62%	61%	60%	60%
People of color equity geographies	365,000	215,000	580,000	154,000	518,000	222,000	586,000	194,000	559,000
	52%	63%	56%	54%	53%	63%	56%	62%	55%
Non-People of color equity geographies	2,036,000	846,000	2,881,000	803,000	2,839,000	849,000	2,884,000	840,000	2,876,000
	60%	60%	60%	54%	59%	60%	60%	58%	60%
Region	2,400,000	1,063,000	3,463,000	958,000	3,359,000	1,072,000	3,472,000	1,036,000	3,436,000
	59%	60%	59%	54%	58%	61%	60%	59%	59%

Source: PSRC

Note: Opportunity Areas for this measure are defined as those areas that score "Moderate to Very High Opportunity"—which represents the top 60 percent of scores among all tracts.

Figure 24 shows the opportunity index by census tract in the region. Census tracts in dark blue represent areas with very high opportunity and the lightest green are areas with very low opportunity. Opportunity areas, census tracts with moderate to very high opportunity, are found frequently in King County, particularly in Seattle and east and north King County, Bainbridge Island in Kitsap County, Tacoma, and pockets of southern Snohomish County.

Figure 25. Percentage of Population in Opportunity Areas, Equity Geographies, 2017



Source: PSRC

In 2017, 60 percent the region's residents lived in areas of opportunity. Thirty-five percent of the population in low-income equity geographies were located in areas of opportunity and 52 percent of the population in people of color equity geographies were located in areas of opportunity. These disparities in outcomes compared to the region as a whole indicate the need to improve access to educational, economic, health, housing, and transportation opportunities for both communities of color and communities of people with low incomes. Between 2017 and 2050 the Transit Focused Growth Alternative would have the most growth in the equity geographies that are in opportunity areas compared to the other alternatives. The focused growth in these areas could give more people access to opportunity but could also put more displacement pressures on the existing communities.

Under all of the alternatives, the proportion of residents that live in equity geographies in opportunity areas is higher than in 2017. This higher proportion could improve access to opportunity for these populations but also may indicate higher growth pressures. Mitigation policies would need to be considered to help prevent displacement of vulnerable populations.

Growth in Areas of Higher Displacement Risk

Table 34. Summary of Impacts and Benefits to Equity Geographies and Region: Growth in Areas of Higher Displacement Risk

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
For low-income equity geographies, growth in areas of higher displacement risk is the same under the Preferred Growth Alternative as Transit Focused Growth (92%) and more than Stay the Course and Reset Urban Growth. For people of color equity geographies, growth in areas of higher displacement risk under the Preferred Growth Alternative would be more than the other alternatives (60%). For growth in the region as a whole under the Preferred Growth Alternative, 22 percent of population growth would occur in areas of higher displacement risk, pointing to an elevated displacement risk compared	For the equity geographies, growth in areas of higher displacement risk would be the lowest of all the alternatives (90% and 53%, respectively) under Stay the Course. It would be much higher in these geographies than the region as a whole, indicating that mitigation would be needed to help prevent displacement. For growth in the region as a whole under Stay the Course, 17 percent of population growth would occur in areas of higher displacement risk.	For low-income equity geographies, growth in areas of higher displacement risk under Transit Focused Growth is the same as the Preferred Growth Alternative (92%) and more than Stay the Course and Reset Urban Growth. For people of color equity geographies, growth in areas of higher displacement risk would be lower (59%) under Transit Focused Growth than the Preferred Growth Alternative and more than Stay the Course and Reset Urban Growth. It would be much higher in these geographies than the region as a whole, indicating that mitigation	For low-income equity geographies, growth in areas of higher displacement risk under Reset Urban Growth is more (91%) than Stay the Course and lower than the Preferred Growth Alternative and Transit Focused Growth. For people of color equity geographies, growth in areas of higher displacement risk under Reset Growth would be more (55%) than Stay the Course and lower than the Preferred Growth Alternative and Transit Focused Growth. It would be much higher in these geographies than the region as a whole, indicating that mitigation would be needed to help prevent displacement.

Table 34. Summary of Impacts and Benefits to Equity Geographies and Region: Growth in Areas at Higher Displacement Risk (continued)

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
to Stay the Course and Reset Urban Growth.		would be needed to help prevent displacement. For growth in the region as a whole, 23 percent of population growth would occur in areas of higher displacement risk, also pointing to an elevated displacement risk compared to Stay the Course and Reset Urban Growth.	For growth in the region as a whole under Reset Urban Growth, 17 percent of population growth would occur in areas of higher displacement risk.

Displacement occurs when housing or neighborhood conditions force residents to move. Displacement can be physical, when building conditions deteriorate or redevelopment occurs, or economic, as costs rise.

Gentrification is the influx of capital and higher-income, more highly educated residents into lower-income neighborhoods. People with low incomes, people of color, and neighborhoods where households are predominantly renters are at a higher risk of displacement and gentrification.

Depending on the local and regional context, displacement may precede gentrification or the two may occur simultaneously. Several key factors drive gentrification and displacement: proximity to attractive features such as rail/transit stations and job centers, historic housing stock, and location in a strong real estate market.[24] Gentrification and displacement are regional issues, as they are inherently linked to shifts in the regional housing and job market. Changes in neighborhood characteristics can help identify areas where displacement may be occurring. Areas with documented displacement include the Central District in Seattle and the Hilltop neighborhood in Tacoma. Both neighborhoods saw an increase in White residents and median household income, indicating a change in the demographics of the residents who can afford to live in these neighborhoods.[25]

[24] PSRC. 2018. VISION 2050 Housing Background Paper. Puget Sound Regional Council. Seattle, WA. June 2018.

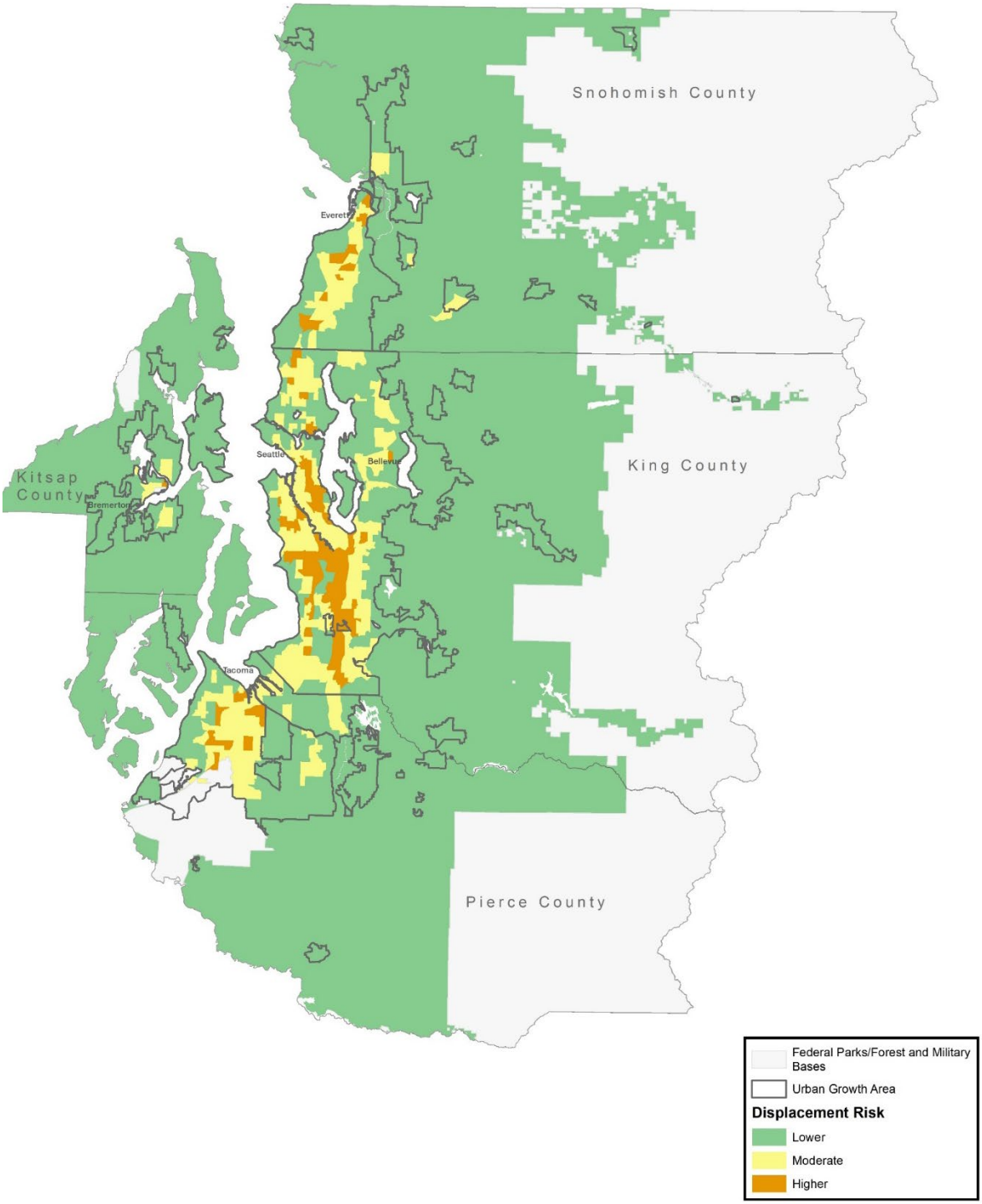
[25] Ibid.

Displacement Risk Analysis Tool

The addition of 1.8 million people to the region may put pressure on existing communities leading to displacement. The displacement risk tool was developed to identify areas at greater risk of displacement based on current neighborhood conditions.

Displacement Risk is a composite of indicators representing five elements of neighborhood displacement risks: socio-demographics, transportation qualities, neighborhood characteristics, housing, and civic engagement. The data from these five displacement indicators were compiled into a comprehensive index of displacement risk for all census tracts in the region. "Areas of Higher Displacement Risk" is determined by sorting all census tracts based on their index scores and represents the top 10 percent of scores among all tracts. Figure 26 shows the areas of higher displacement risk in orange and areas of moderate risk of displacement in yellow. Areas at higher risk of displacement are concentrated in the urbanized areas of the region, mainly in south King County, Tacoma, and along the Interstate 5 corridor in Snohomish County.

Figure 26. Map of Displacement Risk



Source: PSRC

Table 35. Population in Areas of Higher Displacement Risk, Equity Geographies

	Base Year	Preferred Growth		Stay the Course		Transit Focused Growth		Reset Urban Growth	
	2017	2017-2050	2050	2017-2050	2050	2017-2050	2050	2017-2050	2050
Low-income equity geographies	168,000	157,000	325,000	138,000	306,000	171,000	339,000	119,000	287,000
	70%	92%	79%	90%	78%	92%	80%	91%	77%
Non-Low-income equity geographies	244,000	222,000	466,000	164,000	408,000	226,000	469,000	185,000	429,000
	6%	14%	9%	10%	8%	14%	9%	11%	8%
People of color equity geographies	275,000	206,000	481,000	150,000	425,000	207,000	482,000	171,000	446,000
	39%	60%	46%	53%	43%	59%	46%	55%	44%
Non-People of color equity geographies	136,000	173,000	310,000	152,000	289,000	190,000	326,000	134,000	270,000
	4%	12%	7%	10%	6%	14%	7%	9%	6%
Region	412,000	381,000	793,000	304,000	715,000	398,000	810,000	306,000	718,000
	10%	22%	14%	17%	12%	23%	14%	17%	12%

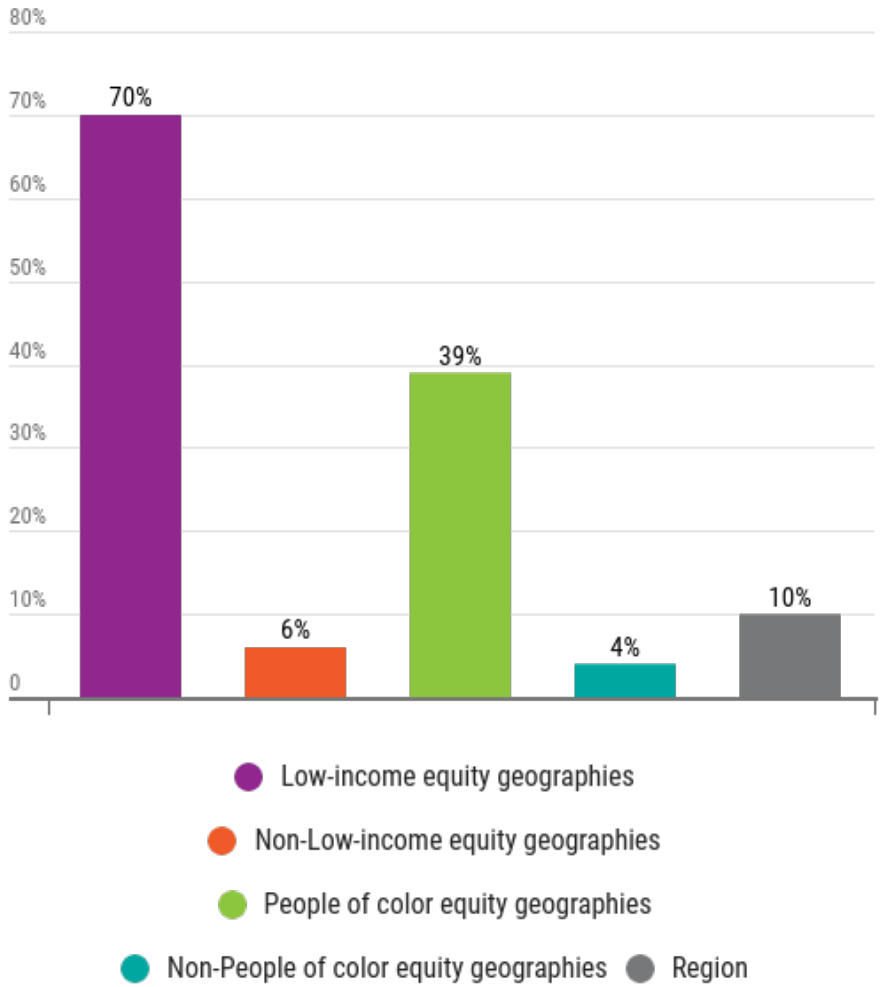
Source: PSRC

Note: Areas of higher displacement risk is defined as the top 10th percentile of census tracts with respect to the displacement risk analysis index.

In 2017, 10 percent of the regional population was located in areas of higher displacement risk, as defined by the displacement risk measure. Seventy percent of the population in low-income equity geographies were in areas of higher displacement risk and 39 percent of the populations in people of color equity geographies were in areas of higher displacement risk in 2017. This evaluation shows that the equity geographies are at substantially greater risk of displacement than the region as a whole.

When looking at this measure for the region as a whole, Transit Focused Growth (23 percent) would have the most growth in areas of higher displacement risk followed closely by Preferred Growth (22 percent). Reset Urban Growth and Stay the Course would have the least (both 17 percent).

Figure 27. Percent of Population in Areas of Higher Displacement Risk, Equity Geographies, 2017



Source: PSRC

Under all alternatives, low-income households in affordable urban neighborhoods have the potential to be displaced by higher-income households unless adequate affordable housing opportunities or other supports are provided. Ninety percent or more of all growth in low-income equity geographies would be in areas of higher displacement risk under each of the alternatives.

Growth in areas of higher displacement risk is highest in the Preferred Growth Alternative due to an increased amount of growth in the equity geographies. It is lowest in the Stay the Course Alternative.

Because many of the census tracts evaluated are at higher risk of displacement, growth in these areas may exacerbate the risk existing residents have of being displaced.

However, growth can provide beneficial opportunities, such as greater access to jobs and services, for people of color and people with low incomes who are able to stay in their neighborhoods. Growth also provides the opportunity to expand the supply of housing choices, including affordable housing, where demand is highest – near transit, jobs, education, and services. Transit-oriented development has the potential to reduce the combined household costs of housing and transportation when paired with affordable housing strategies. Due to these benefits, a focus on increasing housing opportunities for these residents and identifying mitigation measures, rather than avoiding growth in these areas, may be warranted.

Potential Mitigation Measures

Based on the existing conditions of many of the equity geographies, mitigation would be needed to help prevent displacement of existing communities under all of the alternatives.

Increasing housing supply and retaining current housing, could help to mitigate displacement of existing residents. Potential mitigation measures for providing and maintaining housing were listed previously in Table 19, and additional measures are listed in Table 36. Some of the measures in Table 36 address social equity more generally and are applicable to many elements of the environment.

Table 36. Potential Mitigation Measures: Growth in Areas at Higher Risk of Displacement

Topic: Displacement
• Incorporate demographic analyses and community involvement with people of color and people with low incomes at the local level and project level* • Interview social service providers to verify demographic analyses and understand specific local needs and effective methods for outreach and public involvement* • Perform additional and ongoing outreach to involve people of color and people with low incomes* • Use demographic analyses and outreach results to prevent new or expanded uses and other public infrastructure from having a disproportionate impact on environmental justice populations* • Implement planning and design efforts to improve areas where living conditions and land uses erode good health* • Develop programs to maintain and expand the supply of affordable housing* • Promote planning processes that account for living-wage jobs within reasonable commute distances • Support affordable housing initiatives in proximity to employment centers • Promote local programs to develop and support community anchoring activities like job training and small business development programs, job search services, community gardens, food banks and community low income support service centers • Provide a supportive environment for business startups, small businesses, and locally owned businesses • Promote planning processes and partnerships to create pathways to living wage careers • Engage with the Legislature to expand local tools and funding to support affordable housing in transit station areas

Part 4: Findings and Next Steps

The central Puget Sound region is changing. Trends show that the region is becoming more racially diverse, residents are living longer, and where people live is shifting. People of color make up 35 percent of the region's population—an 81 percent increase from 2000. The region's Hispanic/Latinx population has grown by 130 percent since 2000 and now constitutes10 percent of the region's population. The region's Asian/Pacific Islander population has grown 88 percent since 2000 and currently represents 13 percent of the region's population.

The people of color equity geographies have a higher share of people with low incomes (40 percent) than other parts of the region (24 percent). These areas also have a much higher share of people with limited English proficiency and households without a vehicle. Black and Hispanic/Latinx households are more likely to be cost-burdened, regardless of housing tenure.

Although people of color are more dispersed throughout the region, the people of color equity geographies are expected to have more overall population growth under all of the alternatives—along the Interstate 5 corridor, southwest and east King County, and northern Pierce County.

Local jurisdictions should continue to work with their residents to understand how shifting demographics and continued growth can change local needs. For example, the City of Seattle has developed the Equitable Development Initiative to determine how neighborhood investments should be made to best support those in need by considering both history and current conditions. The goal is for future positive outcomes to be equitably distributed among Seattle residents and workers.[26]

This type of analysis of investments is important for understanding how planned changes may affect existing and future residents of the region. The mitigation measures highlighted throughout the Final SEIS and the policies and actions in VISION 2050 are crucial steps to ensure that the region's growth between now and 2050 does not adversely affect its residents, especially those with the highest needs.

Alternatives that concentrate growth have the most potential to provide greater opportunities to current residents, but increased growth may also impact communities negatively. These impacts include changing housing affordability, redevelopment pressure on small businesses and community institutions, and displacement pressure.

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[26] City of Seattle. Equitable Development Initiative. Available at: https://www.seattle.gov/opcd/ongoing-initiatives/equitable-development-initiative.

The Preferred Growth Alternative is characterized by a compact growth pattern that assumes accelerated growth near the region's existing and planned transit investments, similar to Transit Focused Growth.

The growth pattern in the equity geographies in these alternatives would decrease the amount of time residents spend driving alone and increases transportation options, potentially reducing household transportation costs. The compact development in these alternatives could also decrease the cost of public services, based on the ability to use existing services and decreasing the need for development in areas not previously developed.

The Preferred Growth, Transit Focused Growth, and the Stay the Course alternatives provide the most moderate-density housing in the equity geographies, which is often the most affordable type of market rate housing.

However, concentrated growth in the equity geographies in the Preferred Growth, Transit Focused Growth, and Stay the Course alternatives could decrease affordability for current residents as additional pressure is put on the housing markets of these communities and high-density housing is built to accommodate population growth. The share of the population living in areas with higher risk of displacement in these alternatives is higher than Reset Urban Growth, which has a less compact pattern of development and could decrease the amount of high-density development pressure on these communities.

