



APPENDIX A:

CLATSOP COUNTY
HOUSING TRENDS AND NEEDS

JANUARY, 2019

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Introduction

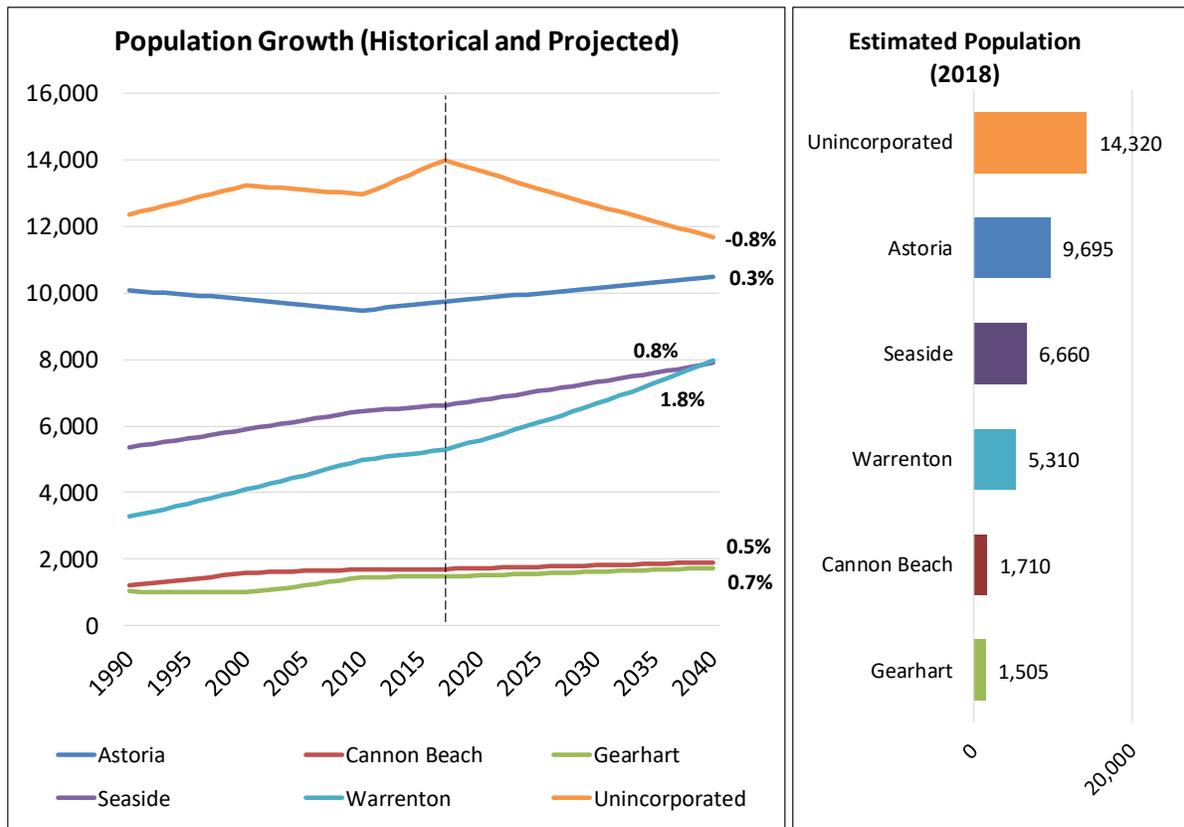
This report presents Housing Trends and Projected Housing Need for Clatsop County as a whole and for the five incorporated cities within. The first four sections present findings and data mostly for the County as a whole with some categories of information presented for the cities as well. Profiles of the individual cities are presented at the end of this report.

1. Population and Household Demographics

Figure 1.1 presents the estimated current population in Clatsop County cities, and the projected growth rate over the next 20 years according to the PSU Population Forecasting program. This program works with cities to agree upon projected growth rates for use in official housing forecasts, on a roughly four-year cycle. The Clatsop County forecast was finalized in 2017.

Annual growth is projected to be strongest in Warrenton (1.8%) and Seaside (0.8%) and more modest in other communities. For comparison the statewide growth rate has averaged near 1% in recent decades.

FIGURE 1.1: CURRENT POPULATION AND PROJECTED GROWTH (CLATSOP COUNTY CITIES)



Source: PSU Population Research Center & Forecast Program

The statewide program for which PSU completes its forecasts assumes that future growth happens within Urban Growth Boundaries (UGB) of incorporated cities. Therefore, it assumes that unincorporated areas will lose population over time as unincorporated areas are annexed into adjacent cities. As this is the official forecast, it is reflected in Figure 1.1. But it is likely more realistic to assume that population in unincorporated areas will remain stable or experience slow growth.

Figure 1.2 presents a summary of demographic trends in the County since 2000. As of 2018, the County had an estimated 39,000 people, living in nearly 16,500 households. Since 2000, the County's population has grown by roughly 3,570 or 10%. This is annual growth of 0.5%. The number of households increased by roughly 1,750 or 12%.

FIGURE 1.2: DEMOGRAPHIC PROFILE AND TRENDS (CLATSOP COUNTY)

POPULATION, HOUSEHOLDS, FAMILIES, AND YEAR-ROUND HOUSING UNITS					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(PSU)	10-18
Population ¹	35,630	37,039	4.0%	39,200	5.8%
Households ²	14,703	15,742	7.1%	16,460	4.6%
Families ³	9,450	9,579	1%	10,015	5%
Housing Units ⁴	19,685	21,546	9%	22,673	5%
Group Quarters Population ⁵	1,121	956	-15%	1,012	6%
<i>Household Size (non-group)</i>	2.35	2.29	-3%	2.32	1%
<i>Avg. Family Size</i>	2.88	2.85	-1%	2.90	2%
PER CAPITA AND MEDIAN HOUSEHOLD INCOME					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(Proj.)	10-18
Per Capita (\$)	\$19,515	\$26,221	34%	\$27,895	6%
Median HH (\$)	\$36,301	\$44,330	22%	\$49,828	12%

SOURCE: Census, PSU Population Research Center, and Johnson Economics

Census Tables: DP-1 (2000, 2010); DP-3 (2000); S1901; S19301

¹ From PSU Population Research Center, Population Forecast Program, final forecast for Clatsop Co. (2017)

² 2018 Households = (2018 population - Group Quarters Population)/2018 HH Size

³ Ratio of 2018 Families to total HH is based on 2016 ACS 5-year Estimates

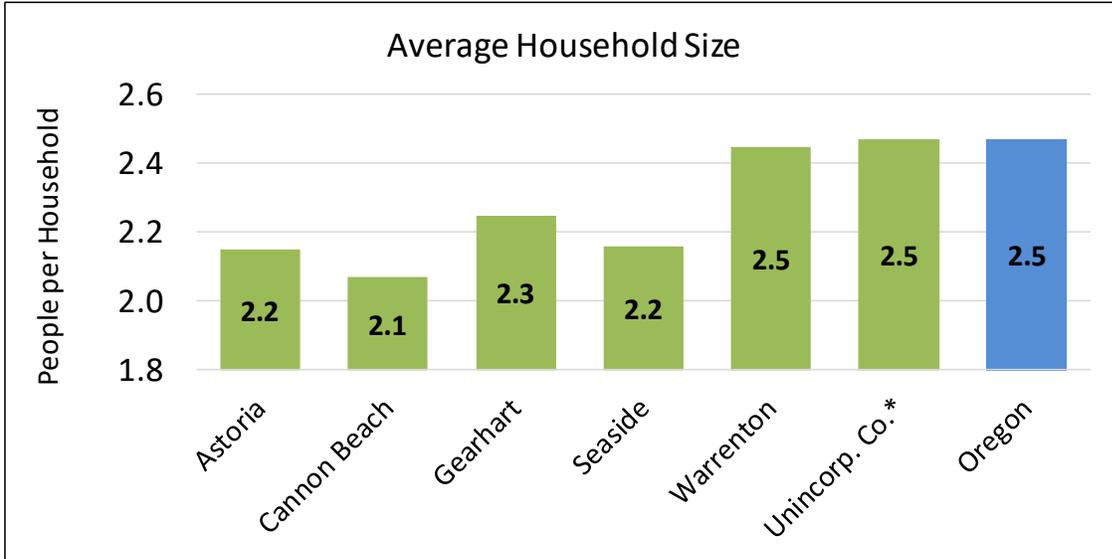
⁴ 2018 housing units are the '10 Census total plus new units permitted from '10 through '18 (source: Census, Cities)

⁵ Ratio of 2018 Group Quarters Population to Total Population is kept constant from 2010.

Household Size: Estimated household size has fallen since 2000 in keeping with nationwide trends. Households and families have gradually fallen in size in a decades-long trend. However, the Census estimates that the average household and family size have actually grown in Clatsop County since 2010. Growing household size may reflect the need for more households to consolidate since the recession 10 years ago due to financial circumstances, as well as the increased housing shortage perceived in the county over that period.

Warrenton and unincorporated Clatsop county have average household size similar to the statewide average. The other cities have a relatively smaller household size.

FIGURE 1.3: AVERAGE HOUSEHOLD SIZE (CLATSOP COUNTY CITIES)



Source: American Community Survey, 2017 5-Year, B11005

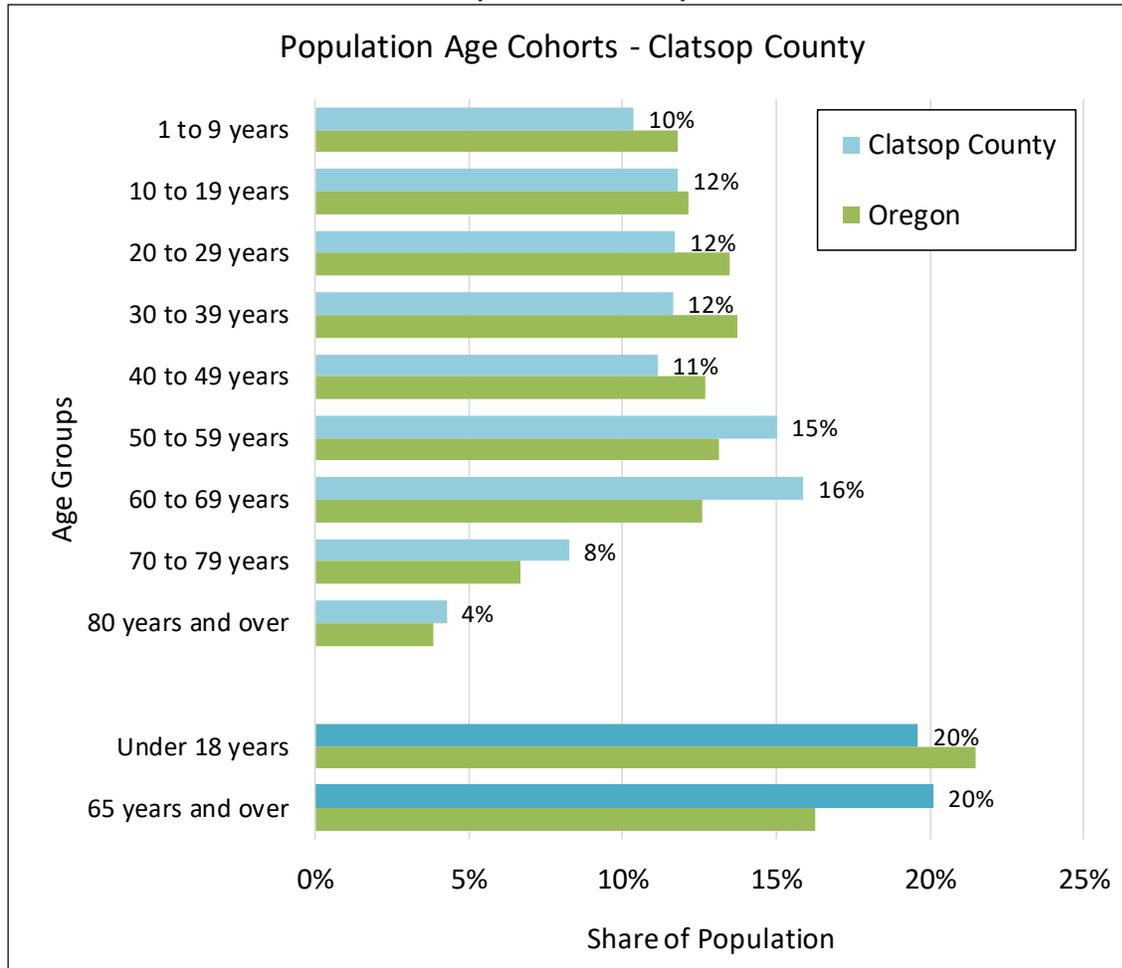
* Unincorporated statistic is estimated; geography not available from Census

Age of Population: Clatsop County has an older average population in comparison to the state, in keeping with the role of the coast as a popular retirement destination. The county has a greater share of population aged 50 and above, and fewer children. 20% of the population is aged 65 and over, compared to 16% statewide. (Figures 1.4 and 1.5 following page)

Figure 1.6 presents *households* with children, which differs from the share of *population* with children presented above.

