



Island County Housing Needs Study

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Introduction

Island County, Washington, has unique geographic and economic profiles that lead to challenging conditions in housing markets. This paper describes market dynamics in the county, how the county has grown and is expected to grow, and the implications of these features for housing demand.

Current county planning documents anticipate a significant slowdown in growth in the county, and this paper will argue that that is an incorrect assumption. The factors that have led to growth in Island County over the decades remain robust and have a high likelihood of leading to growth at least as strong as historic rates. Planning for housing capacity must respond to higher levels of housing demand.

Island County is in a difficult position with respect to providing low and moderately priced housing to serve those working in the local economy. Outside of civilian employment at Naval Air Station Whidbey Island, the local economy is similar to other semi-rural areas, with relatively low wages. At the same time, many of those seeking housing in the county enjoy higher incomes derived from work outside the county or from retirement funds, and these higher income households can bid up prices beyond what those working in the local economy can afford. This dynamic is common around the edges of the Puget Sound region, but what makes Island County unique is the fact that it is the end of the line: those priced out of Island County cannot just move on to the next, more affordable place.

Parallel research on public opinion in Island County shows the high value that residents place on the natural, built and community amenities of the county. It will continue to be a destination for individuals and families in all stages of life, and that will produce pressure on housing markets. Public policy should respond to that anticipated pressure and accommodate more housing, especially in the urbanized areas. Current plans rely too heavily on rural development which will threaten the natural and community features so valued by residents.

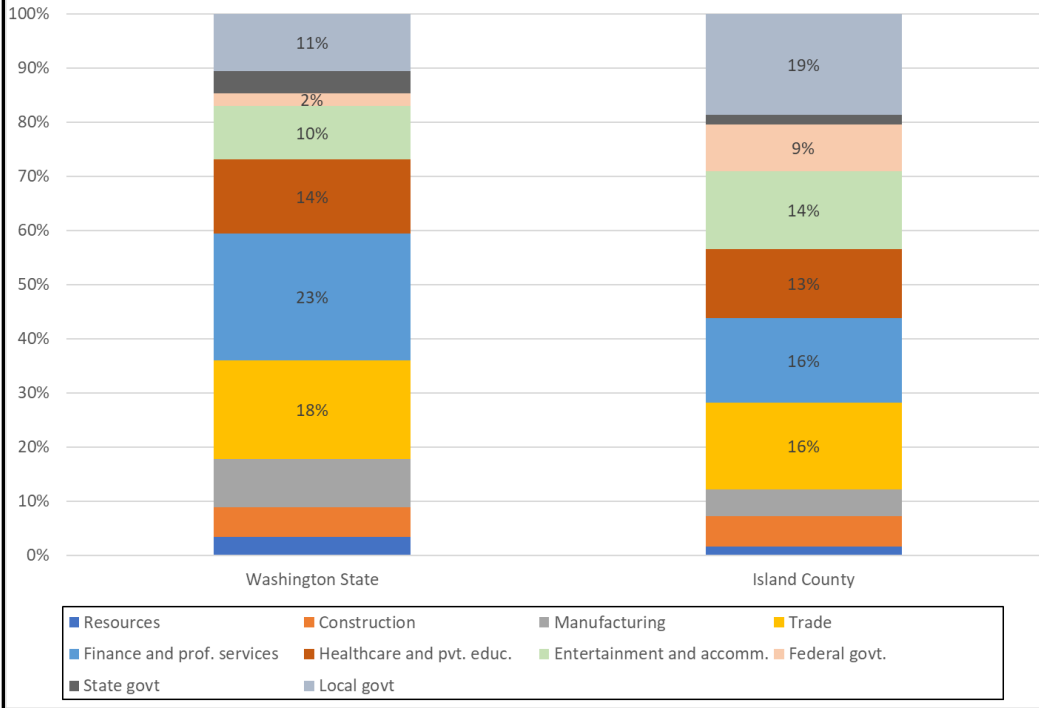
Distinct Housing Markets of Island County

Island County is unusual in having many distinct housing markets that operate largely independently of one another and exhibit different demand patterns. In determining future housing needs of the county it is critical to understand how each of these markets operates and how they affect one another. The discussion below will cover five distinct markets: civilian economy, Navy personnel, commuters to other counties, retirees, vacation homes.

Island County civilian economy

The Washington State Department of Employment Security reported just under 16,000 “covered” jobs in Island County in 2016, the last year for which annual data is available. This measure only includes those jobs covered by the state unemployment insurance program, thereby not including the self-employed or uniformed military personnel. Self-employment is assumed to account for about 10 percent of the workforce (about 33,000, including commuters to other

Figure 1: Composition of employment, Island County and Washington State, 2016



counties), adding about 3,300 jobs to the base of civilian employment in the county. So, it would be reasonable to estimate that Island County contains around 19,000 civilian jobs, including those at the Naval Air Station.

Figure 1 shows a comparison of major employment categories between Washington State and Island County. Several things stand out. First, federal government employment, which is only 2 percent of state employment is 9 percent of Island County employment

due to civilian employment at the Navy base. Second, local government employment is much higher in the county than the state. This is due primarily to school district employment, as is typical in areas with large commuter populations.

As would be expected of a county outside of the metropolitan core, Island County has a smaller share of its employment in professional services and a larger share in sectors related to the visitor and vacation industries. Other sectors are not too far off from the statewide average.

Figure 2 shows the number of workers in major sectors in Island County, along with the number of firms in those sectors and the average annual wage.

Figure 3 sheds important light on the demand for housing. It shows the aver-

Figure 2: 2016 Covered Employment Island County

	No. of employers	Average annual employment	Average annual wage
Ag., forestry, fishing, hunting	43	197	\$27,201
Utilities	12	58	\$47,043
Construction	278	878	\$43,457
Manufacturing	63	783	\$52,940
Wholesale trade	69	154	\$69,131
Retail trade	182	2,152	\$28,641
Transportation and warehousing	21	202	\$48,872
Information	20	140	\$54,307
Finance and insurance	36	236	\$48,075
Real estate and rental and leasing	77	375	\$31,178
Professional and technical service	188	532	\$49,080
Administrative and waste services	126	606	\$35,894
Educational services	43	282	\$25,060
Healthcare and social assistance	376	1,709	\$27,512
Arts, entertainment, and recreatic	41	344	\$17,190
Accommodation and food services	147	1,923	\$17,951
Other non-governemnt services	147	578	\$28,389
Federal Government	12	1,340	\$53,200
State Government	16	283	\$37,199
Local Government	27	2,927	\$49,512
TOTAL	1,929	15,793	\$37,297

Source: Washington State Department of Employment Security

Figure 3: Annual Average Wage

	Average annual
Island County	\$37,297
King County	\$76,828
Skagit County	\$44,191
Snohomish County	\$57,443
Whatcom County	\$43,233
Washington state	\$59,090

Source: Washington State Department of
Employment Security

age annual wage paid along the I-5 corridor north of Seattle, as well as the statewide average. Note that the average wage paid in Island County is significantly lower than that paid in adjacent counties. The discussion of commuting patterns below will indicate that many individuals and families are commuting from Island County to higher wage areas, using their superior earnings to outbid those working in the Island County economy for housing opportunities.

Key Trend

Island County’s economy bottomed out in 2011 and has grown about 8 percent since then. Most of that growth has come in just a few sectors. Nearly

half of the net job growth for the past five years has come in the natural resources, manufacturing and tourism sectors, which make up a large share of the county’s primary economy. Continued growth in these industries will give rise to growth in secondary industries like retail and construction. Island County’s job base will not likely grow at the same high rate as neighboring Snohomish County, but it will continue to expand, generating demand for housing affordable to the workers that make up that job base. Wages will likely continue to be lower than in adjacent counties. For example, manufacturing wages paid in Island County are only 55 percent of those paid in Snohomish County and 79 percent of manufacturing wages paid in Skagit County. Housing markets in adjacent counties from which Island County workers could potentially commute will be even less affordable than Island County.

Navy personnel

Naval Air Station Whidbey Island is a significant installation that supports aircraft carriers based in Puget Sound and supports other naval aviation operations. The base has experienced several shifts in operations in recent years, mostly resulting in net increases in personnel. As of 2017, the base has about 8,250 uniformed military personnel and about 2,000 civilian workers (government employees and contractors). Of the uniformed personnel, about 3,800 have families with them.

About two thirds of navy personnel and their families live in non-military housing. The Navy provides about 1,600 beds for individuals without families, and about 1,500 family housing units. Of those uniformed personnel and their families who live off-base, about three quarters live in Island County, with the remaining quarter split about evenly between Skagit County and areas beyond. Personnel living off-base are expected to live within about one hour of the base.

Key Trend

The population at the Naval Air Station has grown in recent years, and will continue to expand. The base hit a low of just under 7,000 uniformed personnel in 2013, and has grown to over 8,000 today. That number is expected to increase to 8,600 by 2024.

The growth in uniformed personnel will be accompanied by growth in dependents as well as civilian employees and contractors. And while the employment multiplier for military bases is fairly low, compared to other industries, growth in uniformed and civilian personnel at the base will result in new jobs in the area economy in schools, retail, personal services and other local

sectors. One study of the impact of military bases finds that for every two uniformed service members added to a base, one civilian job is created in the local economy. Thus if the Naval Air Station adds a net of 600 personnel, another 300 jobs will be created locally, adding to employment in the civilian economy, as discussed above.

Figure 4: Where Island County workers work

	Count	Share
Island County, WA	9,031	34.1%
King County, WA	5,766	21.8%
Snohomish County, WA	5,135	19.4%
Skagit County, WA	2,718	10.3%
Whatcom County, WA	1,058	4.0%
Pierce County, WA	590	2.2%
Kitsap County, WA	528	2.0%
Thurston County, WA	260	1.0%
Clallam County, WA	198	0.7%
Clark County, WA	126	0.5%
All Other Locations	1,098	4.1%

Source: U.S. Census Bureau

Commuters to other counties

About 33,000 Island County residents have jobs, whether with an employer or as a self-employed person. But with only about 19,000 jobs in the county, many workers are commuting to jobs outside of Island County.

The Census Bureau’s Longitudinal Employer-Household Dynamics (LEHD) program shows that of the 26,500 employed Island County residents captured in the data, 17,500 commute outside of Island County and about 9,000 both live and work in the county. Additionally, about 3,500 people commute to jobs in Island County from other counties. In other words, almost exactly two thirds of Island County residents who have a job with an employer commute outside the county but three quarters of Island County jobs are filled by Island County residents.