Alternatives that concentrate growth in areas where more people of color and people with low incomes live could have greater cumulative impacts if adequate coordination and mitigation measures are not implemented. Identifying mitigation strategies in the Preferred Growth Alternative can both allow residents of equity geographies to have greater access to opportunity and transportation options, while decreasing their risks of displacement and higher housing costs.

Implementation of appropriate mitigation strategies will be necessary to avoid disproportionately high and adverse effects on people of color and people with low incomes under any of the alternatives. Homelessness and housing affordability are currently matters of high public concern and could worsen unless effective measures are implemented to address them. Local and regional elected officials are considering and implementing a number of measures to increase affordability and production of housing as well as provision of additional services for homeless populations intended to create successful pathways out of homelessness. The Washington State Legislature is currently considering measures that would provide additional local option revenue sources that could be directed to target housing affordability and homelessness in the

region. All of these are consistent with the suite of potential mitigation measures identified in this SEIS. Environmental justice populations may be disproportionally burdened with other elements, such as climate change, under any of the alternatives, and local and regional decision-makers should consider mitigation strategies for these large-scale impacts.

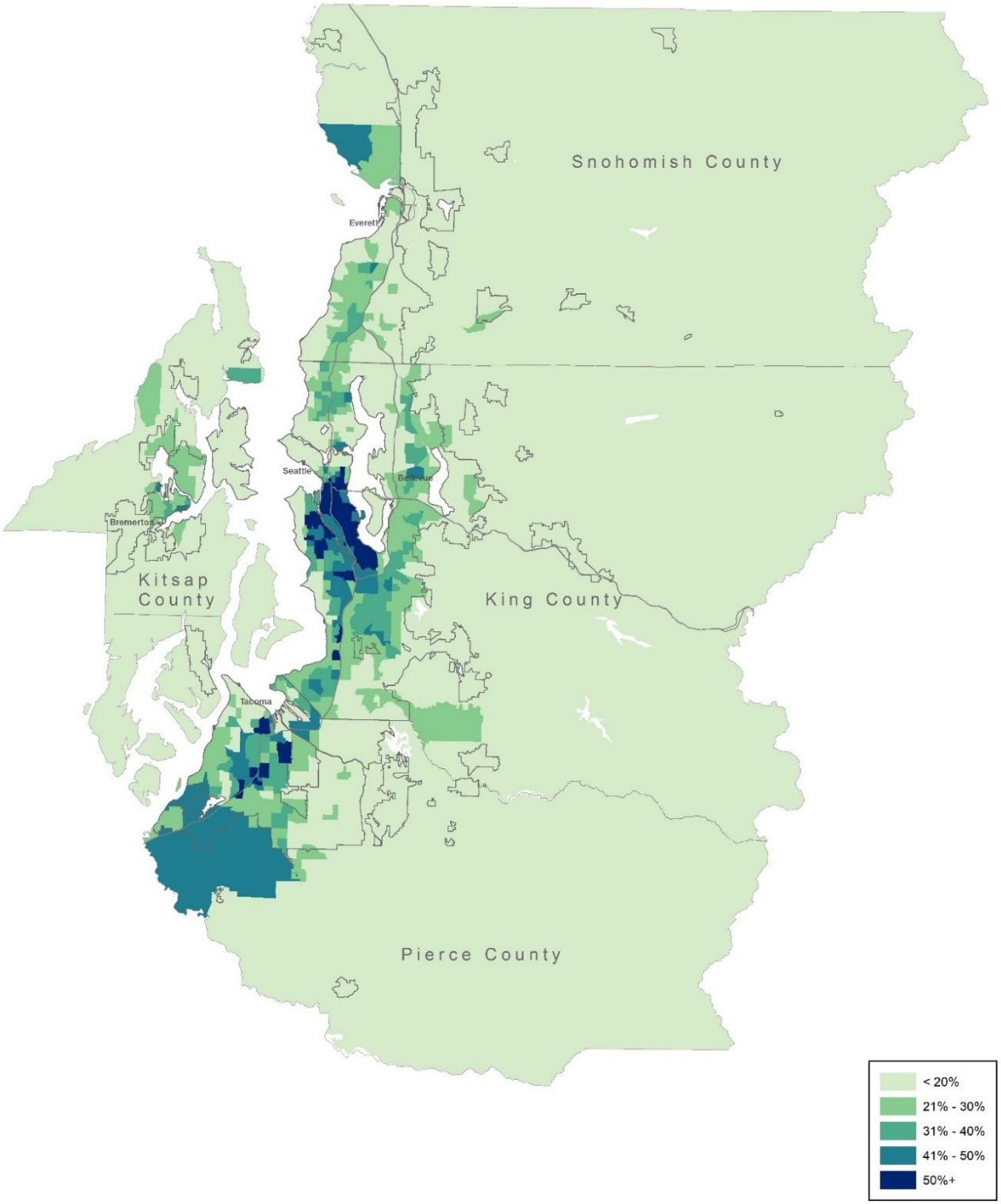
VISION 2050 provides an opportunity to incorporate policies and actions that address the mitigation strategies highlighted throughout this document and the Final SEIS. Policies related to distribution of resources, community engagement, affordable housing, and many more are imperative for ensuring that all residents benefit from the region's growth.

PSRC and local jurisdictions should conduct additional environmental justice and equity analyses as part of future plans, project-level planning, and environmental review, in addition to engaging the public to better understand the needs of the region's residents.


PSRC

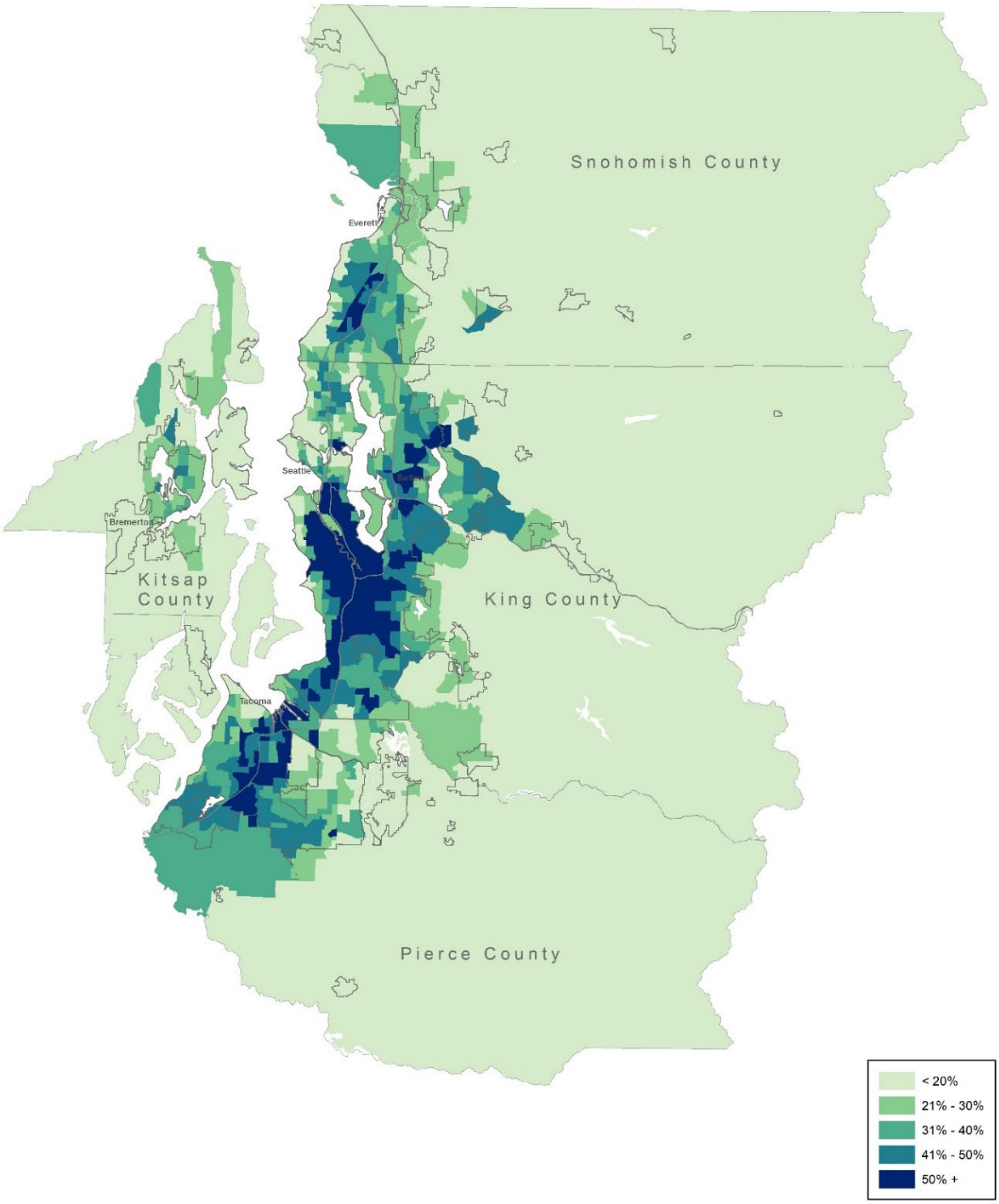
Part 5: Demographic Maps

Figure 28. People of Color, Central Puget Sound: 2000



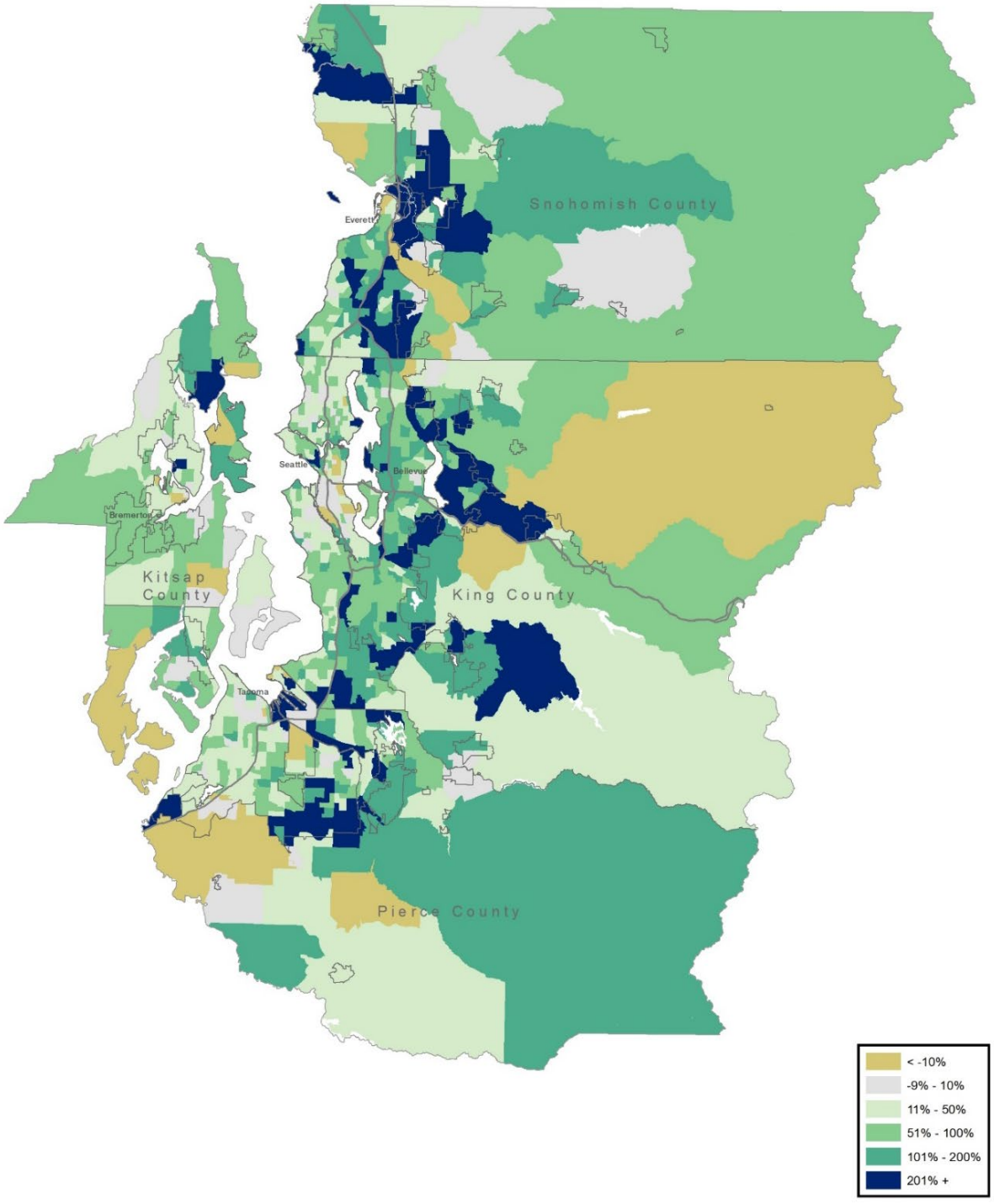
Source: American Community Survey 5-year estimates

Figure 29. People of Color, Central Puget Sound: 2016



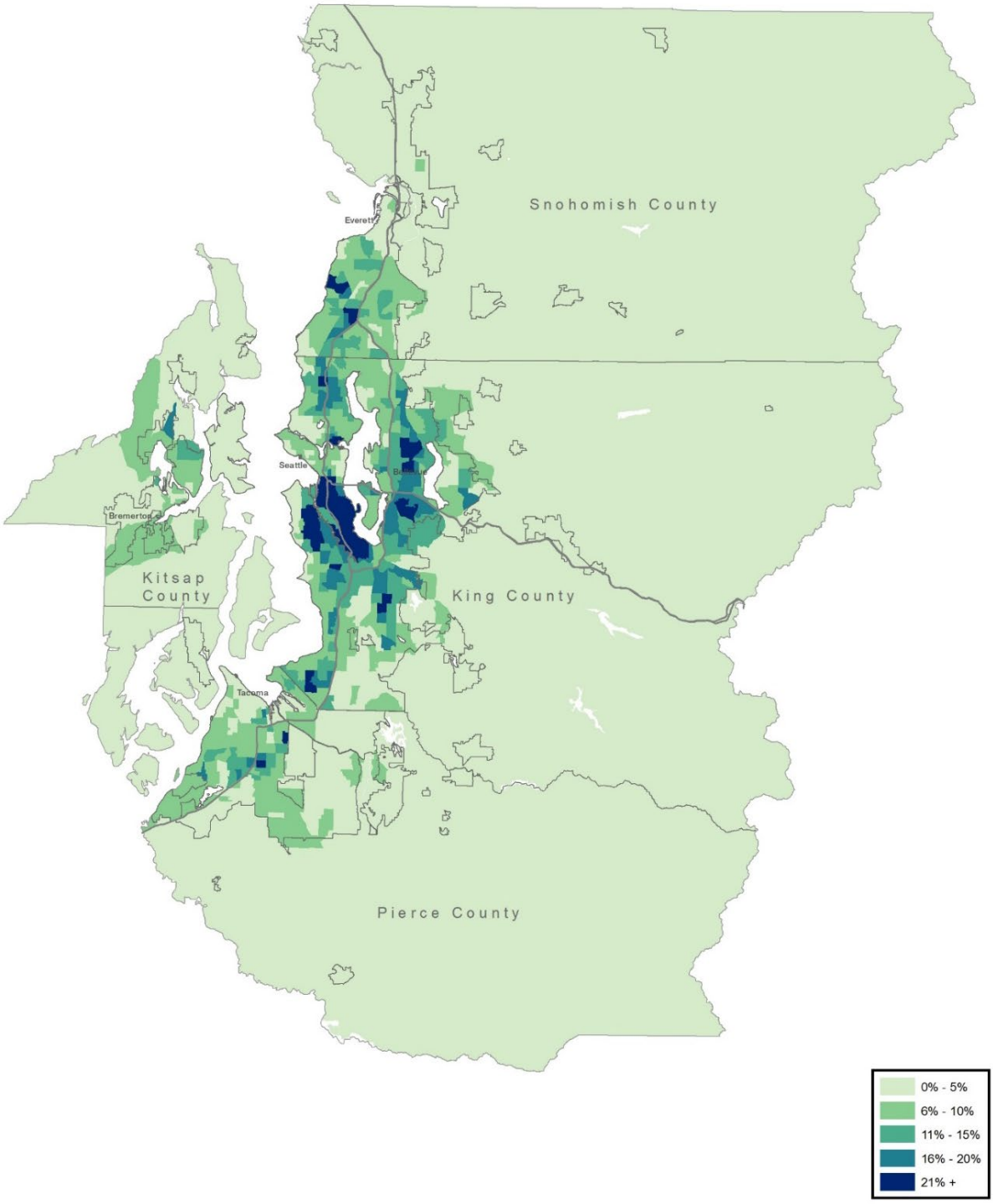
Source: American Community Survey 5-year estimates

Figure 30. Change in People of Color, Central Puget Sound: 2000-2016



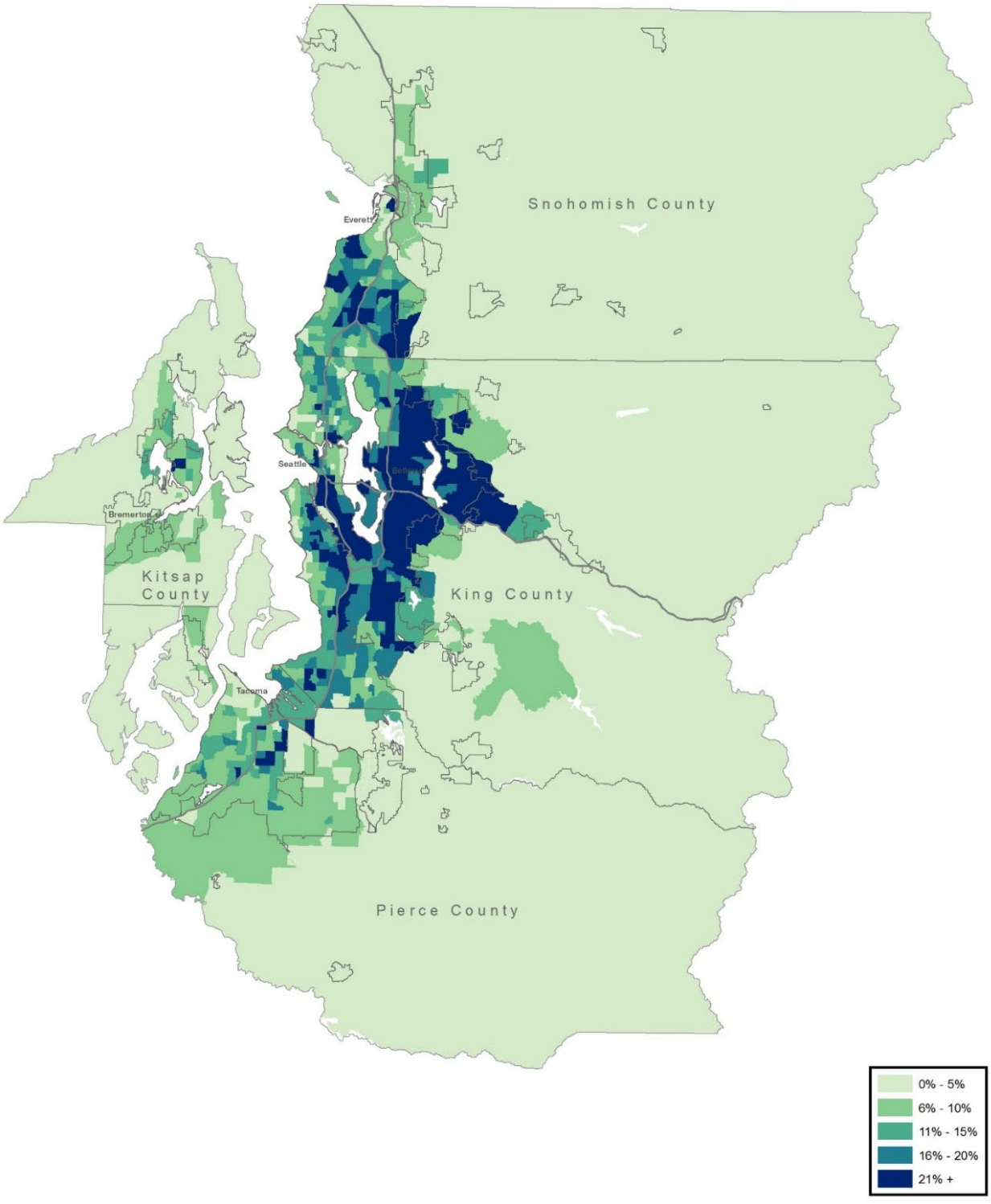
Source: American Community Survey 5-year estimates