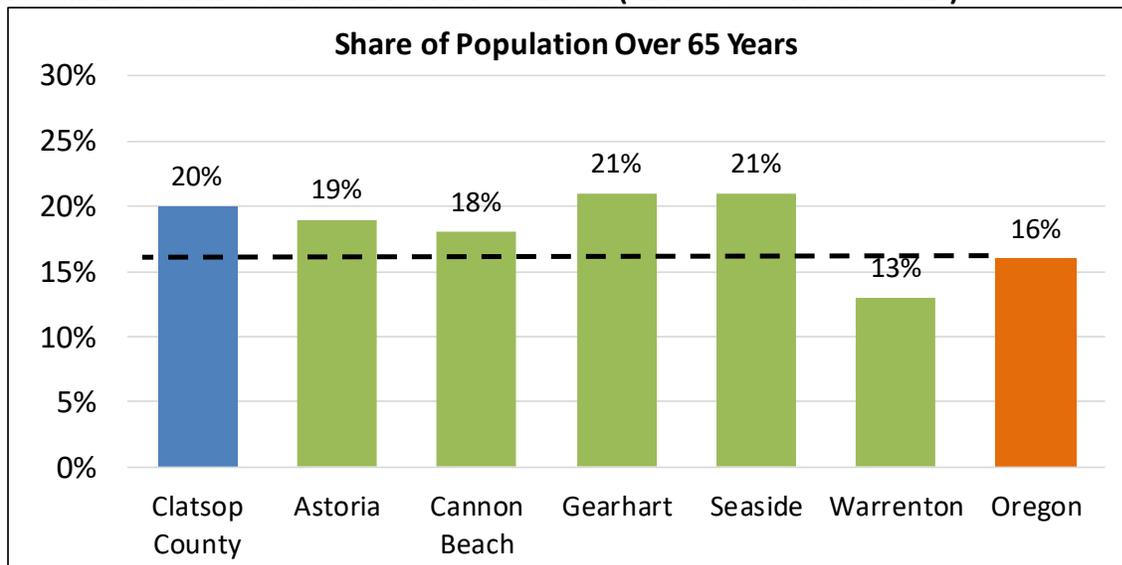
All of the cities except Warrenton have a higher relative share of older residents, and fewer families with children. Gearhart has a share of households with children similar to the statewide average.

FIGURE 1.4 POPULATION BY AGE COHORT (CLATSOP COUNTY)



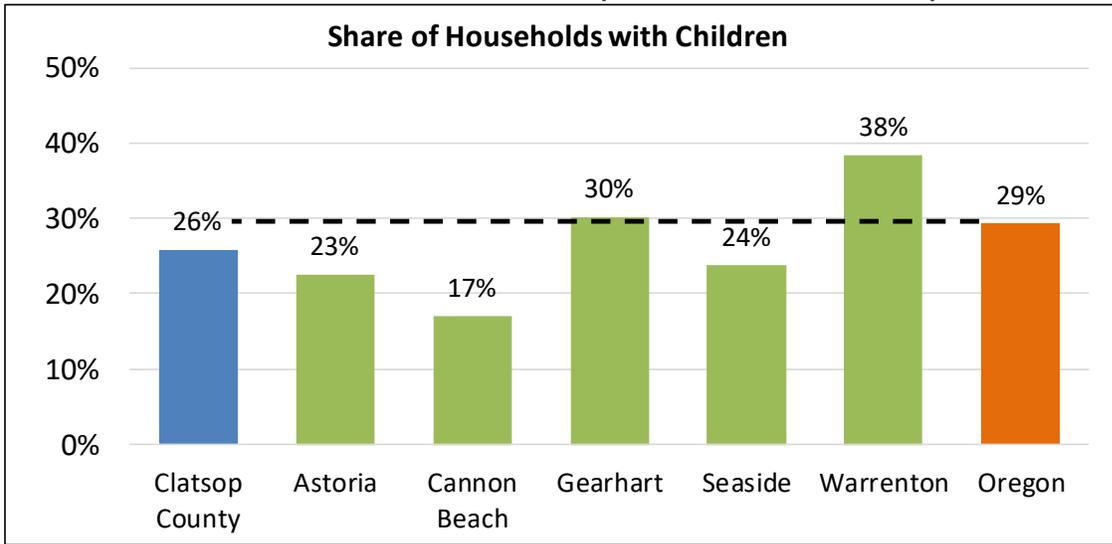
Source: American Community Survey, 2017 5-Year, S0101

FIGURE 1.5: SHARE OF RETIREMENT-AGE POPULATION (CLATSOP COUNTY AND CITIES)



Source: American Community Survey, 2017 5-Year, S0101

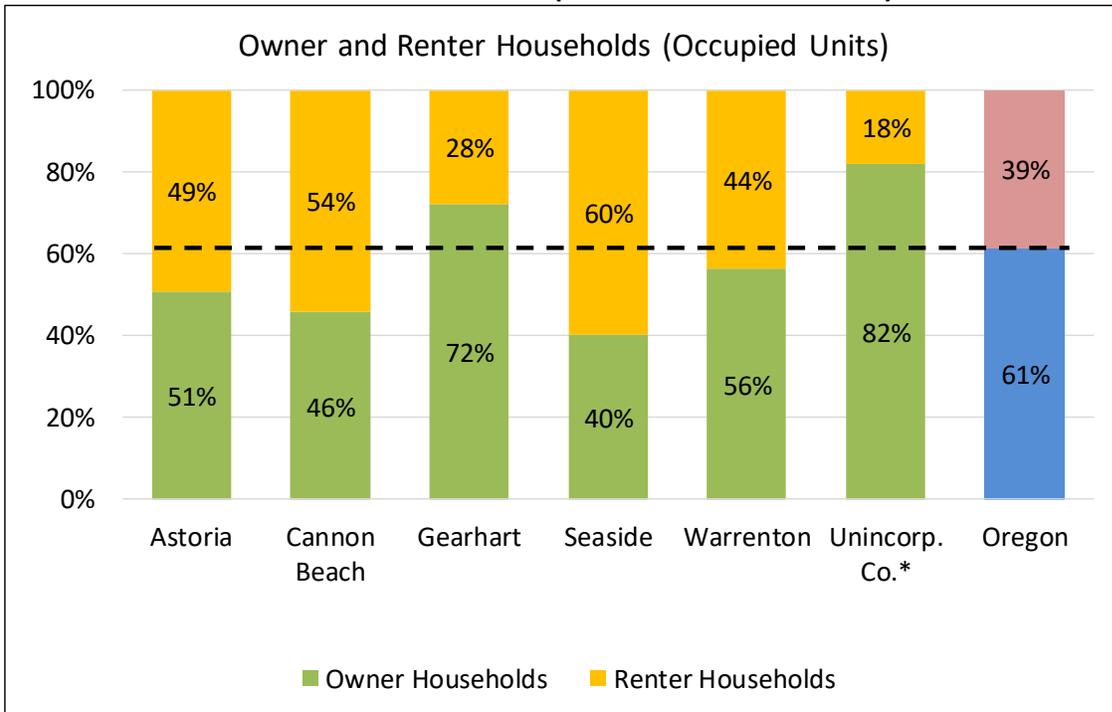
FIGURE 1.6: SHARE OF HOUSEHOLDS WITH CHILDREN (CLATSOP COUNTY AND CITIES)



Source: American Community Survey, 2017 5-Year, B11005

Tenure (Owners and Renters): At 60% ownership, Clatsop County has an ownership rate similar to the statewide level. However among the cities, many have a relatively higher share of renters among their permanent residents. Gearhart and unincorporated areas have a higher ownership rate.

FIGURE 1.7: TENURE OF OCCUPIED HOUSEHOLDS (CLATSOP COUNTY AND CITIES)

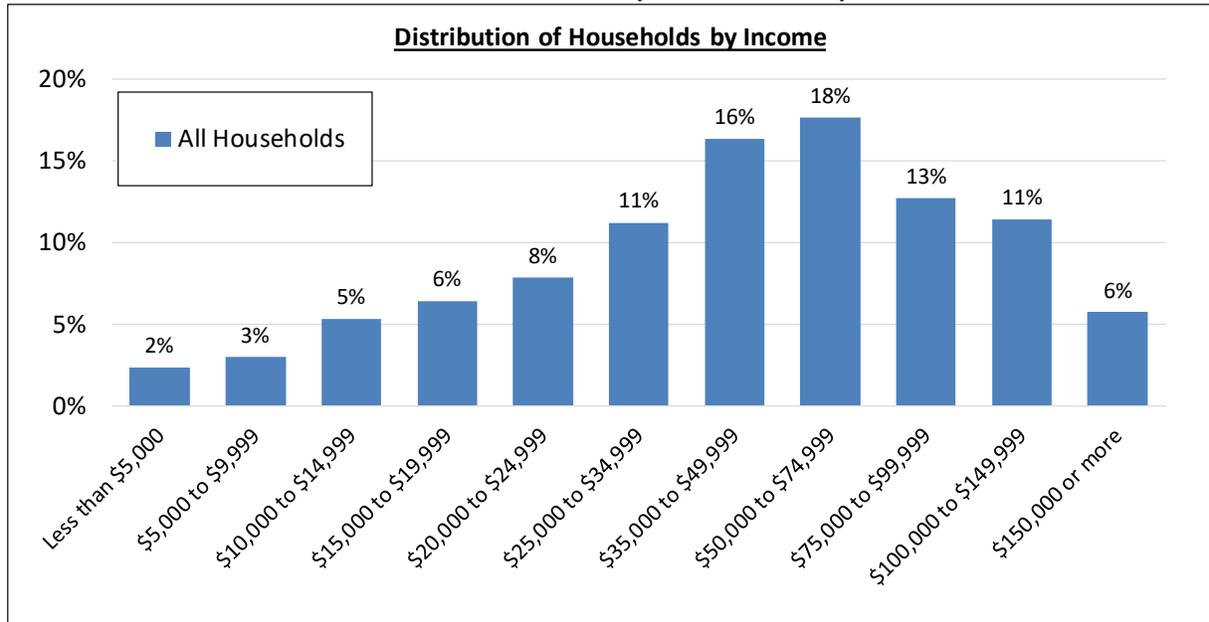


Source: American Community Survey, 2017 5-Year, B25007

* Unincorporated statistic is estimated; geography not available from Census

Median Household Income: The Clatsop County median income has grown since 2000, at nearly 2% per year. This has slightly lagged inflation over this period. However, since 2010, the median income has outpaced inflation (2.4% to 1.7%) meaning that income rebounded relatively strongly during this economic recovery period. The greatest share of households earn between \$35,000 to \$99,000.