Figure 5: Where Island County workers work

	Zip Code	Count	Share
Oak Harbor	98277	4,074	15.4%
Coupeville	98239	1,875	7.1%
S. Whidbey/Langley	98260	1,016	3.8%
Paine Field	98204	954	3.6%
S. Whidbey/Freeland	98249	952	3.6%
West Skagit/Anacortes	98221	890	3.4%
Stanwood	98292	737	2.8%
Mount Vernon	98273	736	2.8%
Everett	98201	628	2.4%
Burlington	98233	546	2.1%
S. Whidbey/Clinton	98236	480	1.8%
Camano	98282	456	1.7%
Arlington	98223	435	1.6%
Downtown Seattle	98101	403	1.5%
Tulalip	98271	371	1.4%
Bellingham	98225	336	1.3%
Downtown Bellevue	98004	326	1.2%
Whatcom/Norht B'ham	98226	323	1.2%
Renton	98057	298	1.1%
Lynnwood	98036	281	1.1%
Redmond	98052	267	1.0%
Downtown Seattle	98104	264	1.0%
South Everett	98203	239	0.9%
Duwamish/S. Seattle	98108	227	0.9%
Kent Valley	98032	220	0.8%
All Other		9,174	34.6%

Source: U.S. Census Bureau

The LEHD data (see appendix for details on this data source) allows us to identify where those commuters are headed. Figure 4 shows the top ten destination counties for workers who file their taxes in Island County. (It is doubtful that 126 people commute daily to Clark County, illustrating the limitations of the data.) While it might be logical to assume that a number of people would commute from South Whidbey and Camano Island to Snohomish County, and from North Whidbey to Skagit, the large number of commuters heading to King County is somewhat surprising. Figure 5 breaks out commuters by zip code, showing the top 25 employment locations for workers who file their income taxes from a Whidbey Island address.

The commuting data from LEHD reflects the commute times reported by Island County workers in the American Community Survey. Figure 6 shows reported commute times by 15-minute increments. The “under 15 minutes” group would contain a large share of those who live and work in Island County, including the self-employed who work from home. At the other end of the spectrum, the “over 60 minutes” group likely includes the large number of commuters to King County. (LEHD and ACS use very different methods, so the data will only line up approxi-

Figure 6: Travel time to work
Island County Commuters

Under 15 minutes	12,920
15 to 30 minutes	9,779
30 to 45 minutes	4,711
45 to 60 minutes	2,641
Over 60 minutes	5,603

Source: U.S. Census Bureau

mately.) Island County’s role as a residential community providing housing for larger employment centers is not unique. The pattern of people accepting longer commutes in exchange for better housing values (lower prices, better amenities or both) is well established in the Puget Sound area. There are smooth gradients of both wages and home prices radiating out from the Seattle-Redmond axis. A worker who cannot afford a nice home in Bellevue might move to Mill Creek, using her higher Bellevue income to outbid people working in South Snohomish County. The South Snohomish workers, in turn, might look for a home in Lake Stevens, pushing the lower-paid North Snohomish workers to Skagit County, and so on.

Island County will find itself on the receiving end of this dynamic, but in a way that is more dangerous than elsewhere. When a worker employed in Island County cannot afford to live there, they have no alternative further down the road: Island County is the end of the line. Island county workers at the lower end of the wage scale cannot just get on Interstate-5 and head to the next most affordable community.

Key Trend

The number of Island County residents commuting out of the county has been increasing in recent years, especially to King County. In 2007, about 4,600 people commuted from Island County to King County, and this rose to about 5,800 in 2015. This is important, because both wages and housing prices continue to rise in King County. King County workers being pushed further out of the King County housing market will tend to have, at the same time, much higher incomes than workers in those adjacent counties. While Island County housing is barely affordable to Island County workers, it is a bargain for King County workers.

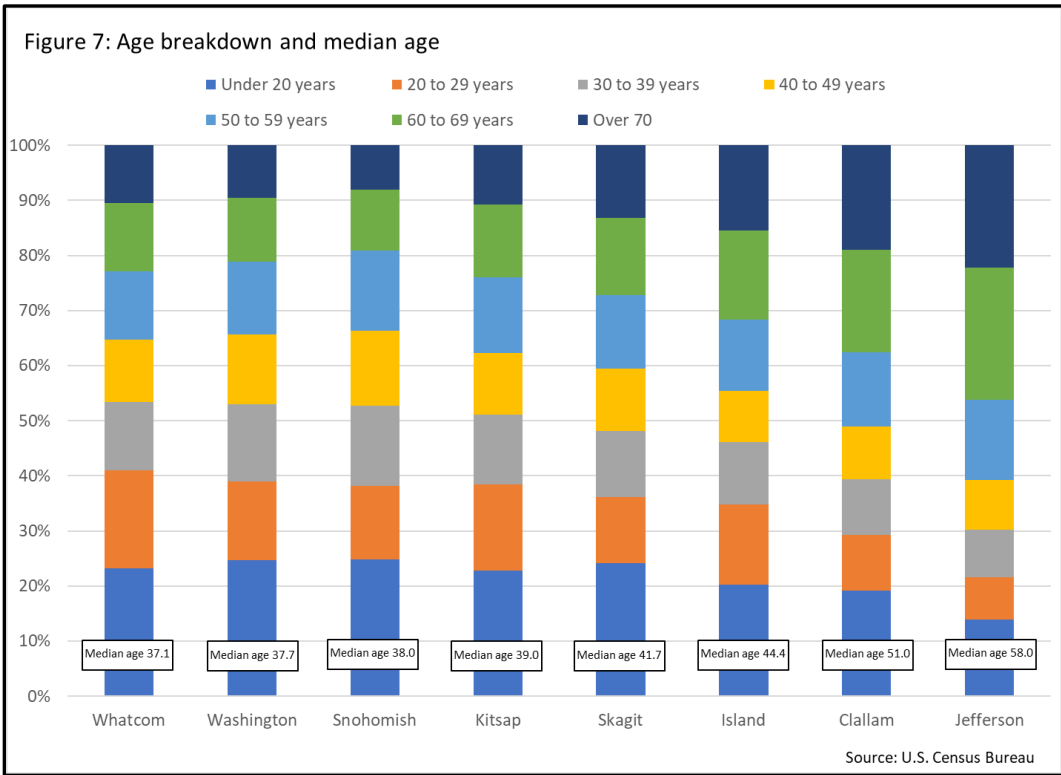
Looking forward, there is no sign that housing will become more affordable in King and Snohomish counties, and no sign that job growth will slow appreciably in these counties. As the Millennial generation ages and increases family formation, demand for single family homes will rise. We can expect the attractive communities of Island County to be targeted by some younger homebuyers who will accept the longer commutes.

Retirees

With its beautiful scenery, quiet lifestyle and proximity to a major metro area, Island County is a natural place for retirees to settle. Some have had vacation homes in the area that become permanent homes, some will move to Island County prior to retirement, and others will discover Island County as they scan possible destinations after retiring.

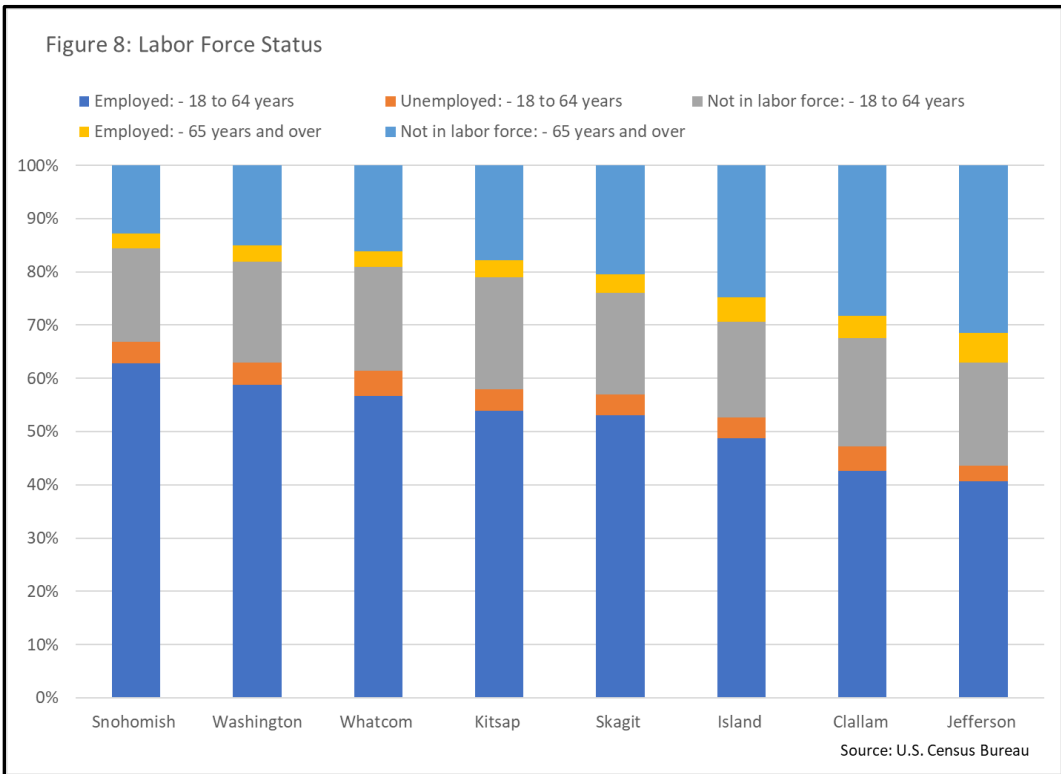
Identifying retirees is not always easy. Although the definition of a retiree should be straightforward—out of the workforce, financially independent—data does not always pin these people down. But since all communities have retirees—most people stay in their homes after they retire—we can look at some indicators to see the degree to which Island County has more people who show signs of being retired.