Figure 31. Asian/Pacific Islander, Central Puget Sound: 2000



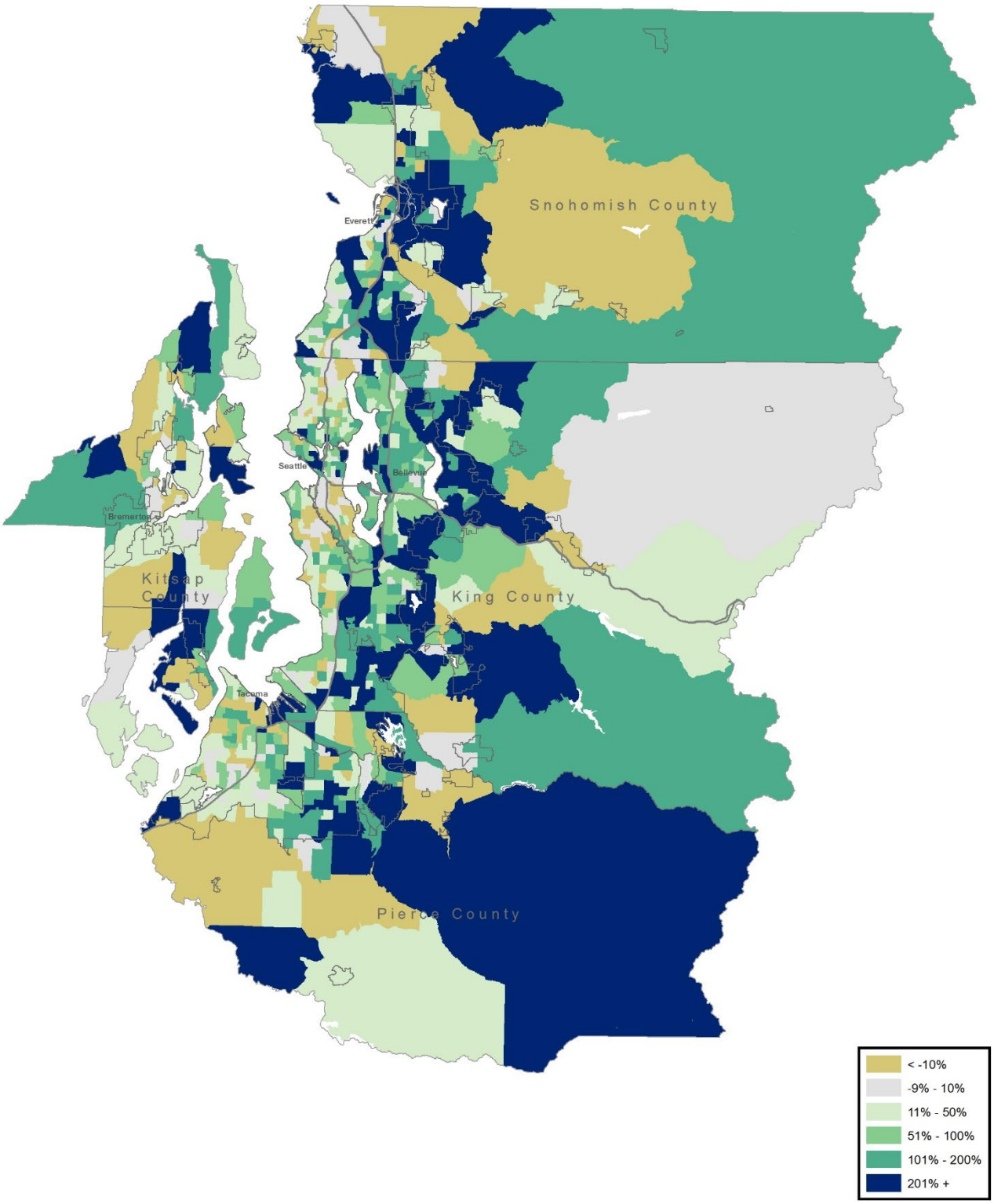
Source: American Community Survey 5-year estimates

Figure 32. Asian/Pacific Islander, Central Puget Sound: 2016



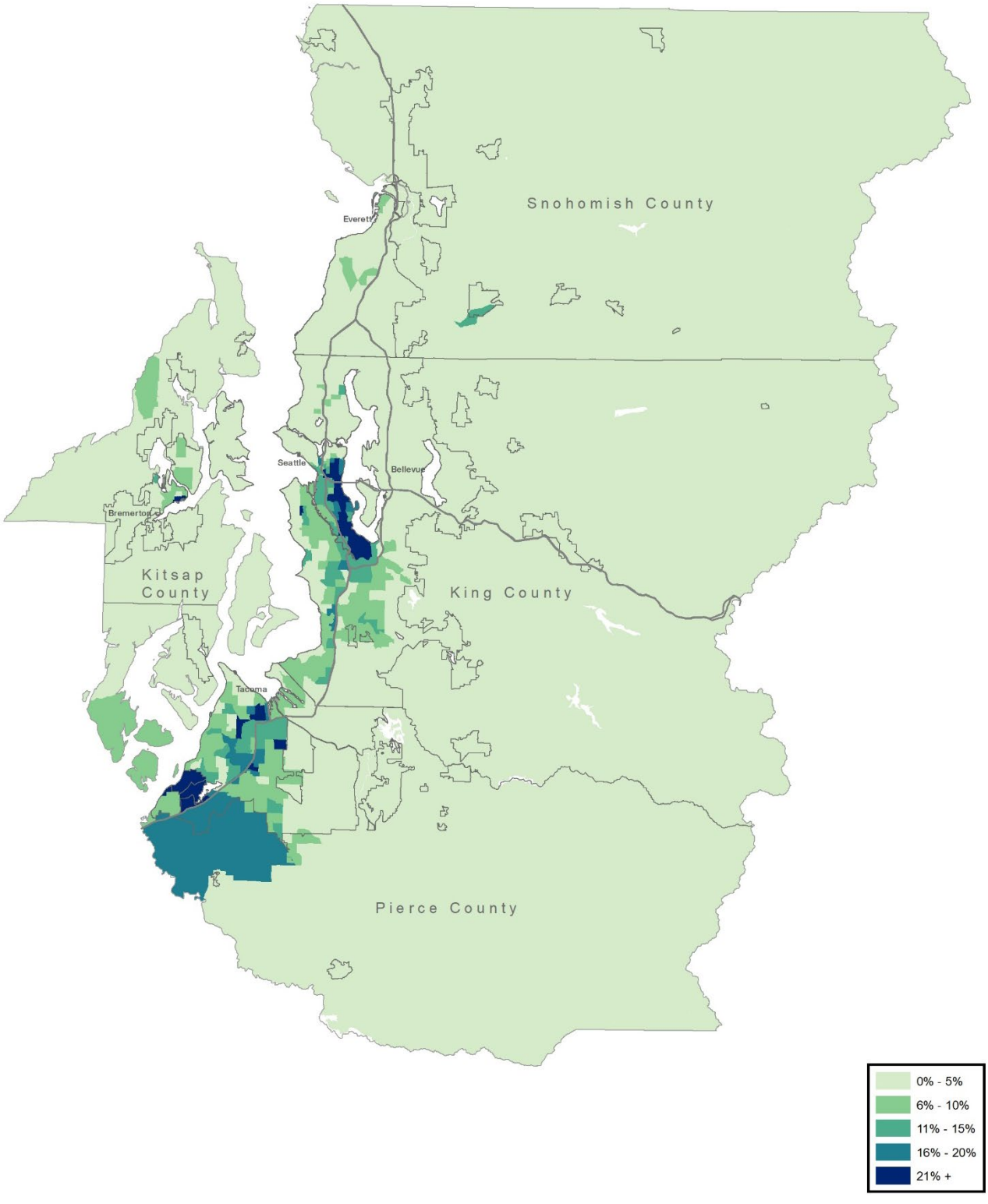
Source: American Community Survey 5-year estimates

Figure 33. Change in Asian/Pacific Islander, Central Puget Sound: 2000-2016



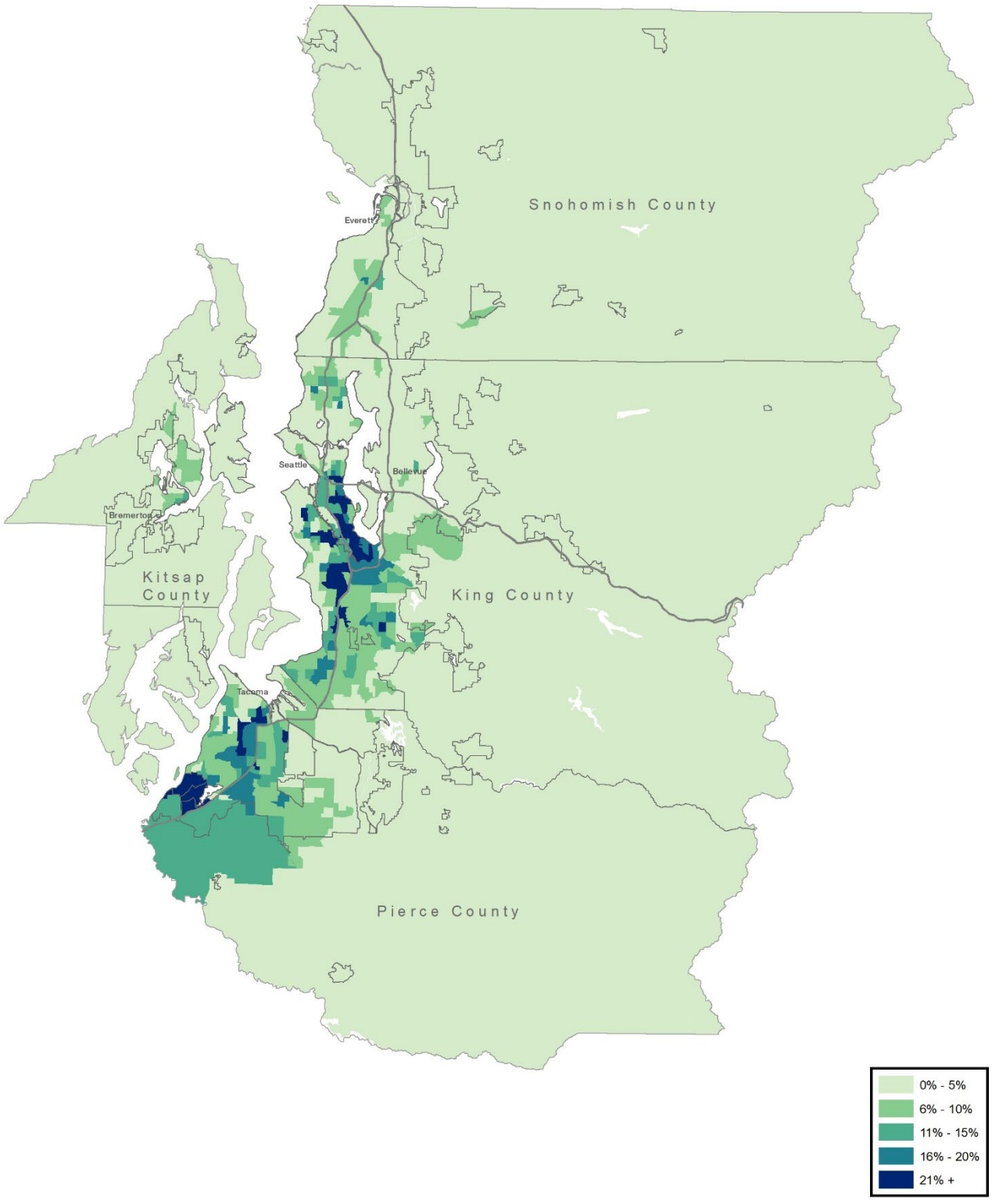
Source: American Community Survey 5-year estimates

Figure 34. Black/African American, Central Puget Sound: 2000



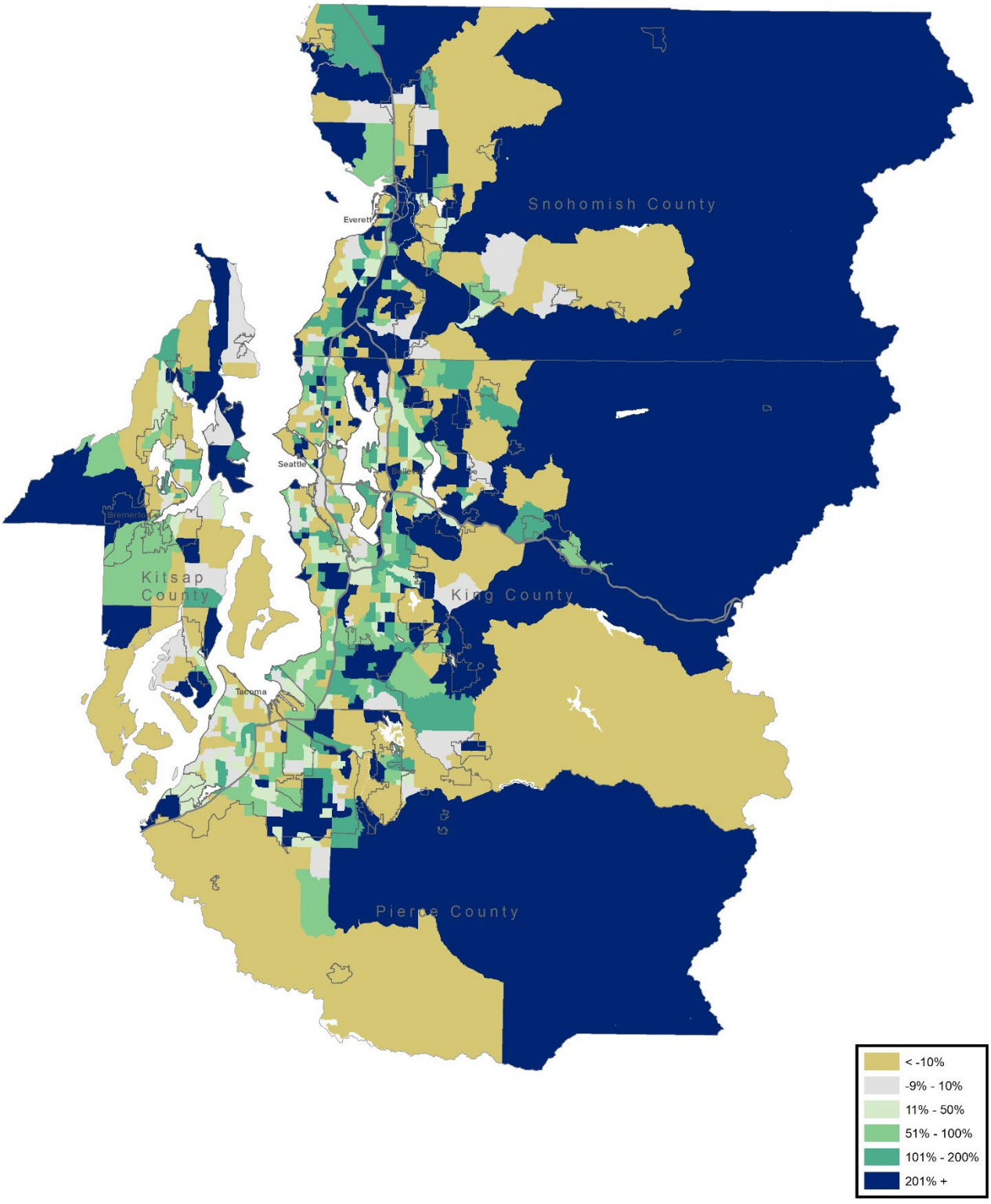
Source: American Community Survey 5-year estimates

Figure 35. Black/African American Population, Central Puget Sound: 2016



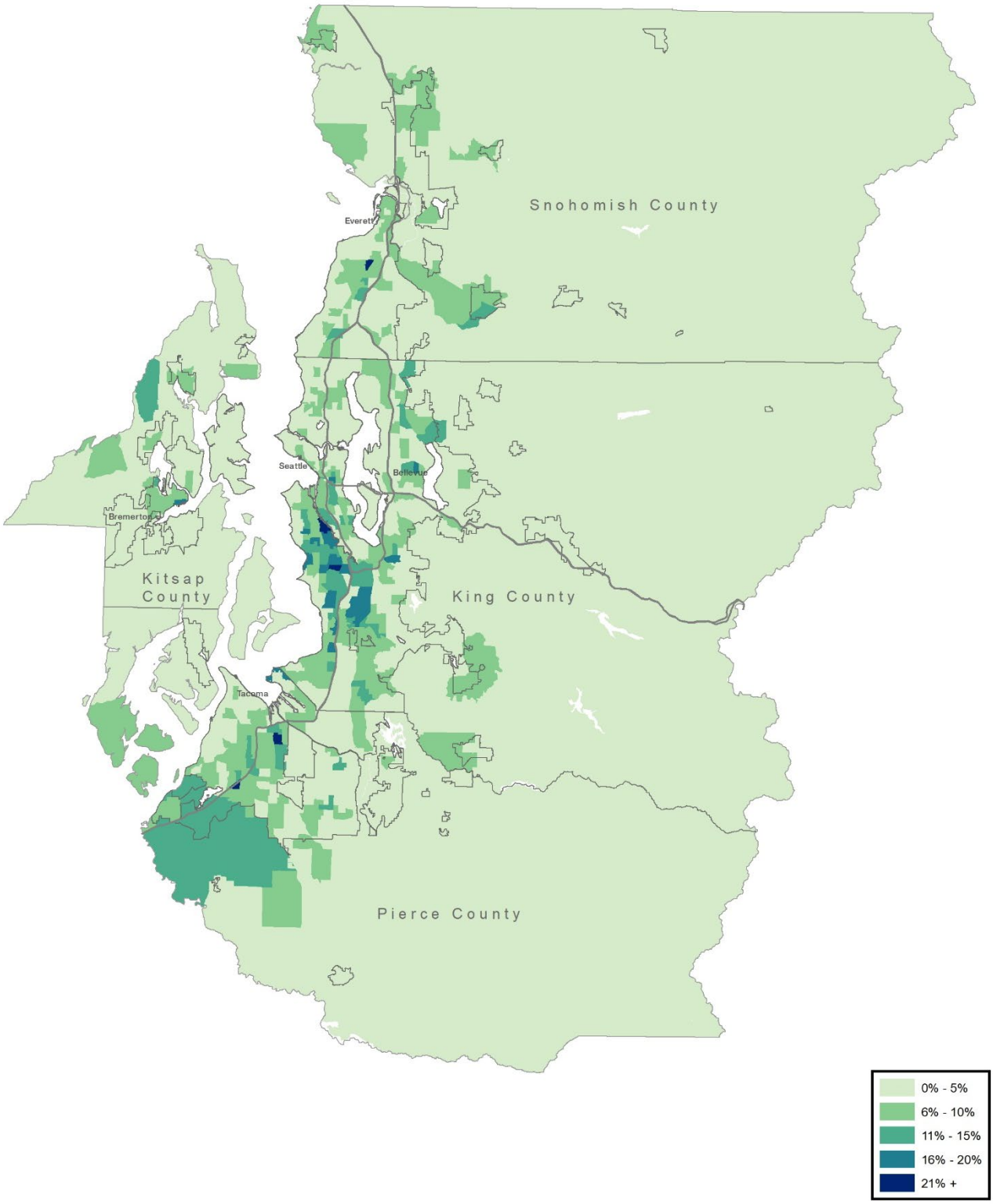
Source: American Community Survey 5-year estimates