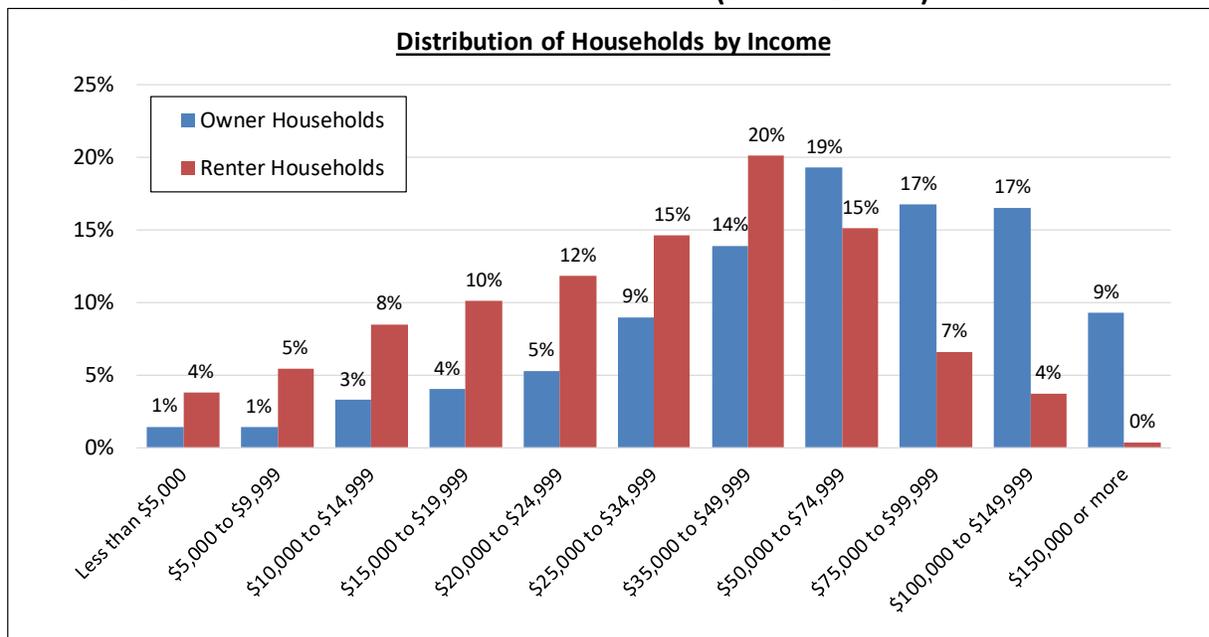
FIGURE 1.8: DISTRIBUTION OF HOUSEHOLDS BY INCOME (CLATSOP COUNTY)



Source: American Community Survey, 2017 5-Year, B25118

Owner households have a higher median income (\$65,500) than renter households (\$34,500).

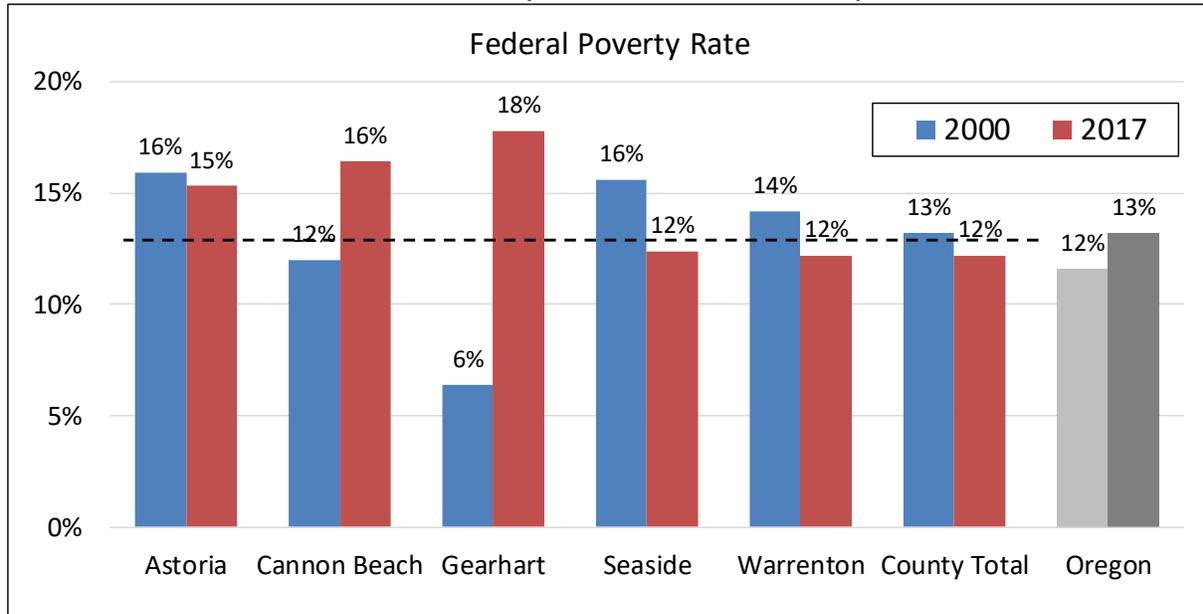
FIGURE 1.9: DISTRIBUTION OF HOUSEHOLD INCOME BY TENURE (CLATSOP COUNTY)



Source: American Community Survey, 2017 5-Year, B25118

Poverty Rate: As of 2017, the Census estimates the poverty rate in Clatsop County at 12%, close to the Oregon rate of 13%. The cities of Astoria, Cannon Beach and Gearhart have a higher estimated poverty rate. The Census estimates a large jump in the poverty rate in Gearhart between 2000 and 2017, but the reason for such a large increase is unknown. Cannon Beach also has an estimated increase, though to a lesser degree. Other cities have seen a decrease in the estimated poverty rate since 2000.

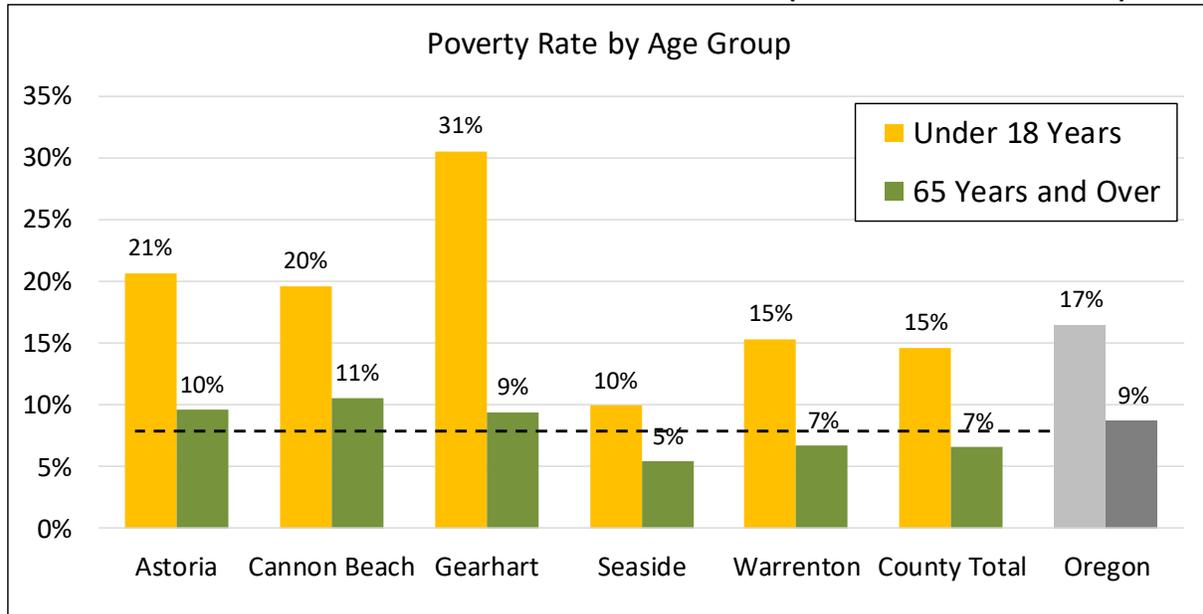
FIGURE 1.10 POVERTY RATE FOR POPULATION (CLATSOP COUNTY AND CITIES)



Source: American Community Survey, 2017 5-Year, S1701

As seen statewide, the poverty rate among children is higher than that among older residents.

FIGURE 1.11: POVERTY RATE FOR YOUNGER AND OLDER POPULATION (CLATSOP COUNTY AND CITIES)



Source: American Community Survey, 2017 5-Year, S1701

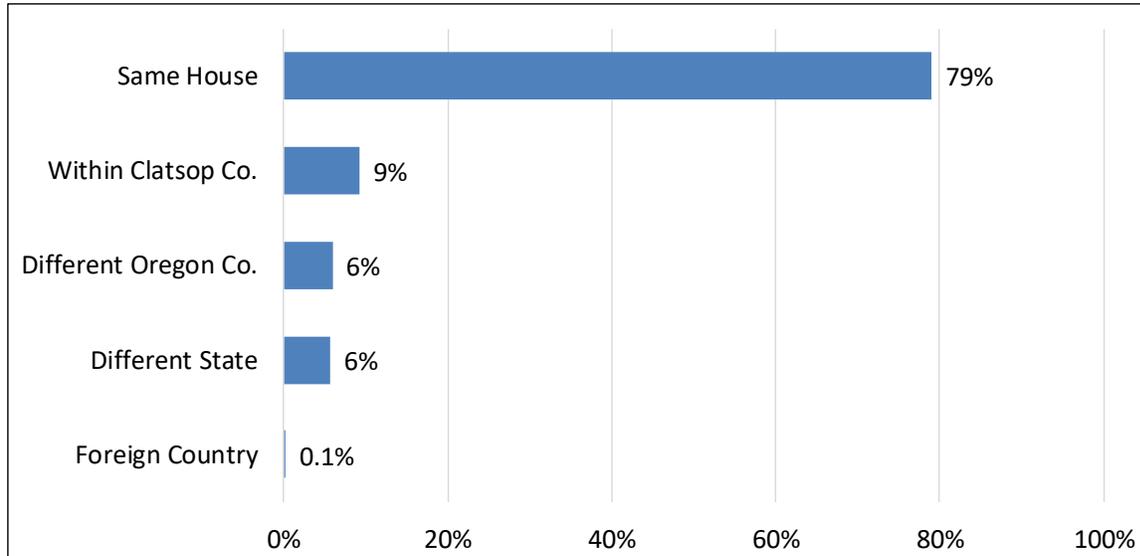
Homelessness: The one-night homeless count conducted in 2017 found 680 sheltered and unsheltered homeless individuals, essentially unchanged from the prior 2015 count. However, the non-profit agency Clatsop Community Action, estimates that the number of homeless individuals is likely more than 1,000. In particular, those staying temporarily in the homes of friends and family are in a precarious housing situation, but unlikely to be counted in the one-night count.

Even if the official count is low, it still places Clatsop County behind much larger counties (Multnomah, Lane, Marion, and Deschutes) in the total count of homeless individuals. More starkly, Clatsop County features the highest rate of homelessness per 1,000 residents than any other county in the state. With a rate of 17.4 homeless people per 1,000 in population, Clatsop County is double the next highest rate of 8.7 in Tillamook County.

Many of the counties with the highest rates of homelessness are coastal states, including Coos and Curry county in the south. Other counties with high rates are rural counties and the urban Multnomah County. The rate of homelessness speaks to the need for continuing to build a full spectrum of services and housing types to shelter this population, from temporary shelter to subsidized affordable housing.

Migration: The Census estimates that 21% of county residents moved within the prior year, according to the most recent data available (Figure 1.12). Somewhat less than half of movers, moved within the county itself. Of the remainder, roughly half moved from within Oregon, and half from outside of Oregon. Those moving from outside the county in the previous year represented 12% of all households.

