

DATE: March 2020
TO: Kitsap County
City of Bremerton
FROM: ECONorthwest
SUBJECT: KITSAP-BREMERTON AFFORDABLE HOUSING INVENTORY AND MARKET ANALYSIS –
APPENDIX C: HOUSING NEEDS ANALYSIS

Background and Purpose

As part of the *Affordable Housing Inventory and Market Analysis* for Kitsap County and the City of Bremerton, this technical memorandum provides a needs assessment for housing in Kitsap County and its major jurisdictions. Taken together with an overview of the housing providers in Kitsap County (Appendix A Housing Landscape Overview) and an assessment of the current housing inventory (Appendix B Housing Inventory), this memorandum steps through the drivers of housing supply, drivers of housing demand, and the future needs for housing of all types and price points across the county over the next 17 years. This memorandum is broken down into three sections:

1. **Part I** projects forecasted housing demand and capacity and discusses the gaps in housing supply versus projected need at different price points and geographies across the County.
2. **Part II** steps through the drivers of housing supply and drivers of housing demand in Kitsap County.
3. **Part III** steps through the methods, data, and approaches used in this analysis.

The findings herein support policy recommendations offered in the *Affordable Housing Inventory and Market Analysis* for the City and County to consider as they continue working to provide housing for all Kitsap residents. This memo is an appendix to the final report.

References in this Analysis

Throughout this analysis, we reference and display data for different geographies across Kitsap County. This section steps through the geographic boundaries used, and nomenclature used to address different planning jurisdictions. We also include a few affordable housing terms used herein.

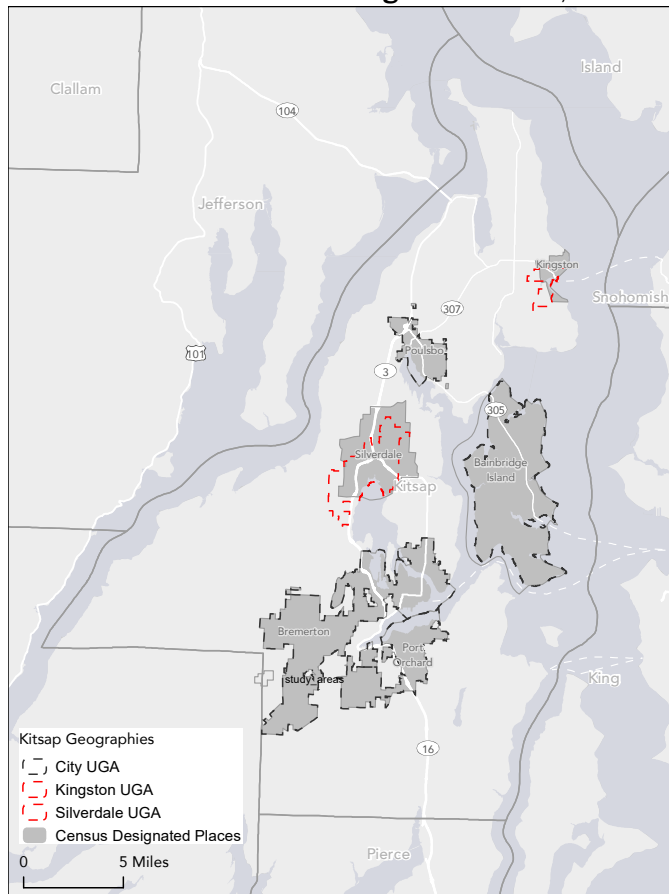
Cities and Census Designated Places vs Urban Growth Areas

Our analysis uses a variety of data sources. Because the U.S. Census Bureau is the main source of data for this memorandum and Appendix B Housing Inventory, we use its definitions of “Places” and “Census Designated Places” (CDPs) to analyze and display the data pertinent to this study. Places typically refer to cities, towns, villages, and boroughs, and are “a concentration of population either legally bounded as an *incorporated* place, or identified as a

Census Designated Place.”¹ CDPs differ from places in that CDPs are “statistical geographic entities representing closely settled, *unincorporated* communities that are locally recognized and identified by name.”² CDPs are statistically equivalent to incorporated places and they are the Census Bureau’s best approximation for unincorporated areas across the country.

This analysis uses CDP boundaries instead of Urban Growth Areas (UGAs), which are the County’s urban planning boundaries for Kingston and Silverdale, because the Census provides more data on these area’s population and economic characteristics. The map in Exhibit A below shows the CDP boundaries in grey, the UGA boundaries for Bainbridge Island, Bremerton, Port Orchard, and Poulsbo in black, and the UGA boundaries for Kingston and Silverdale in red. As the map demonstrates, the UGA boundaries for Bainbridge Island, Bremerton, Port Orchard, and Poulsbo are aligned with the CDPs, and the Kingston and Silverdale UGAs have meaningful overlap. As such, they are a good approximation and allow us access to more data.

Exhibit A. We use Census Designated Places, Which Closely Align with Kitsap UGAs



Source: UGA boundaries come from the Kitsap County Department of Community Development. Census boundaries come from Census GIS files.

¹ U.S. Census Bureau, *Place* definition. Retrieved from: <https://factfinder.census.gov/help/en/place.htm>

² U.S. Census Bureau, *Census Designated Place (CDP) Program for the 2010 Census—Proposed Criteria*, 72 Federal Register 17326-17329. April 6, 2007. Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2007-04-06/pdf/E7-6465.pdf>

Kitsap County Inclusive vs Kitsap County Jurisdiction

In this analysis, references to “Kitsap County,” “Kitsap,” or “the County” relate to the county as a whole, inclusive of the other planning areas (cities and urban growth areas). For example, if a statistic shows the average age for Kitsap County residents alongside the average age for residents of the City of Bremerton, the ages of Bremerton residents would be included in the Kitsap County average.

Recognizing the importance of providing data and analysis for the Kitsap County planning jurisdiction, we reference this geographic area as “Unincorporated Kitsap County.” This excludes the city planning jurisdictions, and includes urban growth areas. Within this Unincorporated Kitsap County jurisdiction, we often show the Kingston and Silverdale CDPs (not UGAs), and then calculate a third boundary called “all other areas.” These are mutually exclusive so the sum of the different CDPs and the “all other areas” will equal the Kitsap County total. The following exhibit demonstrates this math.

Exhibit B. Example Display of Kitsap County Geographies

Year	Kitsap County	Bainbridge Island	Bremerton	Port Orchard	Poulsbo	Unincorporated Kitsap County		
						Kingston	Silverdale	All Other Areas
Total	A	B	C	D	E	F	G	= A - B-C-D- E-F-G

We make every effort to include a note below each table and chart describing the boundaries. Readers should assume that in-text references to “Kitsap County” or “the County” are inclusive of all other jurisdictions within the County. At times, we further clarify this point by referencing residents “across the County” or businesses “throughout the County,” or we will discuss “Kitsap County as a whole,” or a statistic for “the entire County.”

Housing, Finance, and Development Terms Used

Affordable Housing. Regulated affordable housing that is income- or rent-restricted to ensure the housing is occupied by households earning a certain income. Regulations are set according to the types of funding used to develop the housing, such as the Low-Income Housing Tax Credit, or U.S. Housing and Urban Development (HUD) funding. Most rent-restricted affordable housing is restricted to be affordable to households earning under 60% MFI, but these restrictions vary. We refer to regulated affordable housing and rent-restricted affordable housing interchangeably in this memorandum.

Cost Burdened. We use the term “cost burdening” to refer to households who pay more than 30 percent of their income on housing costs. We use the term “severe cost burdening” for households paying more than 50 percent of their income on housing. These terms come from HUD, and include mortgage payments and interest, or rent, utilities, and insurance.

Housing Affordability. “Housing that is affordable” refers to any type of housing, regulated or not, that costs less than 30% of a household's pre-tax income. This definition is a generally accepted definition of affordability.

Low Cost Market Rentals. We refer to housing that is affordable to low income households but not regulated or restricted by a funding source, as “low cost market rentals.” These housing units are often affordable by nature of their location, condition, age, or the amenities offered nearby or at the property.

Median Family Income (MFI). The U.S. Housing and Urban Development (HUD) produces an area median family income each year to measure affordability thresholds against. Affordable housing deals, loans, and other HUD requirements will be assigned to a percentage of the MFI (see sidebar).

Severely Cost Burdened. See Cost Burdened.

Unregulated or Unrestricted Housing. See Low Cost Market Rentals.

Workforce Housing. The term “workforce housing” is often used to describe housing units that are affordable to households earning more than 60% MFI. These can be regulated or unregulated.

Kitsap County MFI

According to HUD, Kitsap County's MFI was \$77,119 in 2017.

- 30% of MFI is about \$23,135
 - 50% of MFI is about \$38,559
 - 60% of MFI is about \$46,271
 - 80% of MFI is about \$61,695
 - 100% of MFI is \$77,119
 - 120% of MFI is about \$92,542
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Summary Findings

- Kitsap County is expected to need an additional 25,147 housing units over the next 17 years. The majority of these housing units are expected to be single-family detached, similar to current development trends. Kitsap County jurisdictions will need to almost triple their annual housing production to accommodate these new units in the next 17 years.
- Kitsap County has not been building enough housing to meet the needs of its residents. Over the 2010 to 2017 time period, it only built 42 new housing units for every 100 new households formed. This is one of the main drivers behind recent home price and rent increases seen in the past decade.
- Kitsap County appears to be gaining households at the lowest income levels (earning under \$20,000 per year) and at higher income levels (earning more than \$80,000) since 2010. There were fewer households earning between \$20,000 and \$60,000 in 2017 than in 2010, and there was very little change in the number earning between \$60,000 and \$80,000. When looking at the expected 25,147 new housing units, jurisdictions should plan for these trends to continue.
- Like the nation, Kitsap County is aging and seeing older households account for a larger share of the total population. This is most pronounced on Bainbridge Island, in Port Orchard, and in Kingston. Bainbridge saw a seven percentage point increase in the number of residents over age 44 between the year 2000 and the years 2013-2017, while Port Orchard saw a 10 percentage point increase over that time. In Kingston, the share of residents over age 65 grew by 11 percentage points, while the share of residents under age 20 declined in the same timeframe.
- Due to Kitsap's increasing diversity, the future housing stock consisting of primarily single-family homes could be mismatched with the housing needs of non-white residents. This coupled with Kitsap's growing baby-boomer population looking to "age in place," could mean that competition for housing may continue to put upward pressure on housing prices.
- Port Orchard has been building the most housing of any of the jurisdictions in Kitsap County. In the 2013-2017 timeframe, Port Orchard had the near-highest average sizes for both owner-occupied and renter-occupied households. However, Port Orchard also has a very high share of non-family households, and family households without children at 41 percent and 44 percent respectively.
- In this time period, the City of Bremerton and Kingston had the smallest average household size for renter households. Bremerton also has a high share of non-family households and lower homeownership rate. This housing composition could be due to the high share of shipyard workers and Olympic College students renting individually or with roommates.

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- Kitsap's economy is very strong, in line with national and regional trends. In 2018, total covered employment reached almost 90,000 jobs. Kitsap County passed its pre-recession job peak of 84,400 jobs back in 2015. Since the recession, the fastest growing sectors include management jobs, manufacturing, construction and transportation/warehousing jobs, and accommodation/food service jobs. That the fastest growing sectors have moderate to high wages is a sign for continued purchasing power for future housing demand.
 - A high share of Kitsap's workers do not live in the county, which could be an opportunity when planning for future housing growth. In 2017, more than 46,300 people commuted out of Kitsap County for work, 23,750 people commuted into the county, and about 43,300 people stayed put (work and live in the county). As demonstrated in the Inventory Memo, most of the housing near transit (particularly ferries) is single family. This limits access to jobs and economic opportunity for lower income households who may not be able to purchase homes.

Part I. Forecasted Housing Needs

This section explores forecasted housing needs in the next twenty years in Kitsap County. The results of the housing needs analysis are based on: (1) the official population forecast for growth from the U.S. Census Bureau adopted by Kitsap County Ordinance in 2015, (2) information about Kitsap County's current housing market, and (3) the demographic composition of Kitsap's existing population and expected long-term changes.

Forecast for Housing Growth

We consider the following key assumptions to present an estimate of new housing units needed across Kitsap County between 2019 and 2036.

- **Population.** According to Census population growth forecasts adopted by Kitsap County Ordinance in 2015,³ the entire County's population is expected to reach 331,571 people in 2036. Since Census data is not yet available for 2019, we use the Washington Office of Financial Management's 2019 population estimate for Kitsap County: 272,274 people. Thus, the total population increase from 2019 to 2036 is estimated to be 59,297 people.
- **Persons in Group Quarters.**⁴ Persons in group quarters do not consume standard housing units: thus, any forecast of new people in group quarters is typically derived from the population forecast for the purpose of estimating housing demand. Group quarters can have a big influence on housing in cities with colleges (dorms), prisons, or a large elderly population (nursing homes). In general, any new requirements for these housing types will be met by institutions (colleges, military or government agencies, health-care corporations) operating outside what is typically defined as the housing market.

The 2013-2017 American Community Survey shows that 2.7 percent of Kitsap's total population was in group quarters. For the 2019 to 2036 period, we use this same assumption that 2.7 percent of Kitsap's new population, approximately 1,601 people, will be in group quarters.

- **Household Size.** According to the 2013-2017 American Community Survey, the average household size in Kitsap County was 2.51 people. Thus, for the 2019 to 2036 period, we assume the average household size stays the same at 2.51 persons.

³ Kitsap County. 2015. "Kitsap Countywide Planning Policies, Appendix B-1." Available from: compplan.kitsapgov.com/Documents/Complete+Amended+CPPs+-+2015+v.10-16-15.pdf

⁴ The Census Bureau defines group quarters as follows: A group quarters is a place where people live or stay, in a group living arrangement, that is owned or managed by an entity or organization providing housing and/or services for the residents. The Census Bureau classifies all people not living in housing units (house, apartment, mobile home, rented rooms) as living in group quarters. There are two types of group quarters: (1) Institutional, such as correctional facilities, nursing homes, or mental hospitals and (2) Non-Institutional, such as college dormitories, military barracks, group homes, missions, or shelters.

While Kitsap County is diversifying, and the growing number of Hispanic and non-white households tend to have larger household sizes, Kitsap County is also aging, with a greater share of Baby-Boomer households. This analysis does not dive deep enough into these trends to merit a deviation from the standard assumption that average household sizes will remain roughly the same over the next 17 years.

- **Vacancy Rate.** The Census defines vacancy as: "unoccupied housing units are considered vacant. Vacancy status is determined by the terms under which the unit may be occupied, e.g., for rent, for sale, or for seasonal use only." Vacancy rates are cyclical and represent the lag between demand and the market's response to demand for additional dwelling units. Vacancy rates for rental and multifamily units are typically higher than those for owner-occupied and single-family dwelling units.

According to the 2013-2017 American Community Survey, Kitsap County's vacancy rate was 9.4 percent. For the 2019 to 2036 period, we assume a vacancy rate of 9.4 percent. This is a conservative assumption, given that the Census estimate of vacancy is higher than anecdotal evidence, and varies according to housing tenure and type. If the assumed future vacancy rate were lower, the number of new dwelling units needed would be higher.

Exhibit 1 displays the estimated new housing units based on these assumptions. Kitsap County will have demand for 25,147 new dwelling units over the next 17 years, needing to produce about 1,480 new units per year.

Exhibit 1. Forecast of Demand for New Dwelling Units, Kitsap County, 2019–2036

Variable	New Dwelling Units (2019-2036)
Change in persons	59,297
<i>Minus</i> Change in persons in group quarters	1,601
<i>Equals</i> Persons in households	57,696
Average household size	2.51
New occupied DU	22,986
<i>Times</i> Aggregate vacancy rate	9.40%
<i>Equals</i> Vacant dwelling units	2,161
Total new dwelling units (2019-2036)	25,147
Annual average of new dwelling units	1,479

Source: U.S. Census Bureau, 2013–2017 ACS.

In Exhibit 12 in the Inventory memo, we calculated that across all of Kitsap County, about 3,790 units were produced between 2010 and 2017. This translates to 541 units per year. Kitsap County jurisdictions will need to almost triple their annual housing production to accommodate the new 25,147 units needed in the next 17 years.

In the rest of this section, we explore these expected new housing units by tenure, type, location and price across the whole County. Data is not nuanced enough to parse out each location's needs by price, tenure, or type. However, the County and its jurisdictions will need to encourage the development that has been missing and where demand is expected. We will explore strategies to encourage this development in the Recommendations Task and the final report.

Housing Needs by Tenure

To determine the expected number of housing units by tenure (rental vs ownership stock) Exhibit 2 below evaluates whether the homeownership rate stays the same, grows or declines over time.

Exhibit 2. Scenarios of Expected New Units by Tenure

Variable	New Dwelling Units (2019-2036)		
	Current Home-Ownership Rate	Rate Increases	Rate Decreases
Needed New Dwelling Units (2019-2036)	25,147	25,147	25,147
Units Needed Annually	1,479	1,479	1,479
Owner-Occupied Housing			
Percent Owner-Occupied DU	67%	70%	65%
<i>Equals</i> Total New Owner-Occupied DU	16,847	17,602	16,344
Units Needed Annually	991	1,035	961
Renter-Occupied Housing			
Percent Renter-Occupied DU	33%	30%	35%
<i>Equals</i> Total New Renter-Occupied DU	8,298	7,544	8,801
Units Needed Annually	488	444	518

Source: ECONorthwest Analysis

Note: These scenarios are theoretical and not forecasts for Kitsap's housing market.

If the current homeownership rate remains at 67 percent, 16,847 of the 25,147 new units expected over the next 17 years will be ownership-stock of any type (single-family attached, single-family detached, condos, or mobile homes). The remaining 8,298 units will be renter-occupied of any type. This translates to 991 units of ownership housing and 488 units of rental housing need to be developed per year throughout the six Kitsap County jurisdictions. These rates of production are significantly higher than the development pace seen in the 2010-2017 timeframe.

Housing Needs by Type

To determine the expected number of housing units by type (single-family denoted "SF" vs multifamily denoted "MF"), Exhibit 3 below displays three scenarios for Kitsap's housing composition and the future split between single-family and multifamily housing.

Exhibit 3. Scenarios of Expected New Units by Type

Variable	New Dwelling Units (2019-2036)		
	Current Split (SF vs MF)	Skew Toward SF	Skew Toward MF
Needed New Dwelling Units (2019-2036)	25,147	25,147	25,147
Units Needed Annually	1,479	1,479	1,479
Single-family Housing			
Percent Single-Family DU	74%	78%	70%
<i>Equals</i> Total New Single-Family DU	18,608	19,613	17,602
Units Needed Annually	1,095	1,154	1,035
Multifamily Housing			
Percent Multifamily DU	26%	22%	30%
<i>Equals</i> Total New Multifamily	6,538	5,532	7,544
Units Needed Annually	385	325	444

Source: ECONorthwest Analysis

Note: These scenarios are theoretical and not forecasts for Kitsap's housing market.

If the current split between single-family and multifamily housing stock remains at 74 percent, 18,608 of the 25,147 new units expected over the next 17 years, will be single-family (detached and attached) housing and 6,538 units will be multifamily. This translates to 1,095 units of single-family housing and 385 units of multifamily development per year. Given that this forecasted estimate for needed single family homes is higher than the forecasted estimate of ownership stock, many of these single family homes will be rentals, as they are today. These rates of production are significantly higher than the development pace seen in the 2010-2017 timeframe.

Housing Needs by Price

To determine the projected number of housing units needed by income level, Exhibit 4 below displays two scenarios for the composition of households by income across Kitsap County, and the expected new units for each income level. We also translate these income levels into the affordable rents, assuming 30% of income goes to rent.

Exhibit 4. Scenarios of Expected New Units by Income Level

Household Income Level	Monthly Rent	Same Distribution		More High & Low-Income	
		Current Share	New Dwelling Units	New Share	New Dwelling Units
New Dwelling Units			25,147		25,147
\$0 - \$24,999	\$0 - \$625	16%	3,993	18%	4,526
\$25,000 - \$49,999	\$626 - \$1,250	20%	4,931	18%	4,526
\$50,000 - \$74,999	\$1,251 - \$1,875	19%	4,765	15%	3,772
\$75,000 - \$99,999	\$1,876 - \$2,500	16%	3,938	15%	3,772
\$100,000 - \$124,999	\$2,501 - \$3,125	11%	2,783	12%	3,017
\$125,000 or more	\$3,126 or more	19%	4,736	22%	5,532

Source: ECONorthwest Analysis
 Note: Monthly rent is calculated assuming 30% of household income goes toward housing. These scenarios are theoretical and not forecasts for Kitsap’s housing market. Rents are as of 2019; they are not inflation adjusted to 2036.

The first scenario assumes the current distribution of incomes across the County remains the same. The second scenario looks at the current trends of more high-income households and more low-income households moving to Kitsap County, and assumes that the income distribution skews farther along these lines (see Exhibit 29).

Housing Needs by Location

Recalling Exhibit 12 from the Inventory memo, Exhibit 5 below displays new development in the 2010-2017 timeframe by location (row A) and the total housing stock in 2017 by location (row C). We calculate each area’s share of new development and share of total housing stock to see which areas saw disproportionately higher development over the 2010-2017 time frame (an area has disproportionately higher development if its share of new development (row B) exceeds its share of the total housing stock (row D)).