Figure 36. Change in Black/African American, Central Puget Sound: 2000-2016



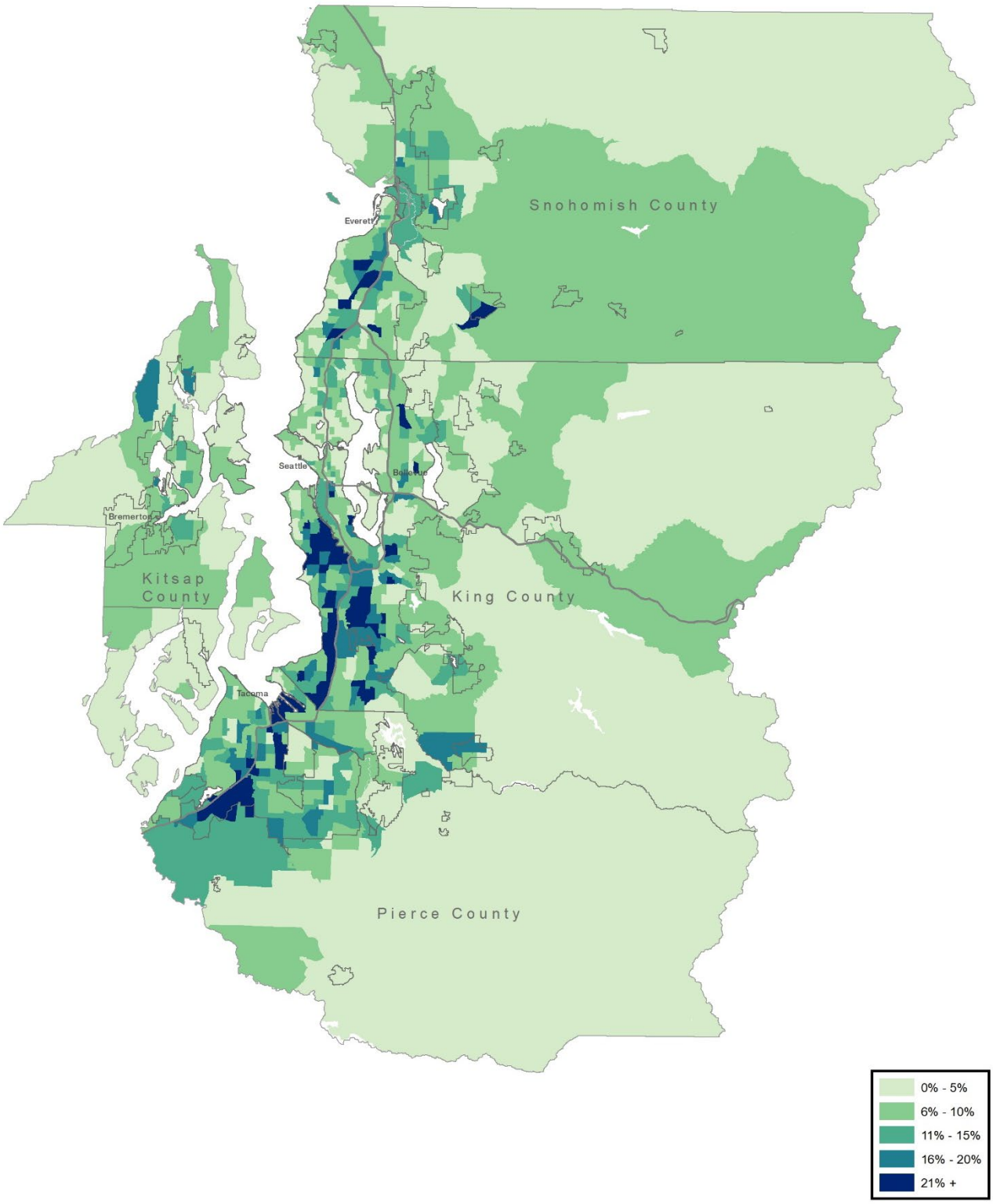
Source: American Community Survey 5-year estimates

Figure 37. Hispanic/Latinx, Central Puget Sound: 2000



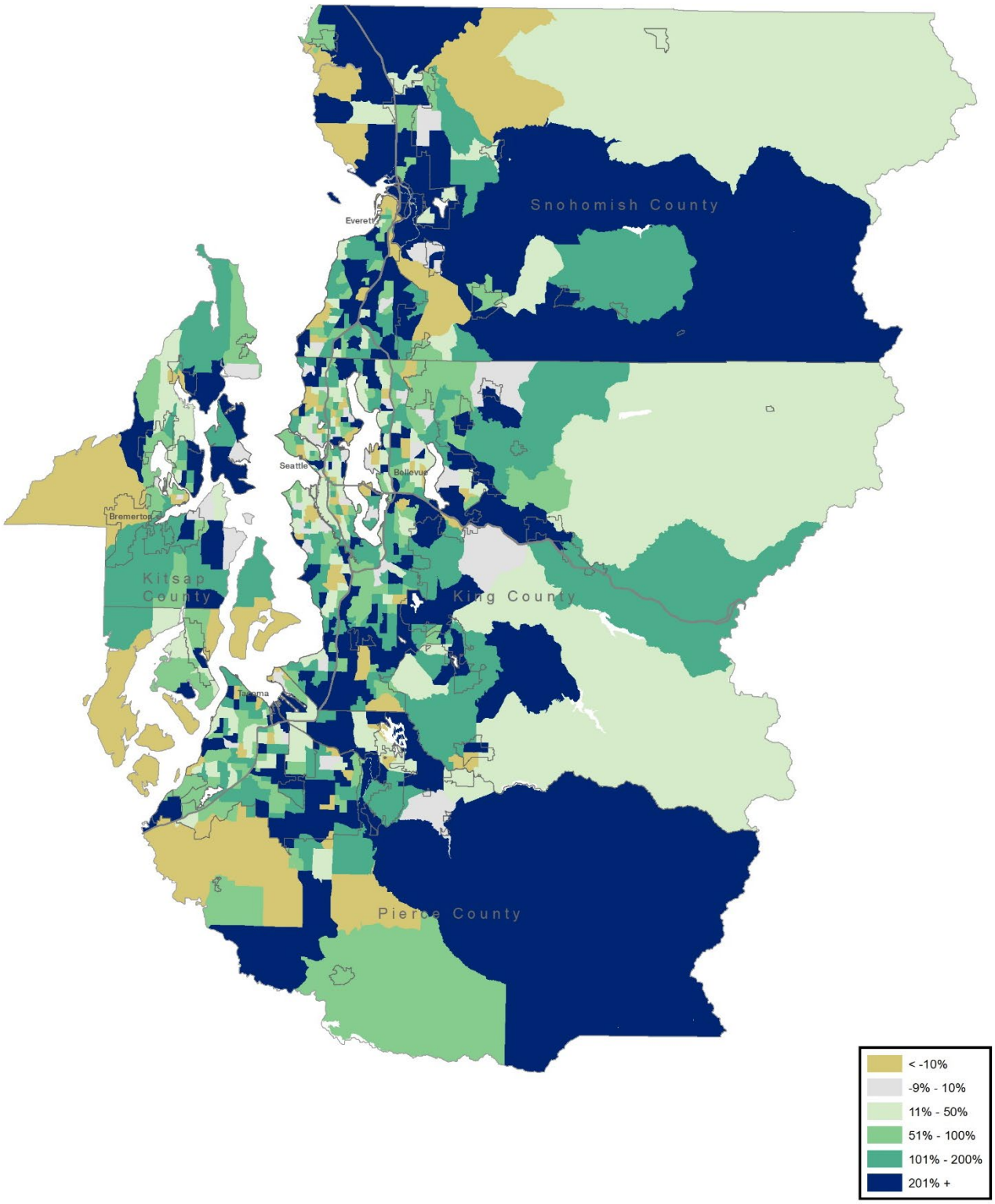
Source: American Community Survey 5-year estimates

Figure 38. Hispanic/Latinx, Central Puget Sound: 2016



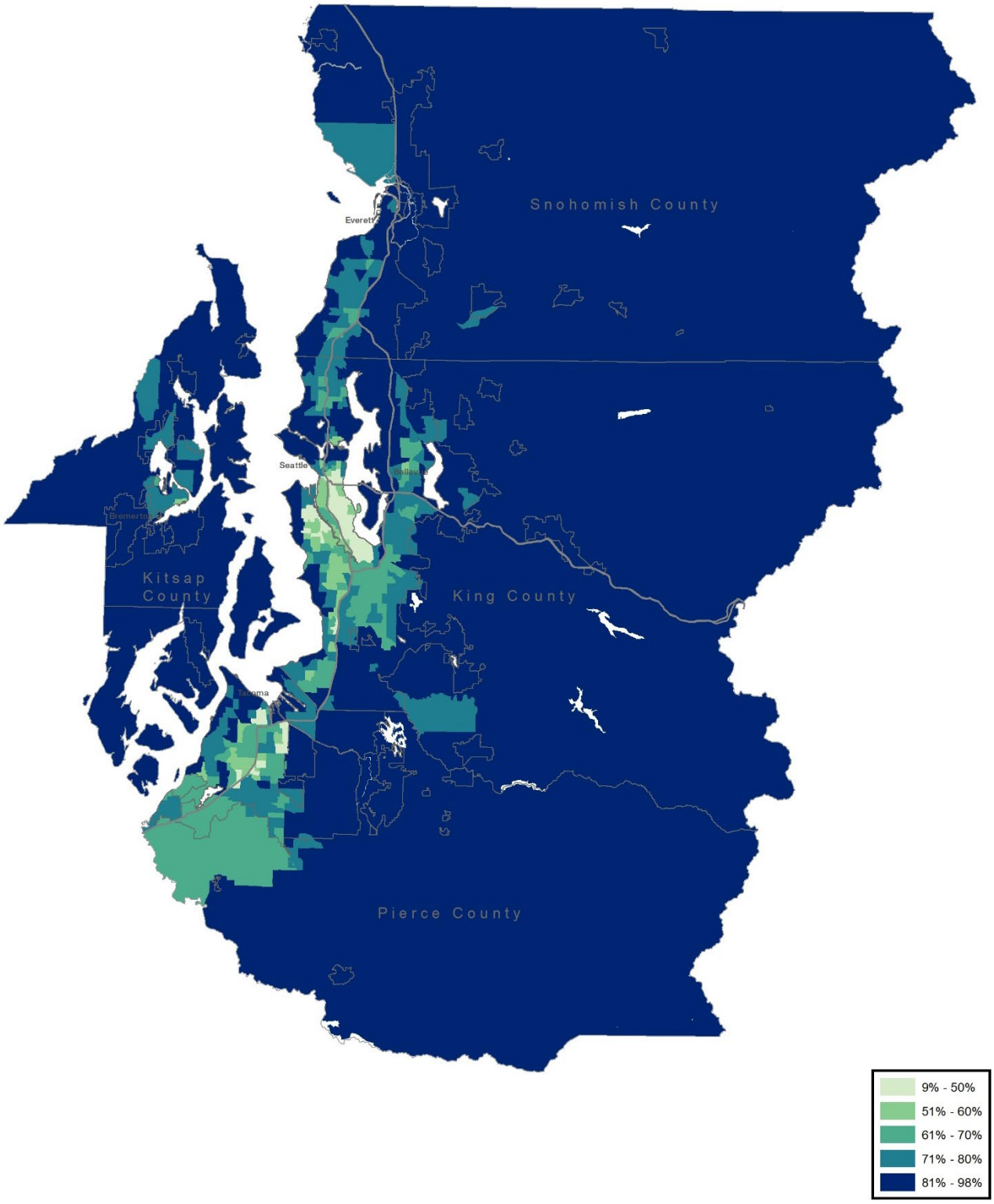
Source: American Community Survey 5-year estimates

Figure 39. Change in Hispanic/Latinx, Central Puget Sound: 2000-2016



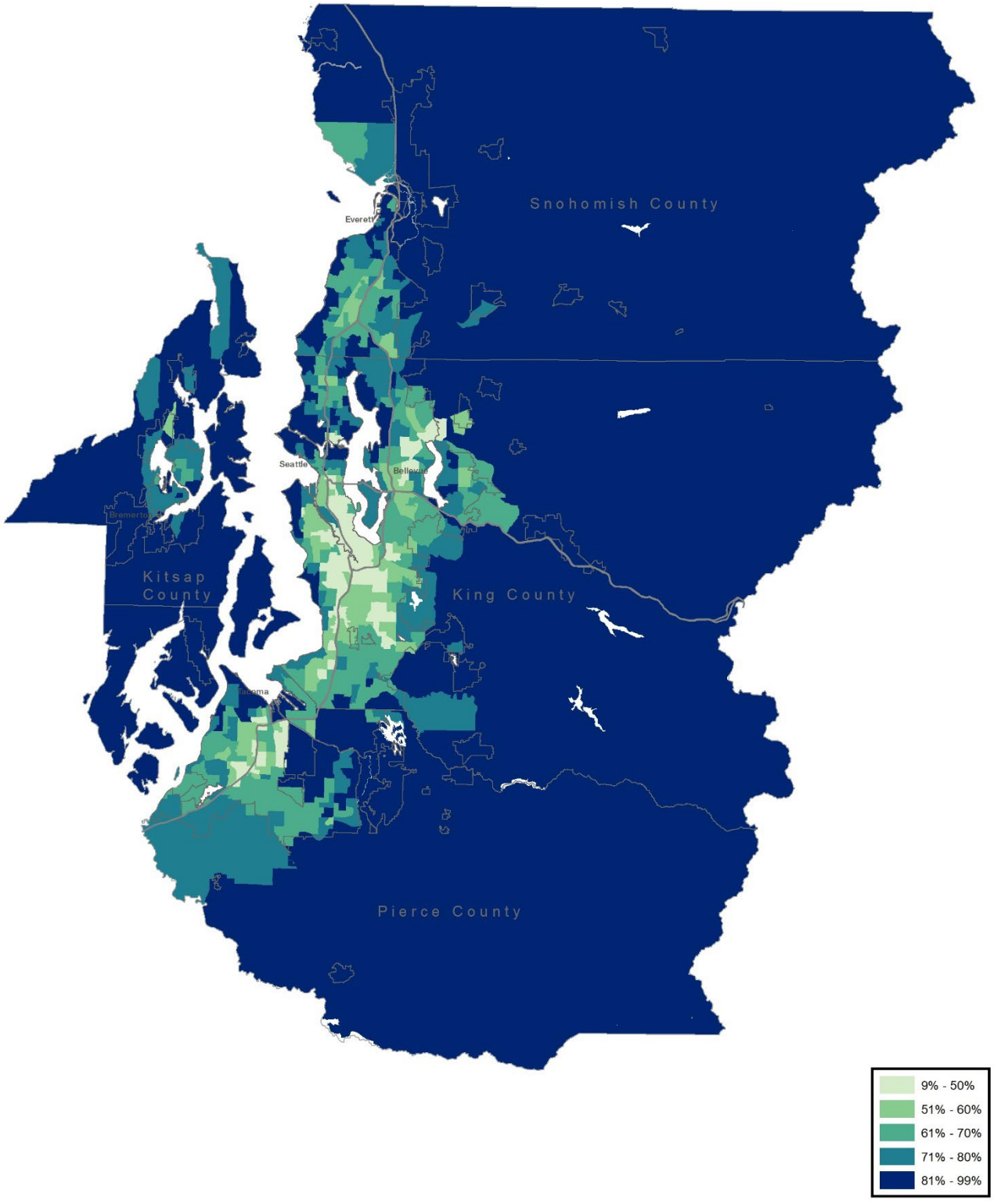
Source: American Community Survey 5-year estimates

Figure 40. White/Caucasian, Central Puget Sound: 2000



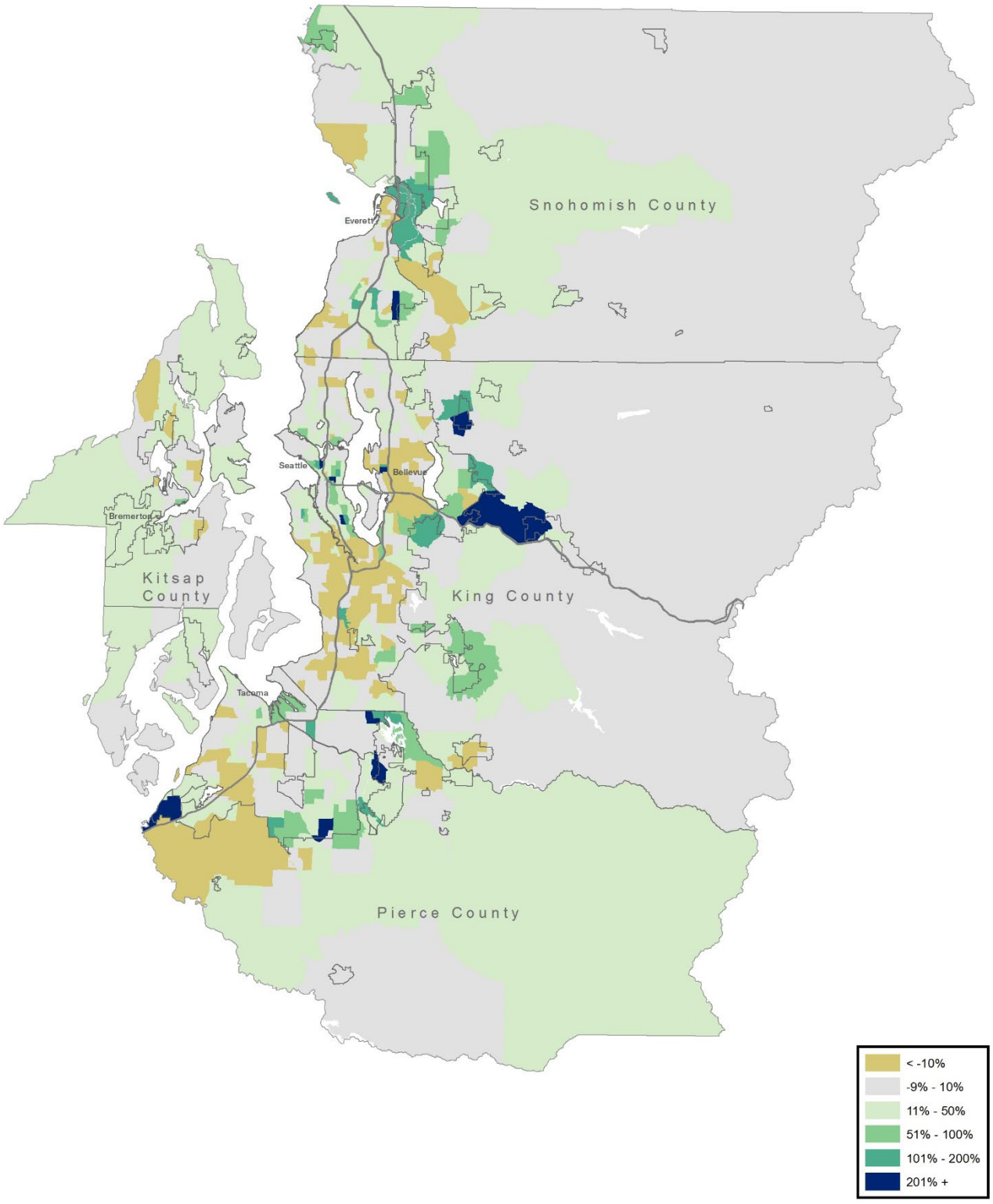
Source: American Community Survey 5-year estimates