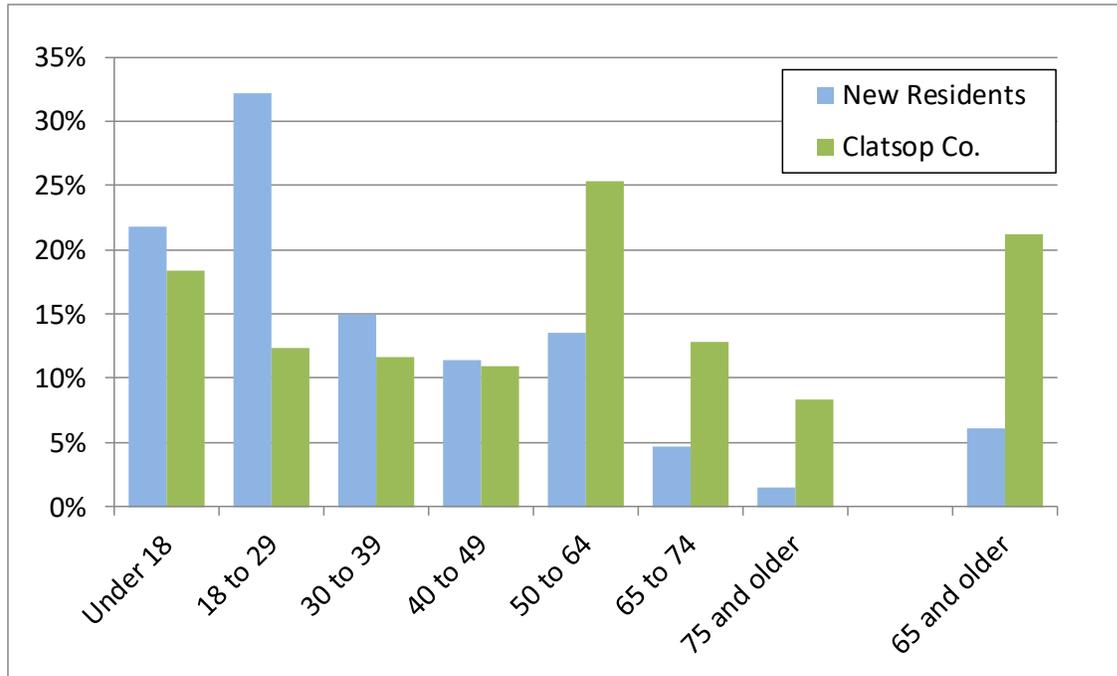
FIGURE 1.12: PLACE OF RESIDENCE IN THE PRIOR YEAR



Source: American Community Survey, 2017, B07001

Figure 1.13 shows a comparison of the age groups of existing county residents (including those who moved within the county), and the age groups of new residents moving into the county. New residents to the county are more likely to be younger, including children and those in their 20’s than existing residents who are much more likely to be 50 years or older. This implies that the county is attracting younger movers, and more family households, while existing residents are more likely to be retired or “aging in place” within the county.

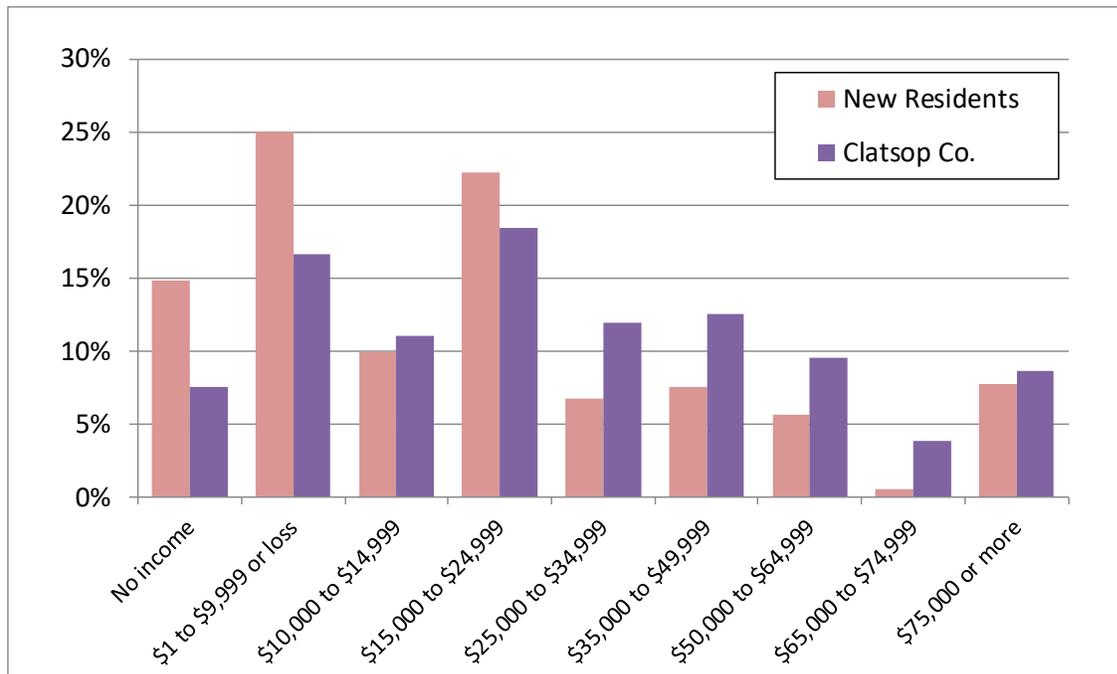
FIGURE 1.13: AGE OF NEW VS. EXISTING RESIDENTS



Source: American Community Survey, 2017 5-Year, B07001

Figure 1.14 shows a comparison of the income groups of existing county residents vs. new residents. New residents to the county are likely to have lower household incomes than existing residents. This is in keeping with the younger nature of the new households. (Note that this is *individual* income, not household income.)

FIGURE 1.14: INCOME OF NEW VS. EXISTING RESIDENTS



Source: American Community Survey, 2017 5-Year, B07001

Net Migration: The IRS provides data on migration patterns on the county level by tracking the location claimed on tax returns of individual households from one year to the next. The most recent data is from migration between the 2015 and 2016 tax years. These data track tax returns, which is not necessarily synonymous to individual households, as some households may have multiple returns, or in some cases no return. However, the data does provide a proxy measure that gives some idea of migration patterns.

Measured by returns, there was an inflow of 1,488 “households” and an outflow of 1,126 “households” moving out of the county (Figure 1.15). This amounts to a net inflow of 362. A bit less than 30% of the new “households” were from Oregon, while an estimated two thirds were from a different state. (The number of new returns from abroad was too small to be reported by the IRS). The largest share of new residents from out of state comes from Washington, followed by California. Of those leaving the county, the largest share move to other Oregon counties, followed by Washington.

FIGURE 1.15: MIGRATION PATTERNS MEASURED BY TAX RETURNS (CLATSOP COUNTY)

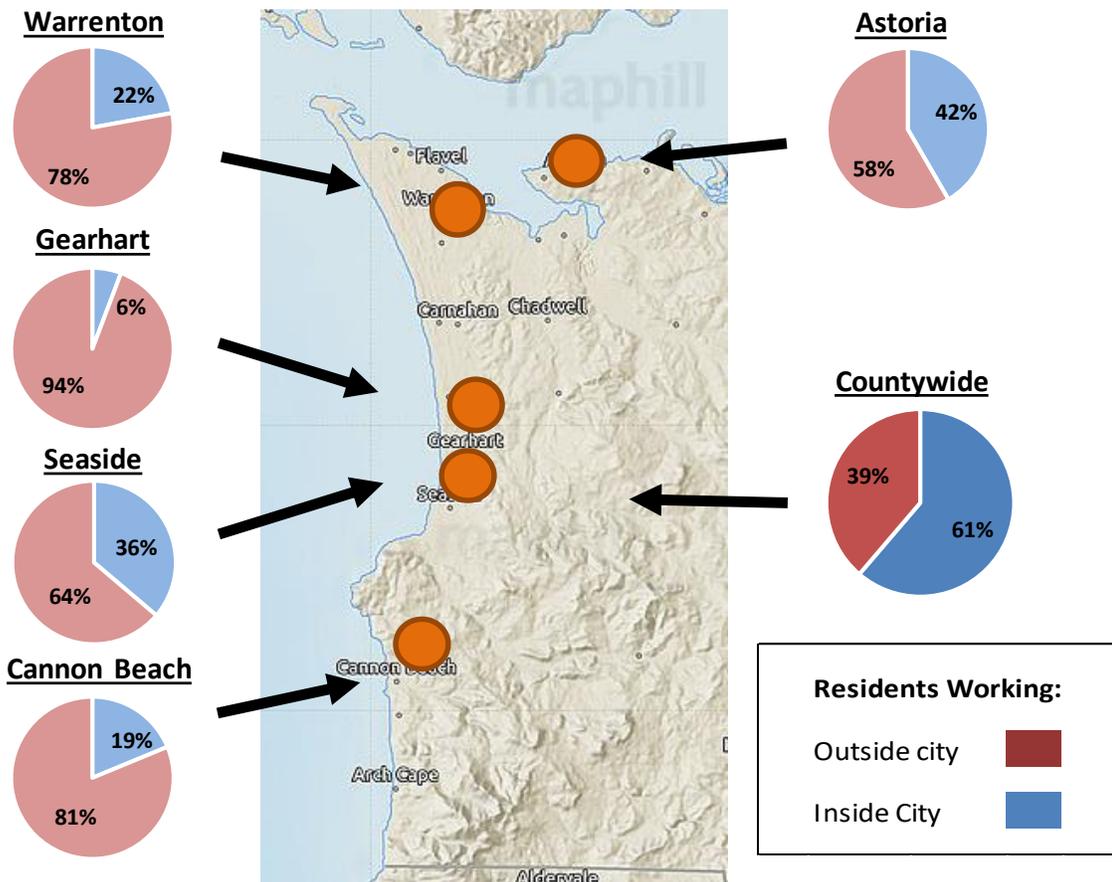
<u>Category</u>	<u>Inflow</u>		<u>Outflow</u>		<u>Net Inflow</u>
Total Migrants	1,488		1,126		362
Migrants - Within Oregon	604	41%	501	44%	103
Migrants - Different State	884	59%	625	56%	259
Non-Migrants	13,329		13,329		

Source: IRS Migration Data, 2015-16

2. Employment and Income

Commuting: According to the Census Employment Dynamics database, there is a lot of cross-commuting among residents in Clatsop County. An estimated 39% of working residents work somewhere outside of county. Within the cities, it is very common for local working residents to work outside of their local community. Astoria and Seaside have the most local residents working inside the city and roughly 40%. The other Clatsop County cities have a much smaller share of residents working locally.