A place to start is the age breakdown of Island County, as compared to other counties and the state. Figure 7 shows population age groups and the median age for the state and a number of counties in Western Washington, ranked by median age from youngest to oldest. Island County



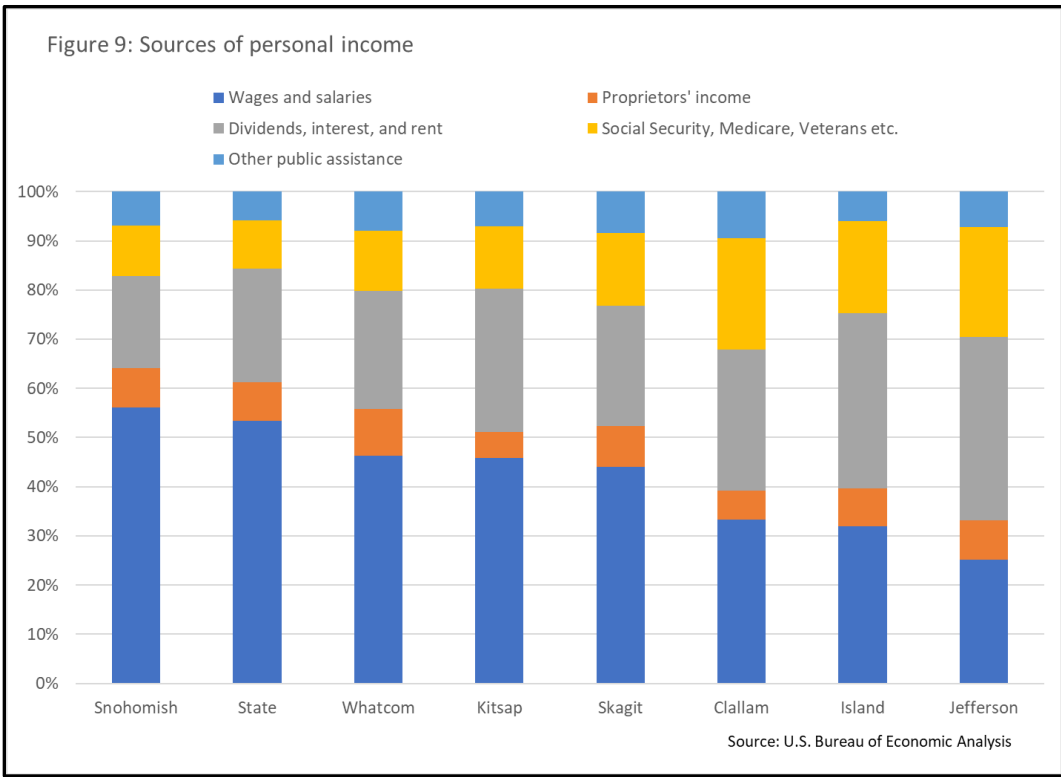
clearly skews older, with fewer children and more seniors than the state average. It is not as senior-dominated as the two counties to the right on the chart, which are well-known retirement destinations. While the population of children is lower in Island County, the Navy brings a larger share of young adults than would be expected.

Another indicator for retirees is labor market participation. Figure 8 shows participation and employment for those in the customary working age of 18 to 64, and those 65 and over, ranked by employment of working age people. This provides an approximation of a retired population, but there will be many households with one adult member working and another not in the workforce, so we cannot assume that all the “not in labor force 65 and over” people represent fully retired households.



A third indicator of retirement is the source of income. The larger the retired population, the greater the income share coming from social security and investment income. Figure 9 shows the sources of personal income for the state and the same group of counties for 2016. As would be expected, the

As would be expected, the



counties that attract a large number of retirees have a smaller share of their total income in the form of wages and proprietor's income and a larger share in retirement benefits and investment income. In Island County only about 40 percent of income is earned through day-to-day work, whereas daily work accounts for over 60 percent of income statewide.

Figures 7, 8 and 9, comparing Island County to counties like Snohomish that skew younger, and Jefferson that skew older, paints a

picture of a county that leans toward a retirement destination but that still has a large working population. The biggest concern is seen in Figure 9: a large share of income from investments. Retirees with substantial wealth from saving during their working life and from selling their primary homes in the hot markets of Puget Sound, have the resources to outbid those working in the local economy for housing. This situation is similar to the concern raised in the above discussion about commuters.

Key Trend

After a lull during the Great Recession, purchases of retirement homes have picked up nationally. The most important factor in retirement home purchase is the ability of the retirees to sell their primary home and capture a significant amount of equity. This equity will fund the purchase of a retirement home and provide investment income to support their retirement lifestyle. With almost all homes across the region now "above water," retirees can once again fund retirement home purchases.

A further trend to watch is the exodus of retirees from California. As the cost of living in California continues to rise, many retirees are moving to other states in the West. Data from the Washington State Department of Licensing, seen below in Figure 14, shows that annual in-migration to Island County from California has increased nearly 60 percent since 2008. (Since uniformed military personnel and their families do not need to trade in their driver's license, they would be counted in this data.)

Vacation homes

Like retirees' homes, vacation homes are difficult to capture in data. The American Community Survey asks for information on vacancies, and assigns a "seasonal, recreational, or occasional

use” category. The ACS five-year averages covering 2012-2016 identified about 4,600 homes under this designation in Island County, or just over 11 percent of the housing stock.

Island County ranks 13th in the state for the share of its housing stock in the “seasonal” category, and seventh in numbers of seasonal homes. Of the seven counties in the data in Figures 7, 8 and 9, only Jefferson County has a higher share of homes listed as vacation homes. And, importantly, none of the counties that have a larger share of their housing stock in the seasonal designation are within the orbit of the Puget Sound metro area.

That Island County would be a major source of vacation property is not surprising. With miles of shoreline, large tracts of quality farmland and spectacular views from many areas, the county has the amenity packages that vacation home buyers seek. And compared to other popular vacation home areas, such as Hood Canal, the San Juan Islands and Lake Chelan, Island County is very accessible to the major population and wealth centers of Puget Sound.

For purposes of this paper, we will not be too concerned about the vacation home market. Vacation homes tend to feature key amenities and, therefore, command high prices. It is doubtful that dynamics in the vacation home market in Island County will intersect to a noticeable extent with the markets for housing for those employed in the county’s indigenous economy.

Key Trend

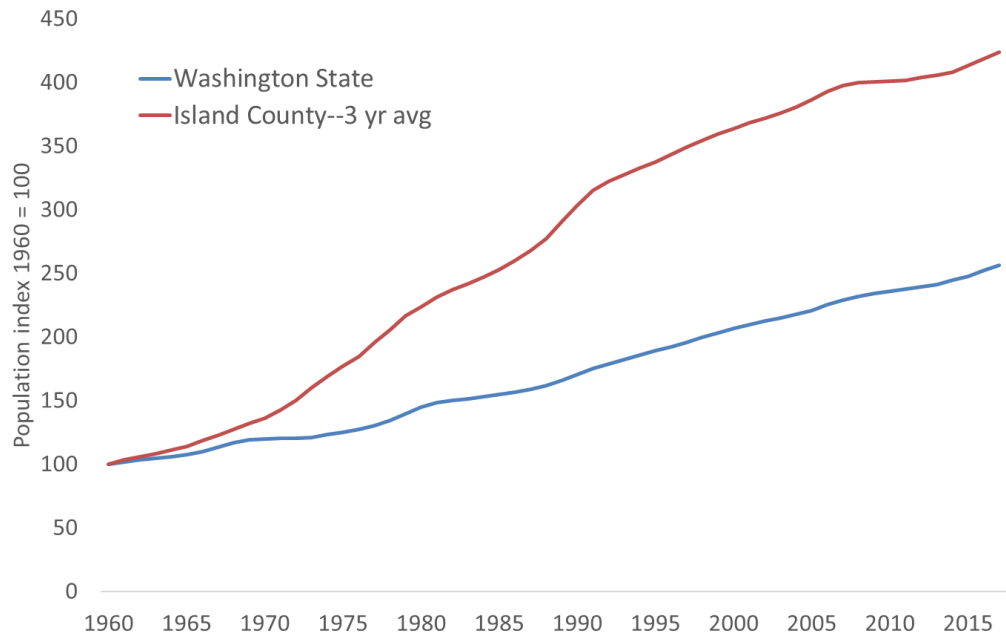
The Census bureau “seasonal” designation applied to 3,450 houses in Island County in 2009, and this grew to 4,583 in 2016. The growth in seasonal homes was similar at the state level. This growth of over 1,000 seasonal homes in Island County can be attributed to either new construction or to conversion of year-round homes into seasonal homes, such as when a retiree in a waterfront home sells it to a family for vacation use. This growth is larger than the margin of error in the data and should be acknowledged. National data shows an increase in second home purchases since Great Recession as well.

Growth and change in Island County

The long term trend for Island County has been growth at a faster rate than the state as a whole. Figure 10 shows a growth index for Island County and the state, beginning in 1960 using population estimates from the State Office of Financial Management (OFM). (The line indicates how many people are in Island County and the state for every 100 people in 1960. The chart uses a three-year average for Island County to smooth out anomalies in OFM data.) It is important to view this long term trend, since it indicates the overall attractiveness of Island County as a place to live, and shows that the slowdown in growth after the Great Recession was the exception to the long-term trend.

Figure 11 shows the components of population change in Island County from 2000 to 2017, according to OFM. Positive changes (births and net in-migration) are shown above zero, and negative changes (deaths, net out-migration) are shown below zero. Note that the two components of natural population change—births and deaths—are relatively constant, while the third component—net migration—varies considerably: strong in-migration during prosperous times and weak in-migration, or even net out-migration, during the Great Recession.

Figure 10: Population growth Island Co. and Washington St. 1960 - 2017



Source: Washington State Office of Financial Management

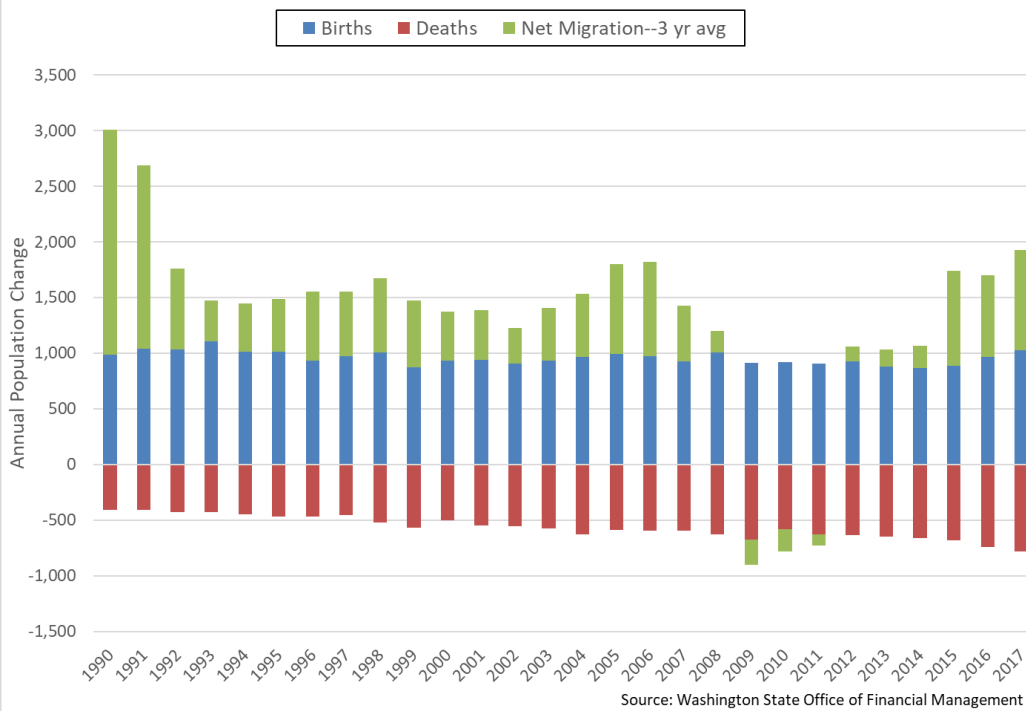
Natural population growth

Natural population growth is measured as births minus deaths. These “vital” measures are very carefully tracked by the state Department of Health, and while a small number of births or deaths may not be recorded correctly, the data is highly reliable. Births and deaths are tracked both in the location of the “event” and in the location of residence. Data of residence is used here.