Figure 41. White/Caucasian, Central Puget Sound: 2016



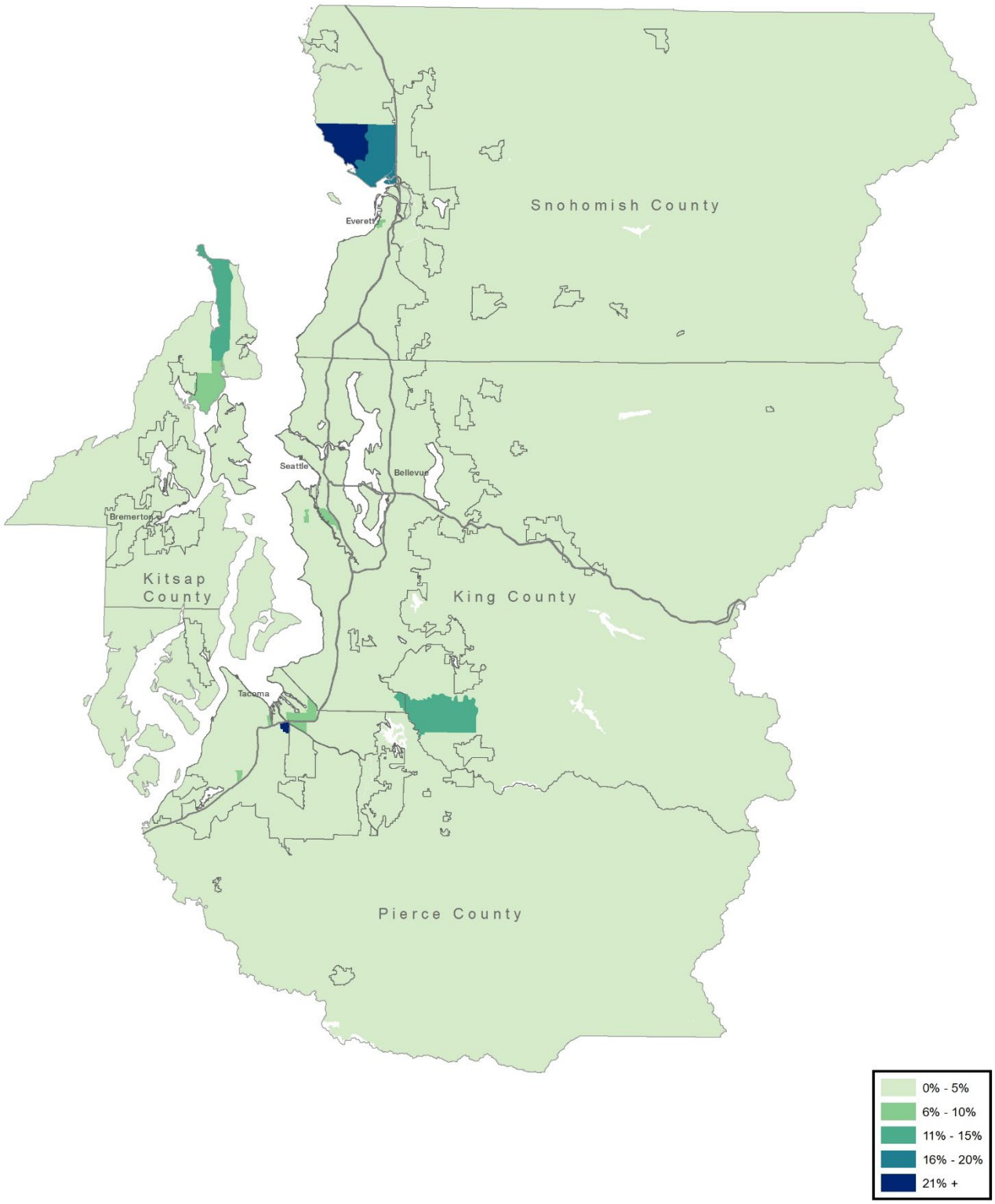
Source: American Community Survey 5-year estimates

Figure 42. Change in White/Caucasian, Central Puget Sound: 2000-2016



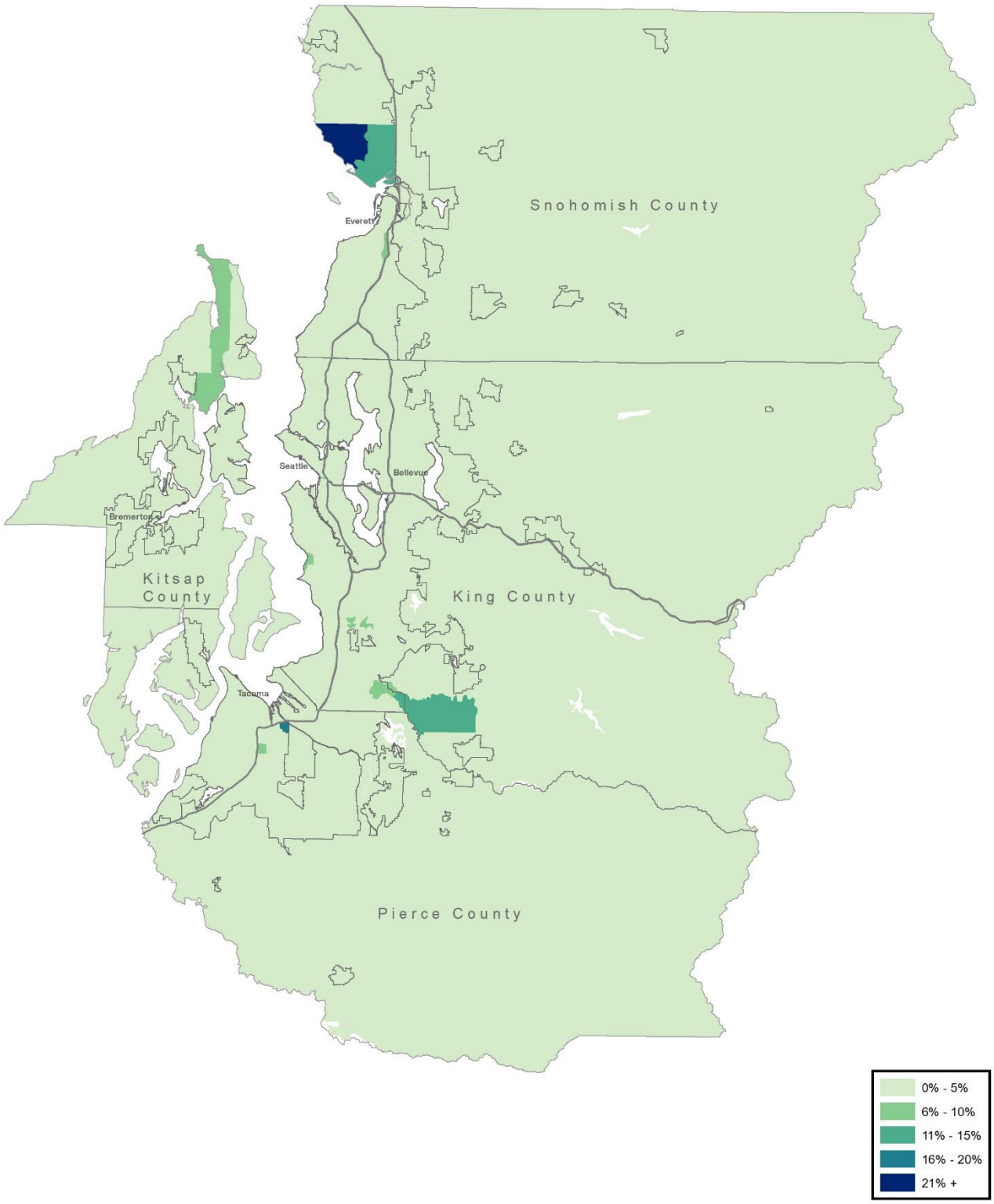
Source: American Community Survey 5-year estimates

Figure 43. American Indian/Alaskan Native, Central Puget Sound: 2000



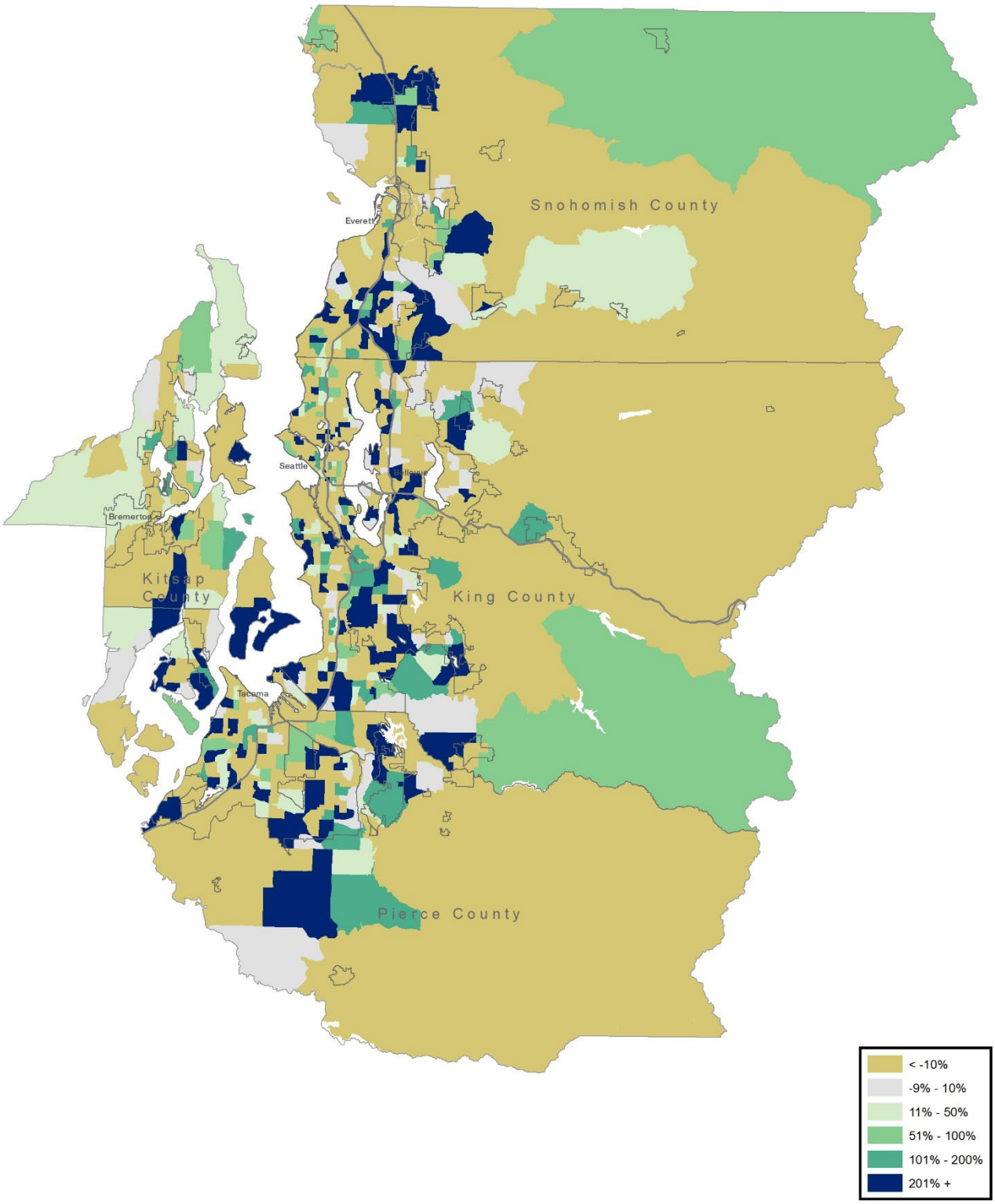
Source: American Community Survey 5-year estimates

Figure 44. American Indian/Alaskan Native, Central Puget Sound: 2016



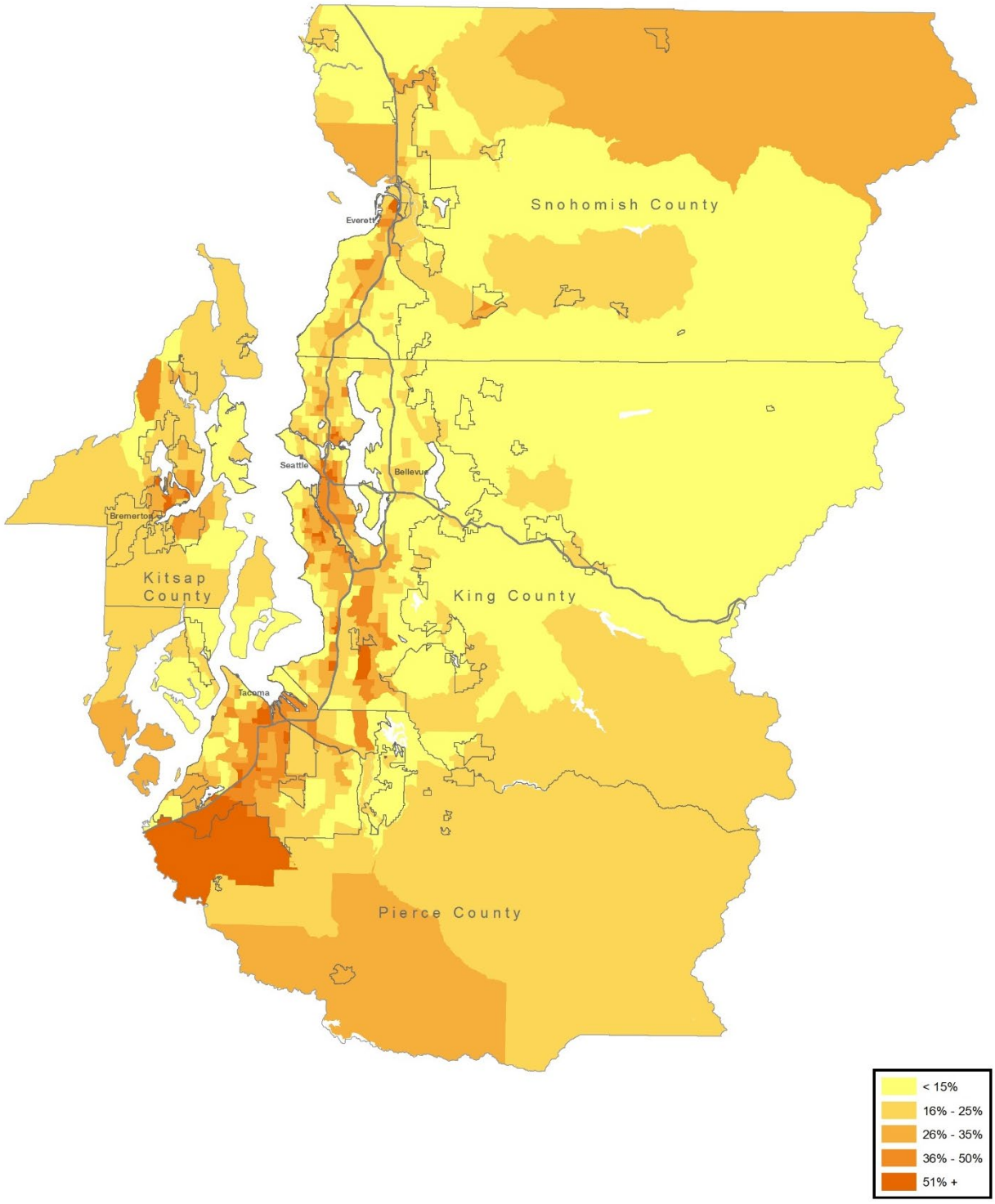
Source: American Community Survey 5-year estimates

Figure 45. Change in American Indian/Alaskan Native, Central Puget Sound: 2000-2016



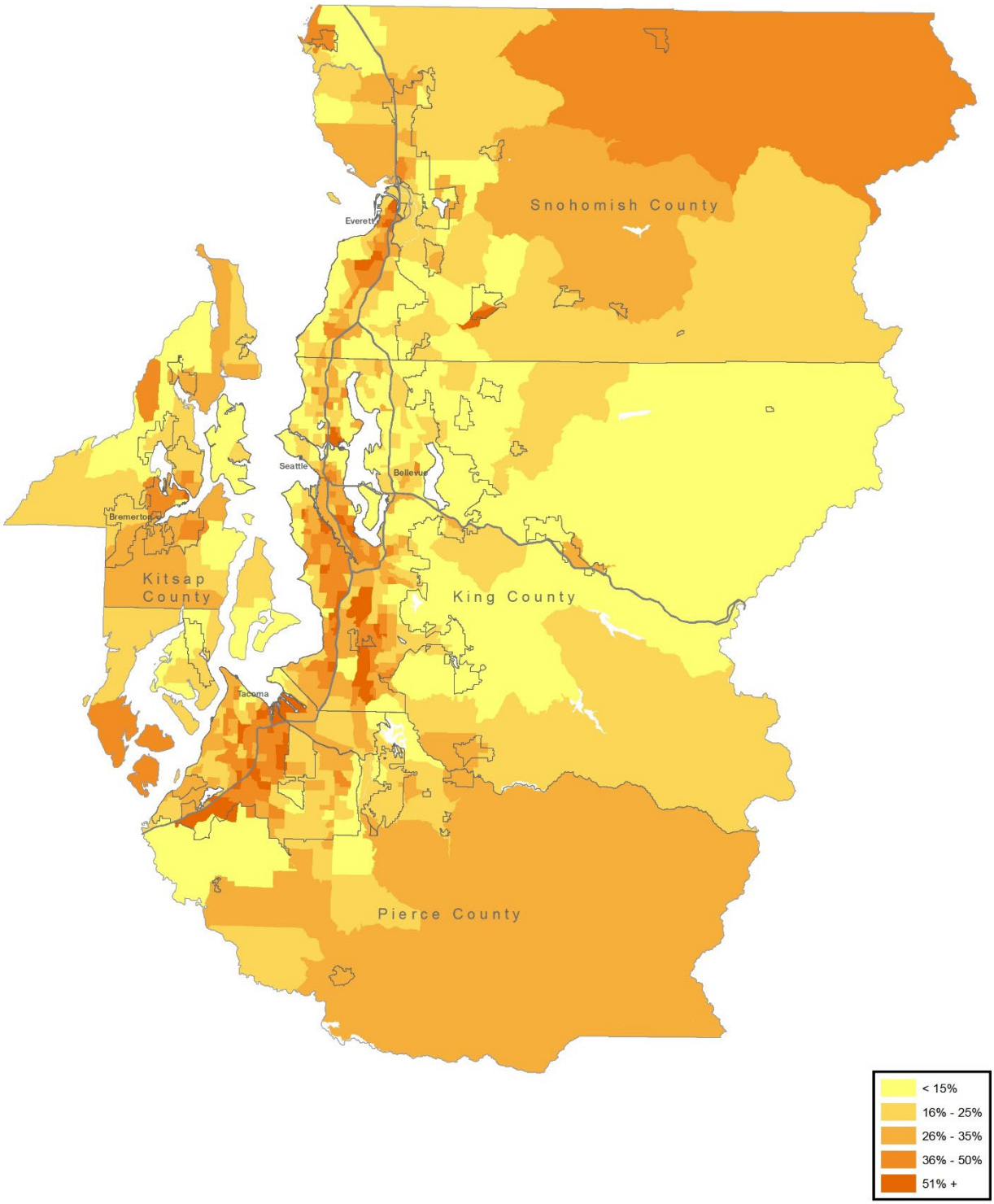
Source: American Community Survey 5-year estimates

Figure 46. People with Low Income, Central Puget Sound: 2000



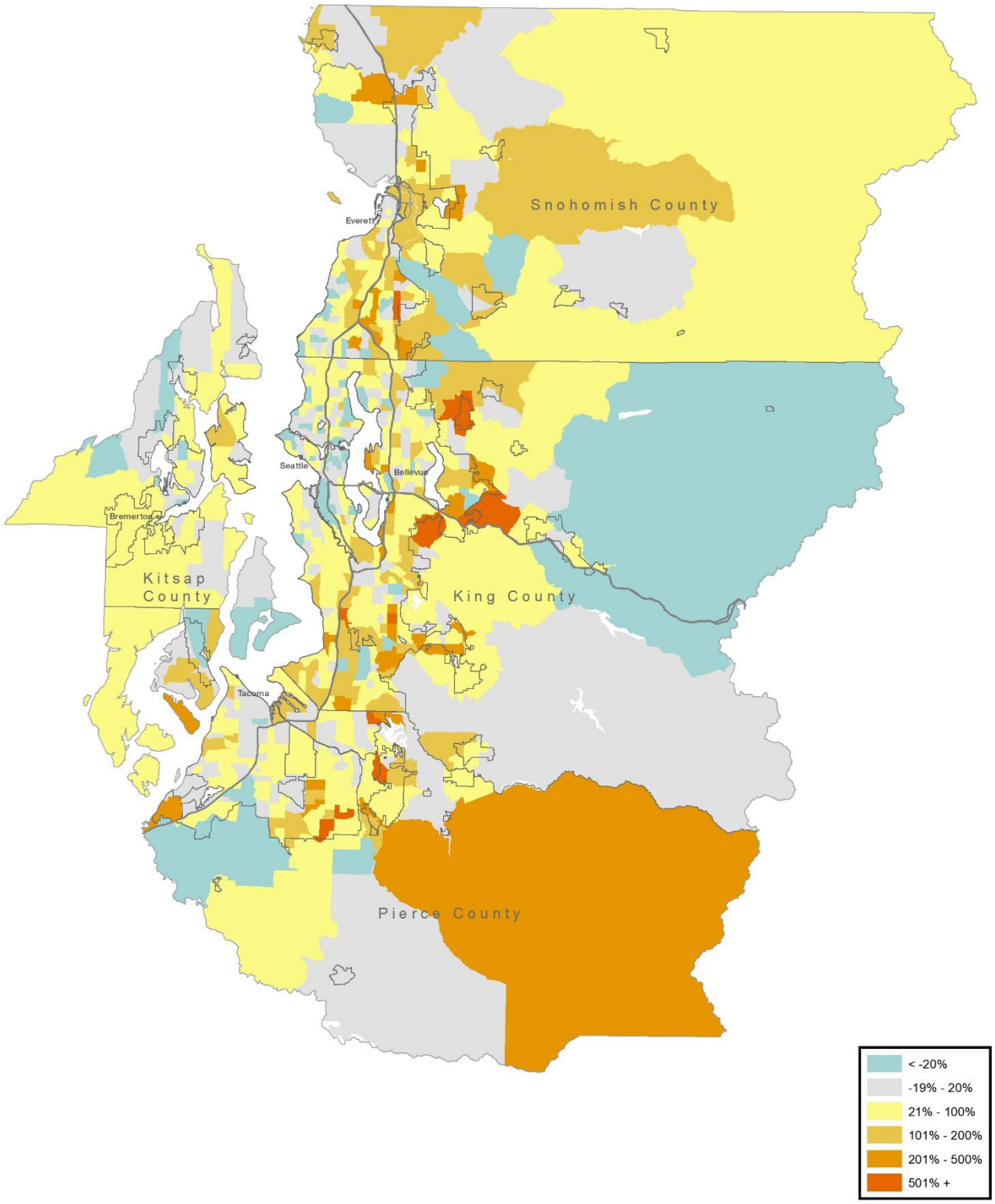
Source: American Community Survey 5-year estimates