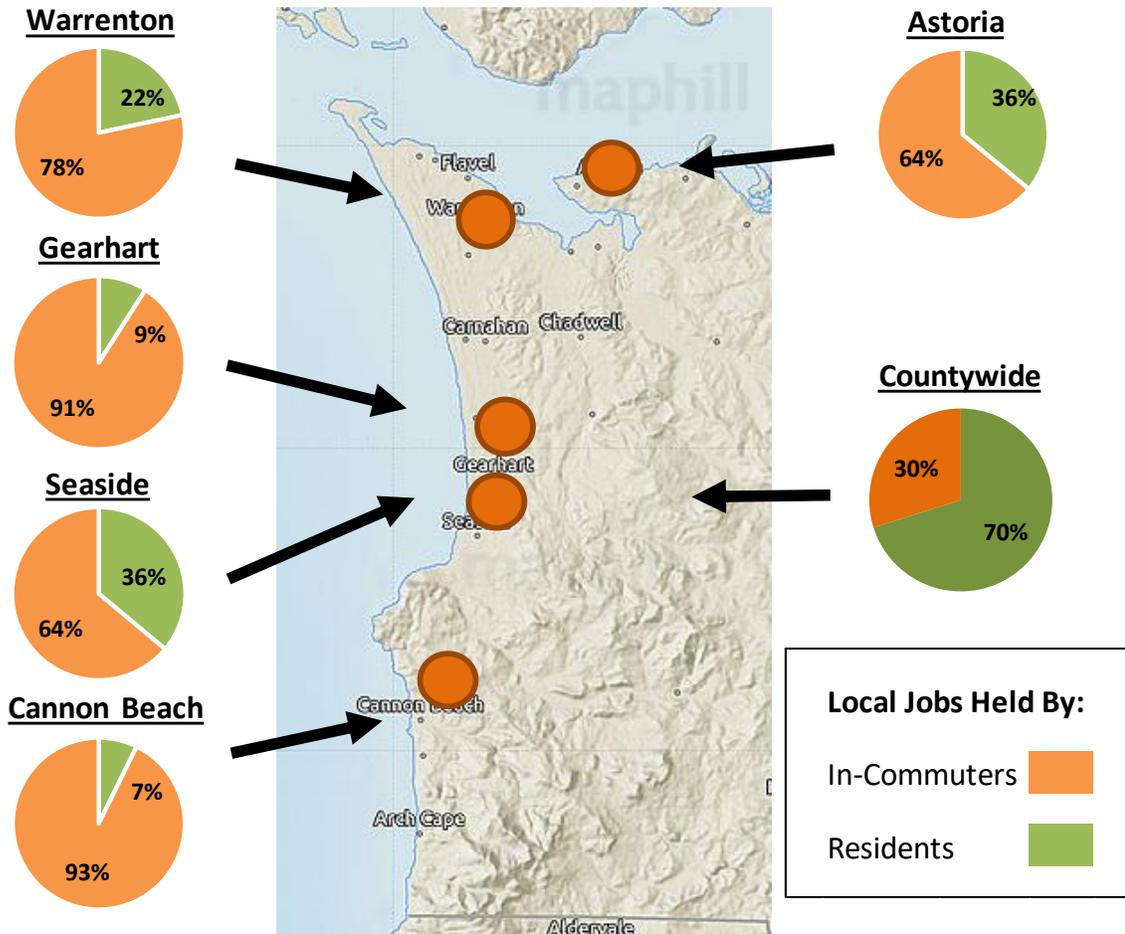
FIGURE 2.1: WHERE LOCAL RESIDENTS WORK (CLATSOP COUNTY AND CITIES)



Source: US Census Employment Dynamics

While 70% of jobs in the county are held by county residents, among the local cities, most local jobs are not held by residents of the city (Figure 2.2). In all the cities, a majority of the jobs are held by non-residents. This pattern indicates that it is very common for residents to live in one Clatsop County city or unincorporated area and commute to a different Clatsop County area for employment.

FIGURE 2.2: WHO HOLDS LOCAL JOBS (CLATSOP COUNTY AND CITIES)

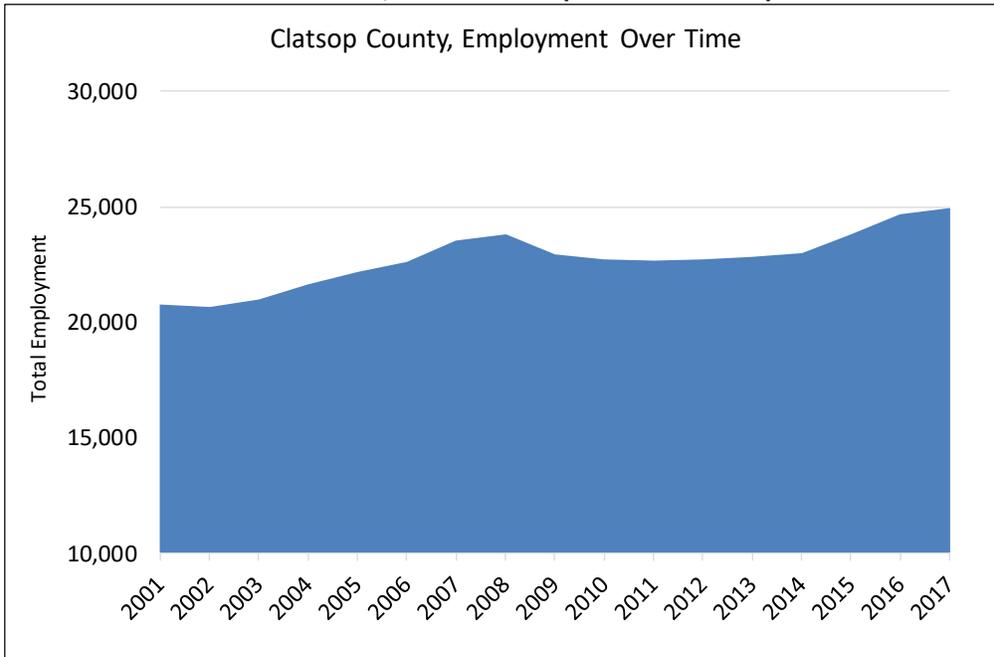


Source: US Census Employment Dynamics

Employment Levels: There are an estimated total of 24,975 jobs in Clatsop County (Figures 2.3). This is nearly 1,200 more jobs than the prior peak in 2008. During the following recession, the county lost nearly 5% of employment by 2011, but has regained 10% since the recovery took hold.

The industries representing the greatest share of employment (Figure 2.4) are tourism related (Retail and Food Service and Accommodation). Other industries with the greatest employment are Health and Social Services, and Manufacturing (which includes wood and fish processing facilities).

FIGURE 2.3: TOTAL EMPLOYMENT, 2001 – 2017 (CLATSOP COUNTY)



Source: US Bureau of Economic Analysis

FIGURE 2.4: EMPLOYMENT BY INDUSTRY SECTOR (CLATSOP COUNTY)

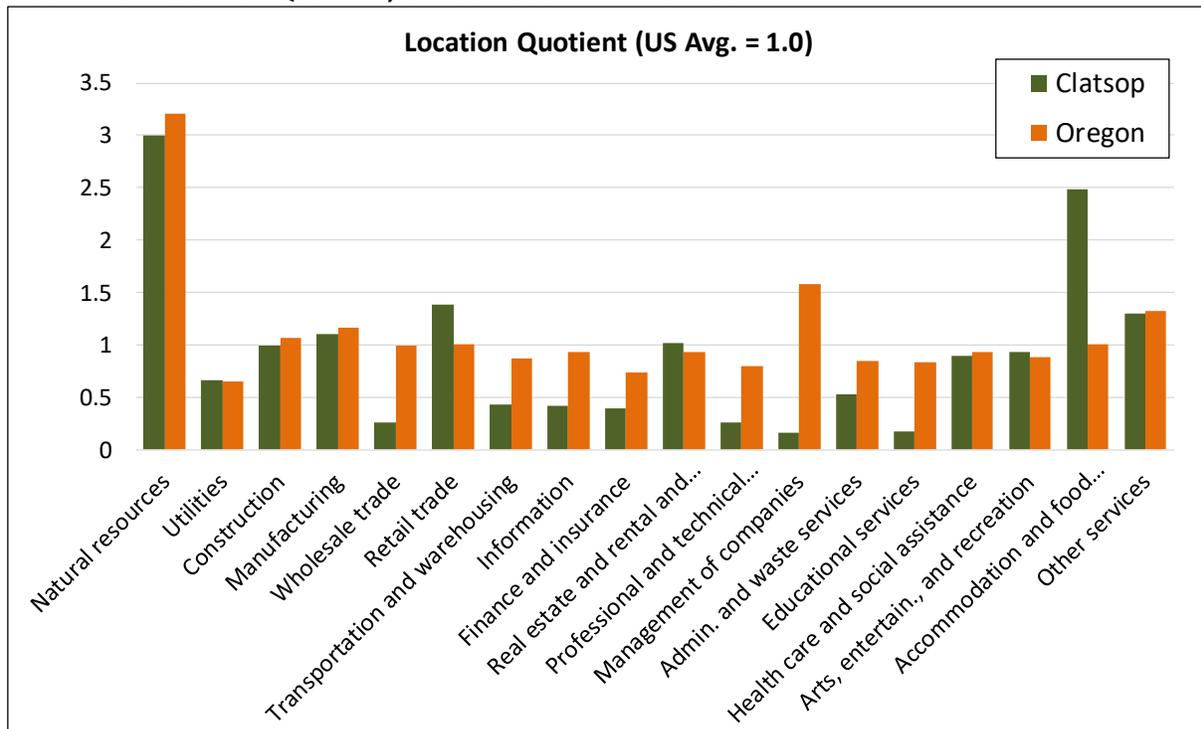


Source: US Bureau of Economic Analysis

Figure 2.5 presents a measure of how industries are represented in Clatsop County and Oregon vs. the representation nationwide. In each industry, a Location Quotient (LQ) of 1.0 represents the national average representation for that industry as a share of employment. Where a local industry has an LQ higher than 1.0, that industry has a greater representation. An LQ lower than 1.0 means that industry has a smaller representation than the national average.

In Clatsop County, the natural resources sector, which includes forestry and fishing, has a strong representation, as does the accommodation and food service industry. Retail trade also has an LQ greater than 1.0.

FIGURE 2.5: LOCATION QUOTIENT, CLATSOP COUNTY AND OREGON

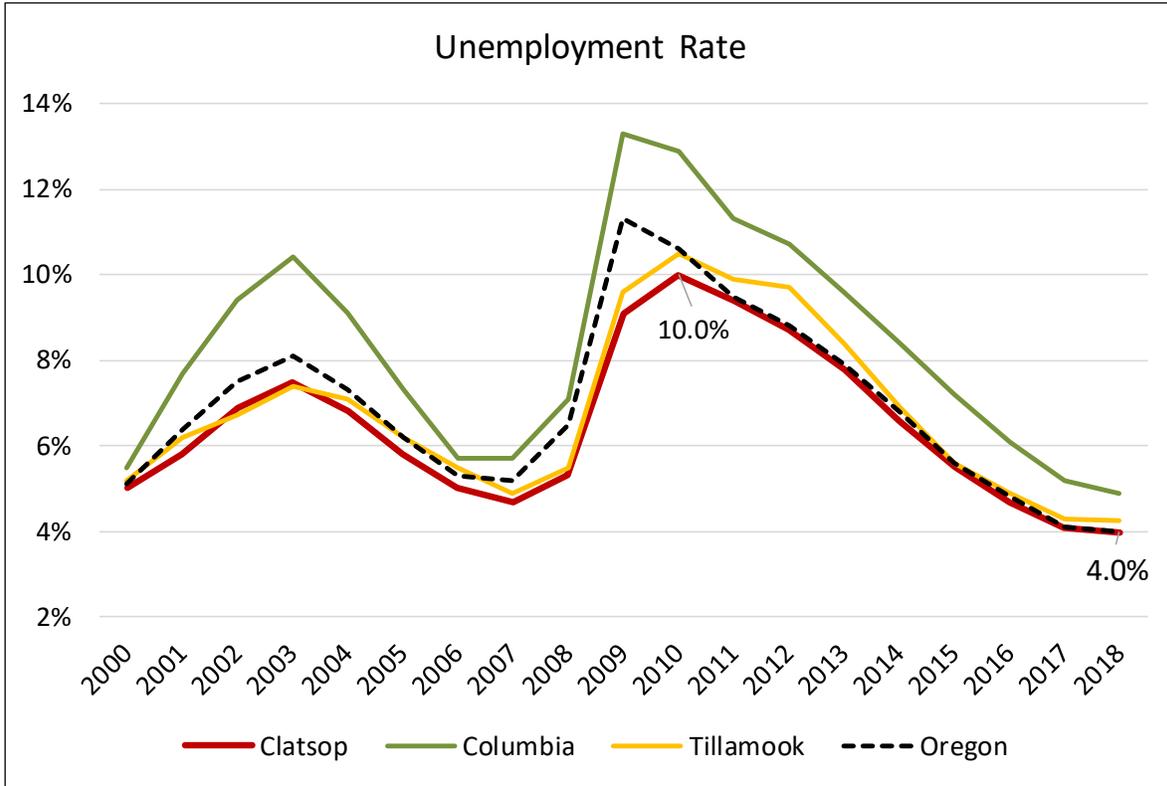


Source: US Bureau of Economic Analysis

Unemployment Rate: The unemployment rate in Clatsop County tracks the statewide rate fairly closely. The current rate of 4% is near historic lows and reflects the strong job growth seen statewide during this now decade long expansion coming out of the recession. Clatsop County has generally fared somewhat better than neighboring counties of Tillamook and Columbia (Figure 2.6).