Natural population growth is a function of population structure. The state as a whole sees more births than deaths, but communities that skew older can see negative natural population growth. Figure 12 shows the natural population growth for the state and the seven counties. The jurisdictions are sorted from the highest to lowest population growth rate.

Note that the “crude birth rate” (births as a share of population) is very similar in the state and four of the counties. Then it drops quite a bit, first in Whatcom

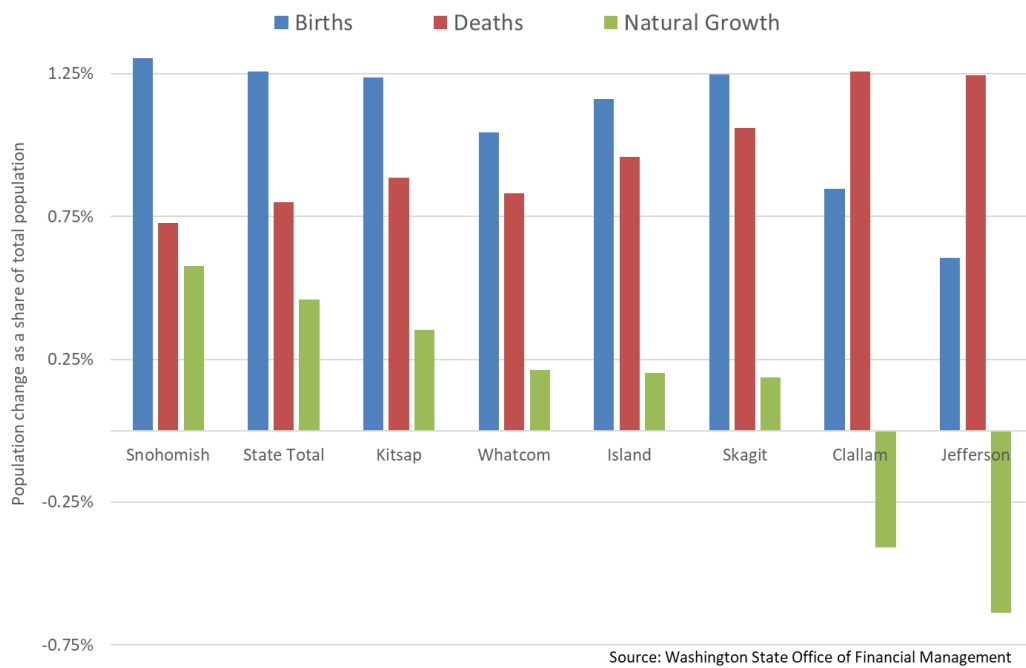
Figure 11: Components of population change 1990 to 2017



Source: Washington State Office of Financial Management

County (the university population tends to skew data there) and in the two counties shown in Figure 7 to be quite a bit older. Island County’s crude birth rate is comparable to the state, which is somewhat surprising given its reputation as a retirement destination. While babies do not need houses, their families overwhelmingly prefer to raise those children in single family homes, so a healthy birth rate signals a healthy demand for detached housing.

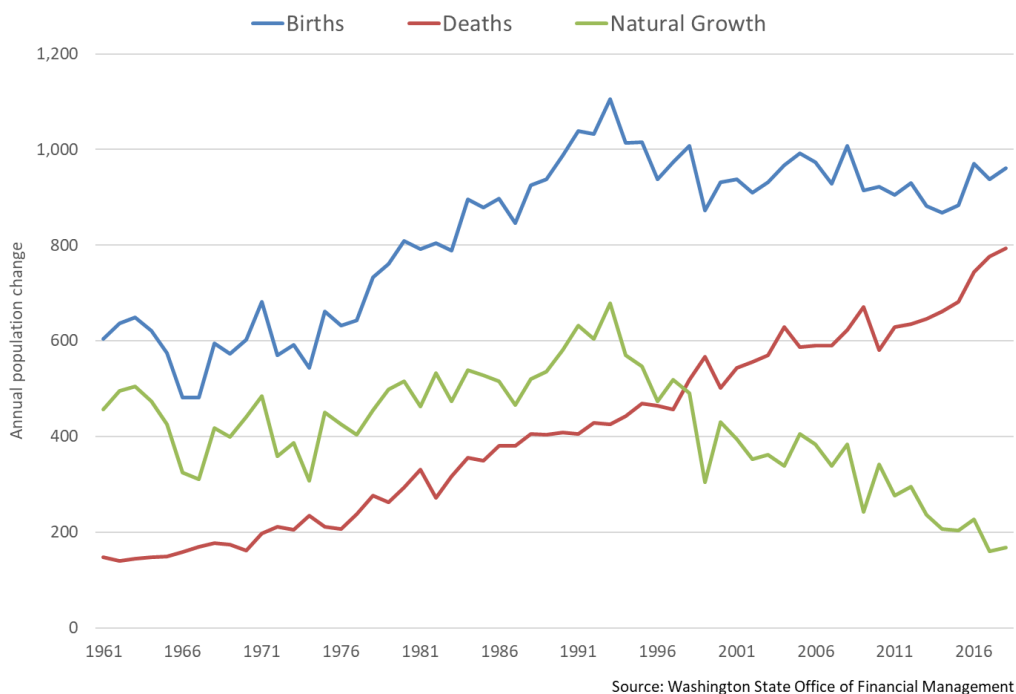
Figure 12: Natural Population Growth 2017-2018



The crude death rate does increase across the chart, again with Whatcom County as an outlier. Island County has a somewhat higher death rate than the more urban counties, reflecting its retiree population. But unlike Clallam and Jefferson counties, Island County does maintain a positive natural population growth rate. Regrettable as it sounds, deaths put homes back on the market, so a somewhat higher death rate will result in higher turnover of real estate. But as noted, many retirees live in high amenity homes that will likely shift to other retirees or the vacation home market.

Figure 13 shows the natural population growth of Island County since 1961. Note that births grew steadily until the mid-1990s, staying just ahead of deaths, resulting in a positive trend in natural population growth. Since the mid-1990s, births have leveled off and deaths have continued to increase, sending the natural growth rate down. But, again, the housing implications of births and deaths in Island County are quite different.

Figure 13: Natural population Growth in Island County since 1961



Net In-migration

As seen in Figure 11, net migration (in-migration minus out-migration) is the real story behind fluctuations in population growth. Natural growth will vary over time, but although there are year-to-year fluctuations, as seen in Figure 13, long term trends shift slowly and consistently.

Migration, on the other hand, can change rapidly, in response to local, regional and national conditions.

The challenge is measuring migration. While natural population growth is tracked carefully by government agencies, migration is not. No one is required to notify any government agency when they move, so we need to rely on estimates or on data that is picked up incidentally to a move, and hope to get a clear picture of migration patterns. There are four main sources of migration data at the county level, the advantages and disadvantages of which are discussed in the appendix:

- Population estimates from the Washington State Office of Financial Management
- Driver’s license trade-in data collected by the Washington State Department of Licensing
- Address changes on tax returns tracked by the U.S. Internal Revenue Service
- Data from the U.S. Census Bureau’s American Community Survey

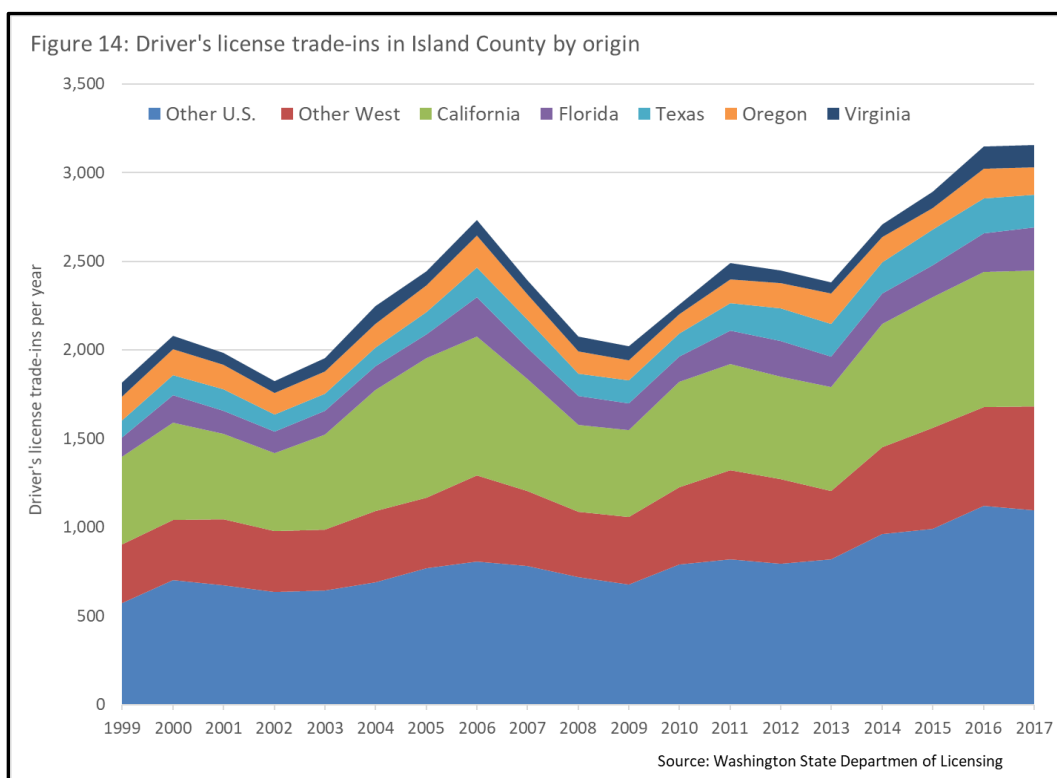
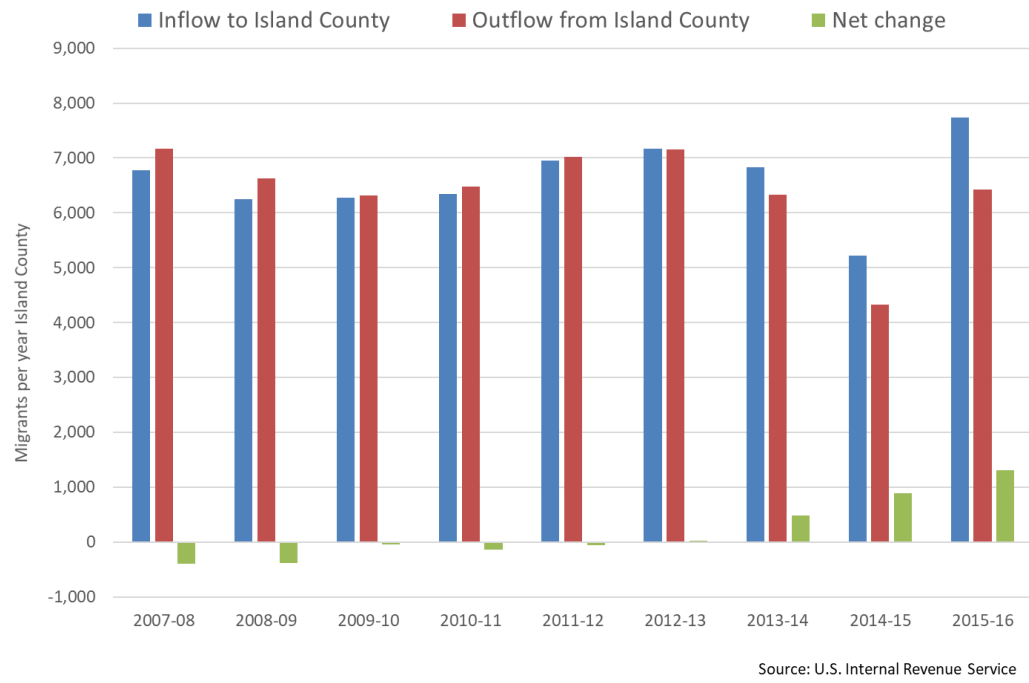