Exhibit 5. Kitsap County Jurisdictions Producing Disproportionate Housing 2010-2017

	Kitsap County	Bainbridge Island	Bremerton	Port Orchard	Poulsbo	Kingston	Silverdale	All other Areas
A Total Units Built 2010 - 2017	3,791	468	625	680	264	52	128	1,574
B Percent of all new units built	100%	12%	17%	18%	7%	1%	3%	42%
C Total Housing Stock in 2017	110,944	10,340	18,541	5,460	4,312	1,057	9,051	62,183
D Percent of total housing stock	100%	9%	17%	5%	4%	1%	8%	56%
E Disproportionate? (B>D?)	N/A	Yes	No	Yes	Yes	No	No	No

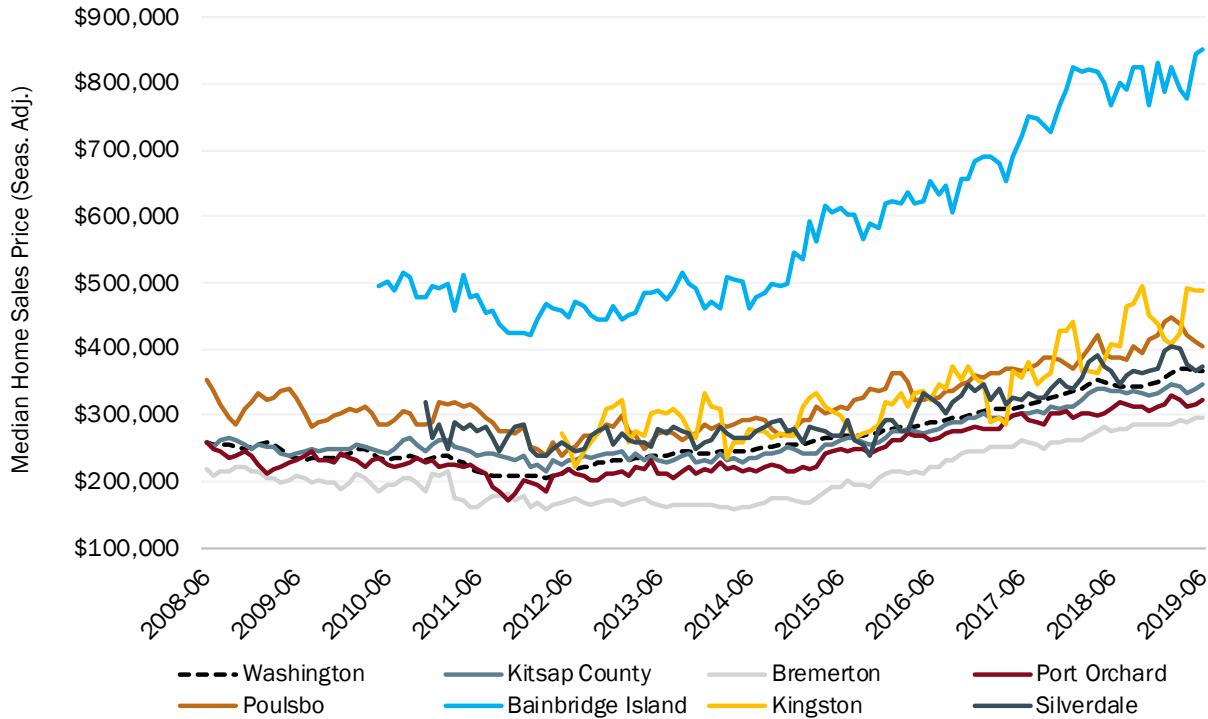
Source: 2013-2017 ACS Table DP04

Notes: Data includes vacant housing. Data shown for Kitsap County are the entire county, inclusive of the other areas shown. Data are shown for the city boundaries of Bainbridge Island, Bremerton, Port Orchard, and Poulsbo, as well as the boundaries of the Kingston and Silverdale Census Designated Places. Data for the "All Other Areas" is equal to the Kitsap County total less the six cities shown and is a rough approximation for the remaining Unincorporated Kitsap County area.

As the exhibit demonstrates, Bainbridge Island, Port Orchard and Poulsbo each produced more housing in the 2010-2017 time period than they have historically – Bainbridge and Poulsbo by three percentage points, and Port Orchard by 13 percentage points. Bremerton’s development over this timeframe was as on par with its share of all housing, while Silverdale and the “other areas” of the county all underproduced relative to their share of the 2017 total housing stock.

When looking at these rates of development in conjunction with recent rates of home price appreciation (see Exhibit 6 below), we can infer that areas seeing less development and strong price growth (Bainbridge, Bremerton) need larger shares of the 25,147 new housing units over the next 17 years.

Exhibit 6. Home Price Appreciation, Select Jurisdictions and Kitsap County



Source: Zillow, Median Home Sales Price, Seasonally Adjusted.

Part II. Housing Needs Analysis

Housing needs are influenced by the supply and demand for housing – both of which are influenced by macroeconomic factors and individual-level decisions. This section discusses the imbalance in the supply and demand of housing in Kitsap County over time, listing factors constraining new housing supply and the factors influencing strong demand for houses in the area. This analysis includes information from research and data, but also includes commentary from the Task 1 Housing Coordination interviews and review of local planning documents. Data herein support the key findings of the Forecasted Housing Needs in Part I.

A. Drivers of Housing Supply

The Puget Sound regional economy has grown at an astounding rate in the past decade, influenced by strong population growth as new residents move to the area seeking economic and educational opportunities, and the area’s natural beauty. According to the Bureau of Labor Statistics, total employment in the four-county region (King, Kitsap, Snohomish and Pierce Counties) grew 23 percent from 2010 to 2018, while total population in these four counties grew approximately 12 percent.⁵

Hampered by the housing market crash and economic recession, however, the regional housing market did not produce enough new housing in response to this growing demand, particularly at prices affordable to the majority of incomes. The Puget Sound Regional Council (PSRC) estimates that housing units in the four-county region (King, Kitsap, Snohomish and Pierce Counties) only grew by 6.7 percent over the same period of strong economic growth.⁶

Housing markets operate regionally: housing prices and availability in one location may influence housing demand in another area, as households seek affordable options. Seattle’s strong economic growth and own housing underproduction has led to rising prices there, forcing many households to decide whether to stay put and face increasing cost burdens, or try to find lower cost housing in other parts of the region and beyond.

These regional trends have strong implications for Kitsap County and its cities, which have relatively cheaper housing compared to the Eastern part of Puget Sound, and sits close to the economic engine of Seattle. However, housing markets in Kitsap County have also underproduced housing and is dealing with the spillover effects from the region’s economic growth.

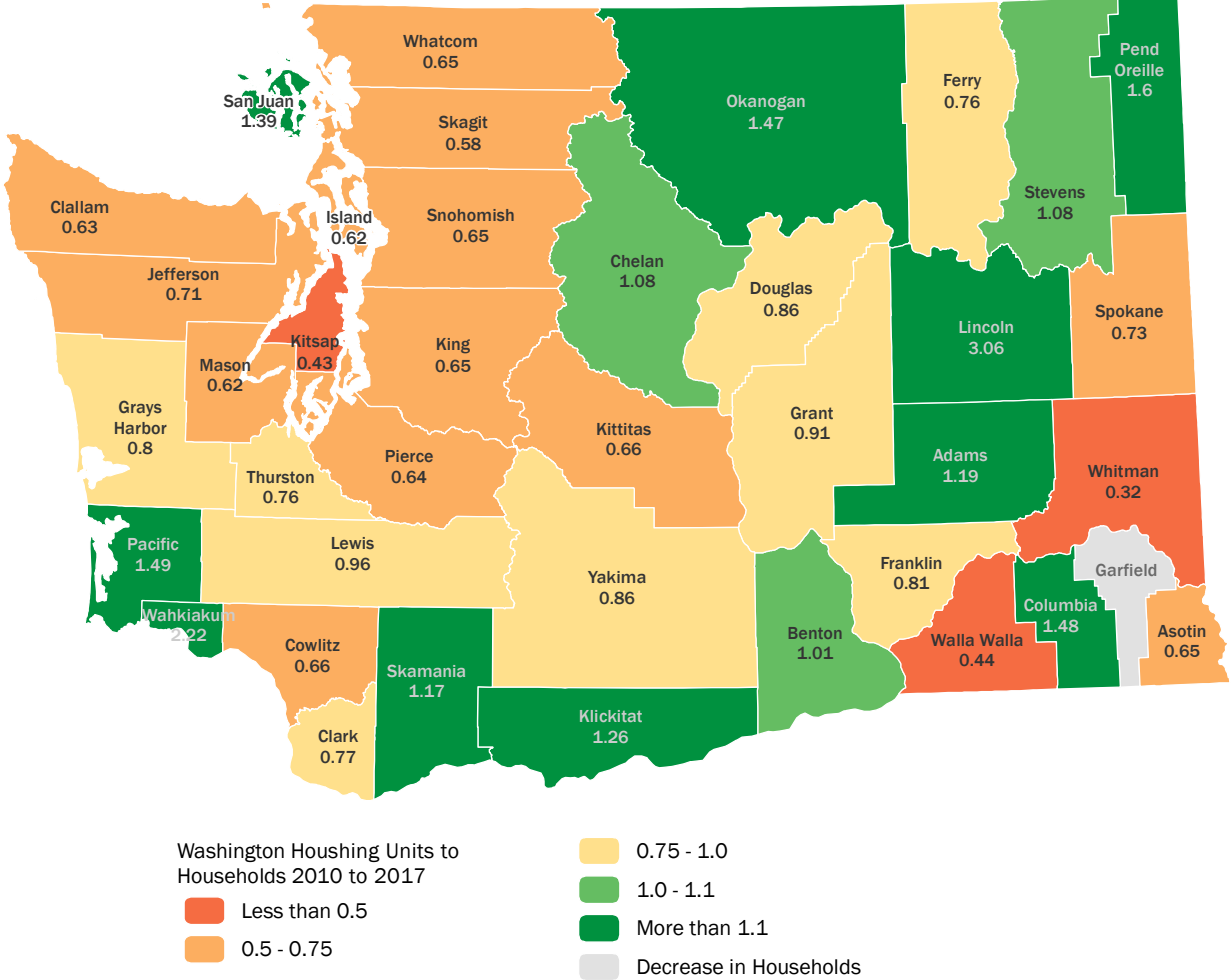
⁵ Bureau of Labor Statistics. 2018 Quarterly Census of Employment and Wages for the four-county region (King, Kitsap, Snohomish and Pierce Counties). Available from: <https://www.bls.gov/cew/downloadable-data-files.htm> (edited)

⁶ Current Population: Region. Estimates from U.S. Census Bureau and the Washington State Office of Financial Management. Available from: <https://www.psrc.org/rdp-population>

Housing Shortage: Imbalance in Supply and Demand

Exhibit 7 below, displays a map showing that the counties surrounding Puget Sound have not produced enough housing (measured here as housing starts) to keep up with new household formation (which includes people moving out of parental homes, roommates splitting up, or new residents moving in) over the 2010-2017 time period. Historically across the country, the housing market has produced 1.10 units for each new household formed—enough to accommodate vacancy, demolition, obsolescence and second homes or vacation homes.⁷

Exhibit 7. Map of Washington State County Ratios of Household Formation to Unit Production



Source: Up For Growth Research on Housing Underproduction in Washington State, ECONorthwest analysis of data come from U.S. Census Bureau, Washington Office of Financial Management and Moody’s Analytics.

As Exhibit 7 demonstrates, the four counties in the Puget Sound vastly underproduced housing over this time period, with Kitsap County producing the fewest of them all: Kitsap County in total saw only 43 units built per 100 new households formed compared with 65 in King County and Snohomish County, and 64 in Pierce County. This means that, in Kitsap County, 57 out of 100 new households formed in this time period had to compete for the existing stock of

⁷ Up For Growth. 2020. *Housing Underproduction in Washington State*.

housing. This competition, as described in the Drivers of Demand section on page 20, pushes prices up for all types of housing.

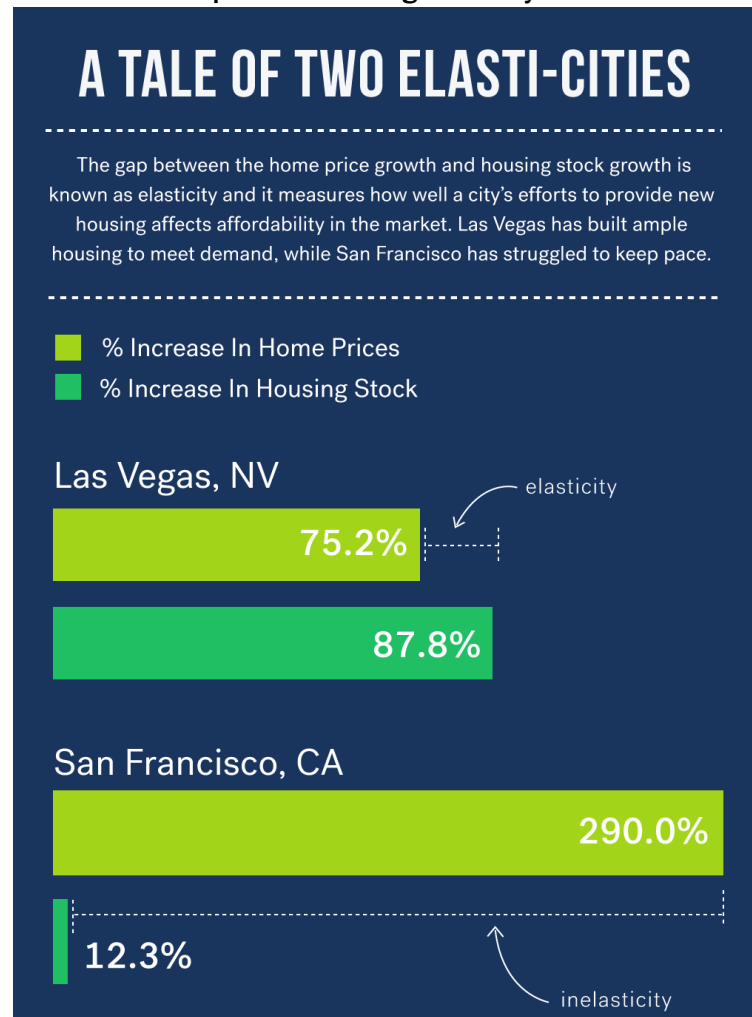
Ultimately, the region – including Kitsap County – has not been able to supply enough housing to meet rising demand. This imbalance is the product of numerous forces, including supply restraints such as restrictive land use policies governing development, lengthy entitlement processes, or increased construction costs, and increased demand for housing such as investment buyer competition and rising home prices reducing middle-income households’ buying power for housing.

Housing Supply Has Many Constraints

Like other “free markets” the housing market is governed by economic fundamentals of supply and demand that are influenced by government regulation. Private sector development is the driving force behind almost all housing supply (less the small share of publicly funded housing for low-income households). However, housing markets are often considered somewhat *inelastic* – meaning that as prices rise, supply does not rise as fast.⁸ In Exhibit 8, Trulia Research describes how the percent change in home prices relative to the percent change in housing stock creates elasticity, and how this can vary from one metro area to another. Factors such as long lead times for supply, bureaucracy, restrictive zoning, and anti-growth sentiments reduce the ability for development supply to catch up with demand.⁹

As shown in Exhibit 9, private sector development occurs at the

Exhibit 8. Description of Housing Elasticity



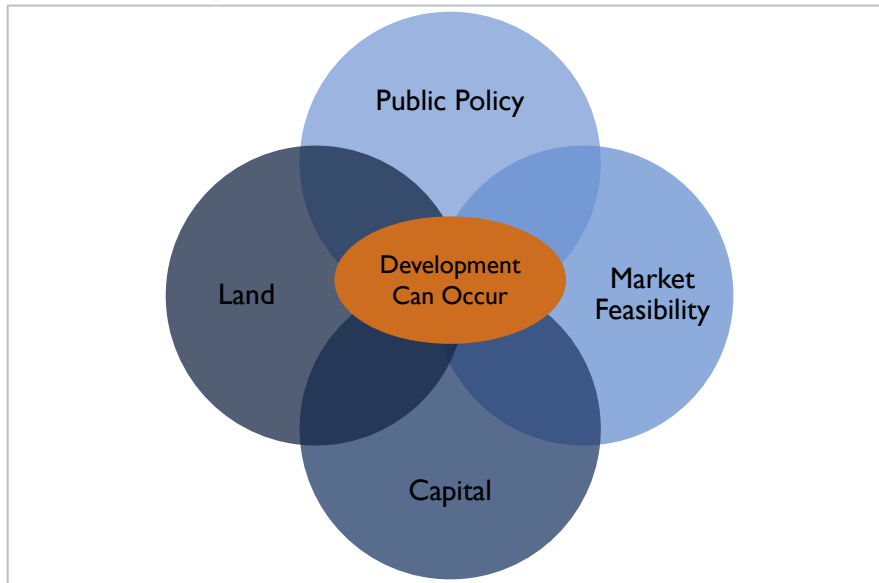
Source: McLaughlin, Ralph. 2016. “Is Your Town Building Enough Housing?” Trulia Research.

⁸ McLaughlin, Ralph. 2016. “Is Your Town Building Enough Housing?” Trulia Research. Available from: <https://www.trulia.com/research/elasticity-2016/>

⁹ Ibid.

intersection of land, public policies, market feasibility, and capital. Housing development relies on inputs set by numerous interrelated markets and players – from the cost of land to the cost of labor and materials to the price of rents – each input to development is its own market with supply and demand factors constantly in flux.

Exhibit 9. Development Fundamentals



Source: ECONorthwest.

- On a **parcel of land**, for-profit (which are the majority) landowners and property developers will evaluate a site for its highest and best use potential, be that office, residential, commercial, or vacant land.
- **Public policies**, like land use restrictions or zoning, limit the development allowed in certain parts of the city, usually for aesthetic, health, safety, or economic reasons.
- **Market feasibility** assesses the demand for development, comparing the expected prices against the costs (e.g. labor and materials), for the desired types of development.
- **Capital** is necessary to pay for the costs of development and influences market feasibility due to the expected return on investment. Capital seeking return on investment can flow to other sectors – stocks, bonds, etc. – when development cannot meet return requirements.

Land: Natural and Artificial Constraints

Jurisdictions in Kitsap County face constraints on the availability of land to develop new housing, which contributes to supply limitations.

1. **Natural Constraints.** Kitsap County has many natural constraints due to bodies of water, forestlands, and steep slopes. This makes some land less suitable to housing development.

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2. **Regulatory Land Use Constraints.** In addition, the public sector puts additional constraints on land that regulates its use, where growth can occur, and zoning for the types of housing that can be built. According to U.S. Census Bureau data, as of 2017, 69 percent of housing units in Kitsap County were low-density, single-family detached housing. While some of these units may be zoned from higher density, the majority are likely in line with their zoning, which limits the number of housing units that the city can see developed.

These limitations on the supply of land suitable and eligible for housing development put upward pressure on land prices when demand for housing and development sites are strong. Higher land prices limit both housing affordability and availability as developers need to meet financial feasibility requirements and may not be able to build as many units.

Public Policy: Development Regulations

Another major factor affecting housing supply (and thus prices) is restrictive regulations governing housing development such as permitting and environmental, or design review requirements and development standards. Recent research has demonstrated the link between housing affordability and availability to development regulations in place in a given jurisdiction.¹⁰

While intended to ensure design and uses are compatible with an existing neighborhood context, these policies can also act as a barrier to new development. Regulations such as low-density zoning, minimum lot sizes, limits on buildable area, minimum off-street parking requirements, or landscape buffers can increase development complexity, time to completion, and total costs.¹¹ Our analysis of current planning documents in Task 1 found that most of the planning goals in Kitsap County and the City of Bremerton are favorable toward housing development. While goals and visions may be favorable, the reality on the ground for developers and builders is that new supply is hard to deliver, particularly at moderate or affordable price points.