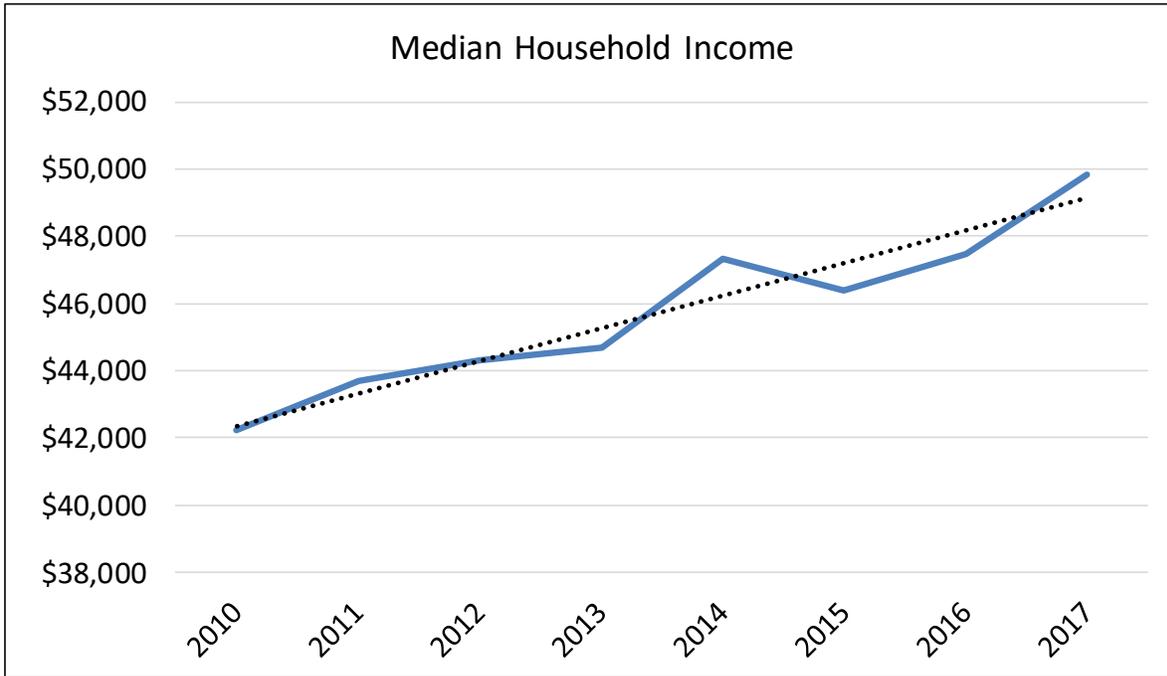
During the recovery period, Clatsop County has experienced healthy income growth (Figure 2.7). The median household income has grown 18% since 2010. This is an annual growth rate of 2.4% in comparison to the annual inflation rate of 1.7% during that period.

FIGURE 2.6: UNEMPLOYMENT RATE 2000 – 2018 (CLATSOP COUNTY AND COMPARISONS)



Source: US Bureau of Economic Analysis

FIGURE 2.7: MEDIAN HOUSEHOLD INCOME 2010 - 2017

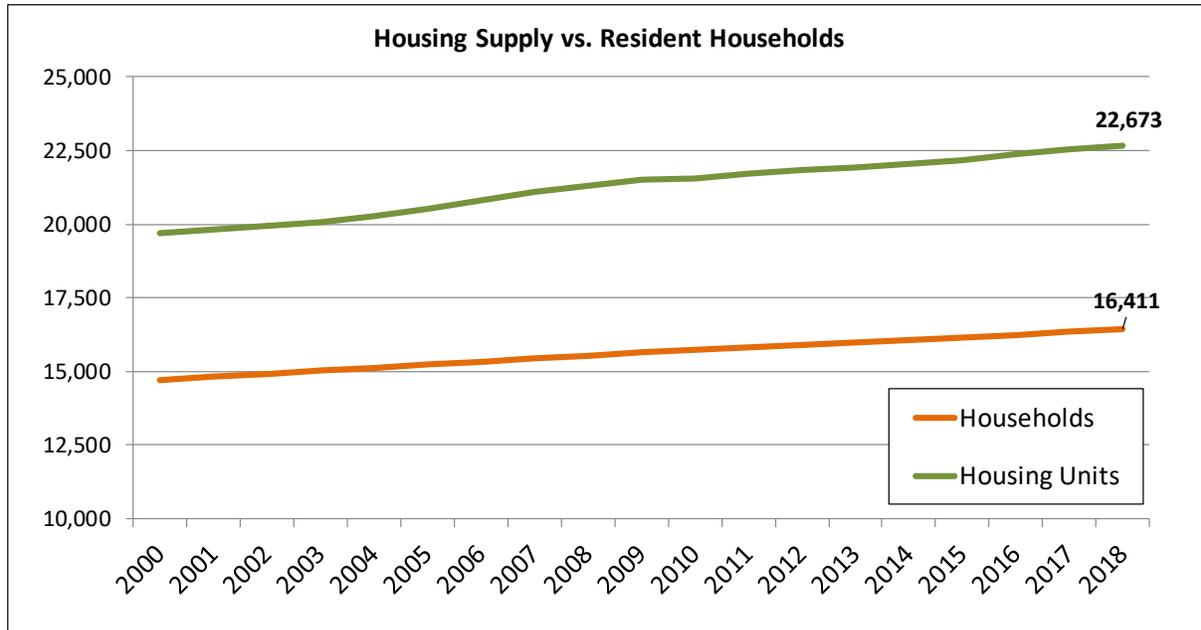


Source: American Community Survey, 2017 5-Year, B19013

3. Housing Inventory & Conditions

There are an estimated 22,700 housing units in Clatsop County for the roughly 16,400 permanent resident households (Figure 3.1). This amounts to an estimated overall “vacancy” rate of over 27%. At the same time, there is a perception of low housing availability, rising costs and low vacancies typically associated with a tight housing supply.

FIGURE 3.1: NUMBER OF HOUSING UNITS VS. NUMBER OF HOUSEHOLDS



Source: PSU Population Research Center, US Census

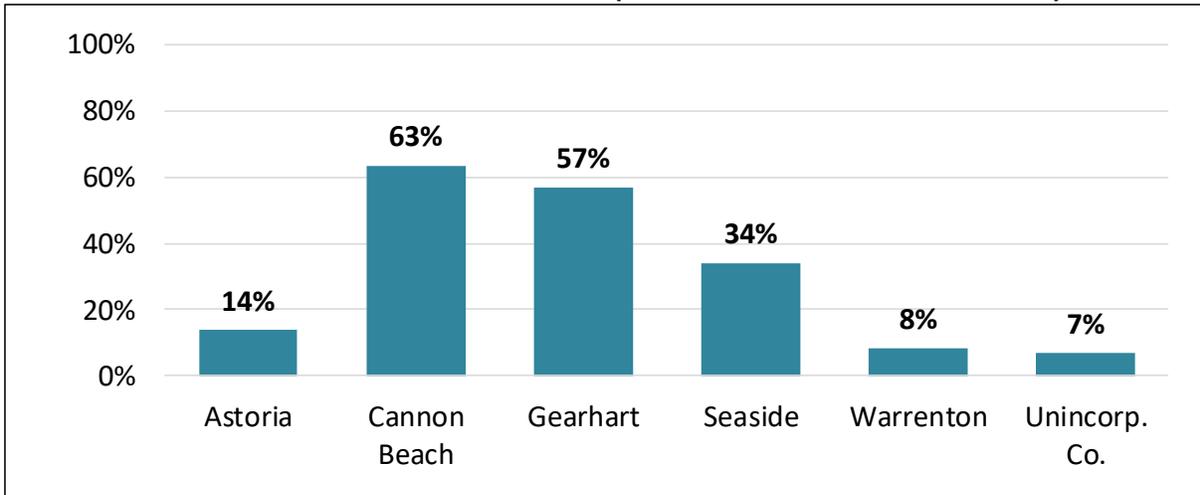
How is Local Housing Being Used? The discrepancy between the seemingly large supply and low availability has to do with how the local housing stock is owned and used. While the housing inventory is technically large enough to house all local residents and then some, much of the local stock is owned as second homes, vacation rentals, and related types of income or investment properties.

Because of this, a large share of homes are not available for local residents. As the needs of vacationers and year-round residents are different, much of this housing may also be of types and price points that are inappropriate to meet residents’ needs.

Figure 3.2 shows the estimated vacancy rate in the Clatsop County cities and unincorporated areas. The estimated vacancy rate of ownership housing is very high, especially in the beachside communities. In Cannon Beach and Gearhart, the Census estimates a vacancy rate of roughly 60%, an indicator of how much of this housing does not serve as the primary address of the owner.

This issue is discussed more through this section.

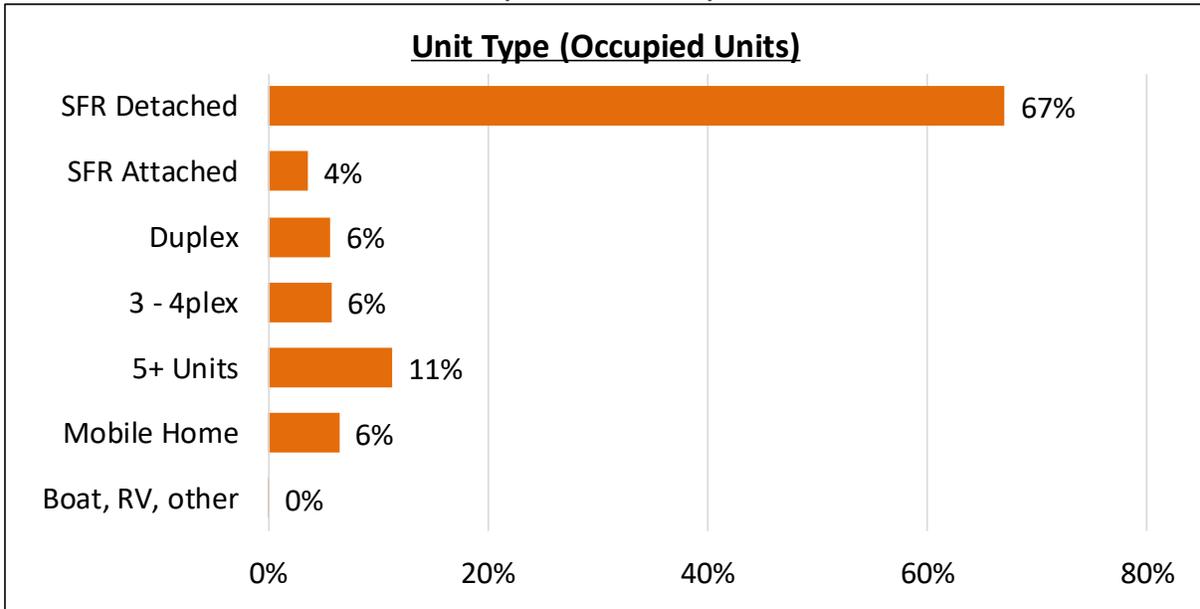
FIGURE 3.2: VACANCY RATE OF OWNERSHIP HOUSING (CITIES AND UNINCORPORATED COUNTY)



Source: American Community Survey, 2017 5-Year, B25004

Resident-Occupied Housing: Across the county, 67% of the *occupied* housing stock is single family homes, while another 6% are mobile homes. The remainder of occupied housing is found in some sort of attached structure (Figure 3.3).