Figure 14 shows annual driver’s license trade-ins by people who made their new residence in Island County. As is the case everywhere in the state, California is the largest source of in-migrants. Although uniformed personnel and their families are not required to get a Washington license, the prominence of Florida and Virginia in this chart indicates a Navy influence. The chart covers two distinct business cycles, and shows that migration does follow those cycles, with fewer people moving during a recession.

Except for a hiccup in 2013, Island County has seen a steady increase in in-migrants since the Great Recession hit bottom in 2009.

Figure 15 shows migration into and out of Island County, as measured by address changes on federal income tax returns. (There appears to be an unexplained data anomaly for the 2014-2015 data point.) Since it includes in-state migrants and children of taxpayers who do not have driver’s licenses, and includes military personnel, it shows a larger number of in-migrants than in Figure 14. It also shows out-migrants.

Figure 15: Total migration into and out of Island County

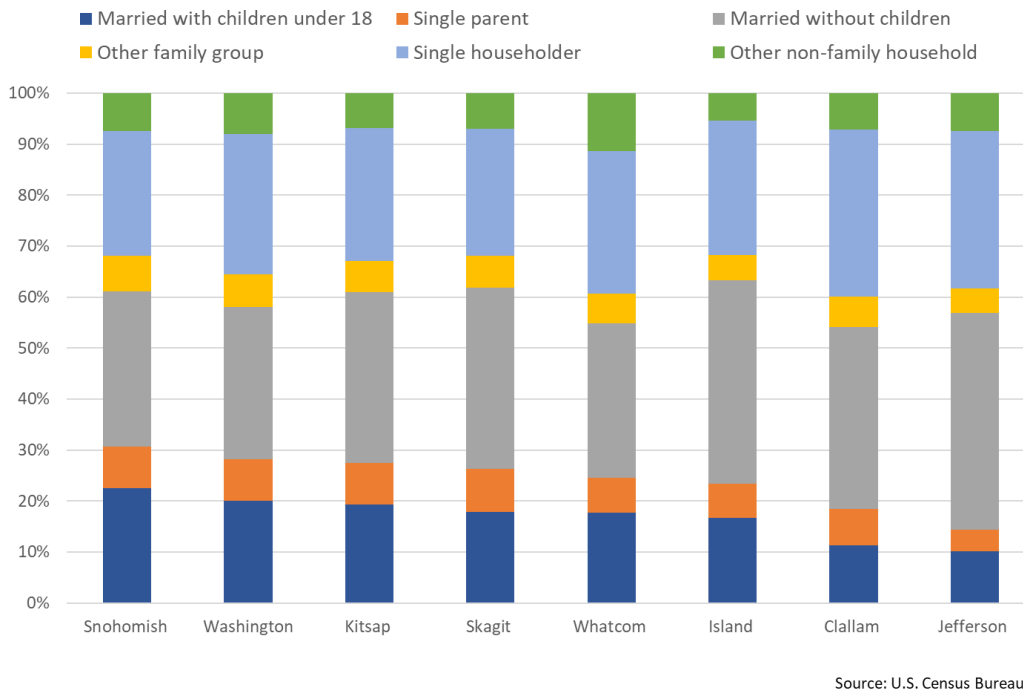


What is striking in this chart is the total flow of people into and out of Island County. In good times and bad, upwards of 10 percent of the county’s population turns over each year, with the net flow a small fraction of the total flow.

Given this churn of population, it is important to understand the role of the Navy. The IRS data allows us to estimate the movement of Navy personnel by identifying counties in the U.S. that have a large Navy presence and that are sending large numbers of migrants

to Island County. In the 2015-2016 year, about 20 percent of migrants into Island County can be positively identified as coming from places with a large Navy presence. This estimate captures only those personnel and families transferring from one Navy base to another and does not capture those newly in the service or who had used other addresses previously.

Figure 16: Household composition in 2016



Household composition

The relationship between growth and housing pivots on the question of household composition. Planning exercises often center on simple measures of people and housing units. But it is never that simple. Different household types require different kinds of housing.

Figure 16 shows the composition of households in Washington State, Island and six other counties. Given the higher median age seen in Figure 7, it is not

surprising that the number of households with children in Island County is somewhat smaller than the state average. But the total of all “family” households in Island County (defined as having at least two related people) is higher than the state average. This has important implications, since 85 percent of Island County families live in detached housing.

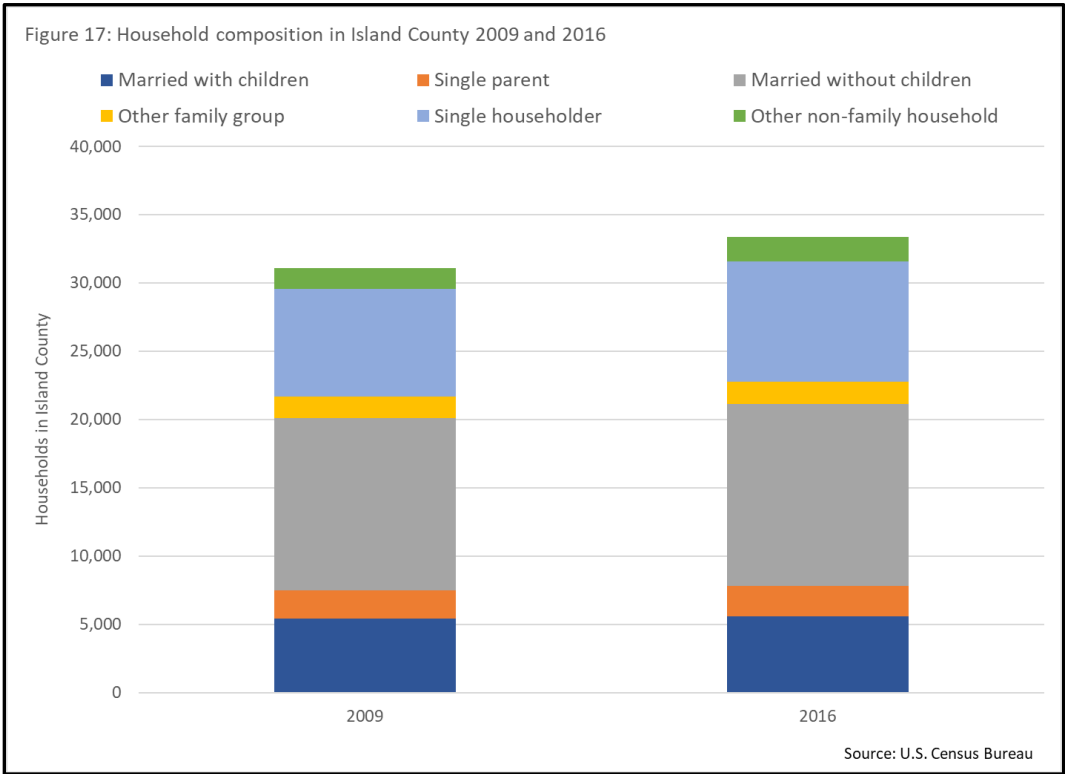


Figure 17 shows household composition for Island County in 2009 (the oldest date with comparable data) and 2016. Even with the population turnover shown in Figure 15, the household composition of Island County has not changed.

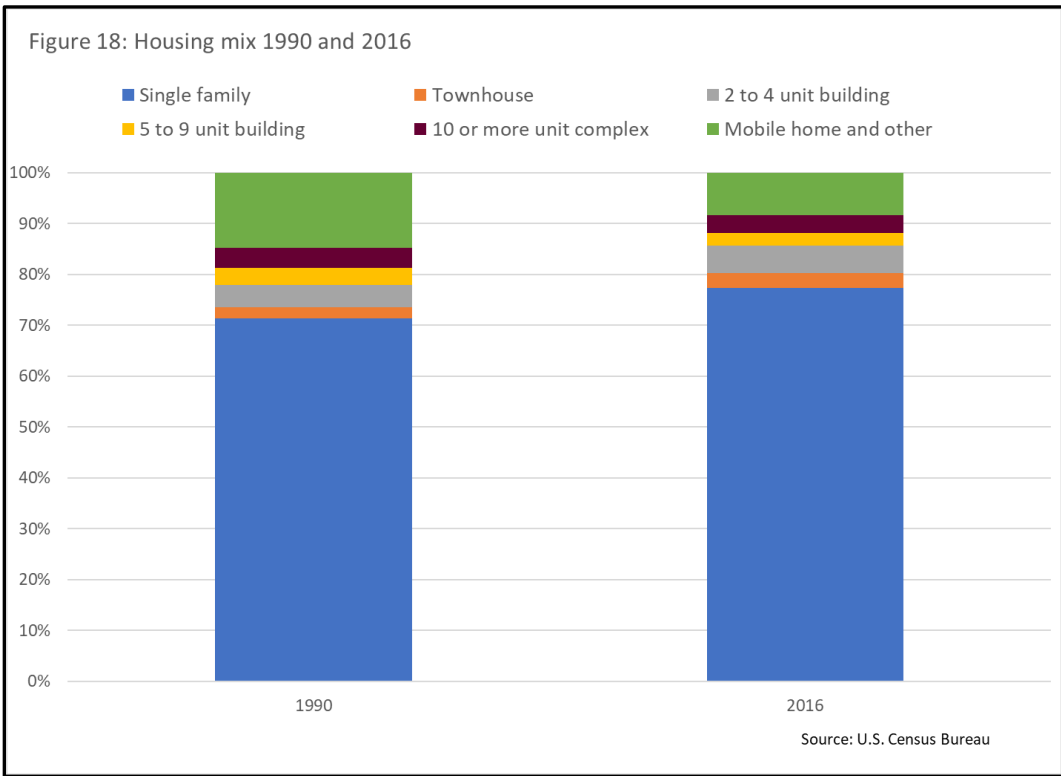
Housing type

A key assumption behind the Growth Management Act was that, in the future, an increasing share of households would choose to live in multifamily housing, although there was never any evidence that this might

be a plausible trend. Moreover, measurements of the adequacy of housing capacity make no distinction between single family and multifamily housing, as though they are perfect substitutes in the market. They are, of course, not perfect substitutes, and only rarely are they really adequate substitutes. Households tend to choose one or the other, depending on their needs and preferences, although multifamily is often the only choice available for low income families.