Market Feasibility: Limited by Increases in Development Costs

One of the biggest factors limiting the development of multifamily residential housing and lower-cost single-family housing in Kitsap County is market feasibility. For housing

¹⁰ See for example, Glaeser, Edward L., Joseph Gyourko, and Raven E. Saks, R. 2005. "Why is Manhattan so expensive? Regulation and the Rise in Housing Prices." *Journal of Law and Economics* 48(2): 331–69;

Glaeser, Edward L., and Bryce A. Ward. 2009. "The Causes and Consequences of Land Use Regulation: Evidence from Greater Boston." *Journal of Urban Economics* 65: 265–78. <https://doi.org/10.1016/j.jue.2008.06.003>;

Ihlanfeldt, Keith R. 2007. "The Effect of Land Use Regulation on Housing and Land Prices." *Journal of Urban Economics* 61: 420–35. <https://doi.org/10.1016/j.jue.2006.09.003>;

Jackson, Kristoffer. 2016. "Do Land Use Regulations Stifle Residential Development? Evidence from California Cities." *Journal of Urban Economics* 91: 45-56. <http://dx.doi.org/10.1016/j.jue.2015.11.004>

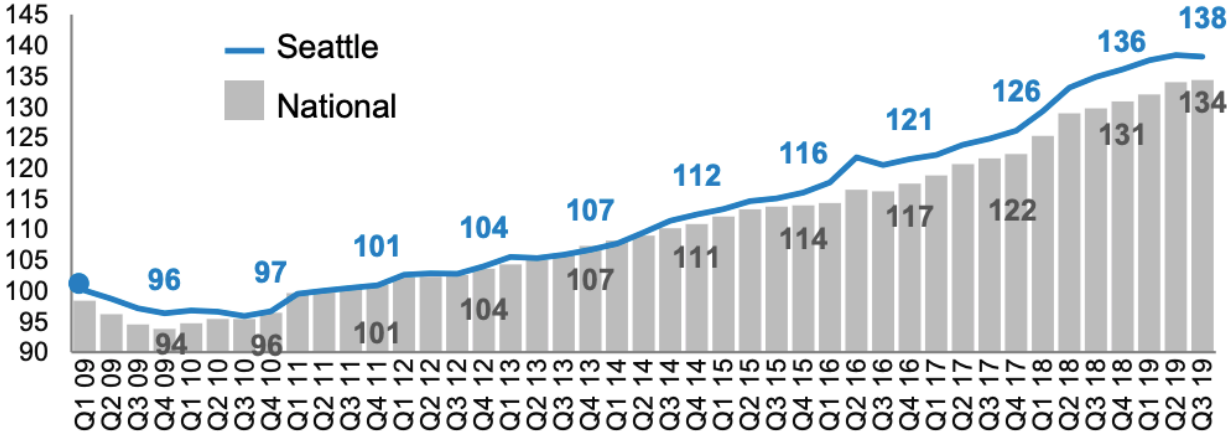
¹¹ Vanessa Brown Calder. 2017. "Policy Analysis: Zoning, Land-Use Planning, and Housing Affordability." CATO Institute. Available at <https://www.cato.org/publications/policy-analysis/zoning-land-use-planning-housing-affordability> Accessed April 19, 2019.

development to occur, market rents and prices need to be high enough to offset the costs of land, construction, and development. While land is cheaper in Kitsap County, many other development costs are only marginally less expensive and have seen increases in recent years. Higher development costs must be offset by increased home prices and rents, reducing overall housing affordability. Where rents or home prices are not high enough to cover the costs of construction, this leads to a limit on new supply of housing, which also leads to higher prices as households compete and outbid one another for limited quantity.

RISING CONSTRUCTION COSTS HURT AFFORDABILITY

The costs of construction materials can limit supply and affordability. According to the third quarter 2019 Construction Cost Index from Mortenson Construction, construction costs increased 38 percent in the Seattle area from January 2009 to September 2019.¹² Construction materials like lumber and steel (necessary for framing high-rise residential towers) have also been impacted by new tariffs and trade disruptions in the past two years.

Exhibit 10. Seattle and National Construction Cost Index Q1 2009 to Q3 2019



Source: Mortenson Q1 2019 Construction Cost Index Report for the City of Seattle. (January 2009 is indexed to 100)

LIMITED AVAILABILITY OF CONSTRUCTION LABOR INCREASES COSTS

In the aftermath of the housing market crash of 2008, many firms in the development and construction sector faced layoffs. As a result, architects, contractors, and laborers retired or found new professions. The construction sector was hit particularly hard and saw nationwide employment declines of 19 percent from a peak in 2007 to 2015.¹³

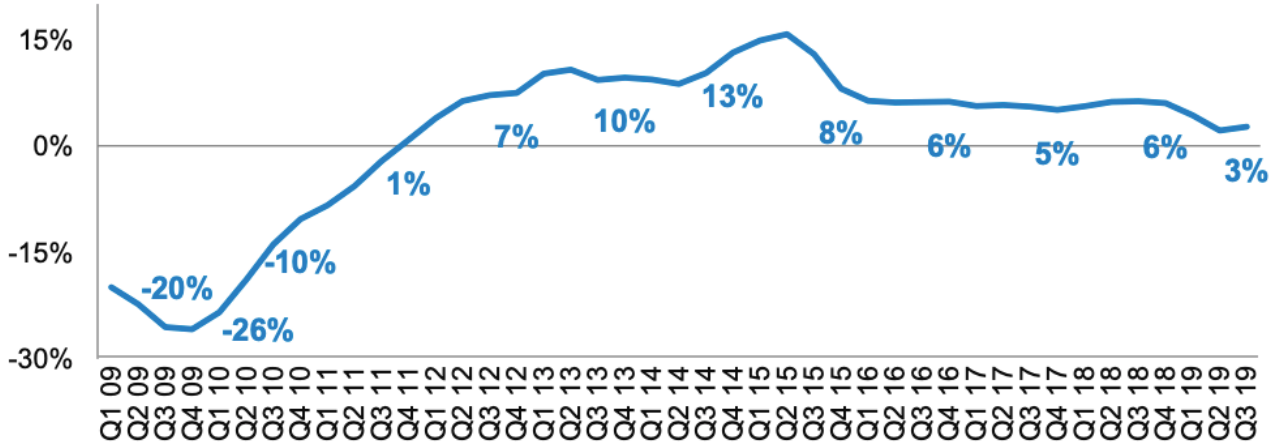
Despite some recovery post-recession, a lack of available trained construction and trade workers and subcontractors continues to be a drag on the housing market.¹⁴ Limited labor

¹² Mortenson Construction Cost Index – City of Seattle, 3rd Quarter 2019.
¹³ Alana Semuels. 2015. “Where have all the Construction Workers Gone?” The Atlantic Magazine. <https://www.theatlantic.com/business/archive/2015/02/where-have-all-the-construction-workers-gone/385417/> Data reported by the Bureau of Labor Statistics.
¹⁴ Karissa Neely. 2017. “Construction Industry Struggles with Labor Shortages.” The Associated Press. <https://www.seattletimes.com/nation-world/construction-industry-struggles-with-labor-shortage/>

availability increases competition, bids up prices, increases time to completion, and consequently limits overall housing production. Each of these factors hurts housing affordability.

Mortenson Construction shows that construction employment in the Seattle area grew only three percent from last year—a decline from earlier growth that signals a tight labor market and higher wages in the sector (see Exhibit 11).¹⁵ The firm expects material costs to remain stable, but expects total costs to grow 3.5 percent to 4.5 percent through 2020, driven by tight employment and higher labor costs.

Exhibit 11. Seattle Construction Employment Growth Year-over-Year, Q1 2009 to Q3 2019



Source: Mortenson Q1 2019 Construction Cost Index Report for the City of Seattle. (January 2009 is indexed to 100)

Capital: Development Has Numerous Constraints in Kitsap County

Capital is a necessary component of housing development. Most developers incur debt or issue equity to pay for the construction of new housing (particularly for multifamily development).¹⁶ Developers need to generate sufficient revenues (rents or home prices) to pay for the costs of developing and (for rentals) operating a property. Revenues less expenses equals net operating income, which needs to meet a required debt service coverage ratio for banks to lend to the developer.

Although land costs vary, the total cost of developing different types of housing may not vary much across a metropolitan area. However, rents and home prices do vary, and these revenues greatly influence the amount of debt a project can have to get off the ground. In areas where rents or home prices are low, but the costs of development costs are roughly equivalent to other places, new development can be difficult to build. In this way, housing development in Kitsap

¹⁵ Mortenson Construction Cost Index – City of Seattle, 3rd Quarter 2019.

¹⁶ Net operating income is rent revenue less operating expenses. A project must have sufficient income left after paying operating expenses to cover its monthly debt payments. See Part III for more information on the typical real estate development process.

County competes with development in other parts of the region, which have higher prices and rents to offer better returns for developers.

Exhibit 12. Some Capital Constraints Affect Developers Differently

Capital Factor	For-profit developer building market rate housing	Non-profit developer building rent-restricted housing
Interest rates	Not generally an issue, market rate rents can cover market-rate interest on loans	Difficult to find, lower rents need lower interest rates on loans
Loan terms	Not generally an issue, need to find short term limits on debt or equity since properties are sold after completion	Difficult to find, need longer-term loans, since affordability periods can be 15, 20, 30, or up to 99 years
Required return on investment	Difficult, for-profit developers need higher returns on investment to develop a property. This makes development competitive – areas with higher rents or prices will attract more development	Not generally an issue, rent-restricted properties have low or no required return on investment

INSUFFICIENT CAPITAL FOR RENT-RESTRICTED HOUSING

Rent-restricted affordable housing development faces different capital constraints. In this type of development, rents are restricted, so they are affordable to lower-income households. This means that the property has less operating income and can take on less debt to build the property. But since development costs are equivalent (or sometimes higher) to build rent-restricted housing than market rate housing, a gap exists between the funding needed to build the property and the funding available to pay for that development. Thus, developers need to find low-cost or free sources of capital to make rent-restricted development feasible.

Across the country, there is an insufficient amount of this low-cost capital to build rent-restricted affordable housing. Numerous Federal, state, and local programs exist to help bridge the development gap, but since funding is limited, these programs and funding sources are competitive. Affordable housing developers and Kitsap County staff note that the County is often uncompetitive for these programs because costs to build are as high as other parts of the region, but Kitsap jurisdictions do not have enough local funding to leverage against the funding awards. Kitsap’s rent-restricted affordable housing is described in Appendix B Housing Inventory.

B. Drivers of Housing Demand

Housing demand is determined by the *preferences* for different types of housing (e.g., single-family detached or apartment), and the *ability to find* that housing (the ability to exercise those preferences in a housing market by purchasing or renting housing). Preferences for housing are related to demographic characteristics and changes, in addition to personal preferences. The ability to find housing is based on income, housing costs, and housing availability. The following two sections analyze and discuss these factors.

Macroeconomic and National Trends Affecting Housing Demand¹⁷

Kitsap County and its jurisdictions will be affected by the same macroeconomic demographic and economic forces that are occurring across the country. This section provides a summary of national housing trends built on previous work by ECONorthwest, reports from the Urban Land Institute (ULI), and conclusions from *The State of the Nation's Housing, 2019* report by the Joint Center for Housing Studies of Harvard University. Localized commentary on the demographic and economic trends in Kitsap County can be found on pages 24 and 37.

While the housing market has strong fundamentals including low mortgage rates, rising household incomes, growing homebuying interest for the Millennial generation¹⁸ and nearly full unemployment rates, challenges to the housing market remain. In addition to rising housing costs, most household wages were stagnant for about a decade and have only recently began to rise, worsening affordability pressures. Single-family and multifamily housing supplies remain tight, which also compound affordability issues. *The State of the Nation's Housing* report emphasizes the importance of government assistance and intervention to keep housing affordable. Several challenges and macroeconomic trends shaping the housing market are summarized below:

- **Moderate new construction and tight housing supply, particularly for affordable housing.** New construction experienced a modest growth in 2018: an annual growth rate at 2.8 percent. This is the slowest annual growth rate since 2012. The State of the Nation's Housing report cites lack of skilled labor, higher building costs, scarce developable land, and the cost of local zoning and regulation as impediments to new construction.
- **Demand shift from renting to owning.** After years of decline, the national homeownership rate increased from a 50-year low of 62.9 percent in 2016 to 64.4 percent in 2018. The largest increase came from the age group from 25 to 39. Trends suggest homeownership among householders aged 65 and older have remained strong and homeownership rates among young adults have begun stabilizing after years of decline.
- **Housing affordability.** In 2017, more than one-third of American households spent more than 30 percent of their income on housing. Low-income households face an especially dire hurdle to afford housing. With such a large share of households exceeding the traditional standards for affordability, policymakers are focusing efforts on the severely cost burdened. Among those earning less than \$15,000, more than 70 percent of households paid more than half of their income on housing.

¹⁷ These trends are based on information from: (1) The Joint Center for Housing Studies of Harvard University's publication "The State of the Nation's Housing 2018," (2) Urban Land Institute, "2018 Emerging Trends in Real Estate," and (3) the U.S. Census.

¹⁸ According to the Pew Research Center, Millennials were born between the years of 1981 to 1996 (inclusive). Read more about generations and their definitions here: <http://www.pewresearch.org/fact-tank/2018/03/01/defining-generations-where-millennials-end-and-post-millennials-begin/>. Note: To generalize, and because there is no official definition of millennial, we define this cohort as individuals born between 1980 and 2000.

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- **Long-term growth and housing demand.** The Joint Center for Housing Studies forecasts that nationally, demand for new homes could total as many as eight million units between 2018 and 2028. Much of the demand will come from Baby Boomers, Millennials, and immigrants. The Urban Land Institute cites the trouble of overbuilding in the luxury sector while demand is in mid-priced single-family houses affordable to a larger buyer pool.
 - **Growth in rehabilitation market.**¹⁹ Aging housing stock, rising sales prices, and poor housing conditions are growing concerns for jurisdictions across the United States. As housing rehabilitation becomes the go-to solution to address housing conditions, the home remodeling market has grown more than 50 percent since the recession ended—generating 2.2 percent of national economic activity (in 2017). These trends will face headwinds from rising construction costs and complex regulatory requirements. In addition, lower-income households or households on fixed-incomes may defer maintenance for years due to limited financial means, escalating eventual rehabilitation costs. This expected growth in the rehabilitation market means corresponds to lower turnover in housing, which can have a further tightening effect on housing markets.
 - **Changes in housing preference.** Housing preference will be affected by changes in demographics; most notably, the aging of the Baby Boomers, housing demand from Millennials, and growth of immigrants.
 - *Baby Boomers.* The housing market will be affected by continued aging of the Baby Boomers, aged between fifty and seventy in 2019. Baby Boomers’ housing choices will affect housing preference and homeownership rates and will require developing a range of housing opportunities such as low-income housing, multigenerational housing, smaller walkable housing, or increased age-restricted retirement communities and nursing homes. In addition, Boomers’ desires to age-in-place will also affect the housing market.
 - *Millennials.* Although delayed due to the 2007-2009 recession, Millennials are driving much of the growth in new households today, albeit at slower rates than previous generations. In 2019, the oldest Millennials were in their late-30s and the youngest were in their late-teens. By 2040, Millennials will be between 40 and 60 years old. From 2015 to 2018, millennials formed an average of 200,000 net new households each year. Some research estimates that, “over the next 15 years, nearly \$24 trillion will be transferred in bequests,” presenting new opportunities for Millennials (as well as Gen Xers) to enter the homebuying market.²⁰
 - *Immigrants.* Immigration and increased homeownership among minorities could also play a key role in accelerating household growth over the next 10 years, if

¹⁹ These findings are copied from: Joint Center for Housing Studies. (2019). Improving America’s Housing, Harvard University. https://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_Improving_Americas_Housing_2019.pdf

²⁰ Srinivas, Val and Goradia, Urval (2015). The future of wealth in the United States, Deloitte Insights. <https://www2.deloitte.com/insights/us/en/industry/investment-management/us-generational-wealth-trends.html>

Federal policies about immigration do not further reduce inflow trends. The Census Bureau’s estimates of net immigration in 2017–2018 indicate that 1.2 million immigrants moved to the U.S. from abroad, down from 1.3 million immigrants in 2016–2017 but higher than the average annual pace of 850,000 during the period of 2009–2011.

- *Diversity.* The growing diversity of American households will have a large impact on domestic housing markets. Over the coming decade, minorities will make up a larger share of young households and constitute an important source of demand for both rental housing and small homes. Although homeownership rates are increasing for some minorities, large shares of minority households are more likely to live in high-cost metro areas, reducing their buying power in the housing market. In addition, expectations of the average square footage needed per person per house may change as the country continues to diversify. For example, as of 2017, Hispanic/Latinx households were generally larger in size than non-Hispanic/Latinx families.²¹ Growing Hispanic and Latinx populations have implications for the types and sizes of housing needed in the future.
- **Changes in housing characteristics.** Several long-term trends in the characteristics of housing are evident from the U.S. Census Bureau’s 2018 New Housing Report:²²
 - *Larger single-family units on smaller lots.* Between 1999 and 2018, the median size of new single-family dwellings increased by 17.5 percent nationally, reaching approximately 2,400 sq. ft. while the percentage of new units smaller than 1,400 sq. ft. decreased from 15 percent in 1999 to seven percent in 2018. Almost 28 percent of new one-family homes completed in 2018 were larger than 3,000 sq. ft.
 - *Smaller multifamily units.* Between 1999 and 2018, the median size of new multiple family dwelling shrank by -2.1 percent in the Western region, compared to a 5.4 percent increase nationally. This is not surprising given the hot housing markets in Western states; high land and development costs require more units – meaning smaller sizes total – to make a deal feasible.
 - *Household amenities.* Across the U.S., new housing also comes with new amenities, including air-conditioning, two or more bathrooms, or one or more garages. Amenities are a source of competition for homebuilders, and also factor into increased costs.

²¹ U.S. Census Bureau. 2017. Current Population Survey (CPS). Retrieved from: www.census.gov/programs-surveys/cps.html

²² U.S. Census Bureau, Highlights of Annual 2017 Characteristics of New Housing. Retrieved from: <https://www.census.gov/construction/chars/highlights.html>.

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- *Shared amenities.* In addition, housing with shared amenities are growing in popularity. Single-Room Occupancies (SROs)²³ Cottage Clusters, co-housing developments, and multifamily products are common housing types that take advantage of this trend. Shared amenities may take many forms and include shared: bathrooms; kitchens and other home appliances (e.g., laundry facilities, outdoor grills); security systems; outdoor areas (e.g., green space, pathways, gardens, rooftop lounges); fitness rooms, swimming pools, and tennis courts; and free parking.²⁴

Kitsap County Trends

Kitsap County will see many of the same macroeconomic demographic and economic forces that influence housing demand across the country. This section discusses the demographic and economic changes specific to Kitsap County that influence housing demand.

Demographic Changes

As Exhibit 13 demonstrates, Kitsap County's total population grew by 39 percent over the almost three decades between 1990 and 2017, adding nearly 74,000 new residents. This translates to an average annual growth rate (AAGR) of 1.5 percent. Of the cities shown in the table, Bainbridge Island experienced the largest population increase in the past three decades. This period saw Bainbridge Island change from a mostly rural and remote island to almost a suburb of the Seattle metro area. Bainbridge Island's population grew by 677 percent between 1990 and 2017 from just over 3,000 residents to just under 24,000. This is an average annual growth rate of more than 25 percent. Population growth at this level is difficult to accommodate since the culture and perspectives of existing residents generally change slower than the population base.

²³ Single-room occupancies are residential properties with multiple single room dwelling units occupied by a single individual. From: U.S. Department of Housing and Urban Development. (2001). *Understanding SRO*. <https://www.hudexchange.info/resources/documents/Understanding-SRO.pdf>

²⁴ Urbsworks. (n.d.). Housing Choices Guide Book: A Visual Guide to Compact Housing Types in Northwest Oregon. https://www.oregon.gov/lcd/Publications/Housing-Choices-Booklet_DIGITAL.pdf

Saiz, Albert and Salazar, Arianna. (n.d.). Real Trends: The Future of Real Estate in the United States. Center for Real Estate, Urban Economics Lab.

Exhibit 13. Population, Kitsap County, and Selected Geographies 1990-2017

	Geography	Population				Change 1990 to 2017		
		1990	2000	2010	2017	Number	Percent	AAGR
	Kitsap County	189,731	231,969	251,133	264,300	74,569	39%	1.5%
Principle Cities	Bainbridge Island	3,081	20,308	23,025	23,950	20,869	677%	25.1%
	Bremerton	38,142	37,259	37,729	40,630	2,488	7%	0.2%
	Port Orchard	4,984	7,693	11,157	13,990	9,006	181%	6.7%
	Poulsbo	4,848	6,813	9,200	10,510	5,662	117%	4.3%
Uninc. Kitsap County	Kingston*	--	1,611	2,099	1,875	--	--	--
	Silverdale*	7,660	15,816	19,204	20,664	13,004	170%	6.3%
	All Other Areas	131,016	142,469	148,719	152,681	21,665	17%	0.6%

Source: Washington State Office of Financial Management, Forecasting Division, U.S. Census Bureau.

Notes: Data are shown for the city boundaries of Bainbridge Island, Bremerton, Port Orchard, and Poulsbo, as well as the boundaries of the Kingston and Silverdale Census Designated Places. Data for the "All Other Areas" is equal to the Kitsap County total less the six jurisdictions shown and is a rough approximation for the remaining Unincorporated Kitsap County area.

Table Notes:

[1] Population estimates for Kitsap County, Bainbridge Island, Bremerton, Port Orchard, and Poulsbo for all years come from the Washington Office of Financial Management Forecasting Division.

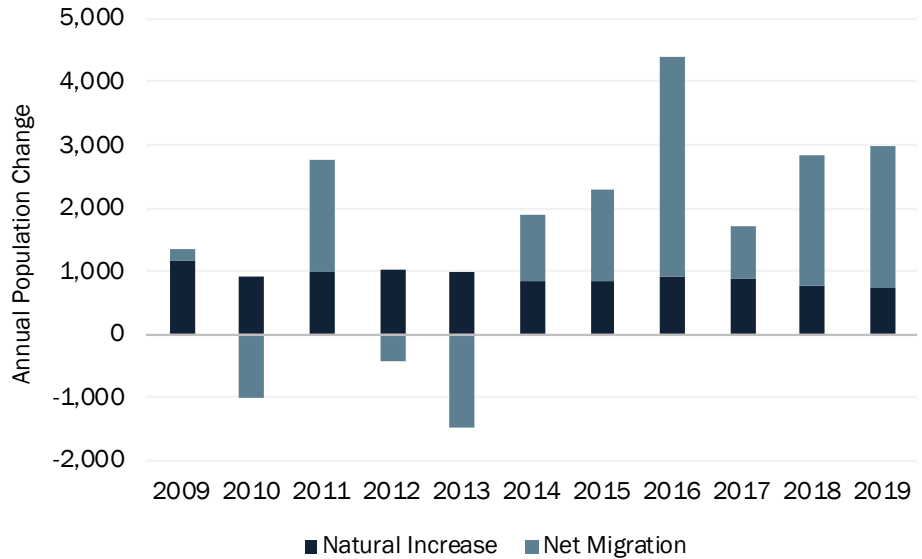
[2] * Population estimates for Kingston and Silverdale for 1990, 2000, and 2010 are from the Decennial Census and estimates for 2017 are 2013-2017 American Community Survey 5-year estimates.