Figure 47. People with Low Income, Central Puget Sound: 2016



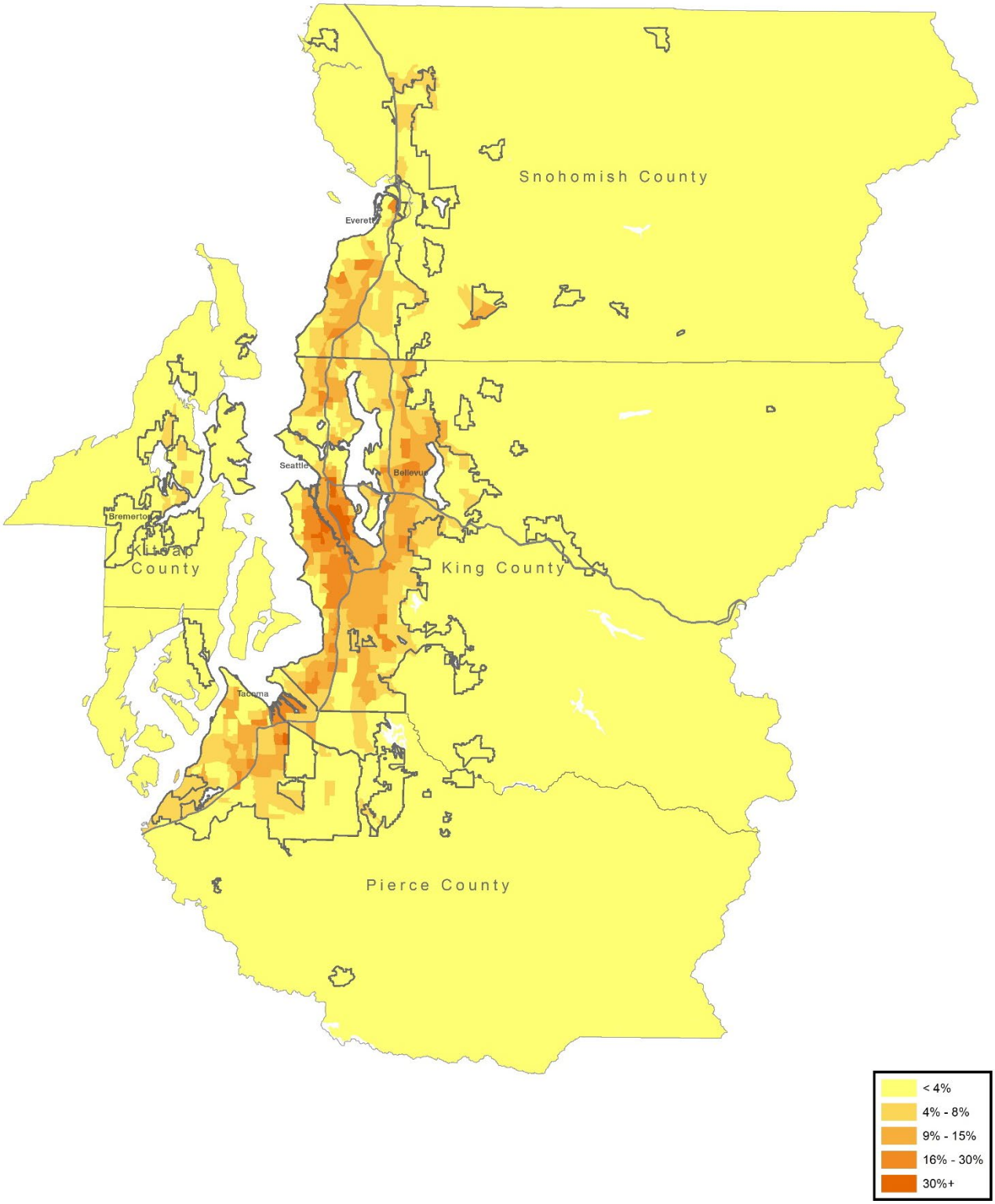
Source: American Community Survey 5-year estimates

Figure 48. Change in People with Low Income, Central Puget Sound: 2000-2016



Source: American Community Survey 5-year estimates

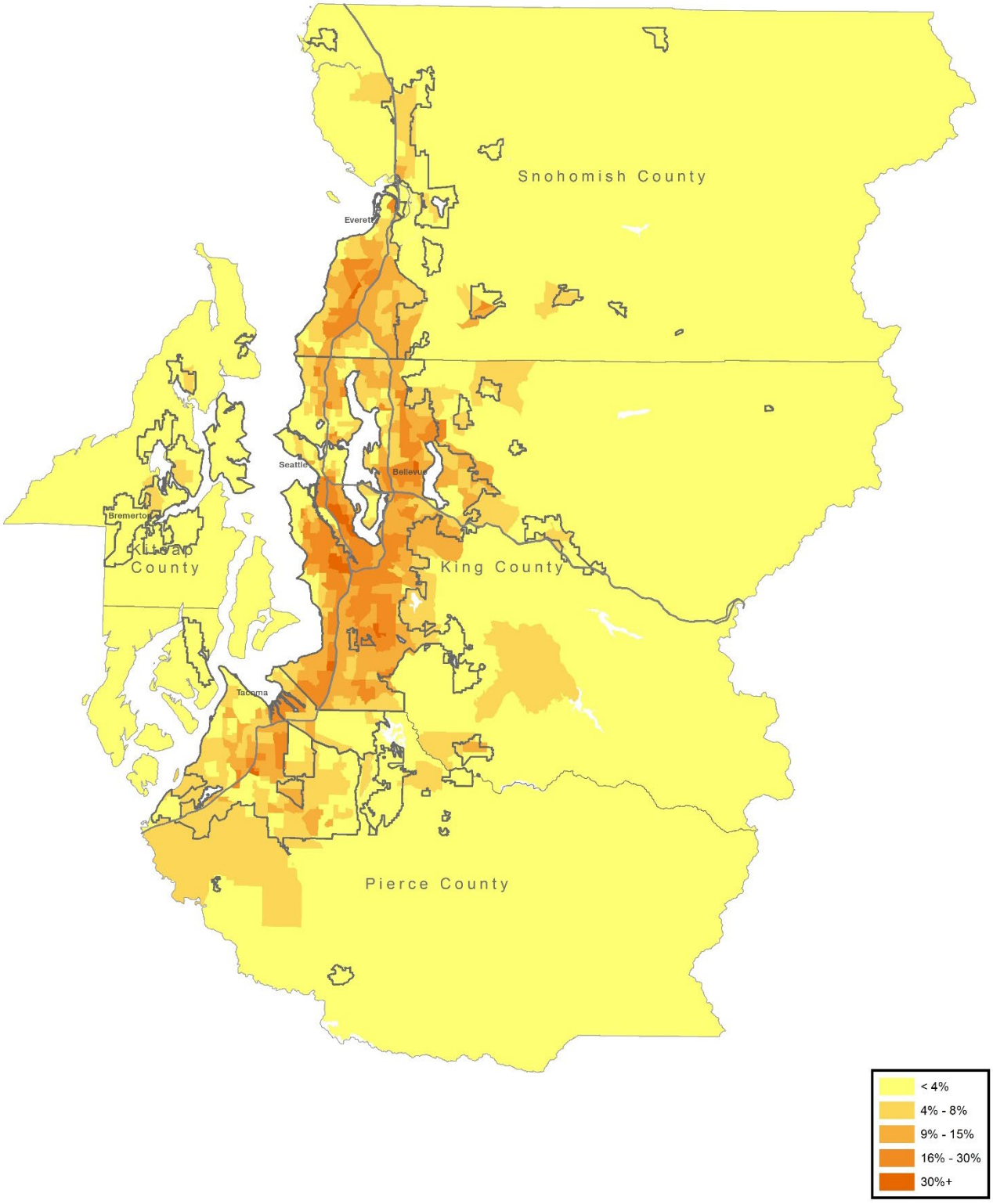
Figure 49. Limited English Proficiency, Central Puget Sound: 2000



Source: American Community Survey 5-year estimates

Note: Due to small population size, estimates for some of the census tracts shown are not as reliable as for other tracts and care should be taken when using this data.

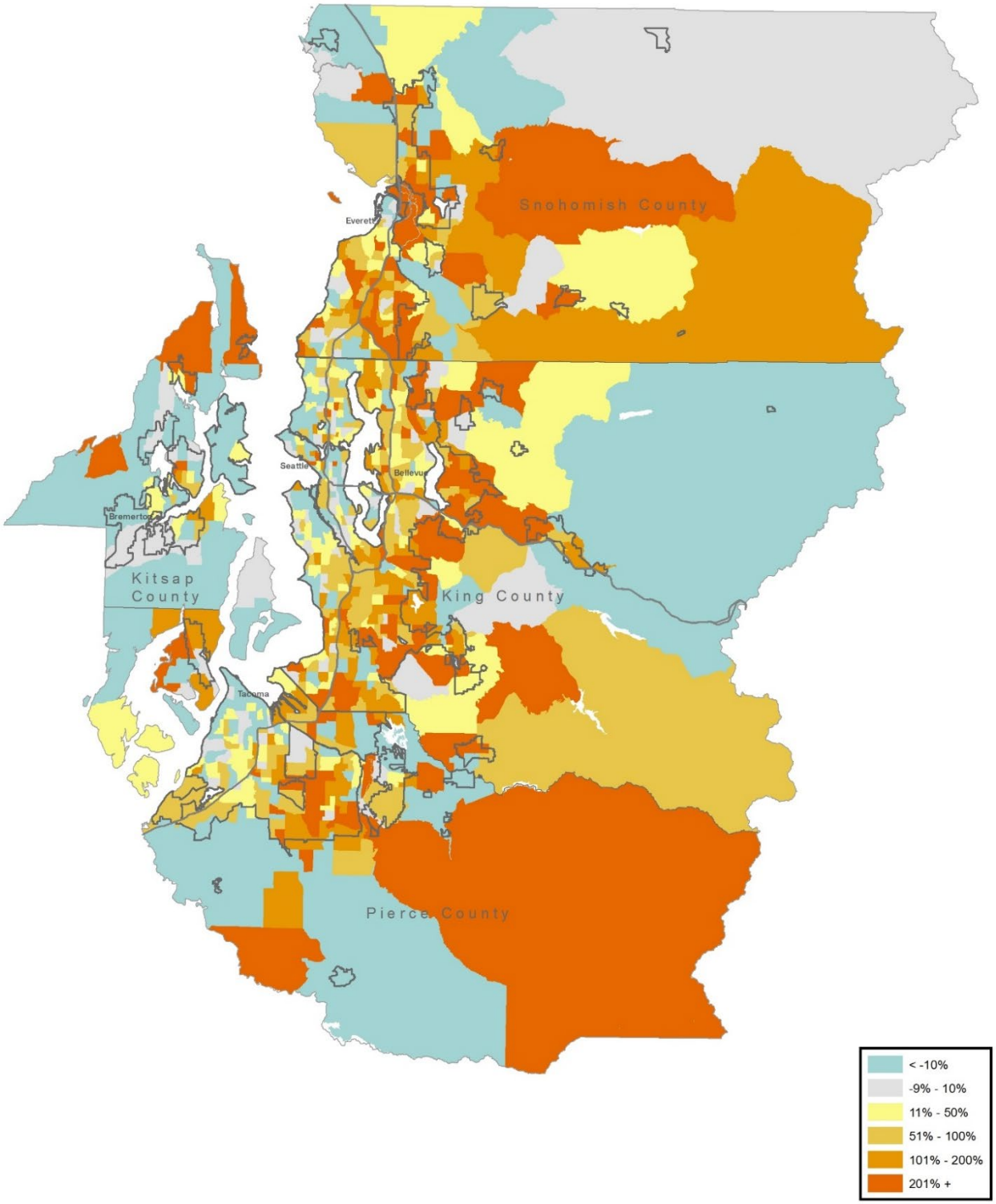
Figure 50. Limited English Proficiency, Central Puget Sound: 2016



Source: American Community Survey 5-year estimates

Note: Due to small population size, estimates for some of the census tracts shown are not as reliable as for other tracts and care should be taken when using this data.

Figure 51. Change in Limited English Proficiency, Central Puget Sound: 2000-2016

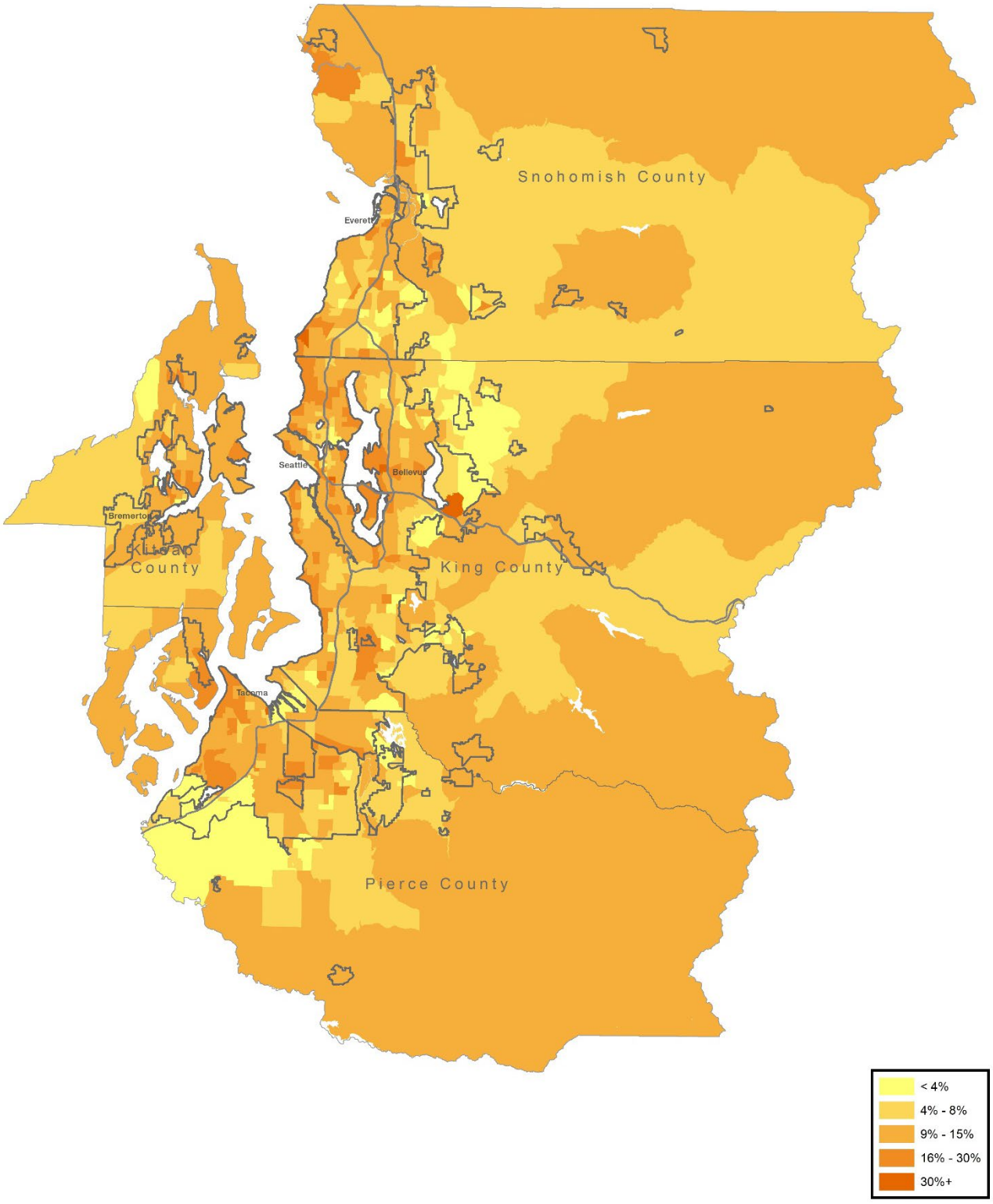


Source: American Community Survey 5-year estimates

Due to small population size, census-tract level estimates for some of the census tracts shown is not reliable.

Note: Due to small population size, estimates for some of the census tracts shown are not as reliable as for other tracts and care should be taken when using this data.

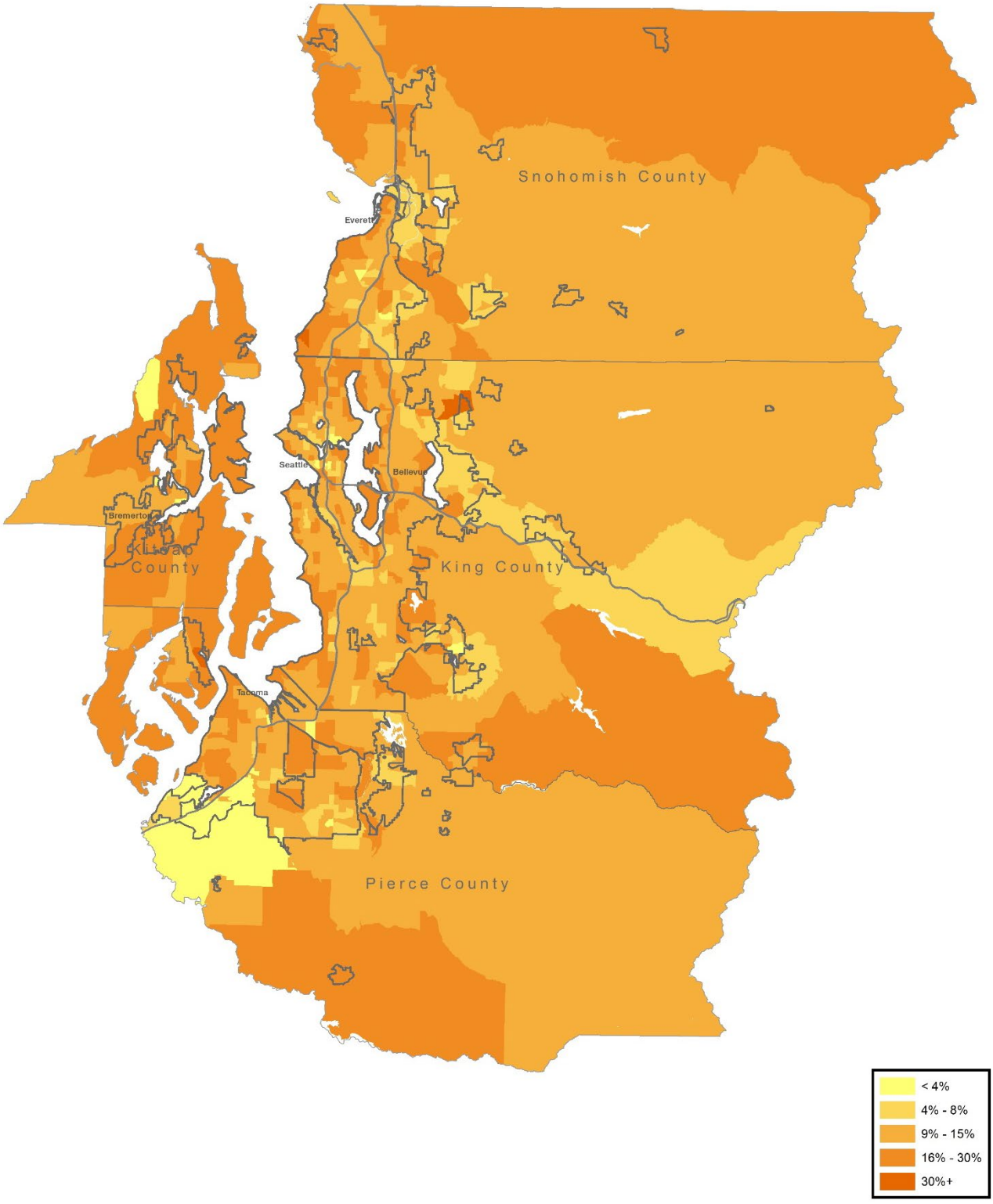
Figure 52. Elderly, Central Puget Sound: 2000



Source: American Community Survey 5-year estimates

Note: Due to small population size, estimates for some of the census tracts shown are not as reliable as for other tracts and care should be taken when using this data.