It is important, then, to understand the mix of housing types and how it has changed. Figure 18 shows the mix of housing by basic types from the 1990 census and from the 2016 ACS five year estimates. The housing mix has changed somewhat over 26 years, but not necessarily in the ways anticipated. The single family detached share has increased from 71 percent to 77 percent. Townhouses have grown slightly, but all of the multifamily types combined have decreased slightly as a share of the total.

The major change is in the share of mobile homes, which has decreased from 15 percent to 8 percent of the total. The actual number of mobile homes has decreased only slightly, but since the overall housing stock has grown by over 57 percent, the mobile home share has fallen significantly. The Washington State Department of Licensing counts about 925 mobile homes in licensed mobile home parks, so the balance of the 3,400 mobile homes counted by the Census Bureau are on private land.



What is clear from Figure 18 is that the assumption that there would be an increase in multifamily living has not proven to be the case. Going forward, there may be an increase in multifamily demand as single family rentals become more scarce for lower wage workers in the local economy and as Navy personnel without children opt for apartment living.

Key growth trends

The preceding discussion provides a picture of a county with a healthy growth profile. While it has a large number of vacation and retirement homes, Island County’s population of working families continues to grow.

As seen in Figure 13, Island County has a strong birth rate, especially for a county noted as a retirement destination. The county has averaged about 950 births per year since 1990, and exceeded that number in 2016 and 2017. The death rate continues to rise slowly, as would be expected in a county with more retirees. The natural growth rate has stabilized for now.

The slowdown in migration seen from 2009 to 2015 reflected a national trend of slowing migration. Figure 11 shows slowing migration in previous recessions, and the Great Recession had the added burden of falling home values that made it difficult for many potential migrants to sell their primary residences. As real estate markets have recovered, migration between states has begun to pick up. The driver’s license data in Figure 14 shows a definite increase in in-migration, and while 2017 was flat, the first quarter of 2018 shows a 10 percent increase in driver’s license trade-ins from the first quarter of 2017.

An important “non-trend” is in household composition. The makeup of households, and therefore their needs for space and amenities, seems not to be changing at all, and is not too different from the statewide picture. Another non-trend is the preference for single family homes, which has not shifted in generations.

Anticipated population growth in Island County

As noted in Figure 10, growth in Island County has begun to pick up. While it is impossible to predict how many people will want to be living in Island County in the future (that is, demand for housing) we can look at some trends in the county itself and in adjacent counties.

But first, we need to look at the estimates that are currently guiding Island County’s planning processes. Under the State Growth Management Act, counties must use estimates provided by the state Office of Financial Management in their comprehensive planning. Those estimates are provided every five years, with a 20-year look forward. Figure 19 shows OFM’s projections for

Island County growth, taken from its GMA projections released in late 2017.

What is immediately noticeable is that the projected growth rates are much lower than actual growth rates that Island County has been

Figure 19: OFM projected growth in Island County

	Actual	OFM Mid-range Projected				
	2017	2020*	2025	2030	2035	2040
Total population	82,790	84,044	87,297	89,848	92,133	94,461
Average annual growth previous five years	688	418*	651	510	457	466
Average annual growth rate previous five years	0.87%	0.50%*	0.75%	0.57%	0.50%	0.49%

* Projected growth from 2017 to 2020--3 years

Source: Washington State Office of Financial Management

experiencing. Going back to 1960, the county has grown at an average annual rate of 2.6 percent. More recently, the average annual growth rate from 1990 to 2017 was 1.19 percent. And the county grew an average of 0.86 percent per year from 2000 to 2017, a period that included two significant economic downturns. The OFM projections show an average annual growth rate from 2017 to 2040 of 0.58 percent, or exactly half the rate from 1990 to 2017. (The Island County 2016 Comprehensive Plan Update uses OFM projections from 2012, which are even lower than the 2017 projections.)

To achieve this low rate of growth, there would need to be significant drops in the natural rate of growth, the rate of net in-migration or both.

Anticipated natural growth

As seen in Figure 13, the natural rate of growth has been falling. This is due, however, to a rise in the death rate, rather than a fall in births. The rising death rate, in turn, is attributable to the larger population of older people, and the increase in that population is due to in-migration of retirees.

So, it would not be possible to have BOTH a rising death rate and a falling rate of in-migration. At the risk of sounding gruesome, there is a distinct churn in the population as retirees move to Island County and live out their days there, and other retirees move in to take their place. This churn will follow its own logic and not necessarily relate to the indigenous economy. Furthermore, there is no reason to believe that people who have lived in Island County their entire lives are dying at a faster rate than anywhere else. In other words, because the rising death rate is tied to in-migration, it does not provide a reason to believe that overall growth will fall.

Births in Island County, as seen in Figure 13, have fluctuated since a peak in 1990, but have held level, on average, since the early 1990s. From 2000 to 2017, school enrollment in the three districts on Whidbey Island fell about 16 percent, but most of that drop happened in the South Whidbey district, with Oak Harbor, the largest of the Districts, falling 7 percent in that time. Enrollment in the Oak Harbor district has grown 5 percent since hitting a low in the 2007-08 school year. The increase in births seen in Figure 13 will show up in school district enrollments in another few years.

The birth rate has been trending slightly downward statewide, but has been increasing in Island, Snohomish and Skagit Counties. This indicates that the area is popular with families, and Figure 17 shows that households with children make up a consistent part of Island County's population. While birth rates fluctuate with demographic waves (e.g. Baby Boom, Millennials) there is no reason to believe that Island County will be any less attractive to families in the future.

For purposes of our analysis, we will assume a natural population growth rate of around 0.25 percent in the next decade.

Anticipated net migration

Since 2010, net in-migration has accounted for about 60 percent of population growth. This net inflow was slower in the early part of that time period, and accelerated in the past few years. Using OFM estimates, in-migration has averaged about 1.6 percent of population since 1960, 0.46 percent since 2010, and 0.9 percent for the past four years. For the OFM projections to hold, assuming that natural growth slows slightly, net migration would need to fall to around 0.35 percent which would represent a very large drop from historic rates.

We should note again the link between natural population growth rate and net in-migration. Island County has a lower natural growth rate because of a higher death rate that results from an influx of older residents. So, if net in-migration falls, and fewer older residents move to the county, the death rate will fall and the natural growth rate will increase.

Several forces will drive net in-migration to Island County in the coming decade:

Retirements. The Baby Boom generation is about one third of the way into retirement. The oldest Boomers are now around 72 years old, and the youngest are 54 years old. There are a lot of Boomers yet to retire, and many will look for a place that is more affordable and has an attractive set of amenities. A large part of the Boomer generation settled in outer suburbs in larger houses that are less conveniently located, so many will opt to move.

With home prices in the Puget Sound area accelerating rapidly, the Boomers still in the area will be able to sell their primary home and reap a large pool of equity that they can invest in a new home outside the Puget Sound area. A modest home in Seattle or on the Eastside can be traded for a newer home in a place like Island County, with plenty of equity left over to generate retirement income.

When retirees relocate, they tend to choose that option early in their retirement. Retirement relocations should remain strong for another decade, and then gradually taper off as the Boomers move on to their older years when they are less likely to move, and the smaller Generation X hits retirement time.

Navy. The major change anticipated in the Navy population is the addition of new Growler aircraft at the Naval Air Station. The Navy has issued an Environmental Impact Statement under NEPA that describes two alternatives, based on different aircraft placement strategies. Alternative 2 would result in an increase of 1,574 people, including uniformed personnel and their dependents. Alternative 3 would add 894 people. With other program changes, the “authorized manpower” of the base is expected to grow from 7,243 in 2017 to 8,338 in 2022, for an increase of nearly 1,100 uniformed personnel.

The Navy expects that of these new service members, about 600 will have families with them. The Navy currently provides housing for about 1,500 families, but does not intend to increase that stock of military-provided units, so all the growth in Navy families must be absorbed in the Island and Skagit county markets. About 500 of the new servicemembers will be unaccompanied, with about 200 living on-base and 300 living off-base.

Using a conservative employment multiplier of 1.5, we can expect about 500 more jobs in the area serving the military personnel and their families. If current patterns hold, and three fourths of these new base personnel settle in Island County, we would expect about 375 new jobs in the county.

Commuters. It would be reasonable to expect an increase in the number of people who move to Island County with the intent of commuting to jobs along the I-5 corridor. The phenomenon of “drive to qualify” has reasserted itself in the past five years, with incomes earned in King County no longer able to support home purchases in King County. There is a ripple effect, with King County workers driving up prices in Snohomish County beyond what Snohomish County workers can afford, sending Snohomish County workers to Skagit and Island Counties. According to IRS data, from 2015 to 2016, Island County gained a net of 579 taxpayers and dependents from King, Snohomish and Island counties combined.

Many of these new residents will not be commuters. But the Census LEHD data identifies a net gain of 1,277 people commuting from Island County to King, Snohomish and Skagit counties between 2010 and 2015, or a gain of over 10 percent in the commuting population. Since then, jobs have continued to grow along the I-5 corridor, with single family home construction falling farther and farther behind job growth and prices rising. Furthermore, the Millennial generation is now of an age to see accelerated family formation, with consequent demand for detached housing. These growth pressures will certainly find their way to Island County.