As Exhibit 14 below demonstrates, the majority of Kitsap County’s population growth in the past six years came from in-migration (people moving into a new area) as opposed to natural increase (births outweighing deaths of current residents). In-migration spiked in 2016 and has since tapered off while natural increases have declined slightly over time.

Kitsap County's population increase in 2016 was the largest in the last ten years.

Most of this population increase was due to in-migration into Kitsap County.

Exhibit 14. Annual Population Change, Net Migration, and Natural Increase, Kitsap County, 2009–2019



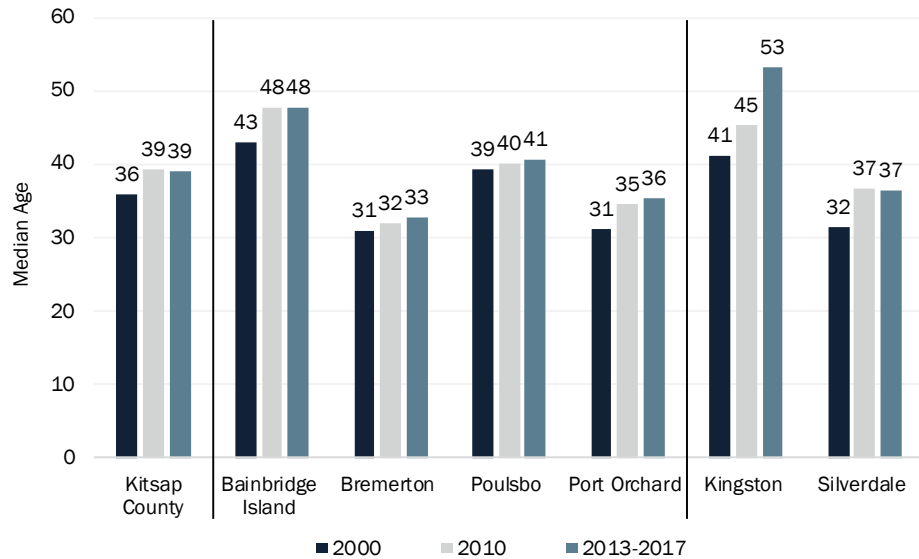
Source: Washington State Office of Financial Management, April 2019.

AGE

The following exhibits display median ages across the county and changes in the age composition of Kitsap County residents. As Exhibit 15 demonstrates, the median age in Kitsap County increased from age 36 to 39 between 2000 and 2010 and remained at age 39 from 2013-2017. Cities in Kitsap County reveal roughly the same trend with bigger increases between 2000 and 2010 and smaller increases between 2010 and 2013-2017. Bainbridge Island has the oldest median age at 48, while Bremerton has the youngest median age at only 33.

Kingston's median age is greater than all the other selected cities.

Exhibit 15. Median Age, Kitsap County and Selected Cities, 2000, 2010, and 2013-2017



Note: Data are shown for the city boundaries of Bainbridge Island, Bremerton, Port Orchard, and Poulsbo, as well as the boundaries of the Kingston and Silverdale Census Designated Places.

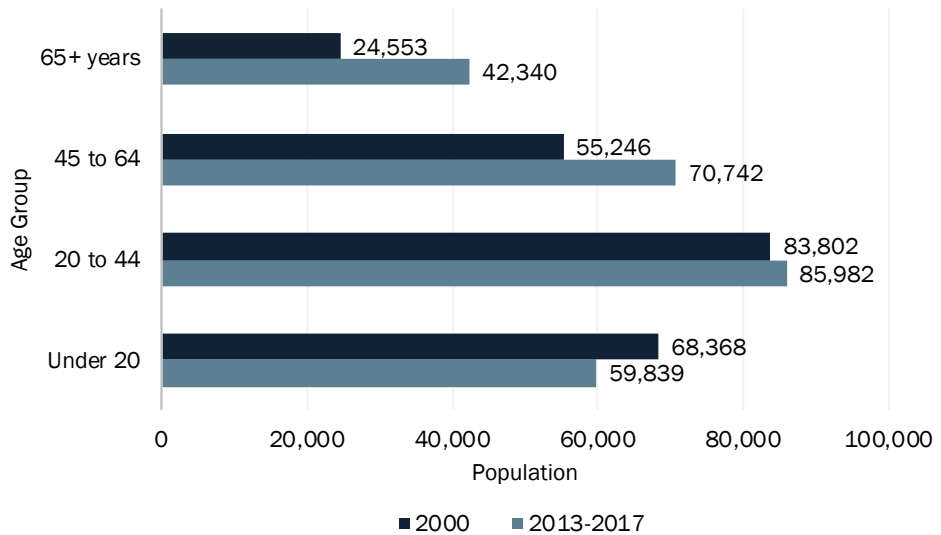
Source: 2000 Decennial Census Table P013, 2010 Decennial Census Table P13, and 2013-2017 ACS Table DP05.

Although the different cities across Kitsap County have some variation in median ages, the next two exhibits demonstrate that the County as a whole is aging and following the same national trends largely due to the aging Baby-Boomer cohort. Exhibit 16 demonstrates that across the whole County, each age group except the “under 20” had more people in 2013-2017 than in the year 2000. While some of this is due to nominal population growth, Exhibit 17 shows that each city has a greater share of its population in the older age groups in the more recent time periods.

Between 2000 and the 2013-2017 time period, the number of people aged over 20 increased.

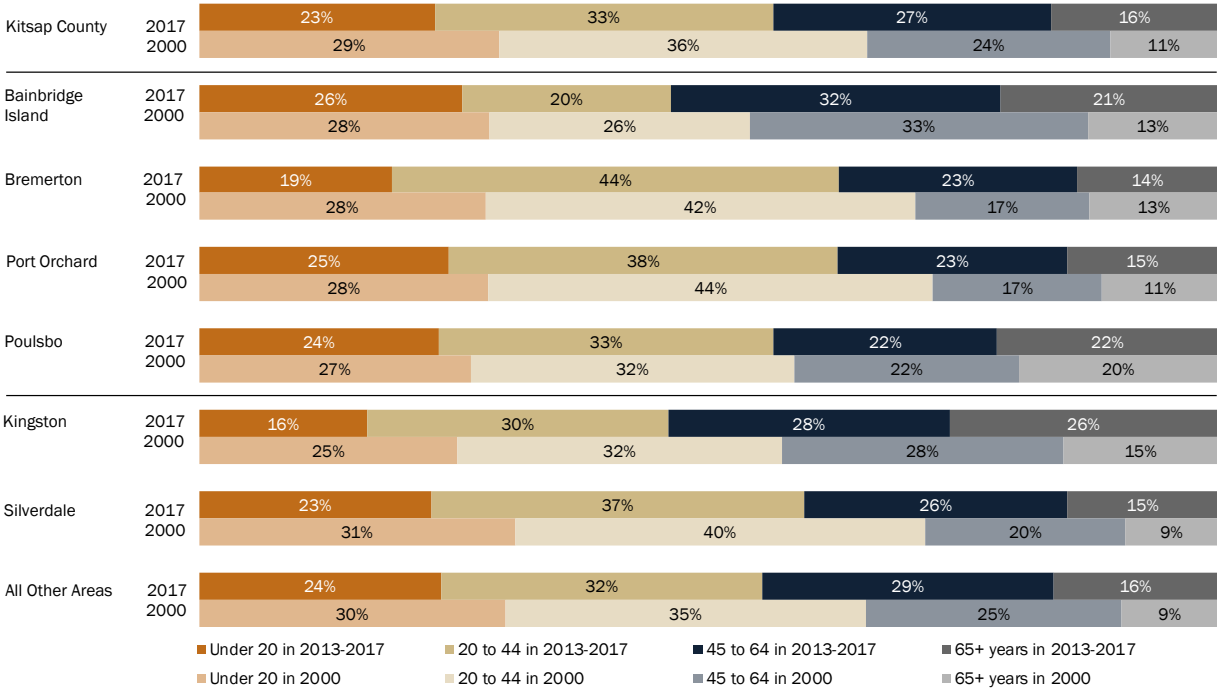
The number of adults in over 44 age group increased. Though the 20-44 age group still makes up the largest population in the county, the increase has been minimal.

Exhibit 16. Population Growth by Age, Kitsap County, 2000 and 2013-2017



Source: U.S. Census Bureau, 2000 Decennial Census Table P012 and 2013-2017 ACS Table DP05.

Exhibit 17. Share of Age Groups, Kitsap County and Selected Cities, 2000 and 2013-2017



Source: 2000 Decennial Census, Table P012 and American Community Survey, 2013-2017 5-Year Estimates, Table DP05.
 Notes: Data shown for Kitsap County are the entire county, inclusive of the other areas shown. Data are shown for the city boundaries of Bainbridge Island, Bremerton, Port Orchard, and Poulsbo, as well as the boundaries of the Kingston and Silverdale Census Designated Places. Data for the “All Other Areas” is equal to the Kitsap County total less the six cities shown and is a rough approximation for the remaining Unincorporated Kitsap County area.

This chart demonstrates each age group (orange: under 20, tan: 20 to 44, blue: 44 to 64, and grey: over 65) and compares each group’s share of the total population in 2000 (light bars) and in 2013-2017 (dark bars). In looking at Kitsap County as a whole, one can see that in the year 2000, about 11 percent of Kitsap County residents were over 65 years old (the light grey segment), but in the year 2017 this number increased to 16 percent (the dark grey segment). The chart demonstrates the following findings about the age breakdown of different areas:

- *Kitsap County as a whole, is aging.* Inclusive of the cities, Kitsap County’s share of residents over age 44 increased eight percentage points, from 35 percent in the year 2000 to 43 percent in the 2013-2017 period.
- *Bremerton’s population skews youngest.* In Bremerton the increase was seven percentage points, from 30 percent to 37 percent. Bremerton skews youngest of all the principle cities, with only 14 percent of residents over 64. However, between 2000 and 2013-2017, the share of Bremerton residents under age 20 fell from 28 percent to only 19 percent.
- *Bainbridge Island’s population skews oldest.* Bainbridge Island is the only jurisdiction where more than half of residents were over age 44 in 2013-2017. This increased from 46 percent in 2000 to 53 percent in 2013-2017.
- *Port Orchard’s population is aging faster than the county as a whole.* In Port Orchard, the share of residents over 44 increased ten percentage points, from 28 percent in 2000 to 38

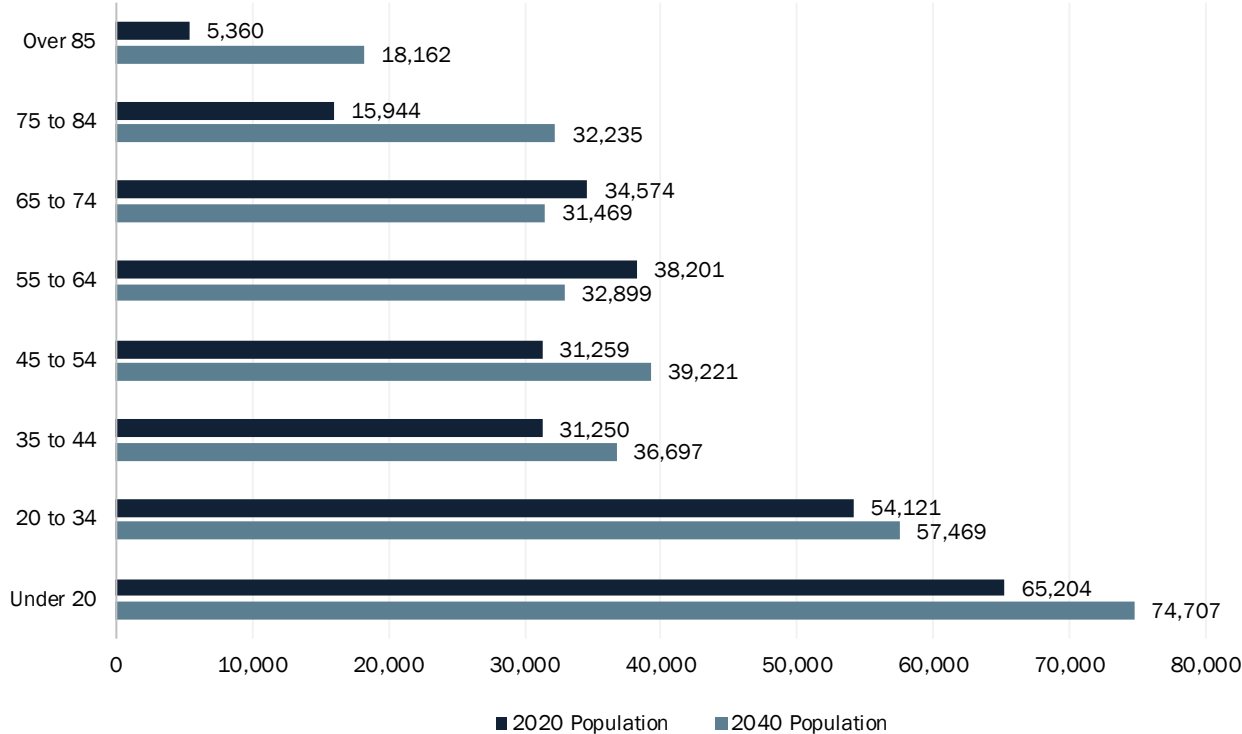
percent in 2013-2017. This is a bigger increase (10 percentage points) compared to the County as a whole (eight percentage points).

- *Kingston's population is aging the quickest relative to the County as a whole as well as its jurisdictions.* The share of residents 65 and older in Kingston grew by 11 percentage points, the largest increase relative to all comparators. Over this same timeframe, the share of residents younger than 20 years decreased by nine percentage points and those aged 20 to 44 decreased by two percentage points.
- *Poulsbo's population is evenly distributed across age groups.* In Poulsbo, the share of residents over age 44 increased two percentage points, from 42 percent to 44 percent. Poulsbo has an almost even distribution across these four age groups. Almost one in four residents in Poulsbo are over age 64.
- *Silverdale's population is aging quicker than the county as a whole.* In Silverdale the share of residents over age 45 years old increased by 12 percentage points, compared to an eight percentage point increase countywide. The share of Silverdale residents over 65 years of age increased from nine percent in 2000 to 15 percent in 2013-2017.

In Exhibit 18, population projections from the Washington State Office of Financial Management, indicates that from 2020 to 2040, Kitsap County as a whole will see the largest increases in the number of people over age 75. During this period, people over 85 years old will add the most individuals to the population, at over 12,000 people between 2020 and 2040.

Projections also indicate that 52 percent of population growth between 2020 and 2040 will be those aged 75 years and older. This is an increase of over 29,000 seniors. People aged 20 years and younger are projected to increase by over 9,500, but this age group remains the largest proportion of the whole population. The number of people between 55 and 69 is projected to decrease from 2020 to 2040, as well as their proportions.

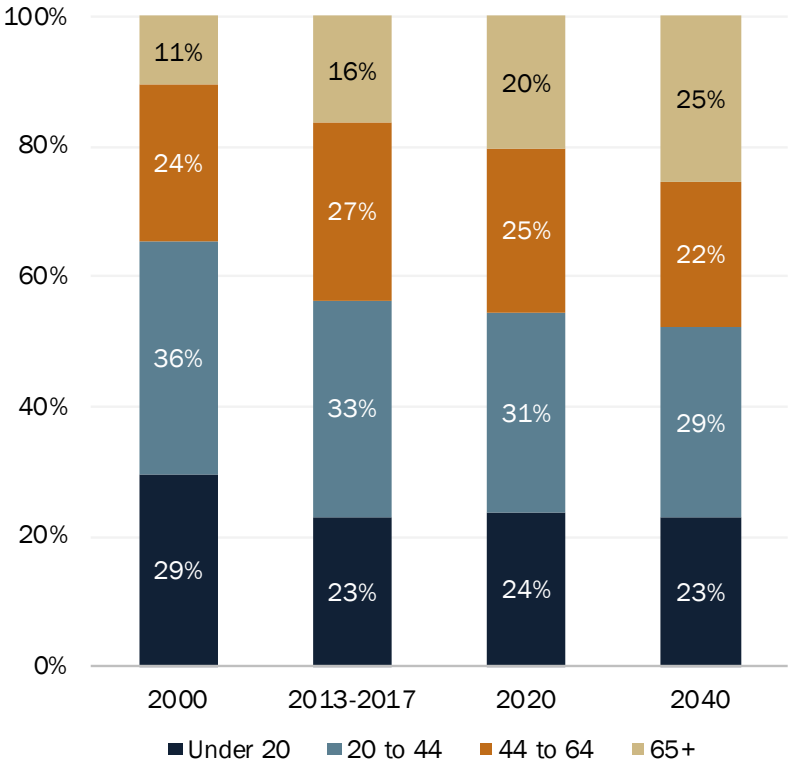
Exhibit 18. Kitsap County's Total Population Projection by Age Group, 2020 to 2040



Source: Washington State Office of Financial Management, Forecasting Division.

Exhibit 19 combines the data in Exhibit 17 and Exhibit 18 to demonstrate the changing demographic age makeup of Kitsap County from 2000 to 2040. According to the projections from the Washington Office of Financial Management, by 2040 almost 50 percent of Kitsap residents will either be under 20 years old or over 65 years old. These cohorts largely do not participate in the labor force, which could have profound effects on the economy.

Exhibit 19. Kitsap County's Aging Population, 2000 through 2040



Source: Washington State Office of Financial Management, Forecasting Division, 2000 Decennial Census, Table P012 and American Community Survey, 2013-2017 5-Year Estimates, Table DP05.

Increasingly, the Baby Boomer cohort has expressed interest in “aging in place” or staying in their existing housing as long as possible.²⁵ Historically, the process of older households moving into retirement homes or in with younger family members has freed up important housing stock for the next round of buyers. But according to Freddie Mac, this process is breaking down with the desire to age in place, causing delays and higher prices for younger generations looking to join the housing market.²⁶ Kitsap’s aging population looking to age in place, coupled with the increasing demand in the future, mean that greater numbers of housing units will likely be demanded in the future.

DIVERSITY

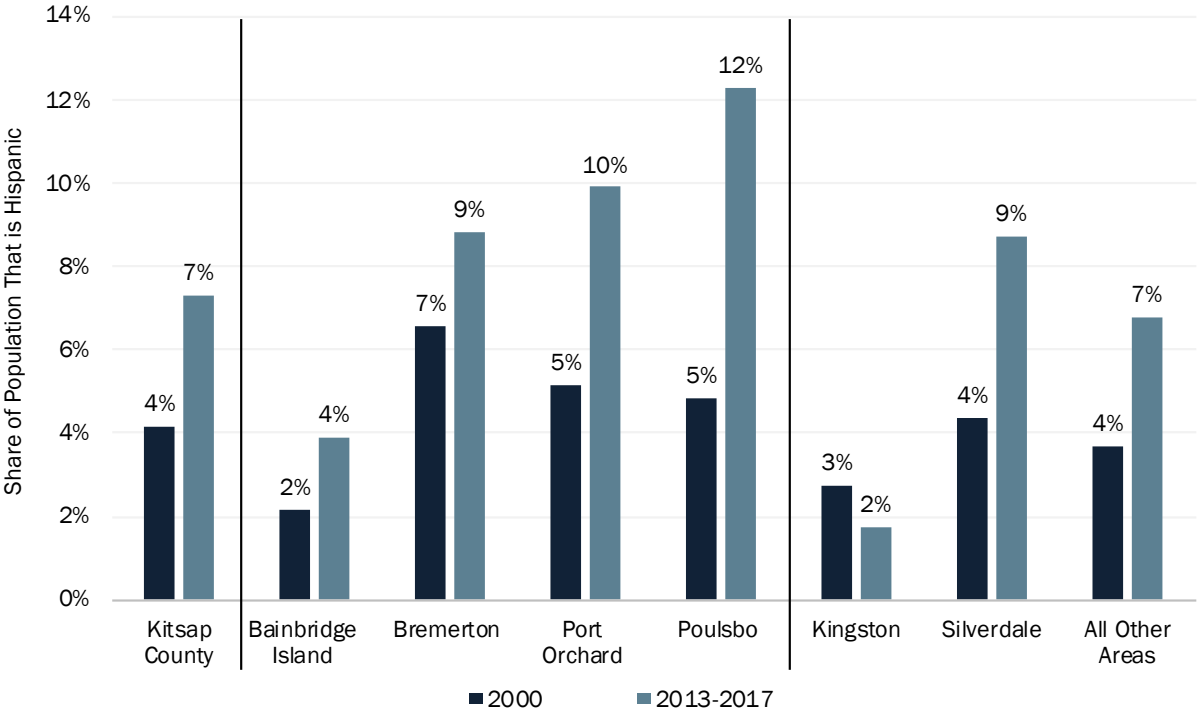
As a whole, Kitsap County is becoming more ethnically diverse. Exhibit 20 demonstrates that the Hispanic or Latinx population almost doubled from four percent of Kitsap County’s total population in 2000, to seven percent of the population in the 2013–2017 period. The population of Kitsap County is less ethnically diverse than Washington State, where 12 percent of the population is Hispanic/Latinx. Bremerton, Port Orchard, and Poulsbo are more ethnically diverse than the Kitsap County average, with the Hispanic/Latinx population making up nine

²⁵ AARP. 2018. “2018 Home and Community Preferences: A National Survey of Adults Age 18-Plus.” Available from: www.aarp.org/research/topics/community/info-2018/2018-home-community-preference.html

²⁶ Freddie Mac. 2019. “While Seniors Age in Place, Millennials Wait Longer and May Pay More for their First Homes.” Available from: www.freddiemac.com/research/insight/20190206_seniors_age_millennials_wait.page

percent, ten percent, and 12 percent of residents, respectively. Bainbridge Island has the lowest share of Hispanic/Latinx residents, although the proportion doubled across the 2000 to 2013-2017 period. Port Orchard’s Hispanic/Latinx population also doubled over the analysis period.