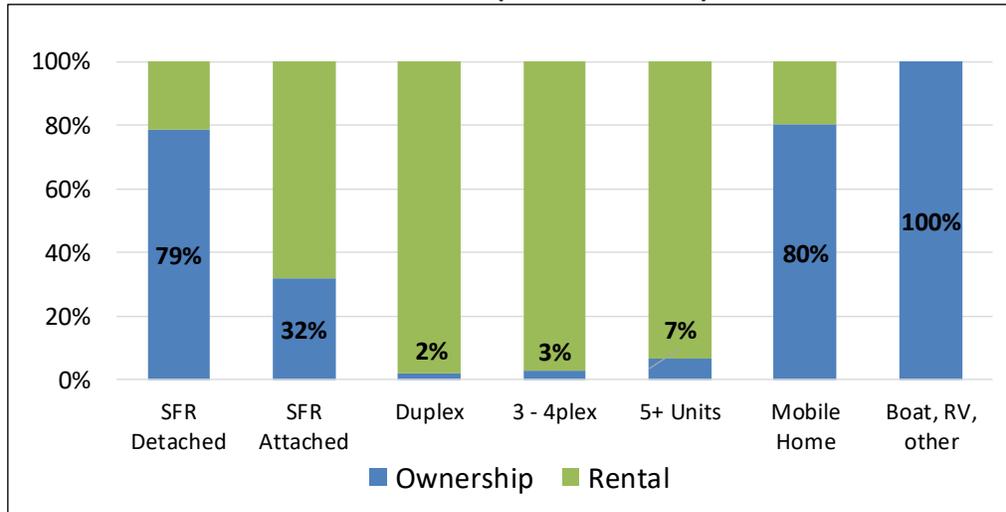
FIGURE 3.3: UNIT TYPE OF OCCUPIED UNITS (CLATSOP COUNTY)



Source: American Community Survey, 2017 5-Year, B25032

Most single-family homes and mobile homes are owner-occupied, while most attached types of housing are renter-occupied (Figure 3.4).

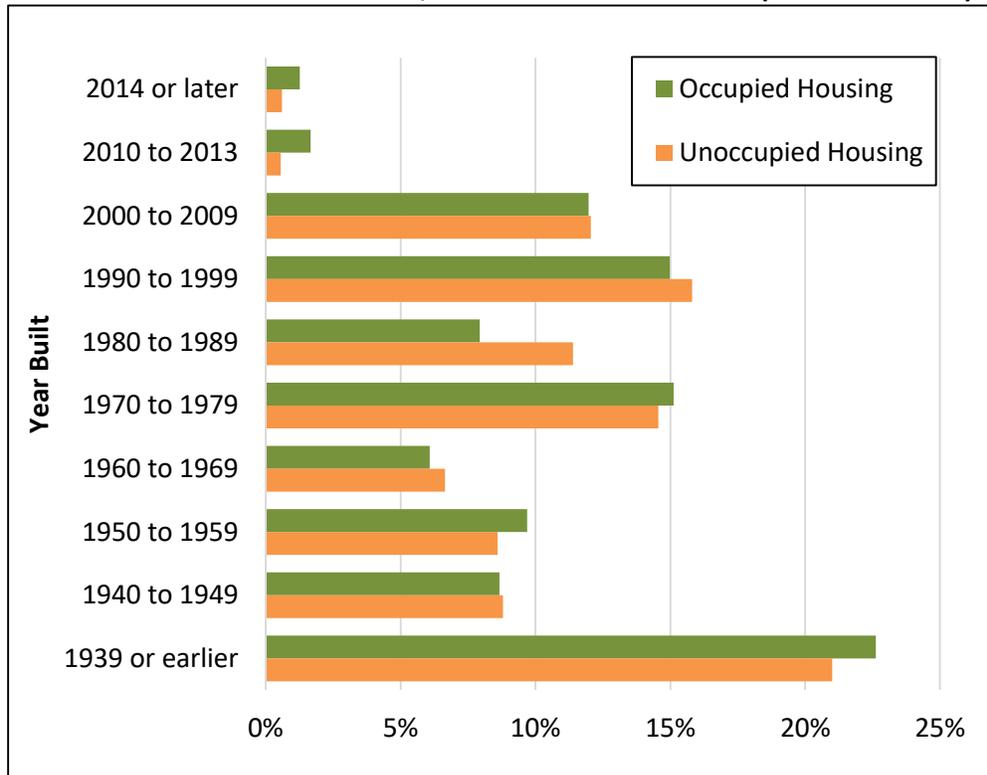
FIGURE 3.4: TENURE SHARE OF UNIT TYPES (CLATSOP COUNTY)



Source: American Community Survey, 2017 5-Year, B25032

Age of Housing Units: Figure 3.5 shows the estimated age of housing units in Clatsop County, including occupied and unoccupied units. There is not a great difference in the share of housing found in the two categories, except that a greater share of unoccupied units were built in the 1980's compared to occupied units. This may correspond to the development of a number of condominium projects in that decade.

FIGURE 3.5: AGE OF HOUSING UNITS, OCCUPIED AND UNOCCUPIED (CLATSOP COUNTY)

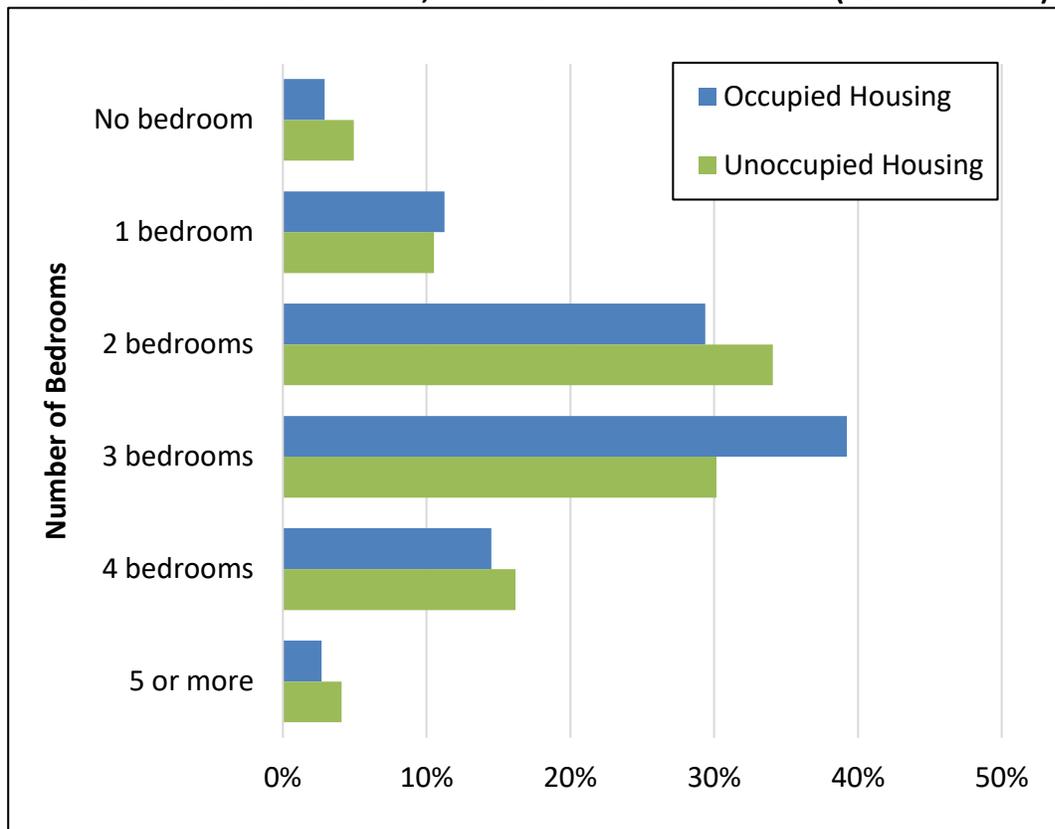


Source: American Community Survey, 2017 5-Year, B25034; B25036

Roughly 15% of the housing stock has been built since 2000, with another 15% being built in the 1990’s. Over 60% of housing was built prior to 1980, and over 40% built prior to 1950. Older housing is more likely to be in disrepair and substandard condition, especially given the rough coastal climate.

Number of Bedrooms: Figure 3.6 shows the breakdown by number of bedrooms of housing units in Clatsop County, including occupied and unoccupied units. Most units are either two-bedroom or three-bedroom units. The share is similar between occupied and unoccupied units, though a greater share of three bedroom units are occupied, rather than vacant. This may indicate that vacation units may be somewhat more likely to be small (condo units) or larger second homes of four or more bedrooms.

FIGURE 3.6: NUMBER OF BEDROOMS, OCCUPIED AND UNOCCUPIED UNITS (CLATSOP COUNTY)

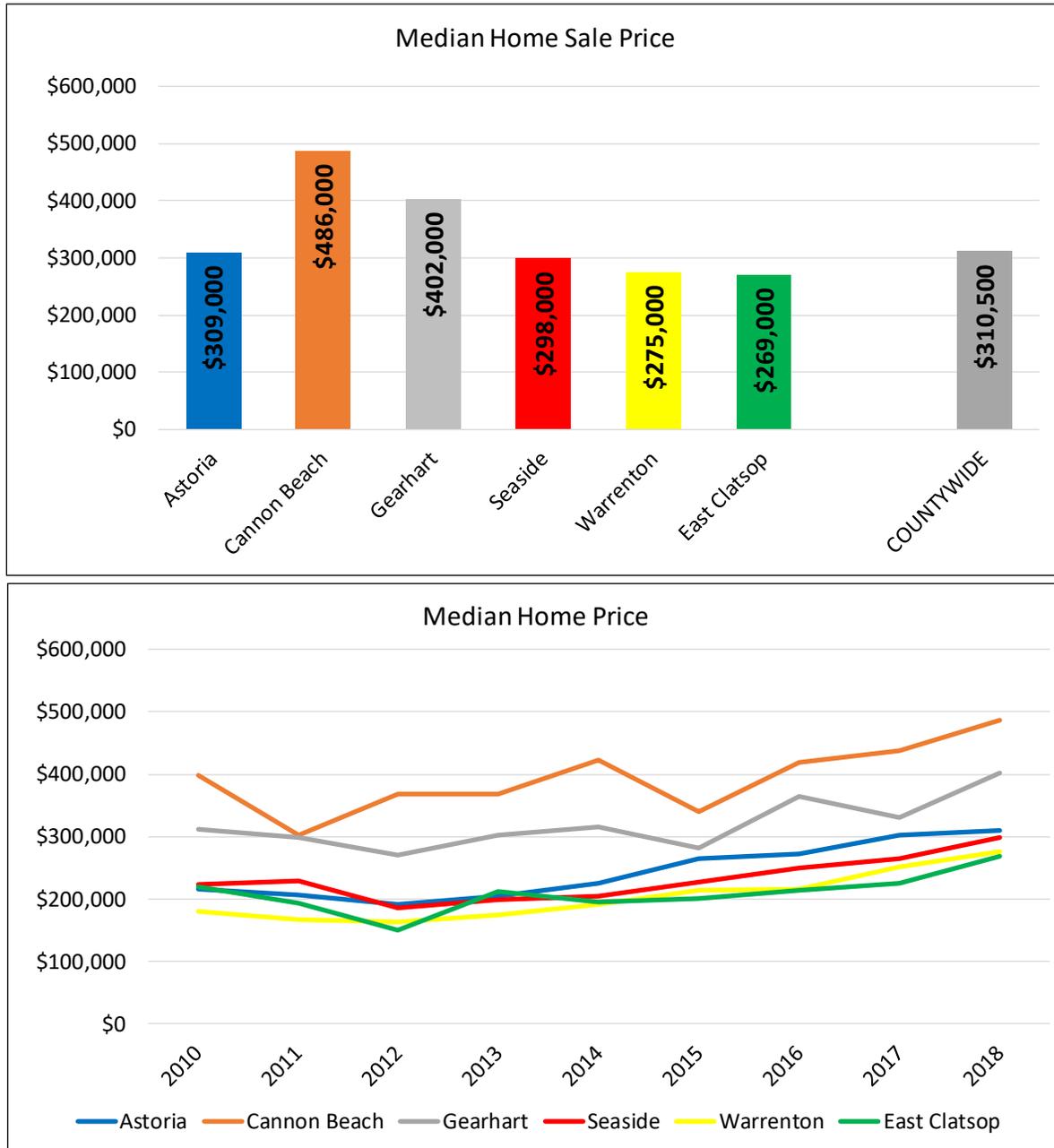


Source: American Community Survey, 2017 5-Year, B25041; B25042

Home Pricing: Home prices have been climbing in Clatsop County for some time after dipping in the wake of the housing bust. Across the county and local cities, prices began to climb again in 2012 (Figure 3.7). Cannon Beach experienced its lows the prior year in 2011.