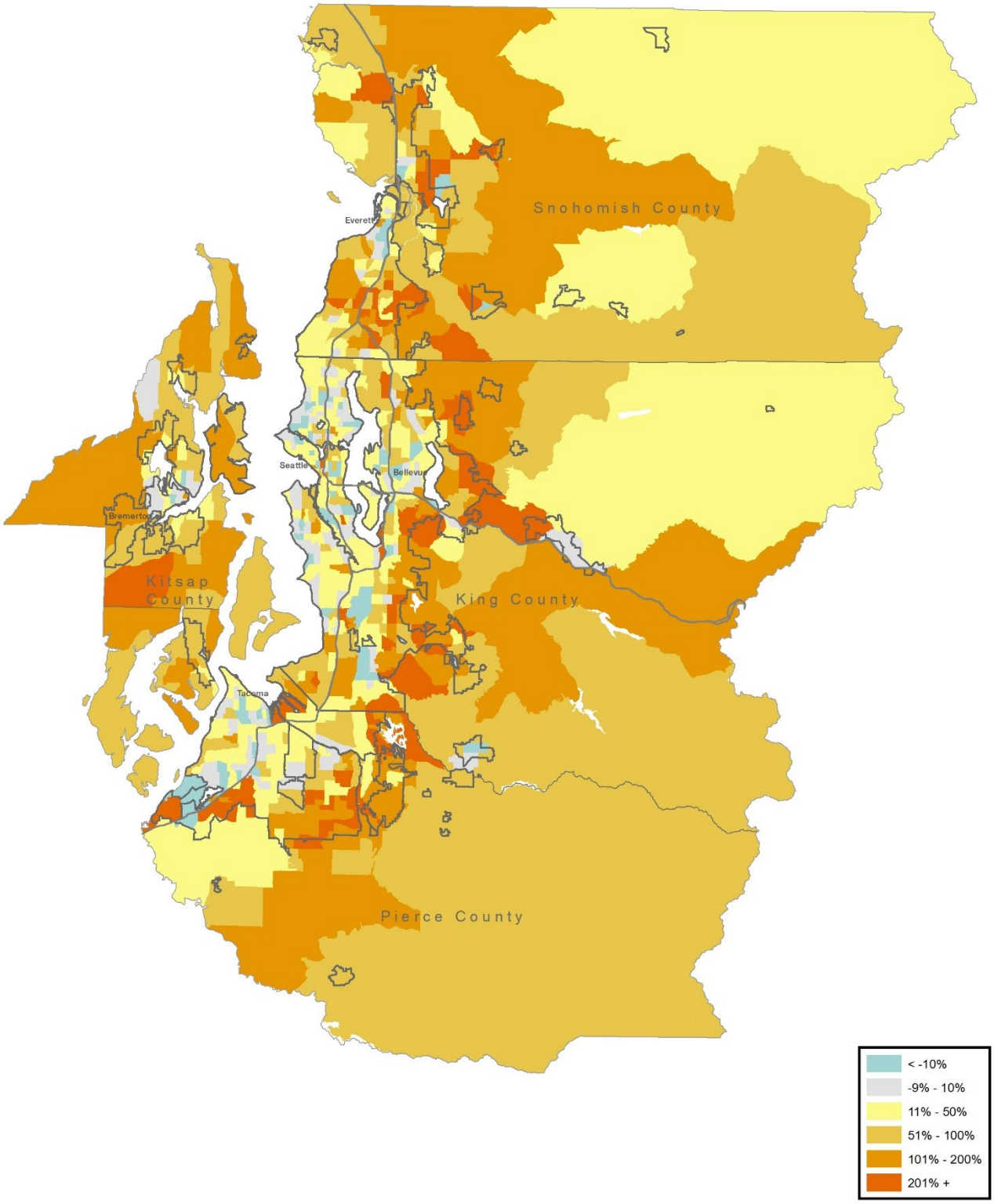
Figure 53. Elderly, Central Puget Sound: 2016



Source: American Community Survey 5-year estimates

Note: Due to small population size, estimates for some of the census tracts shown are not as reliable as for other tracts and care should be taken when using this data.

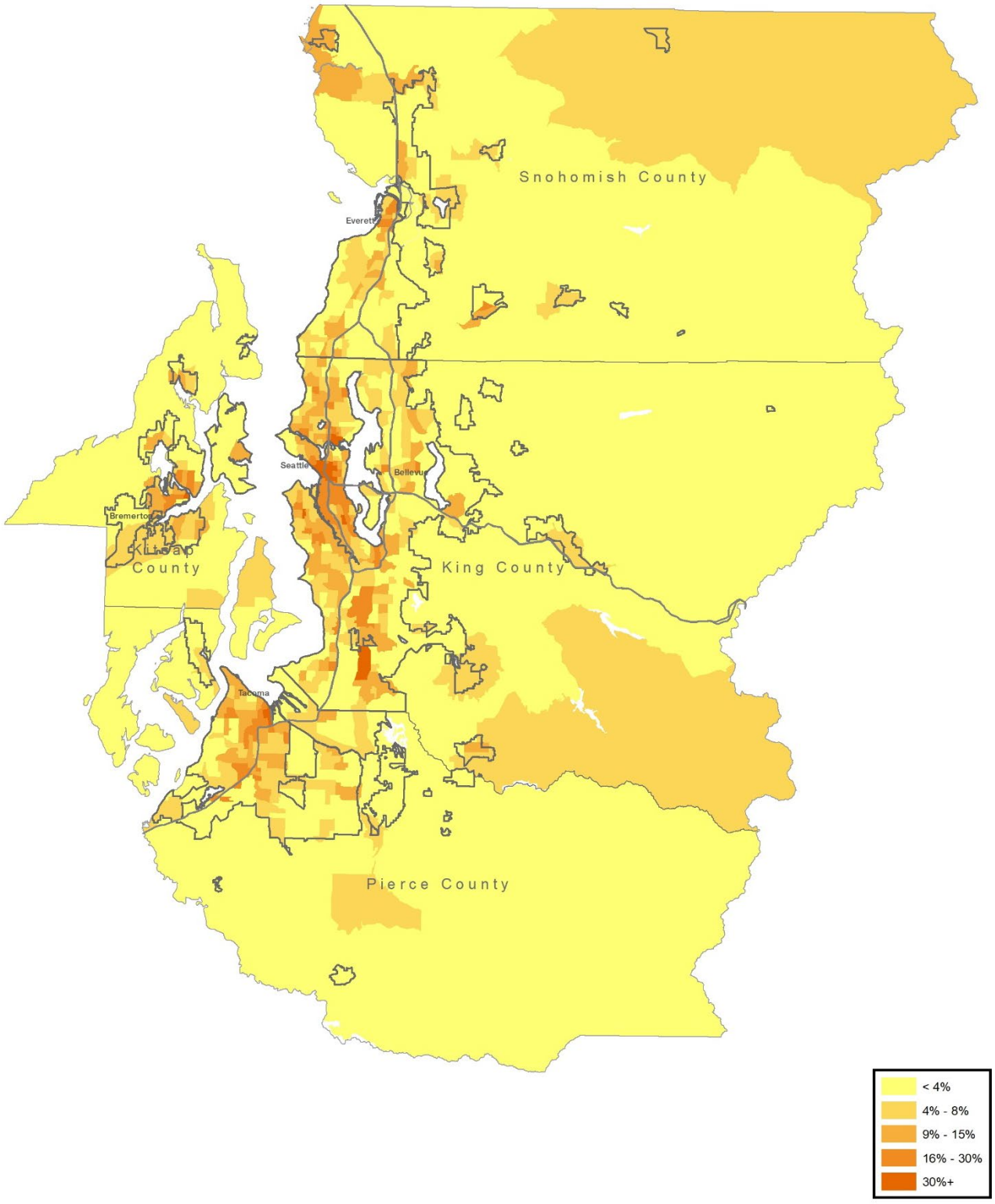
Figure 54. Change in Elderly, Central Puget Sound: 2000-2016



Source: American Community Survey 5-year estimates

Note: Due to small population size, estimates for some of the census tracts shown are not as reliable as for other tracts and care should be taken when using this data.

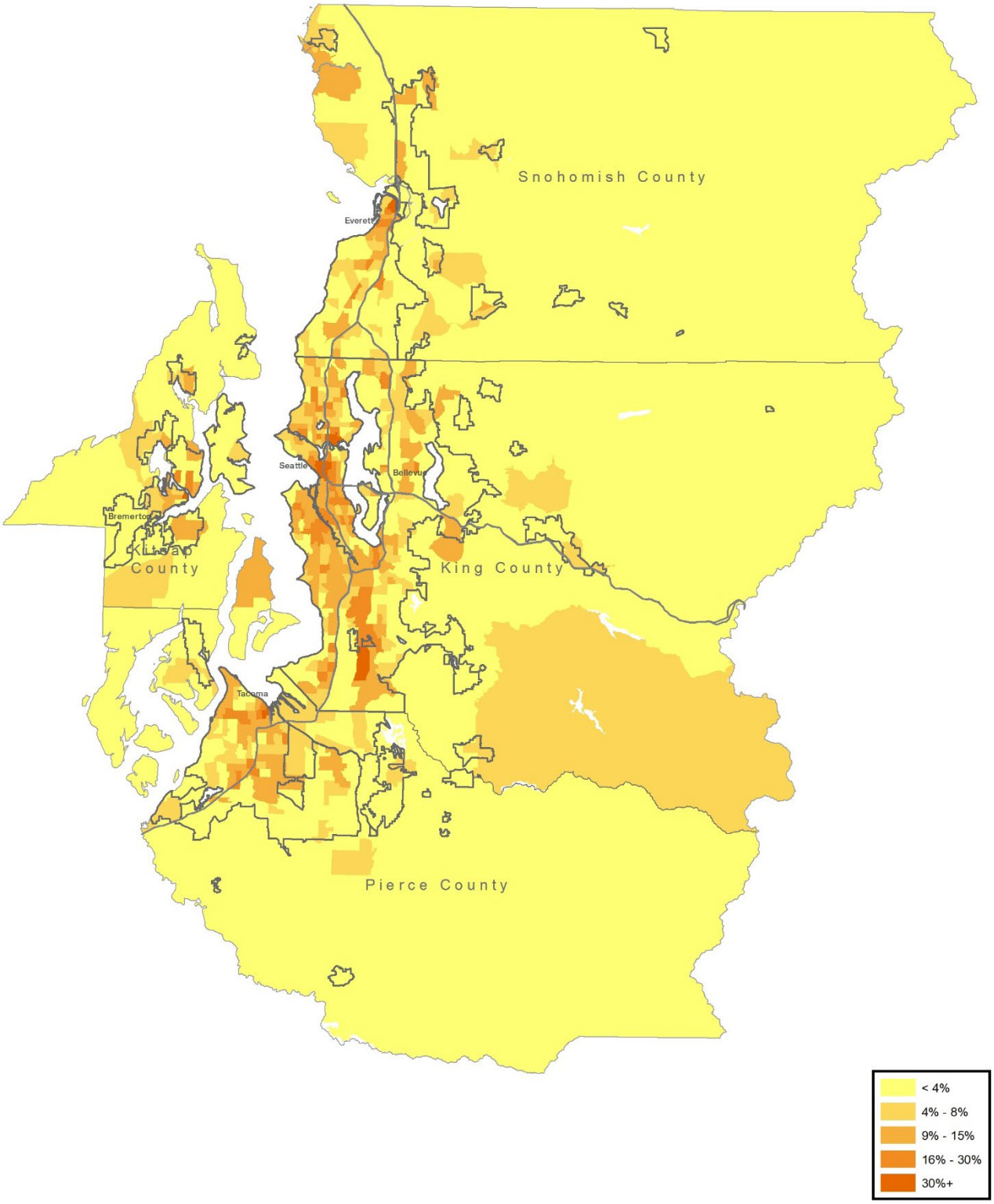
Figure 55. Zero-Vehicle Households, Central Puget Sound: 2000



Source: American Community Survey 5-year estimates

Note: Due to small population size, estimates for some of the census tracts shown are not as reliable as for other tracts and care should be taken when using this data.

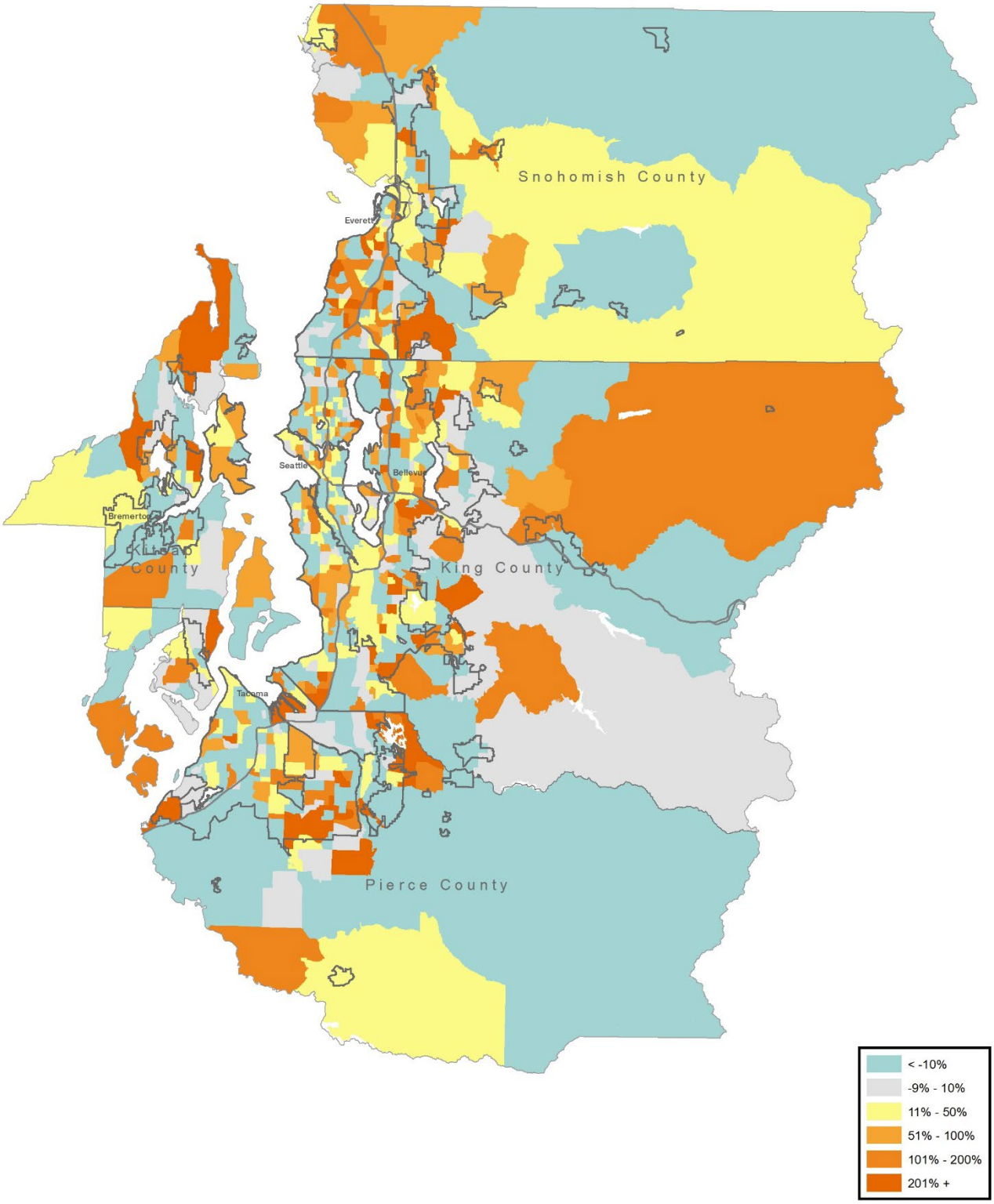
Figure 56. Zero-Vehicle Households, Central Puget Sound: 2016



Source: American Community Survey 5-year estimates

Note: Due to small population size, estimates for some of the census tracts shown are not as reliable as for other tracts and care should be taken when using this data.

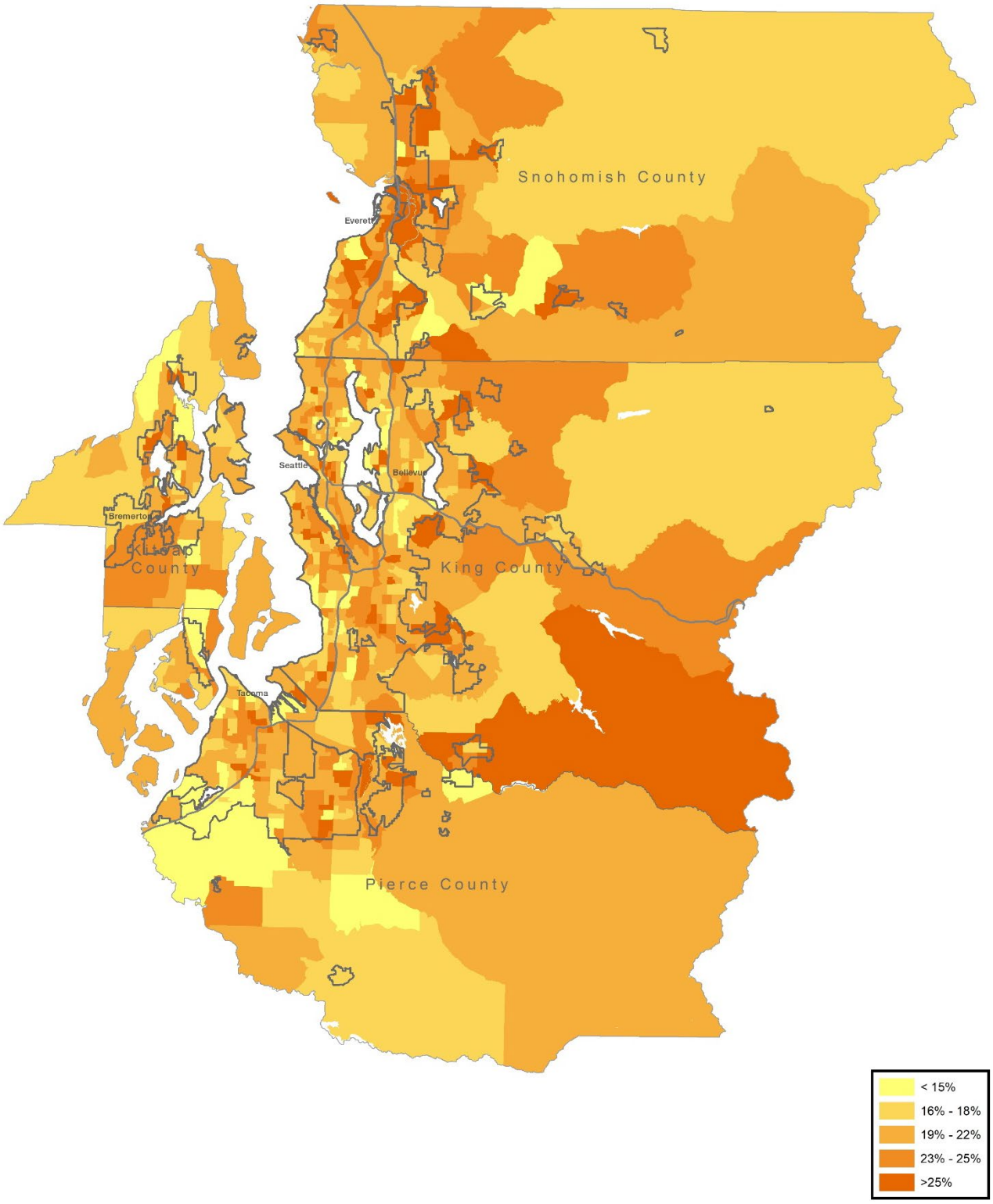
Figure 57. Change in Zero-Vehicle Households, Central Puget Sound: 2000-2016