Exhibit 20. Hispanic or Latinx Population as a Percent of the Total Population, Kitsap County, and Census Designated Cities, 2000 and 2013–2017



Source: 2000 Decennial Census Table P008 and American Community Survey, 2013-2017 5-Year Estimates, Table DP05.
 Notes: Hispanic/Latinx and non-Hispanic/Latinx households are of any race. Data shown for Kitsap County are the entire county, inclusive of the other areas shown. Data are shown for the city boundaries of Bainbridge Island, Bremerton, Port Orchard, and Poulsbo, as well as the boundaries of the Kingston and Silverdale Census Designated Places. Data for the “All Other Areas” is equal to the Kitsap County total less the six cities shown and is a rough approximation for the remaining Unincorporated Kitsap County area.

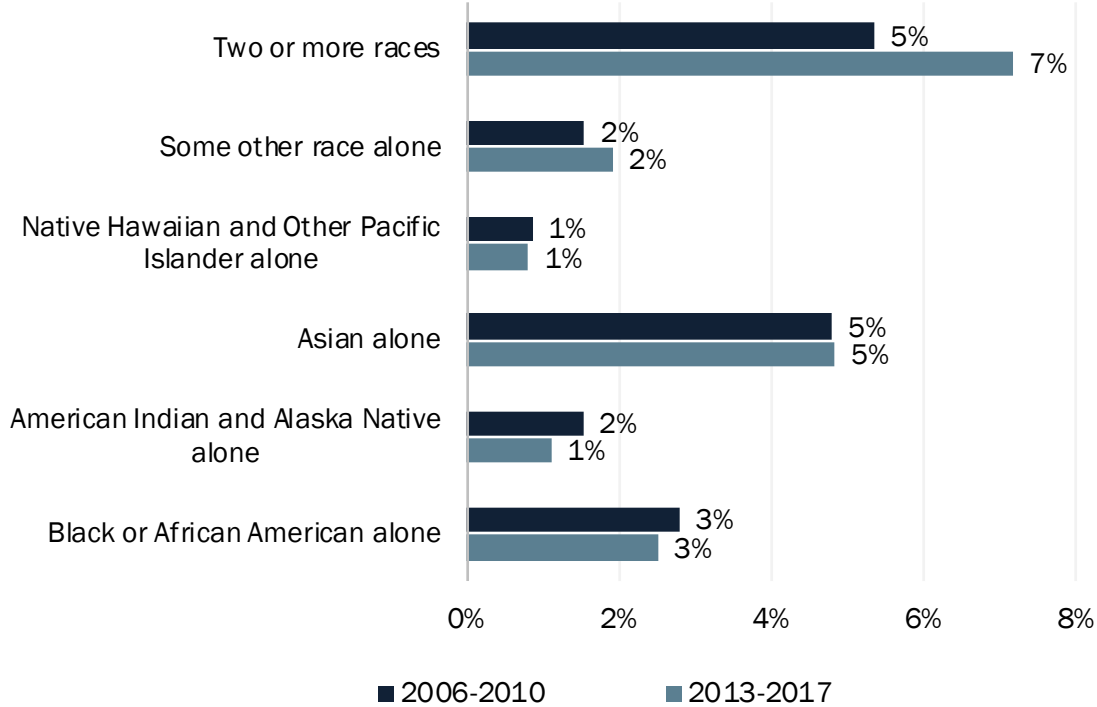
According to the 2017 Current Population Survey (CPS), households that are Hispanic/Latinx are generally larger in size than non-Hispanic/Latinx families. Across the entire U.S. population, 2017 household sizes varied:

- Hispanic households of any race averaged 3.25 people,
- Non-Hispanic Asian households averaged 2.91 people,
- Non-Hispanic households of all other races averaged 2.70 people,
- Non-Hispanic Black households averaged 2.47 people, and
- Non-Hispanic White households averaged 2.37 people.

The racial mix of Kitsap County residents have also diversified over the 2006-2010 to 2013-2017 period. As shown in Exhibit 21, those who reported being two or more races grew the most relative to all other racial groups, from five percent in 2006-2010 to seven percent in 2013-2017. Other racial groups that increased in proportion over this period include those who reported

being some other race as well as those who reported being Asian alone. White alone individuals are not included in Exhibit 21 as their population share makes it difficult to see the changes in other racial groups. The size of this group is detailed in the note beneath the exhibit.

Exhibit 21. Changes in Race, Kitsap County, 2006-2010 and 2013-2017



Source: U.S. Census Bureau, 2006-2010 ACS 5-Year Estimates, Table B02001, and 2013-2017 ACS 5-Year Estimates, Table B02001. Notes: For the 2006-2010 period, the White alone population in Kitsap County was 83 percent; during the 2013-2017 period, it was 82 percent. The bars for the White alone group are excluded from the exhibit as it makes it difficult to see the change in other racial groups.

Another important influence that Kitsap’s increasing diversity may have on its housing stock relates to homeownership. On average, non-white households have lower homeownership rates than non-Hispanic white households.²⁷ Given that the majority of Kitsap’s housing stock is single-family ownership, housing is rising in value due to seniors aging in place, there is a lack of development, and there is continued rising demand, this could become a bigger mismatch in the available housing and the ability to own or rent that housing.

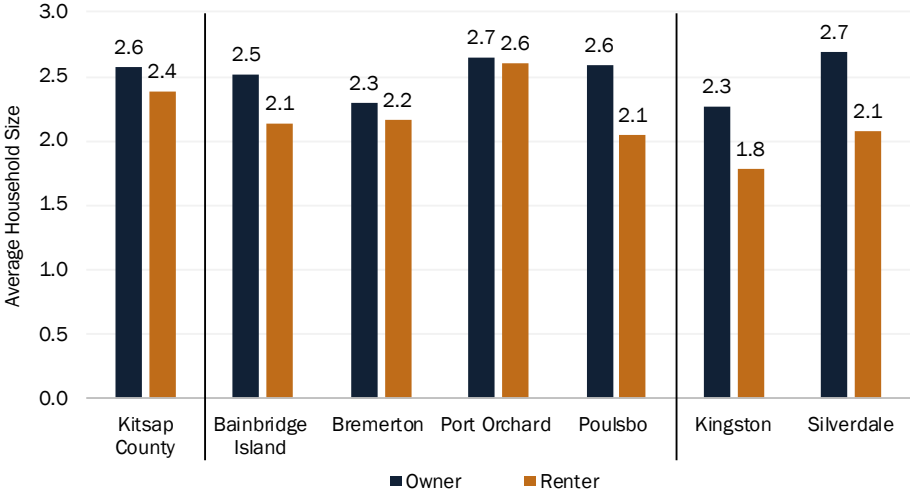
²⁷ Urban Institute. 2019. “Mapping the Hispanic Homeownership Gap.” Available from: www.urban.org/urban-wire/mapping-hispanic-homeownership-gap

HOUSEHOLD FORMATION

Exhibit 22 displays the average household size of renter- and owner-occupied households across Kitsap County and its Census designated cities during the 2013-2017 period. Renter-occupied households in Kitsap County and its cities tend to have fewer occupants than owner-occupied households. While this trend is consistent with national household sizes, both owner-occupied and renter-occupied households in Kitsap County as a whole are smaller than the U.S. average (which is 2.70 people in owner-occupied households on average, and 2.52 in renter-occupied households). Port Orchard differs from other cities in that the average household size between renters and owners is approximately the same. Renter-occupied households in Port Orchard are larger than the national average.

The average size of owner-occupied households varies little across Kitsap County.
 Renter households are smaller than owner-occupied households countywide.

Exhibit 22. Average Household Size of Owner and Renter-Occupied Units, Kitsap County and Selected Cities, 2013-2017



Source: ACS 2013-2017 5-Year Estimates, Table DP04.
 Notes: Data are shown for the city boundaries of Bainbridge Island, Bremerton, Port Orchard, and Poulsbo, as well as the boundaries of the Kingston and Silverdale Census Designated Places.

The following exhibits demonstrate that Kitsap County households are becoming smaller and that larger households are more concentrated in a few cities.

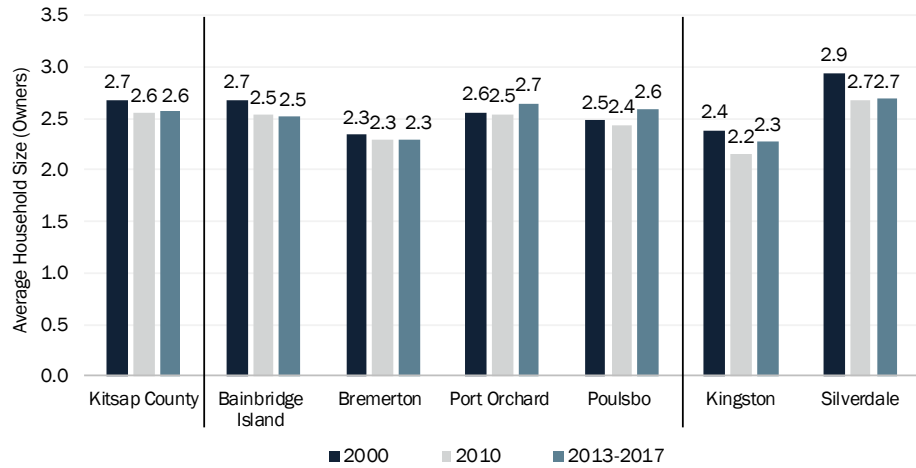
Exhibit 23 below shows the average household size of owner-occupied households for Kitsap County and its Census designated cities. The County’s average owner-occupied household size shrunk from 2.7 in the year the 2000 (dark blue bar) to 2.6 in 2013-2017 (teal bar). Different cities saw different changes over time:

- Bainbridge Island’s average owner-occupied household size shrank.
- Bremerton’s, Kingston’s and Silverdale’s average household sizes fell for owner-occupied households.
- Port Orchard’s and Poulsbo’s average household size increased for owner-occupied households.

Kitsap County's average owner-occupied household size is similar among selected cities.

Bremerton has a slightly smaller average household size.

Exhibit 23. Average Household Size Owner-Occupied Units, Kitsap County and Selected Cities, 2000, 2010, and 2013-2017



Source: 2000 Decennial Census Table H012, 2010 Decennial Census Table H12, and ACS 2013-2017 5-Year Estimates, Table DP04.

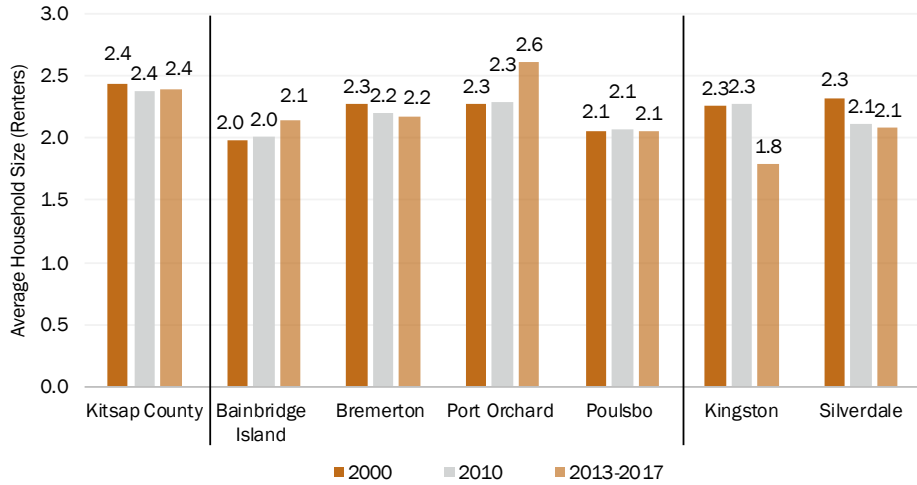
Notes: Data are shown for the city boundaries of Bainbridge Island, Bremerton, Port Orchard, and Poulsbo, as well as the boundaries of the Kingston and Silverdale Census Designated Places.

Exhibit 24 below shows the average household size of renter-occupied households for Kitsap County and its Census designated cities. The average renter-occupied household size for the whole County shrunk from 2.44 (dark orange bar) in the year 2000, to 2.39 (light orange bar) in 2013-2107. Different cities saw different changes over time:

- Bainbridge Island's renter-occupied households increased in size slightly.
- Bremerton's, Kingston's and Silverdale's average household sizes fell for renter-occupied households.
- Port Orchard's average household size increased for renter-occupied households.
- Poulsbo's average renter-occupied household size remained steady.

Kitsap County's average renter-household size is on par with other selected cities.

Exhibit 24. Average Household Size Renter-Occupied Units, Kitsap County and Selected Cities, 2000, 2010, and 2013-2017

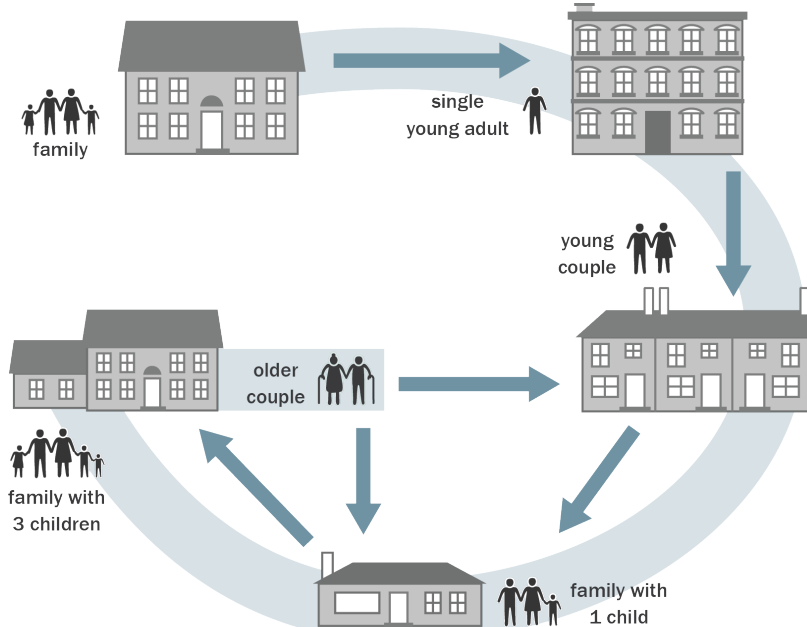


Source: 2000 Decennial Census Table H012, 2010 Decennial Census Table H12, and ACS 2013-2017 5-Year Estimates, Table DP04.

Notes: Data are shown for the city boundaries of Bainbridge Island, Bremerton, Port Orchard, and Poulsbo, as well as the boundaries of the Kingston and Silverdale Census Designated Places.

Housing needs change based on household size and life stage. Exhibit 25 demonstrates how housing needs change as people go through different life stages as the household size changes. The second and third steps represent when a young couple might search for more space, when roommates form separate households, or when a young family seeks more bedrooms and outdoor space. As described in the next section, many renters looking to buy houses in Kitsap County are being priced out.

Exhibit 25. Effect of Demographic Changes on Housing Need

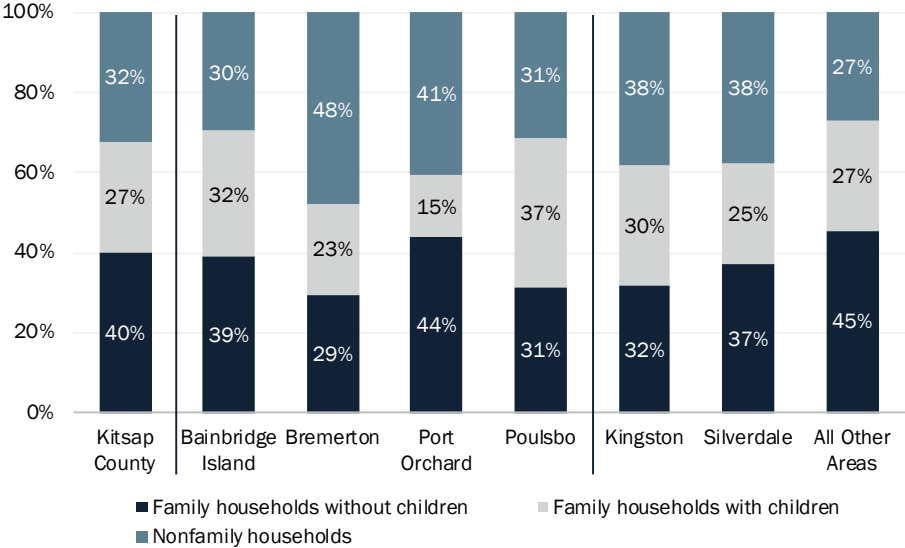


Source: ECONorthwest, adapted from Clark, William A.V. and Frans M. Dieleman. 1996. Households and Housing. New Brunswick, NJ: Center for Urban Policy Research.

Exhibit 26 below displays the current household composition of households across Kitsap County and in its Census designated cities. The fact that only 27 percent of all Kitsap County households have children is likely influenced by its large share of older adults, and by the heavy influence of shipyard or military workers, who may disproportionately be living in non-family households, such as with roommates.

Forty percent of households in Kitsap County are family households without children.

Exhibit 26. Household Composition, Kitsap County and Selected Cities, 2013-2017



Source: 2013-2017 ACS Table DP02.
 Notes: Data are shown for the city boundaries of Bainbridge Island, Bremerton, Port Orchard, and Poulsbo, as well as the boundaries of the Kingston and Silverdale Census Designated Places. Data for the “All Other Areas” is equal to the Kitsap County total less the six cities shown and is a rough approximation for the remaining Unincorporated Kitsap County area.

Exhibit 28 also shows some interesting findings about the different cities in Kitsap County.

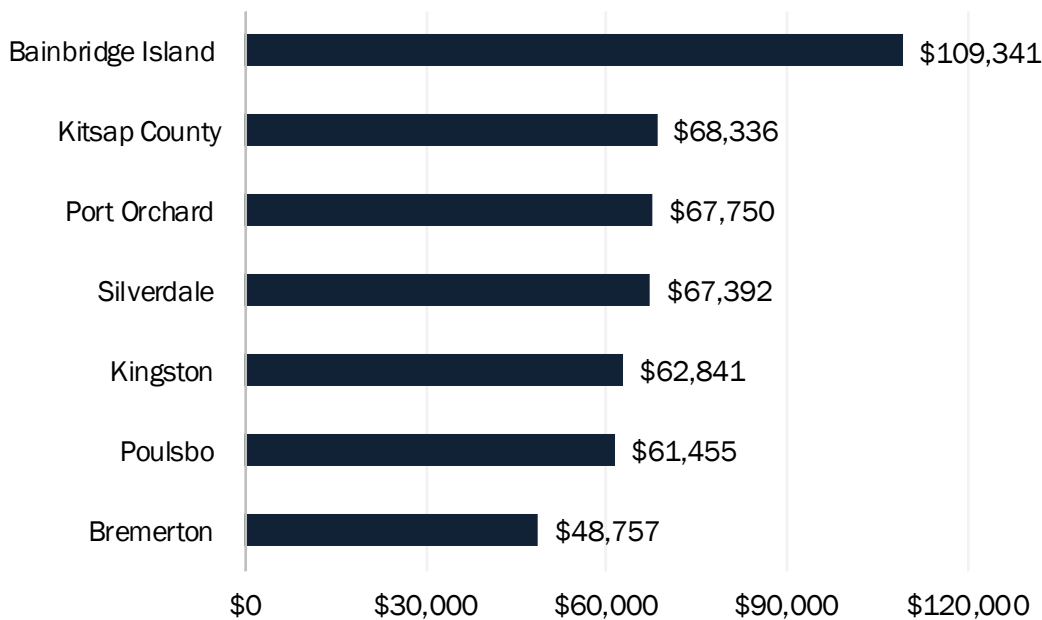
- Poulsbo currently has the greatest share of households that are families with children – about 37 percent of all households. This is evidenced by the fact that Port Orchard had the highest average household sizes for both owner-occupied and renter-occupied households. This also aligns with a key finding from the Housing Inventory memorandum that Port Orchard has been building a large share of all of the new housing in Kitsap County in recent years. Clearly, this new housing is helping to attract households with children.
- Bremerton has the largest share of nonfamily households at 48 percent. This aligns with a key finding in the Housing Inventory memorandum that Bremerton has the most multifamily housing and the highest share of renter households. It is fitting that Bremerton’s housing stock and population align. Multifamily housing is an important piece of any area’s housing stock and will continue to grow in importance as demographic and living preferences change. This could likely be due to the high presence of military-sector workers who rent housing and have roommates.

- Bainbridge Island has almost an even one-third split between non-family households, family households with children, and households without children. That households without children is higher than the other groups speaks to Bainbridge’s higher average age (48 - see Exhibit 15). Perhaps these households are empty-nesters.
- Poulsbo and the “all other areas” across the county have similar household compositions as Bremerton’s. These areas are close to the other military bases (Bangor Naval Submarine Base and Keyport Base).