Indigenous economy. As noted above, most people who work in the civilian economy of Island County also live in the county. We can think of the indigenous economy of Island County in two parts. First are primary industries that bring in dollars from outside of the county. This includes shipyards, tourism, agriculture, aquaculture etc. As noted above, the sectors that have grown the most in the county are in the primary economy, and we can expect these enterprises to

grow, although probably not at a high rate, given the county's relative remoteness. Many of these sectors, such as shipyards and aquaculture, require skilled workers who will move to the county to take jobs there.

The secondary economy, that serves the needs of the resident population, can be expected to grow along with overall population. As noted, the Navy population will grow, and if the trend in a growing commuter population continues, we can expect growth in retail, healthcare, construction, personal and professional services and other secondary sectors that these new residents will rely on. Many of these sectors, such as healthcare and personal and professional services, require skilled workers who will move to the county to take advantage of opportunities.

The healthcare sector, in particular, bears watching. With a growing population of retirees comes a growing need for healthcare services. Advances in care mean fewer trips to major medical centers in the metropolitan area and more care at local facilities. Local specialty care facilities will become increasingly viable for mid-sized communities like Island County, and will be staffed by professionals moving to the area.

The forces that have driven migration to Island County are still in place and show no signs of diminishing. The Navy has clear expansion plans in the early part of the planning period. The county will continue to grow as an attractive, affordable commuter suburb and as the base for primary economic activity requiring skilled workers. These growth sources, in turn, will generate growth in the secondary economy, and not all those jobs will be taken by people who have grown up in the area.

Given all the variables involved, predicting net migration is extremely difficult. But if long term trends show no signs of changing, we can assume that migration will not be lower than in the past. Since 1990, annual net in-migration to Island County has averaged 0.6 percent, so for purposes of discussion, we can use that rate for the civilian economy. And we will use the Navy's estimate of 1,100 uniformed personnel added to the air station between 2018 and 2022.

Total anticipated growth

Combining our two estimates of growth—0.25 percent natural growth and 0.6 percent net in-migration—we can estimate that the population of Island County will grow at least 0.85 percent per year on average over the next decade, in addition to near-term Navy base growth. Beyond that, projections become weaker as the possibility of new, unknown variables increases.

Figure 20 shows projections for growth over the next ten years based on these assumptions. It also compares these projections to those issued by OFM in 2017. Applying relatively conservative, historically-based and evidence-based growth estimates, and combining those with personnel growth anticipated by the Navy, we get a projected growth of 9,939 residents over ten years. OFM's projected growth for this period is 5,540, and the Island County Comprehensive Plan anticipates growth of fewer than 3,000 over this period. (The Comp Plan does not have medium-term projections, so growth of 3,000 reflects the plan's assumption of gradually decreasing growth toward a projected total population of 87,917 in 2036.)

Figure 20: Projected population change in Island County

	Projected Annual population increase									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Natural growth (incl. Navy children)	207	210	213	216	219	222	224	226	228	230
Net in-migration ex Navy	497	504	511	519	526	533	538	542	547	552
Subtotal ex Navy	704	714	724	735	745	756	762	768	775	782
Navy personnel housed off-base	135	135	135	135	135					
Navy dependents housed off-base	360	360	360	360	360					
Subtotal Navy	495	495	495	495	495					
Projected total annual growth	1,199	1,209	1,219	1,230	1,240	756	762	768	775	782
OFM projected total growth (2017)	493	415	346	866	634	603	581	569	508	525
Projected year-end Island Co. Population	83,989	85,198	86,417	87,646	88,886	89,642	90,404	91,172	91,947	92,729
OFM medium projected year end population	83,283	83,698	84,044	84,910	85,544	86,147	86,728	87,297	87,805	88,330
Projected annual growth rate	1.45%	1.44%	1.43%	1.42%	1.41%	0.85%	0.85%	0.85%	0.85%	0.85%
OFM projected annual growth rate	0.60%	0.50%	0.41%	1.03%	0.75%	0.70%	0.67%	0.66%	0.58%	0.60%
2017 population	82,790									
Annual natural growth rate	0.25%									
Annual net immigration rate ex Navy	0.6%									
Navy dependent multiplier	3									

Sources: Washington State Office of Financial Mangement, Author's calculations

Both OFM and Island County would appear to be seriously underestimating growth that is very likely heading Island County's way. While the projections in Figure 20 are derived fairly simply, they are based on historic trends that the growth factors discussed above indicate are very likely to continue.

The role and impact of OFM projections

As Figure 20 shows, The 2017 OFM medium growth projections for Island County are significantly lower than a reasonable projection indicates growth will likely be.

These OFM projections are, for better or worse, the law of the land. RCW 36.70A.110 states that counties and cities are required to size and zone their urban growth areas "Based upon the growth management population projection made for the county by the office of financial management. . ." OFM's relevant legislation, RCW 43.62.035, states that:

Each projection shall be expressed as a reasonable range developed within the standard state high and low projection. The *middle range shall represent the office's estimate of the most likely population projection* for the county. (emphasis added)

OFM's methodology for making these projections is, for the most part, a "black box." OFM begins with a set of national and state economic assumptions. Those assumptions are driven through modeling tools to the county level, without much analysis of actual local conditions that might affect growth. The five market areas discussed in this report are not generally considered.

Rather, Island County is expected to gain a certain share of statewide growth, irrespective of what is happening locally.

Of particular concern for Island County is a statement in the technical documentation for OFM's 2017 projections that the process "did not make any additional adjustments to migration in counties with large military and college group quarters populations." In other words, the biggest single driver of population change in Island County is not taken into account.

From the beginning of Growth Management, the role of OFM projections has never been entirely clear. A "projection" cannot be a meaningful prediction, since no one can predict population growth at the local level with any great accuracy. Unless, of course, the projections are treated as a ceiling that holds housing construction below what the market demands, in which case the prediction process becomes circular and self-fulfilling. That is, counties only allow for the growth that OFM says they will get, and, not surprisingly, the projections are accurate!

There is a significant danger that the apparently low OFM projections for the next two decades will lead to less housing construction than the market could absorb. This, in turn, will force housing prices up as wealthy retirees and commuters heading to well-paid jobs outside the county bid up prices beyond what those working in the indigenous economy can afford.

Since Island County is the end-of-the-line, local workers priced out of the Island County market will have nowhere to go to find more affordable housing. This is a variation on the well-known problem faced by resort communities in which the local workforce cannot find housing and must be transported in from distant places.

The GMA's adherence to its population projections, and its strict requirements that counties plan according to those projections, will have significant implications for Island County. RCW 43.62.035 allows jurisdictions to challenge the OFM projections, and Island County should consider doing so.

Housing requirements and capacity

The preceding discussions lay out evidence that Island County should continue to grow at least as fast as it has over the past two decades. No forces are seen that would reduce growth, and the same factors that have contributed to growth (the five market drivers discussed at the beginning) all appear to be moving forward. The assumptions by OFM and by Island County that growth will slow are not supported by any data or clear trend analysis.

It is quite possible that, given growth in the mission of the Naval Air Station, and given the housing affordability crisis of the Central Puget Sound region, demand for living in Island County will exceed recent historic patterns. But for discussion purposes, we will use the growth assumptions in Figure 20.

Total housing need

In translating population growth assumptions into projections for future housing demand, we will keep it simple. The basic translation factors—household size, unit type—have held constant

for quite a while, and we can assume they will not vary by much in the coming decade. Housing demand projections will make the following assumptions:

- Average annual growth of the 2018 Island County population (natural growth plus net migration) will be 0.85 percent. This excludes planned increases in Navy Base population.
- The Navy will add an additional net of 1,100 uniformed service personnel by 2022.
- Of the new Navy personnel, 600 will require off-base housing for their families and 300 will require off-base non-family housing.
- Three quarters of new off-base Navy housing will be provided in Island County.
- Average household size will be 2.4 persons per household
- There will be no significant change in the preference for housing types, as seen in Figure 18. Very few new units will be added to manufactured home parks, so we can assume that 80 percent of new housing demand will be for detached housing (including manufactured homes on private land).

Following is an estimation of the annual housing production needs based on these assumptions about population growth.

Figure 21 estimates that about 3,800 housing units will be needed by 2027. Note that with the anticipated growth in Navy personnel and families living off-base, more housing will be needed in the first five years.

Figure 21: Projected housing needs in Island County

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	10 year total
Non-Navy population growth	704	714	724	735	745	756	762	768	775	782	7,464
Non-Navy housing units required	293	297	302	306	310	315	317	320	323	326	3,110
Single family units	235	238	241	245	248	252	254	256	258	261	2,488
Multifamily units	59	59	60	61	62	63	63	64	65	65	622
Navy families in single family hsg	90	90	90	90	90						450
Navy singles off-base in multifamily hsg	45	45	45	45	45						225
Total single family units	325	328	331	335	338	252	254	256	258	261	2,938
Total multifamily units	104	104	105	106	107	63	63	64	65	65	847

Source: Author's calculations

Distribution and capacity

Island County has distinct geographic and market areas, as would be expected in a county with two islands, one of which is quite long. The Island County Comprehensive Plan uses four sub-areas for planning purposes: North, Central and South Whidbey, and Camano. Figure 22 shows

Figure 22: Growth allocations in comp plan

	Share of total growth	Within UGA	
		In UGA	In rural areas
North Whidbey	49%	60%	40%
Central Whidbey	13%	15%	85%
South Whidbey	19%	19%	81%
Camano	19%	0%	100%

Source: Island County 2016 Comprehensive Plan Update

the allocation in the 2016 Comprehensive Plan Update for housing in each of the sub-areas, in terms of both the share of countywide growth allocated to that sub-area, and the UGA/rural split for that subarea. These allocations will be used below in distributing the housing needs shown in Figure 23.

Figure 23 provides an estimate of housing needs for each of the sub-areas, both within and outside the UGAs (Camano has no incorporated areas or UGAs). The estimates

in Figure 23 are based on the following simplifying assumptions:

- Population growth and housing needs shown in Figure 21.
- Subarea housing allocations shown in Figure 22.
- For Navy households, those with dependents will choose single family housing, and those who are single will choose multi-family housing.
- All Island County Navy households will live in North or Central Whidbey.
- All multi-family units in North and Central Whidbey will be inside UGAs. In South Whidbey, half of the multifamily units will be in the Langley UGA and half will be in the Freeland and Clinton areas. All multifamily units on Camano will be built in existing commercial areas.