Source: American Community Survey 5-year estimates

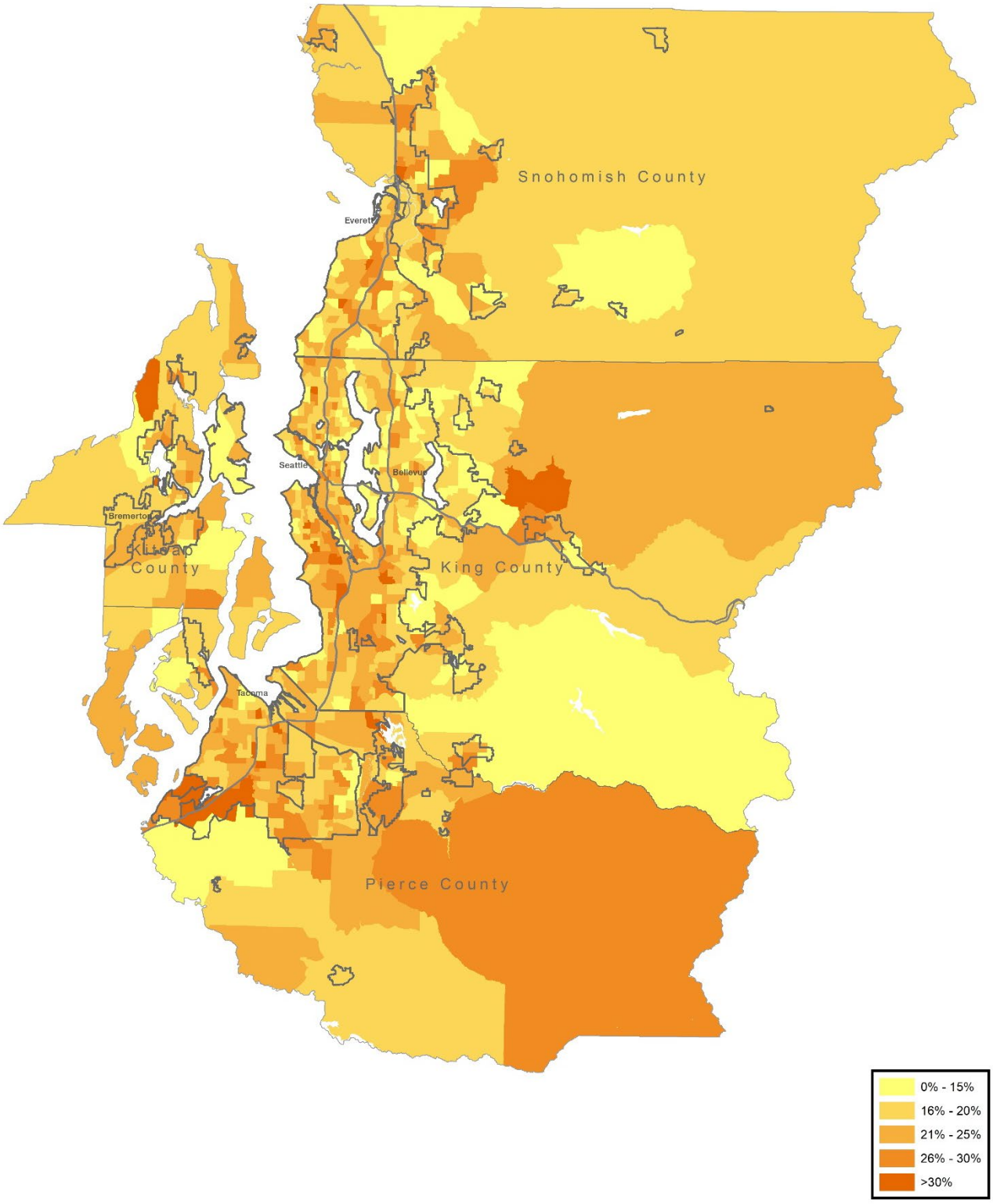
Note: Due to small population size, estimates for some of the census tracts shown are not as reliable as for other tracts and care should be taken when using this data.

Figure 58. Housing Cost Burdened, Central Puget Sound: 2000



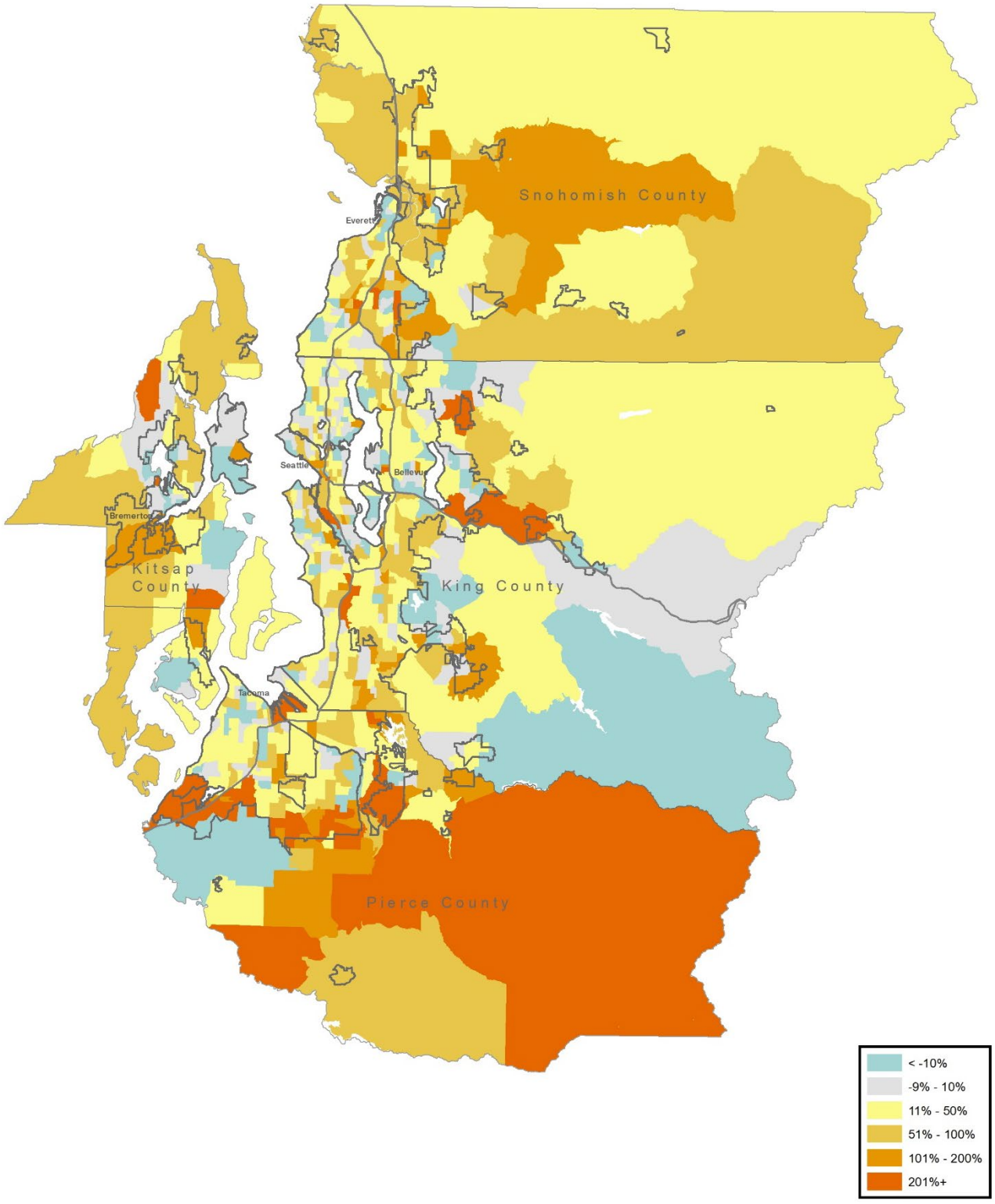
Source: American Community Survey 5-year estimates

Figure 59. Housing Cost Burdened, Central Puget Sound: 2016



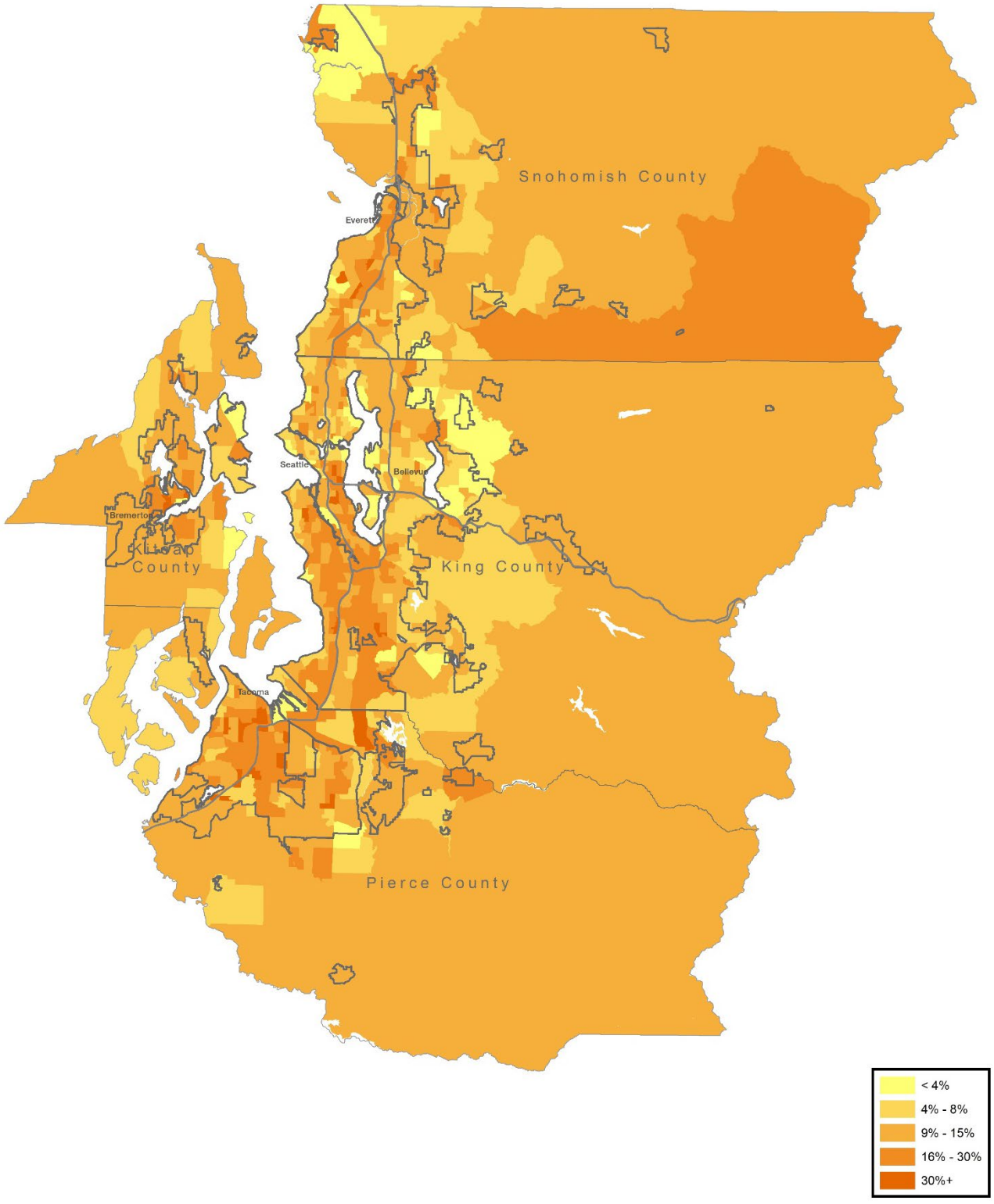
Source: American Community Survey 5-year estimates

Figure 60. Change in Housing Cost Burdened, Central Puget Sound: 2000-2016



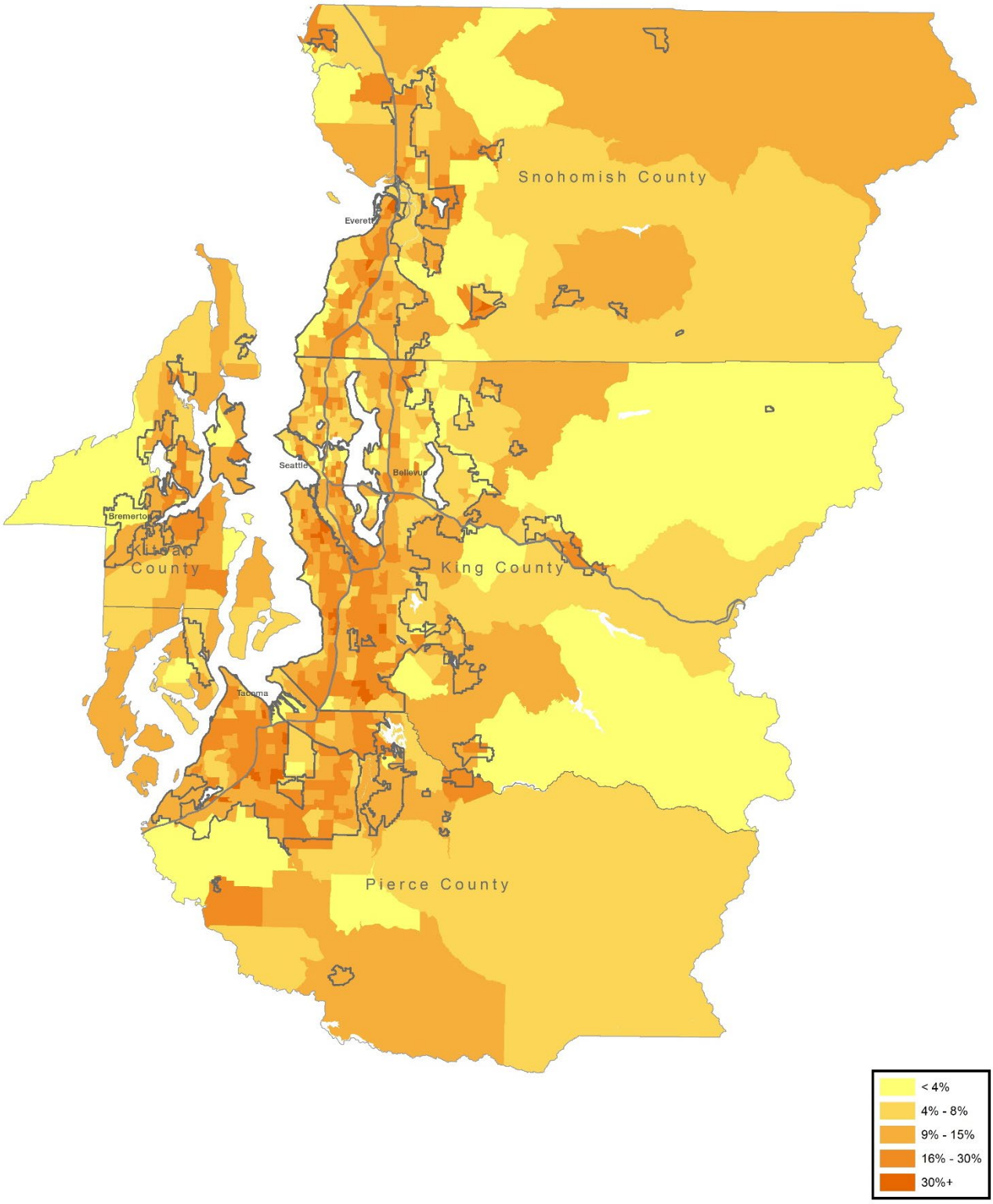
Source: American Community Survey 5-year estimates

Figure 61. Single-Parent Households, Central Puget Sound: 2000



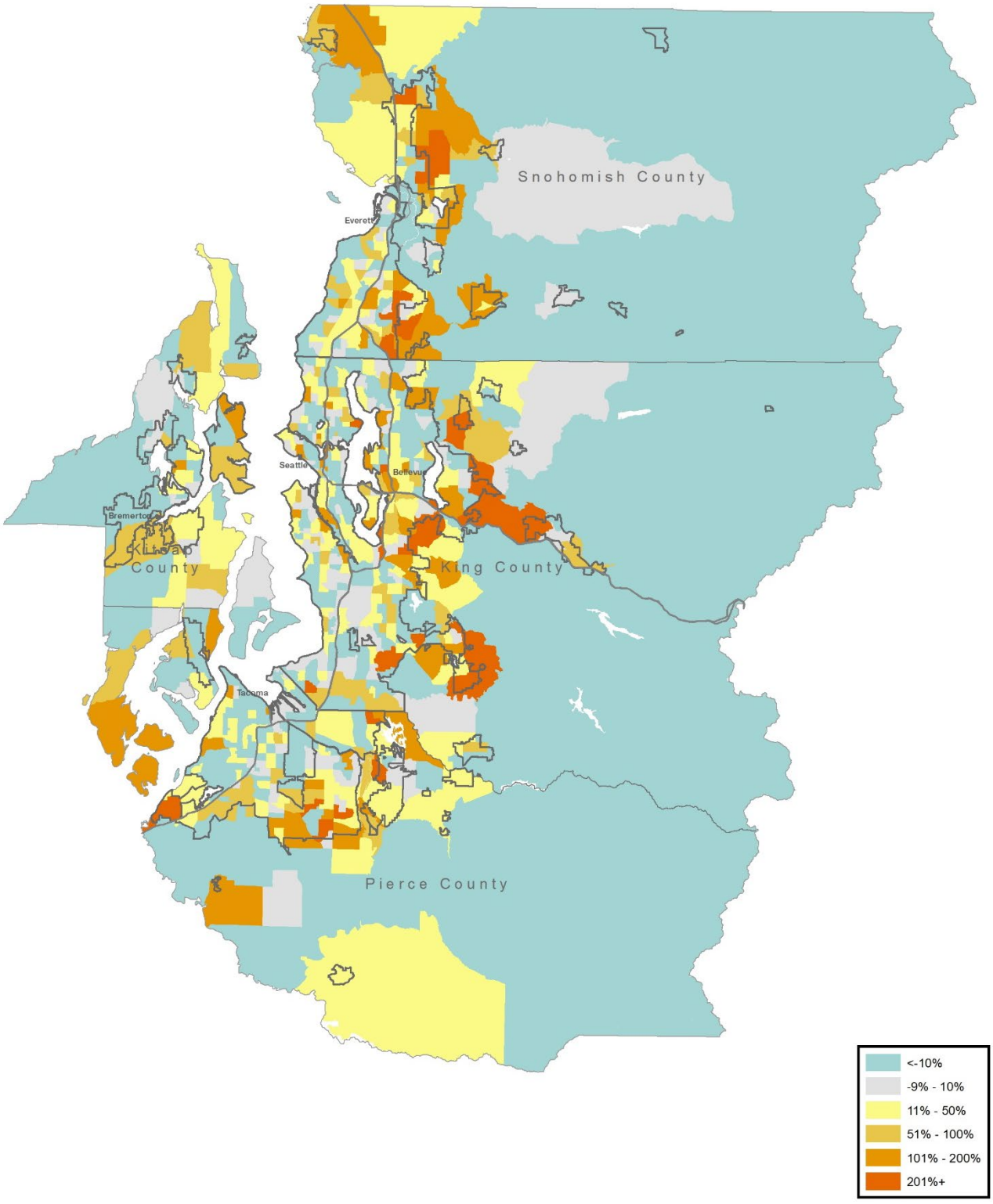
Source: American Community Survey 5-year estimates

Figure 62. Single-Parent Households, Central Puget Sound: 2016



Source: American Community Survey 5-year estimates

Figure 63. Change in Single-Parent Households, Central Puget Sound: 2000-2016



Source: American Community Survey 5-year estimates