INCOME

Income is another key determinant in housing choice, as a households’ ability to afford housing largely dictates where the household will live, the type of house it can afford (size, number of bedrooms), the quality of the housing, and homeownership opportunities. Exhibit 27 displays the median household incomes in Kitsap County and select cities in the 2013-2017 timeframe. Across the county, the median income is just over \$68,300 and ranges from about \$49,000 in Bremerton to \$109,000 on Bainbridge Island.

Exhibit 27. Median Household Income, Kitsap County and Selected Cities, 2013-2017

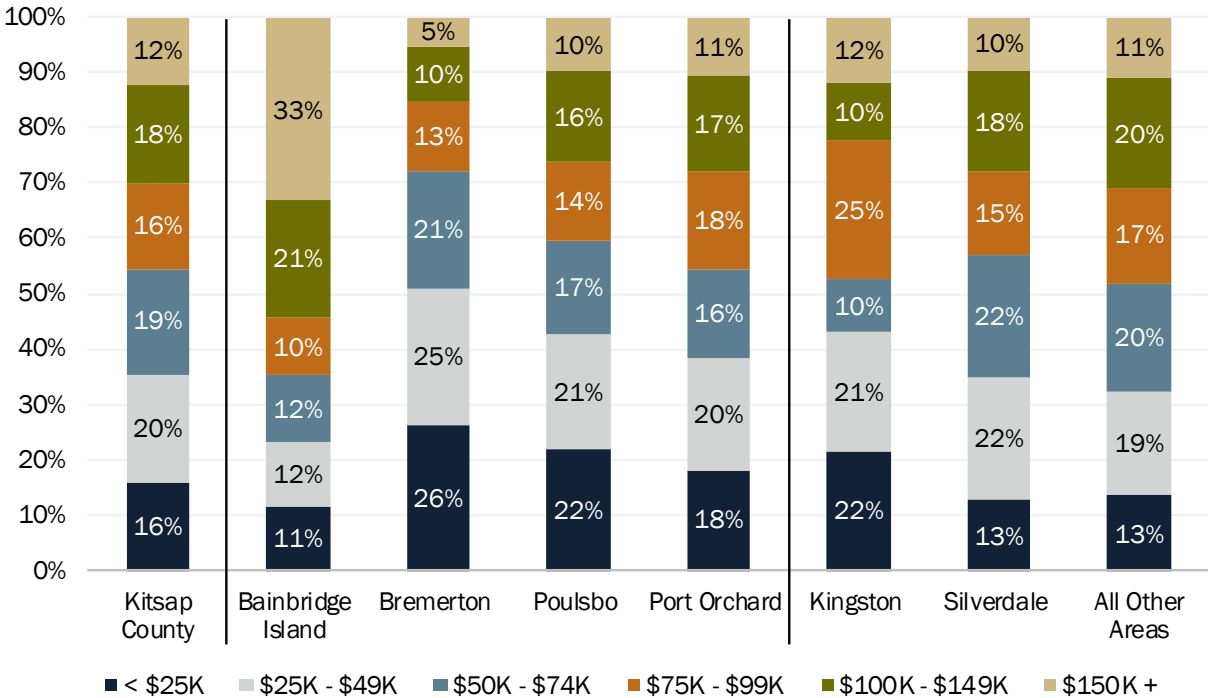


Source: American Community Survey, 2013-2017 5-Year Estimates, Table B02511.
 Notes: Data shown for Kitsap County are the entire county, inclusive of the other areas shown. Data shown for Bainbridge Island, Bremerton, Port Orchard, Poulsbo, Kingston, and Silverdale are for the Census Designated Place (City) boundaries.

Exhibit 28 demonstrates the income distribution in Kitsap County and its Census designated cities as of the 2013-2017 time period. In this point-in-time, about 36 percent of all Kitsap County households made less than \$50,000 per year, compared with 41 percent of households in Washington State. The county has a higher portion of households with an income over \$150,000 than does Washington State with almost 12 percent compared to eight percent, respectively.

Kitsap County’s higher income residents (and growth in this population bracket) skew its median income, which has consequences for programs relating to affordable housing and anti-poverty efforts.

Exhibit 28. Share of Households by Income in Kitsap County and Cities, 2013-2017



Source: American Community Survey, 2013-2017 5-Year Estimates, Table B19001.
 Notes: Data are shown for the city boundaries of Bainbridge Island, Bremerton, Port Orchard, and Poulsbo, as well as the boundaries of the Kingston and Silverdale Census Designated Places. Data for the “All Other Areas” is equal to the Kitsap County total less the six cities shown and is a rough approximation for the remaining Unincorporated Kitsap County area.

Of the cities evaluated, Bainbridge Island has the highest share of households earning more than \$150,000 (33 percent) while Bremerton has the highest share of households earning less than \$25,000 (26 percent). More than 50 percent of Bremerton households earned less than \$50,000 in the 2013-2017 time period compared to only 23 percent on Bainbridge Island.

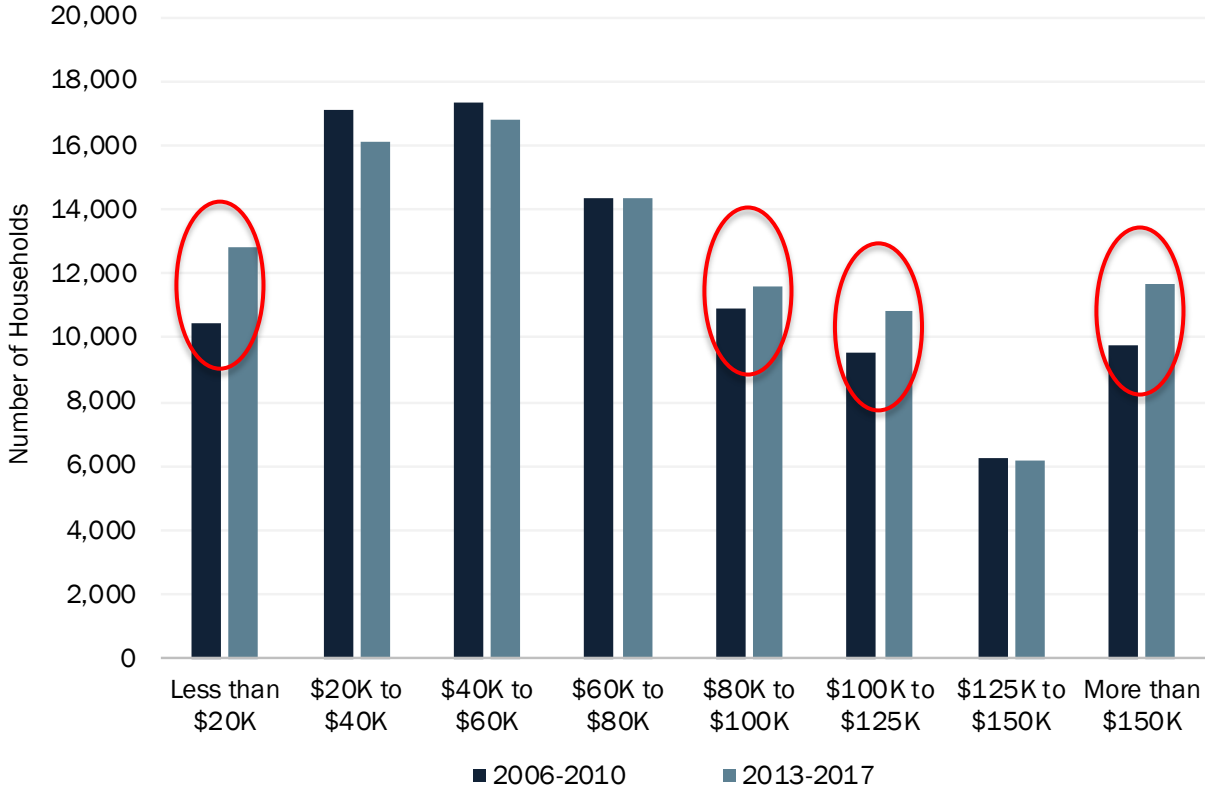
While there is substantial variation in the distributions of incomes in these geographies, we also look at changing incomes over time. From 2006-2010 to 2013-2017 the entirety of Kitsap County gained about 4,700 households (an increase of five percent). Exhibit 29 below shows this growth by different income brackets. This exhibit shows the number of households in each income bracket in the 2006-2010 (dark blue) and 2013-2017 (light blue) time periods. To compare incomes over time, we used the Bureau of Labor Statistics’ calculations of inflation to adjust the income brackets in each year.²⁸

As the exhibit demonstrates, the County as a whole appears to be gaining households at the lowest income levels and at the highest income levels over time. The number of households with incomes below \$20,000 grew by 23 percent from 10,450 households in 2010 to 12,850 households in 2017, while the number of households with incomes greater than \$80,000 grew by

²⁸ According to the Bureau of Labor Statistics’ inflation calculator, inflation from June 2010 to June 2017 was 1.12.

ten percent from 36,500 in 2010 to 40,300 in 2017. The number of households with incomes between \$20,000 to \$80,000 shrank by about three percent over this time period.

Exhibit 29. Change in Household Incomes, Kitsap County, 2006-2010 and 2013-2017



Source: 2006-2010 and 2013-2017 ACS Public Use Micro Sample (PUMS) Data.

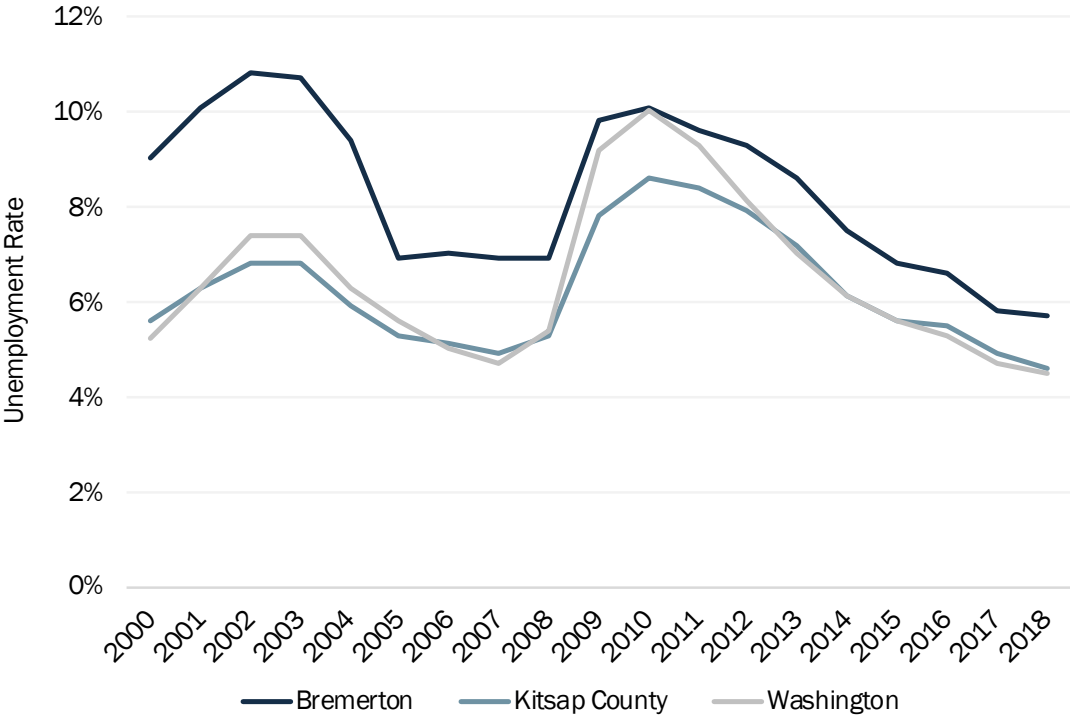
Kitsap County Economic Trends

Economic trends are another major driver of housing demand. A strong local economy can drive competition for labor as employers hire and expand, increase competition for land as offices and retail markets grow, and increase demand for housing as wages grow and disposable incomes rise. Kitsap County is undoubtedly influenced by the strong economy across the entire Puget Sound.

Employment Growth

Since 2000, Bremerton’s unemployment rate has remained consistently above the entire County’s rate, though in recent years the gap has closed. In 2018, Bremerton’s unemployment rate was 5.7 percent. Comparatively, unemployment across the whole County (including Bremerton) was 4.6 percent, and 4.5 percent in Washington (including Kitsap and Bremerton).

Exhibit 30. Unemployment Rate, Washington State, Kitsap County, City of Bremerton



Source: Bureau of Labor Statistics, Local Area Unemployment Statistics.

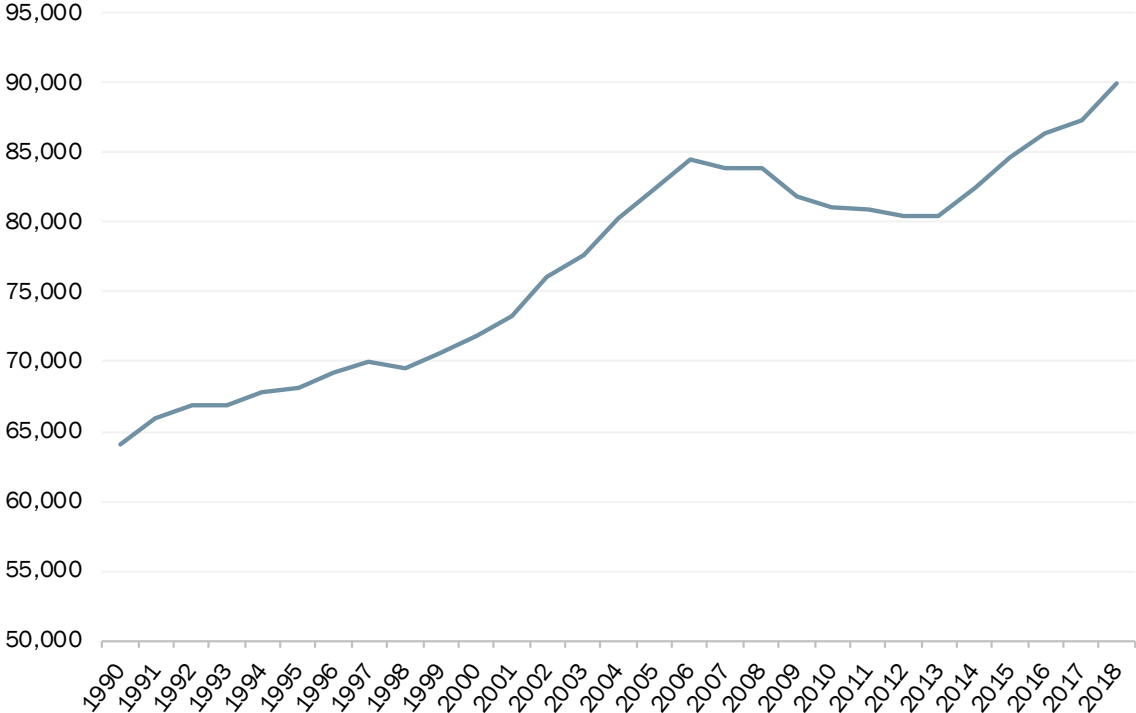
Job Growth

According to the Quarterly Census of Employment and Wages from the Bureau of Labor Statistics, there were nearly 90,000 covered jobs across Kitsap County in 2018 (the latest available for all sectors). Covered employment is a job that is covered by State Unemployment Insurance laws or Unemployment Compensation for Federal Employees (UCFE).²⁹

Exhibit 31 displays the growth in total covered employment since 1990. Covered employment for the entire County has been growing steadily over time. It grew more than 10 percent from 1990 to 1999, just over 14 percent from 2000 to 2009, and about 11 percent from 2010 to 2018. The exhibit displays the steady employment increase leading up to the Great Recession, some job loss through about 2013, and the recent growth post-2013. In 2015, total jobs throughout the County exceeded the pre-recession peak (which occurred in 2006) and by 2018 total jobs in the County were at their highest in these past three decades.

²⁹ It’s important to note that the QCEW does not account for every job in a given region. Examples of jobs not accounted for in QCEW include proprietors, self-employed workers, the majority of agricultural workers on small farms, railroad employees, unpaid family workers, some domestic workers, and some state and local government workers.

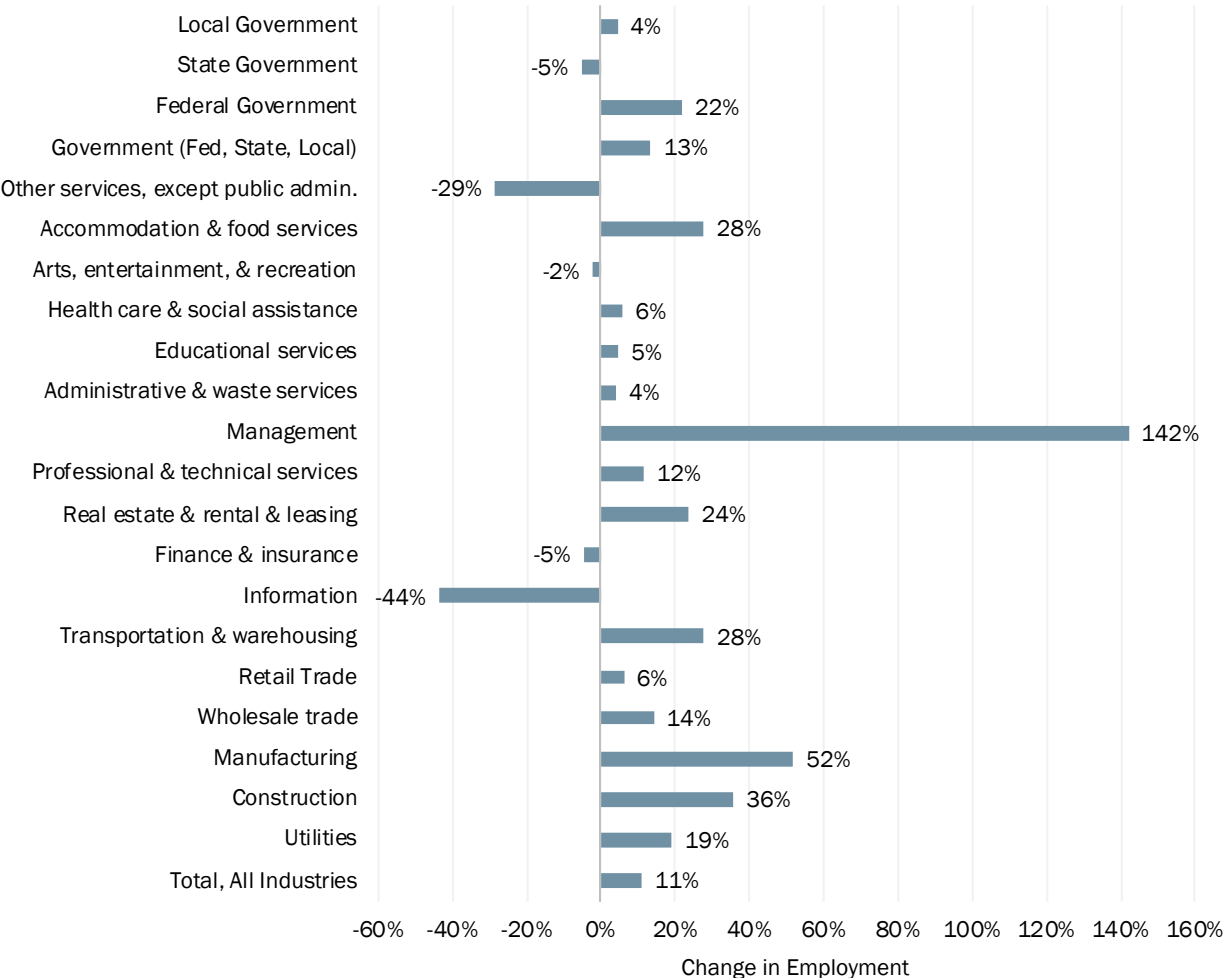
Exhibit 31. Total Covered Employment, Throughout Kitsap County, 1990 – 2018



Source: Bureau of Labor Statistics' Quarterly Census of Employment and Wages, 1990-2018.

Of course, this growth differs by sector. Exhibit 32 below displays this change in employment by sector (excluding sectors with zero jobs) from 2010 to 2018. As the exhibit demonstrates, the entire County has seen wide variation in job growth by sector. The 2010 to 2018 timeframe is the U.S.'s longest running expansion in modern history and Kitsap has seen strong job growth in line with national trends.