Figure 23: Projected housing needs in Island County

	10 year total	North Whidbey		Central Whidbey		South Whidbey		Camano	
		In UGA	Rural	In UGA	Rural	In UGA	Rural	In UGA	Rural
Non-Navy housing units required	3,110	914	610	61	344	112	479	0	591
Single family units	2,488	731	488	49	275	90	383	0	473
Multifamily units	622	305	0	81	0	65	60	0	118
Navy families in single family hsg	450	338	0	113	0	0	0	0	0
Navy singles off-base in multifamily hsg	225	225	0	0	0	0	0	0	0
Total single family units	2,938	1,069	488	161	275	90	383	0	473
Total multifamily units	847	530	0	81	0	65	60	0	118
Total all unit types	3,785	1,599	488	242	275	155	443	0	591

Sources: Island County Comprehensive Plan, Author's calculations

Figure 24 compares the totals in Figure 23 with the housing requirements and capacity identified in the Island County 2016 Comprehensive Plan Update.

Figure 24 indicates that, with the exception of the North Whidbey rural areas, the comp plan seriously underestimates the amount of housing needed in the next ten years. The comp plan uses population estimates that are lower than historic patterns and current trends suggest are reasonable, and it fails to include growth highly likely to take place at the Naval Air Station.

Figure 24: Projected housing needs in Island County

	10 year total	North Whidbey		Central Whidbey		South Whidbey		Camano	
		In UGA	Rural	In UGA	Rural	In UGA	Rural	In UGA	Rural
Estimate for all unit types	3,785	1,599	488	242	275	155	443	0	591
Estimate in 2016 comp plan update	1,964	794	529	30	174	20	213	0	204
Difference	-1,822	-805	41	-212	-101	-135	-230	0	-387
2016 Comp Plan capacity, adjusted*		1,687	678	253	1,420	764	1,716	0	1,082

*The 2016 comp plan update does not include a market factor for land supply, and one is used here. 15 percent deducted inside the UGA, 20 percent deducted outside UGA

Sources: Island County Comprehensive Plan, Author's calculations

Figure 24 also shows a serious lack of capacity in the North Whidbey planning area. The capacity both within and outside the Oak Harbor UGA is barely enough to accommodate the ten-year estimated housing need. There appears to be ample capacity in the rural areas, but developing those areas intensively is not in the spirit of conservation-minded planning and would not meet the needs of households that do not want a low-density rural lifestyle.

Summary of findings

Growth and change in Island County

The factors driving Island County growth are robust

The paper discusses five factors of growth, noting that one of them, vacations homes, is not salient. The other four are healthy and can be expected to drive housing demand in the coming decade:

Indigenous economy. While not paying well, and lacking strong industrial components, the local job market is solid. The visitor industry will expand and retail services and healthcare will expand to meet the needs of growing Navy, commuter and retiree populations.

Navy. The Navy has announced significant expansions of uniformed personnel over the next five years. Military bases typically drive one new civilian service job for every two uniformed personnel.

Commuters. Housing prices in King and Snohomish Counties continue to rise rapidly, leaving households looking further away for affordable homes. For those with high Puget Sound earnings, Whidbey and Camano Island are affordable, and the commute is a reasonable tradeoff for many.

Retirees. House values in the Puget Sound area and California have fully recovered and retirees are in a better position to sell their primary homes and move to an attractive area like Island County. Many will move before retirement and commute for a few years before leaving the workforce.

Outside incomes bid up prices

Three of the four sources of growth bring money in from outside the county. Retirees, commuters and senior Navy personnel will have higher average incomes than people working in the Island County economy and can bid up housing prices beyond what is affordable to those working in the county. This makes it difficult for those who have grown up in the county to stay, and difficult for local businesses to find employees.

Components of growth are interrelated—both cannot fall

Natural growth (births minus deaths) and net in-migration (in-migrants minus out-migrants) are interrelated. Island County's natural rate is lower than the state rate, but that is because of a higher death rate (rather than a lower birth rate). The higher death rate comes from the in-migration of retirees to the county and the consequently older population. Both rates cannot fall, as the OFM population projections seem to suggest. A drop in in-migration would mean a younger population and, therefore, fewer deaths and a higher natural growth rate. A drop in the natural rate would indicate a higher death rate, which would be the result of higher in-migration of seniors.

Population is older, but family life is mostly stable

Island County's median age is well above that in the state and the Central Puget Sound region, but it is well below that of retirement havens like Clallam and Jefferson counties. Meanwhile, the birth rate in Island County has remained relatively constant over the past decade. School enrollments have held steady in the North Whidbey area, but have fallen in the south part of the island. The cycling through of young Navy families balances out the influx of retirees, keeping Island County demographically sound, and keeping the demand for family-friendly housing strong.

Implications for housing markets

All types of housing are needed

The great majority of demand for housing will be for single family homes. The county comprehensive plan anticipates that half of all new housing will be outside of UGAs, and, therefore mostly on large rural lots. Demand from Navy families and many commuters will be for more conventional neighborhood housing, and UGAs should be expanded to allow for that type of development. Multifamily housing is needed for younger people working in the local economy as well as for Navy personnel without dependents. Affordable, market-based options, including multifamily, are in very short supply in the south part of Whidbey.

Plans do not show enough housing capacity

The analysis in this paper, which uses historically realistic growth rates, and anticipates expansion at the Naval Air Station, shows a larger demand for housing than the county comprehensive plan allows for in the North Whidbey planning area. Keeping land prices, and therefore housing prices, in check requires a significant surplus of land above what the homebuilding industry will absorb in the medium term. This is not the case in the North Whidbey planning area.

Conclusion

Island County's unique geographic position, economy and housing market structure mean that it cannot follow the path of other areas of the state as it plans for future growth. This study argues that current plans for Island County seriously underestimate the likelihood that historic population growth rates will continue and that demand for housing will not be met with supply. It also suggests that the assumption that a large share of future growth will be in low density rural settings is ill-advised. Leaders and citizens of Island County have an opportunity to look forward for creative solutions to expand urban living to meet housing demand while conserving more of the rural and natural areas that give the county its appeal.

Appendix: Notes on Data Sources

Generally, demographers and economists work with two kinds of data:

Survey data. This data is gathered through various survey methods, with the purpose of the survey to gather specific information. Survey data includes the decennial census, the American Community Survey and surveys conducted by the Bureau of Labor Statistics to determine unemployment rates. The advantage of surveys is that they ask for exactly the data that is desired. The disadvantage is that they generally survey only a sample of the relevant population, and, therefore, have error rates. The smaller the sample, the larger the potential error.

Administrative data. This data is gathered as a byproduct of some other administrative process. Examples include employment data (from unemployment insurance programs) income data (from tax returns), vital statistics (from birth and death certificates). The advantage of administrative data is that it can be very thorough and cover huge populations. The disadvantage is that the program may not be set up to ask the questions and gather the data that would be most useful.

Following are notes on some data sources used in this report.

Washington State Office of Financial Management (OFM) population estimates (based on both survey and administrative data) OFM has responsibility for tracking population in the state. Each year on July 1 the agency issues population estimates for counties and cities as of April 1 of that year. The agency also issues estimates of “components of population growth” for counties. This includes births, deaths and “residual net migration.” Because counties and the state collect very accurate data on births and deaths (registration of both “events” is legally required) the data on the natural rate of population growth is very accurate. To derive the figure for net migration (in-migrants minus out-migrants) OFM simply subtracts the natural growth figure (births minus deaths) from their estimate of annual growth. In other words, estimated growth (or decline) that cannot be attributed to births and deaths must be attributed to net migration. But since the total population growth figure that this process starts with is an estimate, and the natural rate of growth is very accurate, the residual migration figure will contain the entire error in the estimate of the total population growth.

OFM’s population growth estimates are valuable, but must be treated as approximate. The OFM methods provide a good picture of growth and migration over time and in large areas, but can have inaccuracies on a year-to-year basis in small jurisdictions. In this report we use three-year rolling averages to smooth out the year-to-year anomalies.

Washington State Department of Employment Security (DES) covered employment data. (Administrative data) DES is responsible for administering the state unemployment insurance program, and in doing so, collects data on employment. Employers are required to submit detailed information about their employees, and this allows DES to publish data on employment and wages by industry for each county. This data is quite complete, but does have some limitations. First, since the self-employed cannot enroll in the program, it does not cover them in the data. Second, where there are so few employers in an industry that giving employment and income data might reveal what is going on in a specific firm, that data is suppressed. For example, if there is only one steel mill in a county, data on steel mills would not be provided, but the employees in the steel mill would be included in the total for all manufacturing.

Census Bureau American Community Survey. (survey data) Until 2000, the Census Bureau had a “short form” and a “long form” questionnaire for the decennial census. Every household got the short form and a sample got the long form. Then, beginning in 2005, Census began the American Community Survey that asked the questions used on the long form to about one percent of households each year. The result is a rich, timely source of data on a wide range of topics. The downside of the ACS is that the sample size is so limited that in a place like Island County, the data is not reliable for fine-grained questions like ethnicity, education, migration and other topics with complex responses. So while Census provides data on all of these questions, there is also a “margin of error” for each data point, and often these margins are so large as to make the data of limited use. For example, the ACS 2016 five-year averages indicate that 4,516 people migrated to Island County from other states. But the margin of error is plus or minus 634 people, meaning that the actual number is most likely somewhere between 3,882 and 5,150 people.

Census Bureau Longitudinal Employer-Household Dynamics (LEHD). (administrative data) In this program, the Census Bureau gathers unemployment insurance data from states, and matches it by social security number to tax return data from the IRS to identify commute patterns. The unemployment insurance data indicates where a person works, and the IRS data indicates where they live. This is innovative and highly useful data. But like any administration data source, it has its limitations. Any data query for commuting patterns will yield some results that make little sense—impossible commutes being undertaken by large numbers of people. This is likely due to employers using corporate addresses instead of job site addresses on unemployment returns. Nonetheless, the LEHD data is a welcome addition to the data used in understanding housing patterns.

Washington State Department of Licensing (DOL) in-migration data. (administrative data) States keeps track of migration through the trading in of drivers licenses. In Washington, DOL reports this data by state of origin and destination county in Washington. This data is quite accurate and up-to-date, but only covers licensed drivers and, of course, does not cover people migrating within the state. And although DOL provides figures for outmigration (people trading in a Washington license in another state) this data is not complete, so we really only get one side of the migration picture. Because military families are not required to trade in their driver’s license in Washington, most Navy personnel will be missing from this data. With all these limitations, however, driver’s license data is a critical part of understanding migration.

Internal Revenue Service migration data. (administrative data) The IRS keeps track of migration by noting when a taxpayer has filed a tax return from an address that is different from the address they filed from the prior year. This data is collected in county pairs and also includes information that provides surrogates for household size and income. Since nearly all permanent resident households file a tax return, the data is normally quite complete. An important limitation of the IRS data is that counties of origin are only named when at least 10 taxpayers came from them. Counties with fewer than 10 returns are aggregated by region of the country. Unfortunately, the IRS is usually at least two years behind in publishing this data: the most current data reflects address changes between 2015 and 2016.