Exhibit 32. Change in Covered Employment by Sector, Kitsap County, 2010-2018

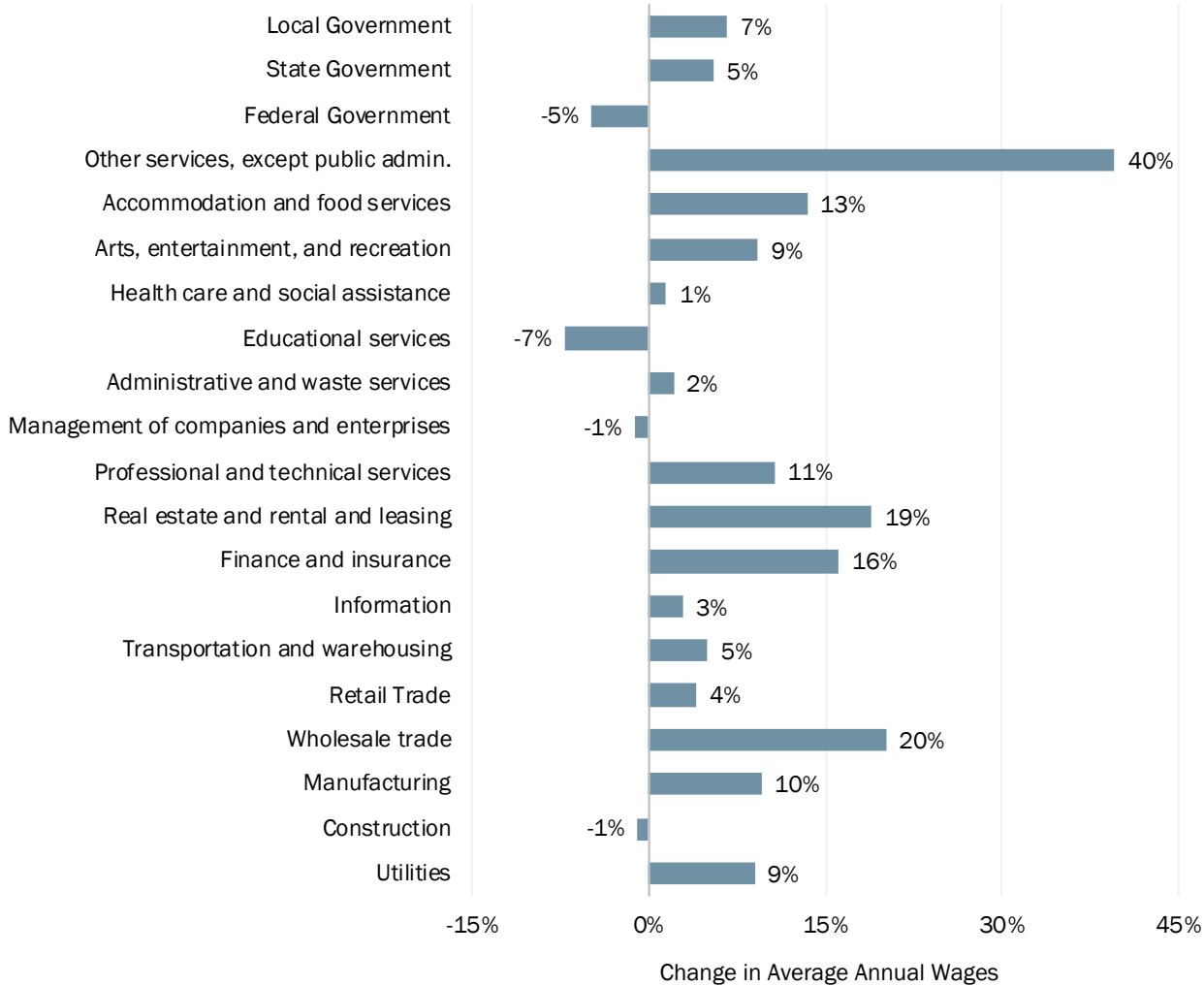


Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2010 and 2018.

- The top five gaining sectors are management (142 percent growth), manufacturing (52 percent growth), construction (36 percent growth), transportation and warehousing (28 percent growth), and food service jobs (28 percent growth).
- Only five sectors saw declines in covered employment, including information jobs (44 percent decline), other service jobs (29 percent decline), state government jobs (5 percent decline), finance/insurance jobs (5 percent decline), and arts/entertainment jobs (2 percent decline).

There are clear implications for housing demand as it relates to the growth of different employment sectors. Of the top five growing sectors, most are relatively well-paying jobs, with the exception of accommodation and food service jobs. Jobs in the management sector had an average annual pay of \$90,130 in 2018, while the average pay for the manufacturing sector was \$53,340, construction was \$53,300, transportation/warehousing was \$38,430, and the food service sector was \$19,680. Exhibit 33 below displays the inflation-adjusted average annual pay growth in each of these sectors since 2010.

Exhibit 33. Average Annual Wage Growth by Sector, Kitsap County, 2010-2018



Source: Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2010 and 2018.
 Note: Before calculating the change in average annual pay, we used the Bureau of Labor Statistics' Consumer Price Index (U.S. city average) to adjust 2010 dollars to 2018 dollars.

The inflation-adjusted average annual pay in all but four sectors in the County increased over the 2010 to 2018 period.³⁰ Jobs in the “other services” category saw the biggest increase of almost 40 percent, followed by wholesale trading with 20 percent wage growth and real estate/rental/leasing with 19 percent wage growth.

Largest Employers

Naval Base Kitsap, located throughout the county, is the largest employer in Kitsap County. When only looking at the top ten largest employers, Naval Base Kitsap accounts for 74 percent of all employees. As Exhibit 34 demonstrates, Naval Base Kitsap has 13.5 times more employees

³⁰ To make accurate wage comparisons across time, we adjusted Kitsap County’s annual average wages in 2000 for inflation via the Bureau of Labor Statistics’ Consumer Price Index (CPI).

than the next largest employer, Harrison Medical Center. Among the top ten employers, only three are private organizations.

Exhibit 34. Top Ten Employers in Kitsap County

Employers	Categories	Total
Naval Base Kitsap	Public	33,800
Harrison Medical Center	Private	2,500
Washington State	Public	2,000
Central Kitsap School District	Public	1,550
North Kitsap School District	Public	1,200
South Kitsap School District	Public	1,150
Kitsap County	Public	1,140
Port Madison Enterprises	Private	925
Bremerton School District	Public	750
Haselwood Auto Group	Private	710

Source: Kitsap Economic Development Alliance.

Exhibit 35 displays the top ten for both public and private employers across the County. Half of the top ten private employers are in the healthcare industry, which is followed by the retail industry and includes three grocery store chains and an auto dealership. The public employers fall into four major categories: military, school districts, public sector, and county services.

Exhibit 35. Top Ten Private and Public Employers

Private Employers	Categories	Total	Public Employers	Categories	Total
Harrison Medical Center	Healthcare	2,500	Naval Base Kitsap (NBK)	Department of Defense	23,903*
Port Madison Enterprises	Hospitality	925	Washington State	(other) Public	2,000
Haselwood Auto Group	Retail	710	Central Kitsap School District	School Districts	1,550
Fred Meyer	Retail	584	North Kitsap School District	School Districts	1,200
Kitsap Mental Health Services	Healthcare	489	South Kitsap School District	School Districts	1,150
Martha and Mary	Healthcare	477	Kitsap County	County Services	1,140
Town & Country Markets	Retail	472	Bremerton School District	School Districts	750
YMCA	Family Services	435	Bainbridge Island School District	School Districts	629
Safeway	Retail	434	Kitsap Transit	County Services	432
The Doctors Clinic	Healthcare	424	Olympic College	School Districts	384

Source: Kitsap Economic Development Alliance and US Department of Defense, *Defense Spending by State*, Fiscal Year 2017. *Note: We use the Department of Defense’s estimate of total employees in Kitsap County instead of the Kitsap Economic Development Alliance’s figure here. Data from the Department of Defense are close to that from Bureau of Labor Statistics and are reliable sources.

Average annual pay (in 2018) and recent pay change (2010-2018 inflation-adjusted) in the industries with the most employers across Kitsap County are:

-
- Healthcare and Social Assistance: \$44,580 average annual pay; one percent growth
 - Retail: \$32,233 average annual pay; four percent growth
 - Local Government: \$53,230 average annual pay; seven percent growth
 - Federal Government: \$82,056 average annual pay; five percent decrease
 - Education: \$31,034 average annual pay; seven percent decrease

Kitsap's Military Presence

The presence of Naval Base Kitsap has a significant influence on the local economy and housing need. The Naval Base employs about 24,000 people, 19 percent of which are in active duty.

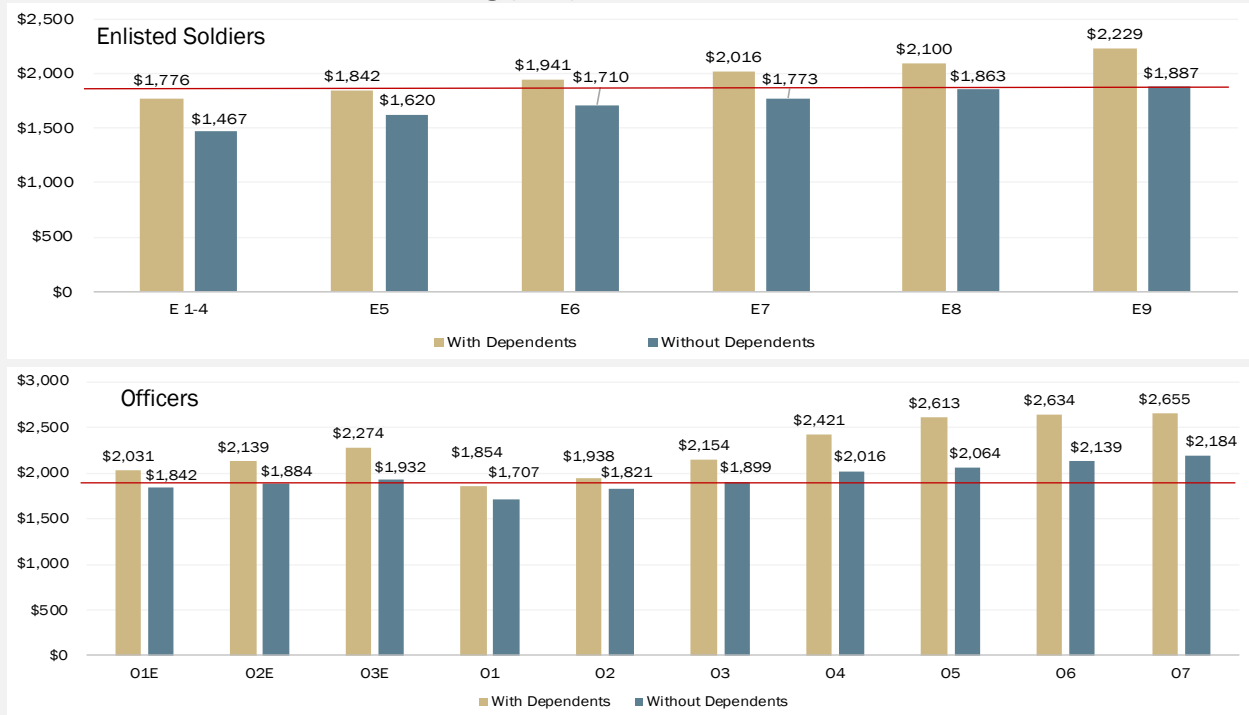
The military provides active duty soldiers and officers a Basic Allowance for Housing (BAH) for rent or a home purchase off base. These allowances are shown by rank and position in Exhibit 37. The red line is the 2019 median rent in Kitsap County. The BAH for most officers exceeds the median rent, and most enlisted soldiers with dependents have a BAH that on par with the median rent.

Exhibit 36. Top U.S. DOD Contractors in Washington State

Company	Contract
Boeing	\$8.0B
PacMed Clinics	\$150M
TrailStone Group	\$90M
Chugach Alaska Corp.	\$70M
Walsh Group	\$60M
General Dynamics	\$42M
Rore	\$38M
Nova Group	\$38M
Pacific Ship Repair & Fabrication	\$37M

Source: US Department of Defense, *Defense Spending by State*, Fiscal Year 2017

Exhibit 37. Basic Allowance for Housing (BAH) Rates, 2019



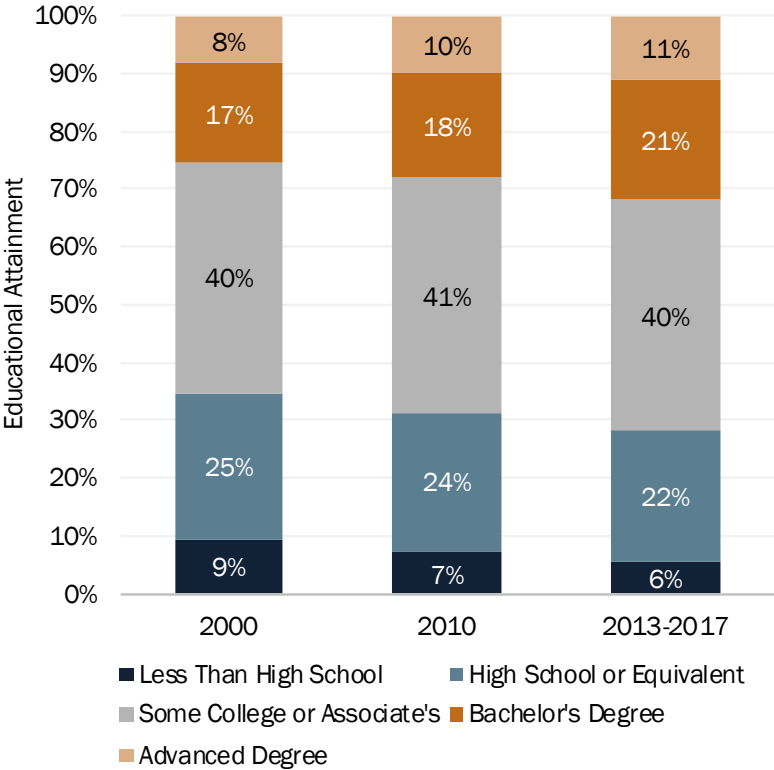
Source: NB Kitsap-Bangor, WA Housing & Relocation Information; Zillow 2019 Rent Index

Naval Base Kitsap is a port for Navy aircraft carriers – some of which can house up to 4,500 people. Due to military secrecy, the schedules for docking aircraft carriers at ports around the country are not published in advance. As Exhibit 37 demonstrates, certain ranks of enlisted soldiers and officers have basic housing allowances that exceed the median gross rent in Kitsap County. The sudden arrival of thousands of military personnel and their families with higher-than-market housing allowances can dramatically skew the housing markets of local cities.

Educational Attainment

Across Kitsap County, residents have become more educated since 2000. Exhibit 38 shows the change in educational attainment from 2000 to the 2013-2017 period across the County. During this time, the share of residents with only a high school degree decreased by three percentage points, from 25 percent in 2000 to 22 percent in 2013-2017. At the same time, the share of Kitsap County residents holding a Bachelor’s degree increased from 17 percent in 2000 to 21 percent in 2013-2017, a four percentage point growth. In 2000, the share of residents with a high school diploma or less exceeded that of residents holding at least a Bachelor’s degree (35 percent compared to 25 percent). However, in the 2013-2017 period, this share shifted. Approximately 32 percent of County residents held at least a Bachelor’s degree and 28 percent held a high school diploma or had less education.

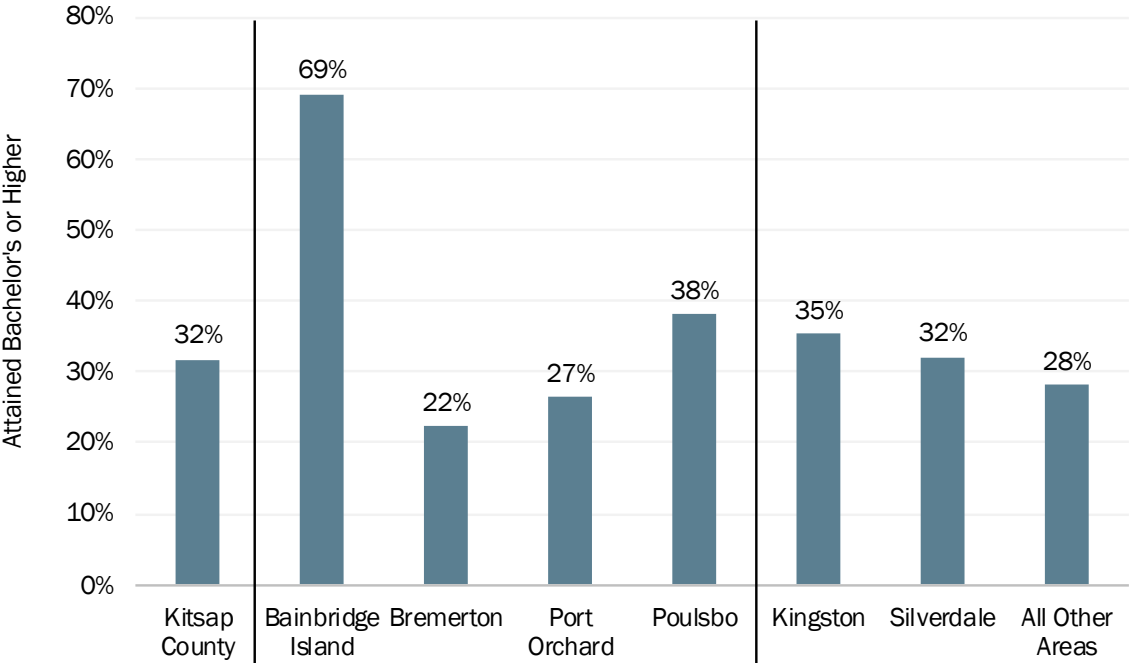
Exhibit 38. Change in Educational Attainment, Kitsap County, 2000, 2010, and 2013-2017



Source: U.S. Census Bureau, 2000 Decennial Census Summary File 3, Table DP-2; American Community Survey 2006-2010 5-Year Estimates, Table DP02; and American Community Survey 2013-2017 5-Year Estimates, Table S1501.

Of the jurisdictions analyzed in Kitsap County, Bainbridge Island residents had the highest share of Bachelor’s or advanced education in 2013-2017. Exhibit 39 shows that Bainbridge Island exceeded Kitsap County’s share of educated residents by more than double. Of the other principle jurisdictions, Poulsbo has the second highest share of educational attainment (38 percent), followed by Port Orchard (27 percent), and then Bremerton (22 percent). In unincorporated Kitsap County, both Kingston and Silverdale have educational attainment rates similar to that of the County as a whole.

Exhibit 39. Share of Residents 25 Years or Older Holding a Bachelor’s Degree or Higher, 2013-2017



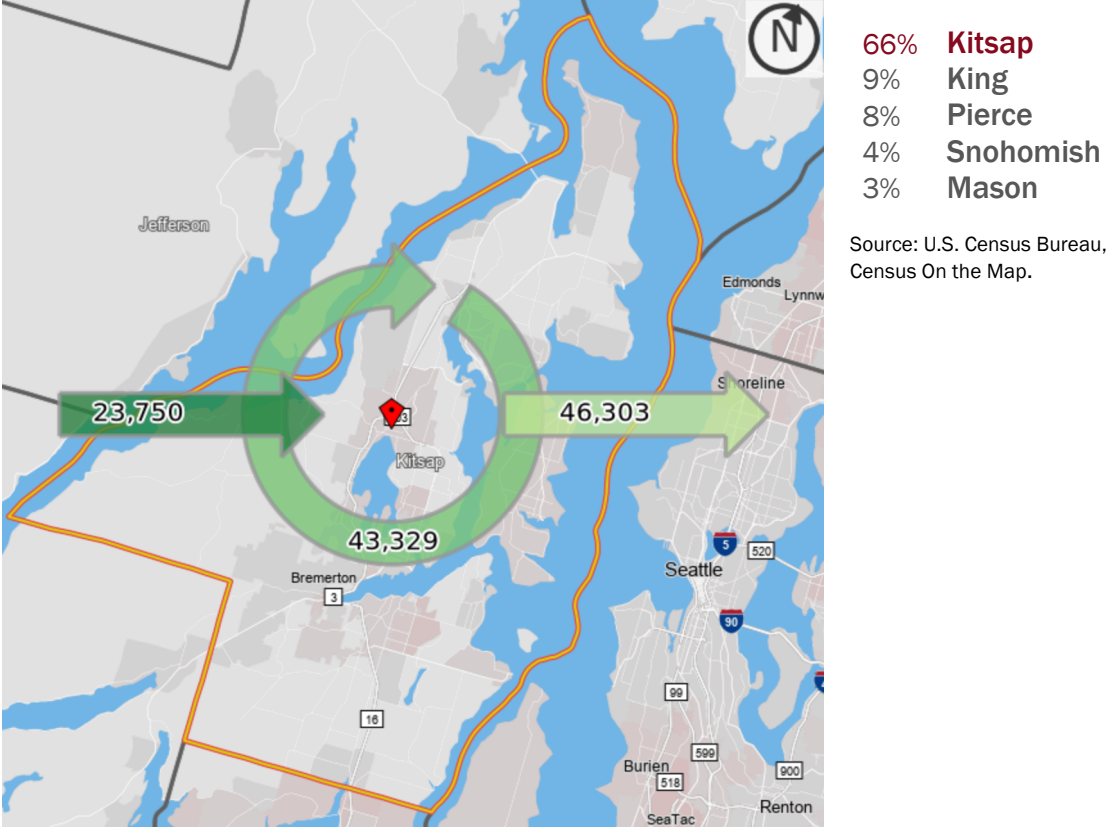
Source: American Community Survey, 2013-2017 5-Year Estimates, Table S1501.
 Notes: Data are shown for the city boundaries of Bainbridge Island, Bremerton, Port Orchard, and Poulsbo, as well as the boundaries of the Kingston and Silverdale Census Designated Places. Data for the “All Other Areas” is equal to the Kitsap County total less the six jurisdictions shown and is a rough approximation for the remaining Unincorporated Kitsap County area.

Commuting Trends

Commuting trends are important to consider when thinking about housing demand. Kitsap County is part of the complex, interconnected economy of the Northwest Washington region. According to the U.S. Census Bureau, in 2017, more than 46,300 people commuted out of Kitsap County for work and about 23,750 people commuted into Kitsap County for work.

About 43,300 people both worked and lived in Kitsap County in 2017. Of the approximate 23,750 people who commuted to Kitsap County for work, about 26 percent traveled from King County, 22 percent traveled from Pierce County, and 11 percent traveled from Snohomish County. The remaining 41 percent traveled from counties across Washington as well as some in northern Oregon, like Multnomah County and Washington County.

Exhibit 40. Commuting Flows Kitsap County, and Top Five Commuting Origins, 2017



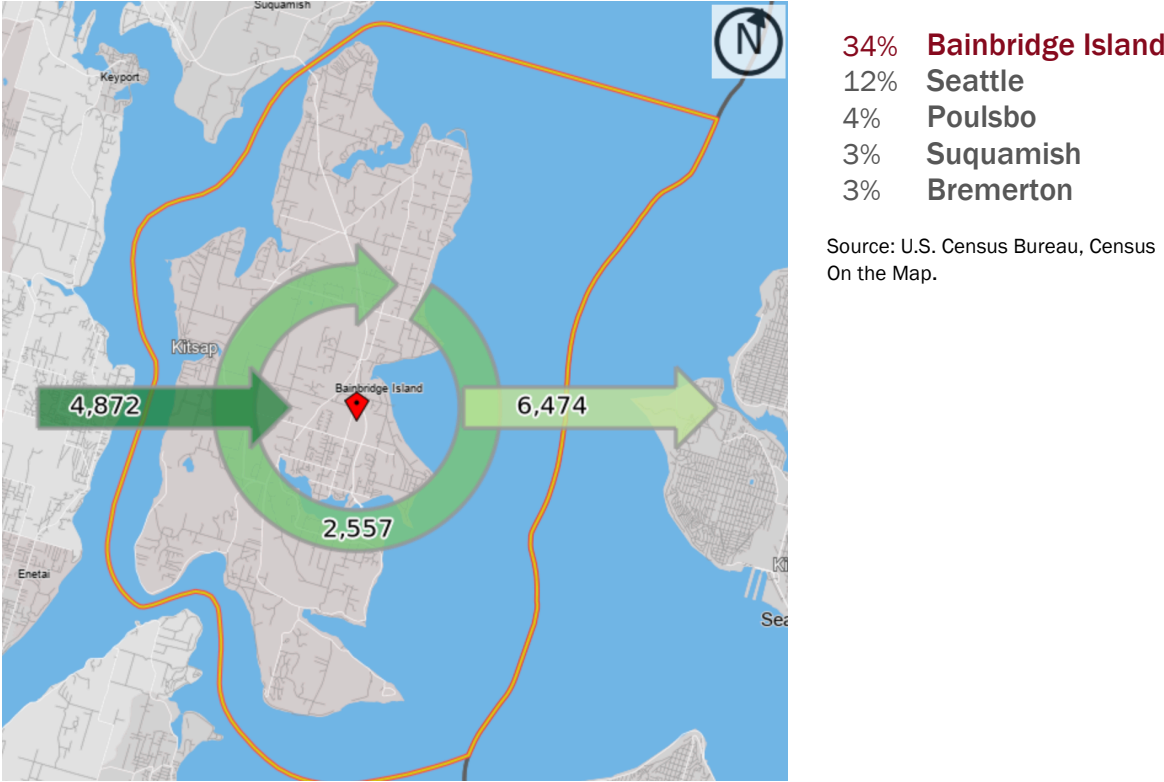
When workers in Kitsap County do not find adequate housing to meet their needs (size, location, price, character, etc.) they may choose to live outside of the County and commute in for work. However, long commutes can negatively impact the environment, household incomes, and community well-being. According to the 2013-2017 ACS, the mean commute time for all modes of transportation in Kitsap County was 30.2 minutes. Exhibit 41 below shows the share of commuters who use each mode to get to work.

Exhibit 41. Mean Commute Time by Transportation Mode, Kitsap County, 2013-2017

Transportation Mode	Percent Commuting by Mode
Car - drove alone	70.6%
Car - carpooled	8.4%
Public transportation	9.1%
Walked	2.7%
Taxicab motorcycle bicycle or other means	2.8%
Worked at home	6.3%

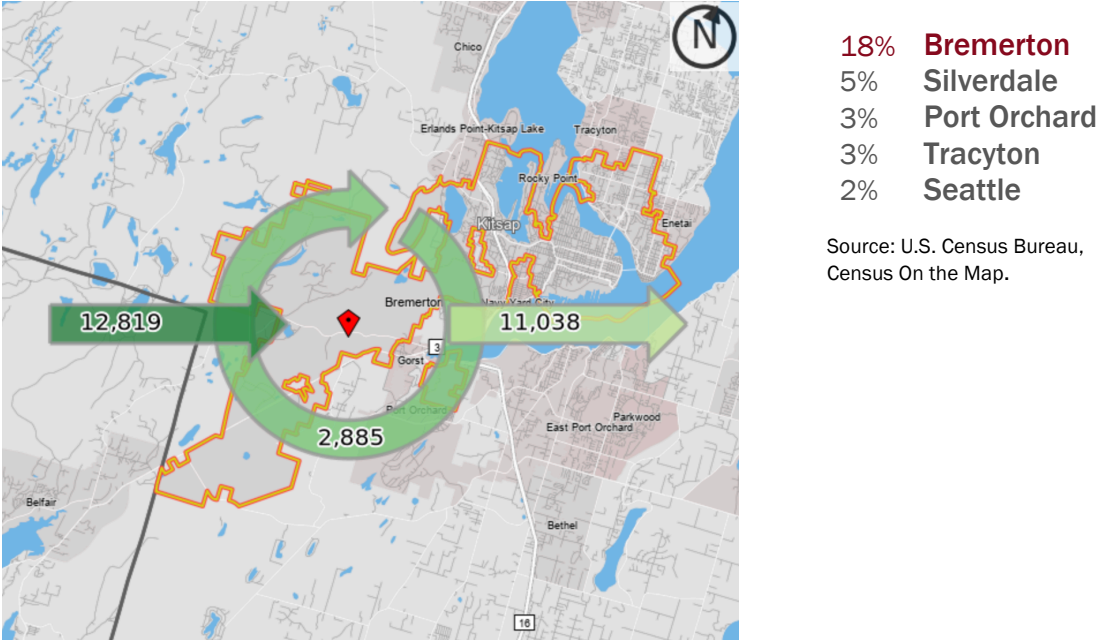
Source: 2013-2017 ACS, table DP03.

Exhibit 42. Commuting Flows Bainbridge Island, and Top Five Commuting Origins, 2017



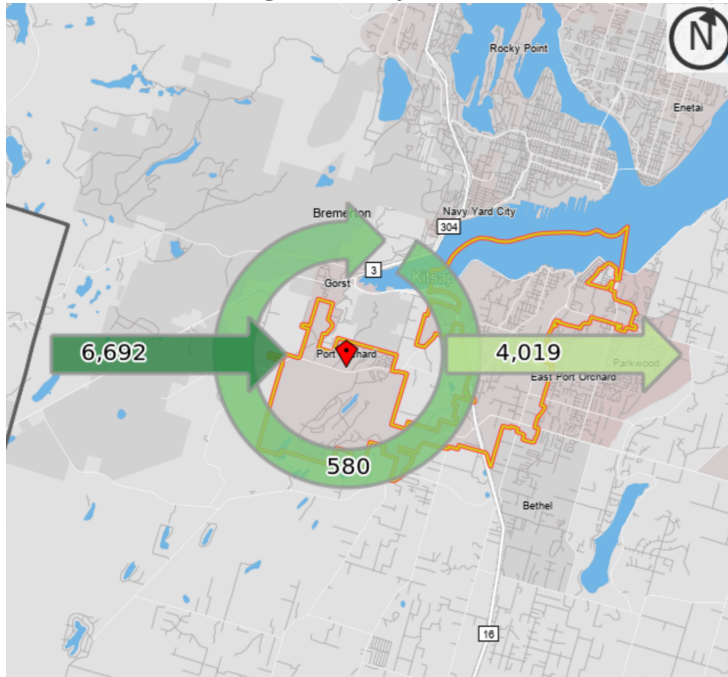
Approximately 34 percent of Bainbridge Island’s workforce, or 2,557 workers, both live and work in the City. Of those workers who commute to Bainbridge Island for work, the largest share come from Seattle, followed by Poulsbo. During the 2013-2017 period, the mean travel time to work for Bainbridge Island workers was about 42.1 minutes, approximately 12 minutes longer than the countywide average. Additionally, a sizable proportion of Bainbridge Island workers work from home (17.1 percent) compared to Kitsap County as a whole (6.3 percent).

Exhibit 43. Commuting Flows City of Bremerton, and Top Five Commuting Origins, 2017



About 18 percent of Bremerton workers, or 2,885 persons, are both employed and live in the City. Although this proportion is roughly half that of Bainbridge Island (34 percent), it is a few hundred more employees. This lower rate is likely due to the presence of Naval Base Kitsap Shipyard, which draws employees from outside of the City. In 2017, five percent of workers in Bremerton commuted from Silverdale, three percent commuted from Port Orchard, and two percent commuted from Seattle. Bremerton employees also commuted from Pierce, King, and Mason counties. The mean travel time to work for Bremerton workers was about 26.2 minutes in the 2013-2017 period, four minutes less than the countywide average.

Exhibit 44. Commuting Flows City of Port Orchard, and Top Five Commuting Origins, 2017



- 8% **Port Orchard**
- 8% **Bremerton**
- 4% **Parkwood**
- 3% **East Port Orchard**
- 3% **Silverdale**

Source: U.S. Census Bureau, Census On the Map.

In 2017, about eight percent, or 580 workers, both worked and lived in Port Orchard. A similar proportion of workers commuted from Bremerton, as shown in Exhibit 45. The mean commute time of Port Orchard residents who work is about 27.9 minutes, similar to the countywide average.

Exhibit 45. Commuting Flows City of Poulsbo, and Top Five Commuting Origins, 2017

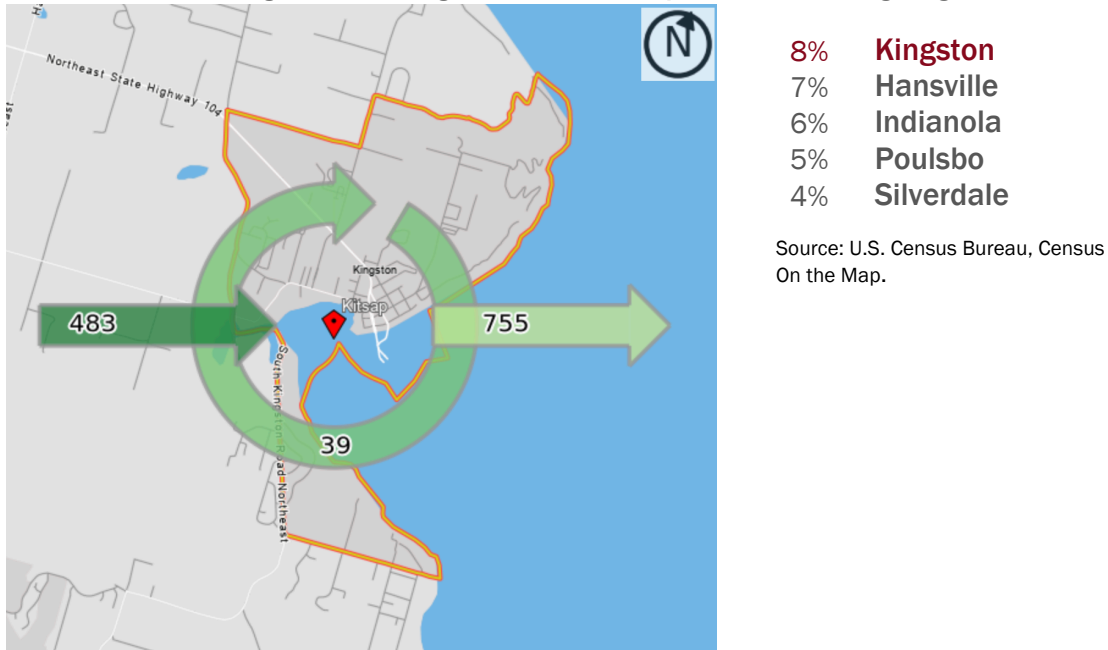


- 11% **Poulsbo**
- 7% **Silverdale**
- 6% **Bremerton**
- 4% **Bainbridge Isl.**
- 3% **Lofall**

Source: U.S. Census Bureau, Census On the Map.

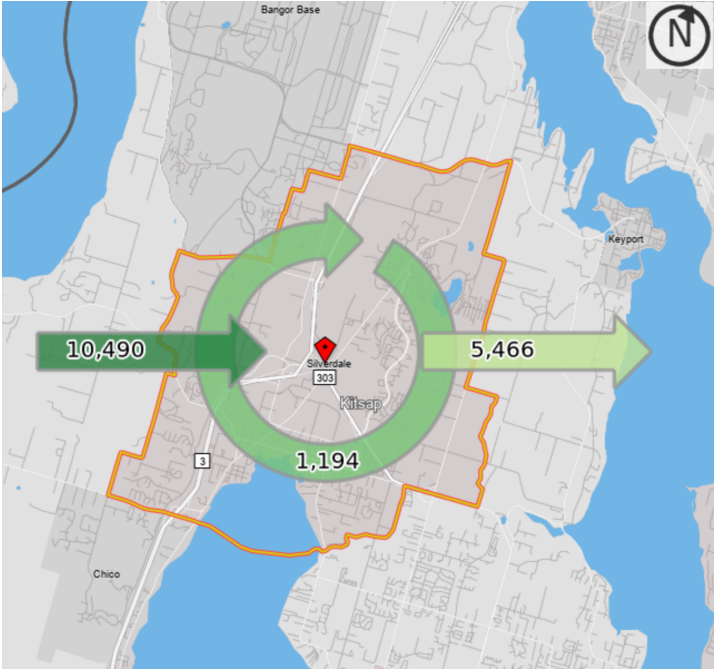
In 2017, about 11 percent, or 723 persons, both lived and worked in Poulsbo. Silverdale and Bremerton were the cities with the largest share of commuters making up Poulsbo’s workforce at seven percent and six percent, respectively. Relative to countywide averages, Poulsbo residents who work have an average commute time of 27.4 minutes, a few minutes shy of Kitsap County, and approximately 4.9 of residents work from home, compared to 6.3 for Kitsap County.

Exhibit 46. Commuting Flows of Kingston CDP, and Top Five Commuting Origins, 2017



In 2017, approximately eight percent, or 39 persons, both lived and worked in Kingston. Kingston, Hansville, Indianola, and Poulsbo were the jurisdictions that made up the largest share of Kingston’s workforce. Kingston residents spent approximately 42.3 minutes travelling to work during the 2013-2017 period, or 12 minutes longer than the countywide average. Approximately eight percent of Kingston residents worked from home during the 2013-2017 period, about two percentage points higher than Kitsap County.

Exhibit 47. Commuting Flows of Silverdale CDP, and Top Five Commuting Origins, 2017



- 10% **Silverdale**
- 9% **Bremerton**
- 3% **Seattle**
- 2% **Poulsbo**
- 2% **Port Orchard**

Source: U.S. Census Bureau, Census On the Map.

In 2017, about 10,490 persons commuted to Silverdale for work. About 10 percent of workers (nearly 1,200 persons) both lived and worked in Silverdale. Of those that work in Silverdale, nine percent commuted from Bremerton, three percent commuted from Seattle, and two percent commuted from Poulsbo. The proportion of Silverdale resident workers working from home is comparable to that of the 2013-2017 countywide average (5.9 percent compared to 6.3 percent countywide).

The commuting trends of the individual jurisdictions are generally comparable to that of Kitsap County as a whole. Residents in each city tend to have an average commute time that is shorter than the countywide average, though the differences are typically on the scale of three to five minutes. The one exception, however, is Bainbridge Island. Commute times in Bainbridge Island are about twelve minutes longer than the countywide average, but at the same time, the City has the largest proportion of residents who work from home when compared to other jurisdictions. The longer commute times are likely due to a large proportion of residents who travel to Seattle for work (35 percent in 2017).

Housing demand is driven, in part, by how close or how far people want to be from their jobs. Some will prefer their homes to be near their place of work so they can use modes of transportation that do not require a private passenger vehicle, such as walking, biking, or public transit. Others will prefer to live a suburban lifestyle, living further from a city’s center for reasons such as housing affordability. With housing made more readily available in and around job centers (i.e., where jobs are most concentrated), commute times can be reduced. This in turn mitigates wear and tear on roads and transfers more commuters from private passenger vehicles to public transit.

Part III. Methods and Approach

Data Used in this Analysis

This analysis uses data from multiple sources, focusing on those that are well-recognized and reliable. One of the key sources for housing and household data is the U.S. Census. This report primarily uses data from two Census sources as well as several other non-Census sources:

- The **Decennial Census**, which is completed every ten years and is a survey of all households in the U.S. The Decennial Census is considered the best available data for information such as demographics (e.g., number of people, age distribution, or ethnic or racial composition), household characteristics (e.g., household size and composition), and housing occupancy characteristics. As of 2010, the Decennial Census does not collect more detailed household information, such as income, housing costs, housing characteristics, and other important household information. Decennial Census data is available for 2000 and 2010.
- The **American Community Survey (ACS)**, which is completed every year and is a *sample* of households in the U.S. From 2012 to 2016 and 2013 to 2017, the ACS sampled an average of 3.5 million households per year, or about 2.6 percent and 2.9 percent of the households in the nation. The ACS collects detailed information about households, including demographics (e.g., number of people, age distribution, ethnic or racial composition, country of origin, language spoken at home, and educational attainment), household characteristics (e.g., household size and composition), housing characteristics (e.g., type of housing unit, year unit built, or number of bedrooms), housing costs (e.g., rent, mortgage, utility, and insurance), housing value, income, and other characteristics.
- **Kitsap County Assessor**, which provides descriptive data on the housing stock in the county as well as recent sales data.
- **Kitsap Economic Development Alliance**, which provides data and insights on Kitsap County's workforce, such as the County's largest employers.
- The Longitudinal Employer-Household Dynamics (LEHD) **Origin Destination Employment Statistics (LODES)**, which we access via the Census's mapping tool, OnTheMap, is a dataset that shows where workers are employed and where those workers also live.
- The Bureau of Labor Statistics' **Quarterly Census of Employment and Wages (QCEW)**, which provides employment and average annual pay estimates of covered jobs, and their **Local Area Unemployment Statistics (LAUS)**, which provides monthly unemployment and labor force statistics for states, metropolitan areas, counties, and cities 25,000 persons or larger.
- The **Washington Office of Financial Management (OFM)**, which provides research and data related to Washington state's demographics, economy, labor force, population projections, and more.

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- **Zillow**, which provides economic data such as median home sale prices, monthly home sales, rent indices, and many other statistics for the U.S., metropolitan areas, as well as populous counties and cities.

This memorandum uses data from the 2013-2017 ACS for Kitsap County. Where information is available and relevant, we report information from the 2000 and 2010 Decennial Census. Among other data points, this report includes population, income, and housing price data from the Washington Office of Financial Management, the United States Department of Housing and Urban Development, the U.S. Bureau of Labor Statistics, The U.S. Department of Defense, and Zillow.

The foundation of the housing needs analysis is the population forecast for Kitsap from the OFM forecasting and research. Vacancy rate and household size come from the American Community Survey (ACS).

It is worth commenting on the methods used for the American Community Survey.³¹ The American Community Survey (ACS) is a national survey that uses continuous measurement methods. It uses a sample of about 3.54 million households to produce annually updated estimates for the same small areas (census tracts and block groups) formerly surveyed via the decennial census long-form sample. It is also important to keep in mind that all ACS data are estimates that are subject to sample variability. This variability is referred to as “sampling error” and is expressed as a band or “margin of error” (MOE) around the estimate.

This report uses Census and ACS data because, despite the inherent methodological limits, they represent the most thorough and accurate data available to assess housing needs. We consider these limitations in making interpretations of the data and have strived not to draw conclusions beyond the quality of the data.

Assumptions/Caveats

- **HUD Median Family Income & adjusting for household size.** In several exhibits we look at the share of housing units affordable to different MFI levels that are occupied by renter households in those MFI levels. A limit to this method is that we are not able to adjust the data to account for household size. The HUD MFI is designated for a family of four. Clearly, not all households in Kitsap County are families of four, and not all units are appropriately sized for a family of four. In addition, HUD income limits are adjusted for household size, and the rents that would be affordable would thus vary by household size. In these ways, this matching exercise is rough and theoretical.
- **U.S. Census Bureau ACS Public Use MicroSample (PUMS).** PUMS are microdata, or person-level responses to the ACS questionnaire. Each record (or row) describes one person’s responses to the questionnaire and these are numerically codified for statistical

³¹ A thorough description of the ACS can be found in the Census Bureau’s publication “What Local Governments Need to Know.” <https://www.census.gov/library/publications/2009/acs/state-and-local.html>

analysis. Every individual is assigned a statistical weight, which indicates how many persons in the population are represented by the sampled response. We make use of these weights to create accurate estimates of populations and their characteristics in Kitsap County.

- **U.S. Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW).** It's important to note that QCEW data are limited to workers that are covered by State Unemployment Insurance (UI) laws and the Unemployment Compensation for Federal Employees (UCFE). This means that QCEW data do not account for every job worked. Important employment exclusions include proprietors, self-employed workers, the majority of agricultural workers on small farms, railroad employees, unpaid family workers, some domestic workers, and some state and local government workers.

The Census Bureau's **OnTheMap** tool uses data from several sources, including Unemployment Insurance (UI) wage records, the Office of Personnel Management (OPM), and the QCEW. It's important to note that OnTheMap is a synthetic dataset, meaning statistical noise is injected into the original dataset to protect employer confidentiality. This is worth noting because it explains, in part, why employment numbers provided in the OnTheMap tool do not line up exactly with QCEW employment estimates.