Countywide, the median home sale price has climbed to \$310,500. The median price is now 15% higher than its previous 2018 peak, and 50% higher than its 2012 low. Median price has risen at an average annual rate of 7% since then, well exceeding income growth or inflation. This pattern is in keeping with housing prices in most Oregon markets during this recovery.

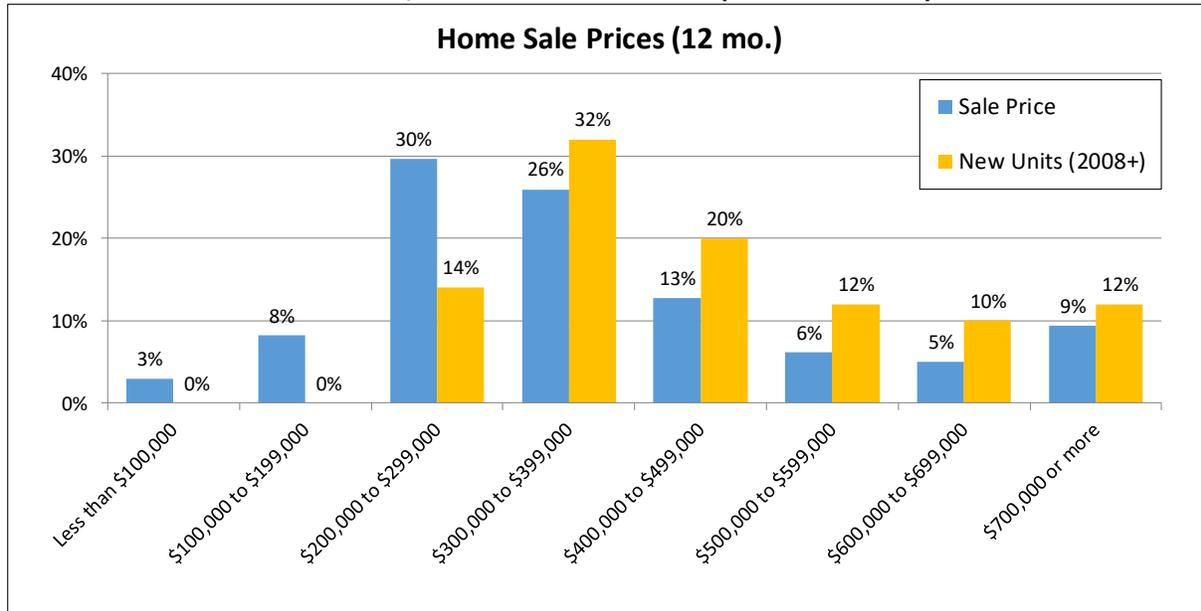
FIGURE 3.7: MEDIAN HOME SALE PRICE, 2018 (CLATSOP COUNTY AND CITIES)



Source: RMLS, Johnson Economics

As one might expect, newer units (those built in the last 10 years) sell for higher prices than all units. This is because new units are generally in better condition and more up-to-date than more aged units. Figure 3.8 shows that 85% newer units sold in the past year sold for more than \$300,000. None of the newer units sold for less than \$200,000. When looking at all sales, a much larger share of sales were clustered in the \$200,000 to \$300,000 range (30%). And a small share (11%) were sold for less than \$200,000.

FIGURE 3.8: MEDIAN HOME PRICES, NEW UNITS VS. ALL UNITS (CLATSOP COUNTY)



Source: RMLS, Johnson Economics

This indicates the importance of older housing “filtering” over time to first-time homebuyers and those of more modest income. Those with higher incomes or looking for “move-up” housing can purchase newer housing, leaving other units available. New supply must be continuously built to even at higher price points to free up other housing.

Average Rents: Figure 3.9 shows estimated average rents in the county and local cities. Rent levels are estimated to be similar across the county, but being somewhat higher in Astoria, Cannon Beach and Gearhart. Average rents are lowest in unincorporated areas, Seaside and Warrenton.

FIGURE 3.9: AVERAGE RENT LEVELS (CLATSOP COUNTY AND CITIES)

Unit Size	Astoria	Cannon Beach	Gearhart	Seaside	Warrenton	County (Unincorp.)
One bedroom:	\$925	\$900	\$850	\$825	\$800	\$700
Two bedroom:	\$1,250	\$1,200	\$1,200	\$1,200	\$1,150	\$1,100
Three bedroom	\$1,600	\$1,600	\$1,500	\$1,500	\$1,400	\$1,350
Est. Average:	\$1,239	\$1,241	\$1,289	\$1,155	\$1,189	\$1,144

Source: Property management, Online listings, US Census, Johnson Economics

Average rents are estimated based on discussions with property management and online listings. There is no data source that reliably tracks apartment rents over time. Property managers and the US Census do not indicate that rental rates have grown particularly quickly, averaging roughly 3% annually in recent years. However, the greater issue is availability, as renters and employers find it difficult to find vacant units to rent. Vacancy has been very low throughout the recent recovery, for at least the past eight years.

Housing Affordability: Figure 3.10 shows a comparison of average and median income levels in the county compared to current average rent and home price level. The affordable level of rent and home prices is based on the standard of spending 30% of gross income on rent or mortgage payments. It is estimated that roughly 69% of rental units are affordable to those earning average income. However, only 21% of recent home sales are occurring at a level that would be affordable to a household of average income. When median income, or average wage, are considered the share of units affordable at these levels is even lower.

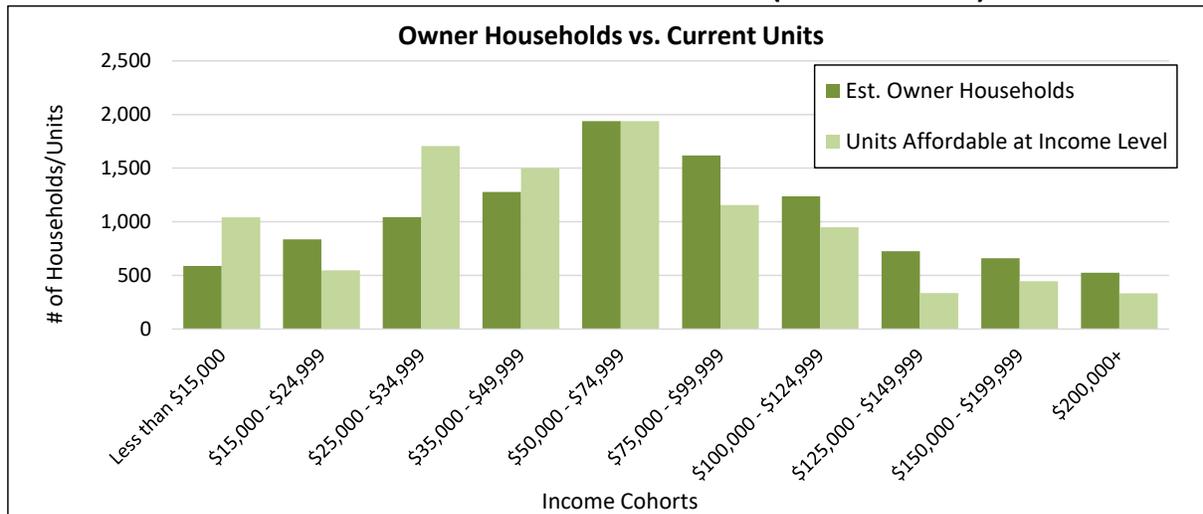
FIGURE 3.10: AFFORDABILITY OF CURRENT RENTS AND HOME PRICES (CLATSOP COUNTY)

Income Measure		Estimated Affordable Rent	% of Units at This Level	Estimated Affordable Home	% of Sales at This Level	% of Newer Units at this Level
Average Income:	\$65,000	\$1,400	69%	\$240,000	21%	4%
Median Income:	\$50,000	\$1,100	55%	\$190,000	11%	0%
Average Wage:	\$37,000	\$900	26%	\$150,000	5%	0%

Source: RMLS, Property management, Online listings, US Census, Johnson Economics

Figure 3.11 presents a comparison of current county households by income level, and an estimate of the number of housing units in the county at that home value. *These numbers are best estimates of current housing need and housing supply (minus seasonal units).*

FIGURE 3.11 OWNER HOUSEHOLDS VS. NON-SEASONAL UNIT VALUE (CLATSOP COUNTY)



Source: US Census, Envionics Market Data, Johnson Economics

Note that this is an estimate of current value of homes, NOT the sale price of homes currently changing hands. Therefore it is estimated that there are some lower-value homes available for low-income owners, which may be counterintuitive. These may be mobile homes, or old or substandard homes. They may be owned by those who bought them long ago or inherited them, and are now on low fixed

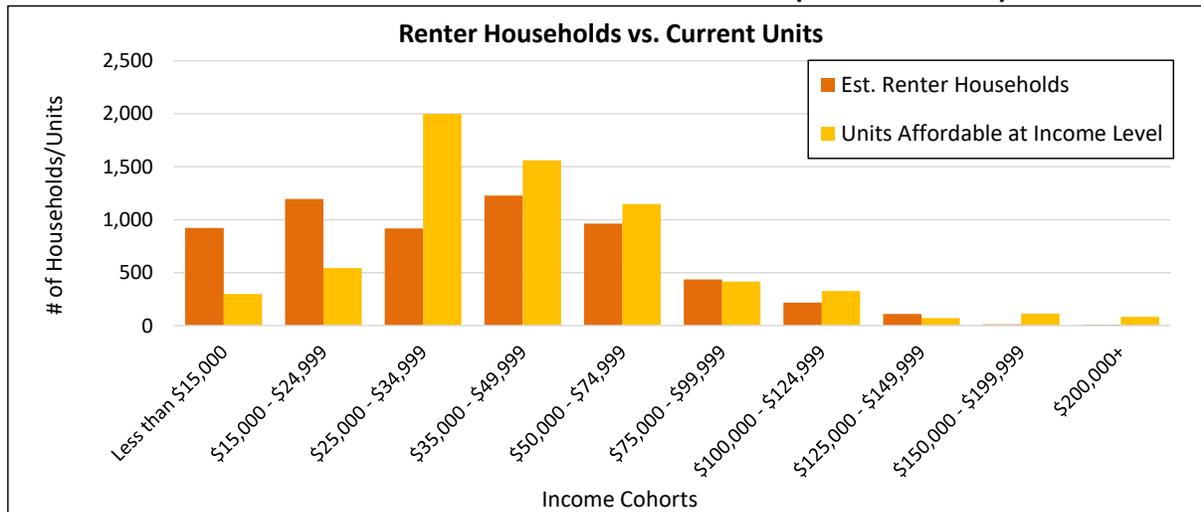
incomes, such as retirees. The ongoing costs of these homes are affordable to those who own them now and meet the *current* needs of those households.

For middle- and higher-income home owners the carrying costs of a home also fall over time relative to income level. Therefore, many long-term owners end up in homes with lower carrying costs (mortgage) than they can technically “afford.” However, when they change ownership, they are likely to sell for more than these values, perhaps even for the land alone.

Figure 3.12 presents a similar comparison of renter households with current unit rent levels. Because rental units change hands much more frequently and market rent levels tend to congregate near certain levels defined by the market, there are many fewer renter households in units cheaper than they can afford (as described for owners above).

There is an estimated unit surplus at the \$600 to \$1,400 range. This reflects the current range of most market rents, and therefore this is where most units are found. There is an acute estimated shortage of lower-priced rental units. This pattern is common across communities and regions, because so many renters spend more than 30% of their income on rent. As in most markets there is a continuous need for units at the lowest levels, which usually requires subsidized rents.

FIGURE 3.12 RENTER HOUSEHOLDS VS. NON-SEASONAL RENTAL UNITS (CLATSOP COUNTY)

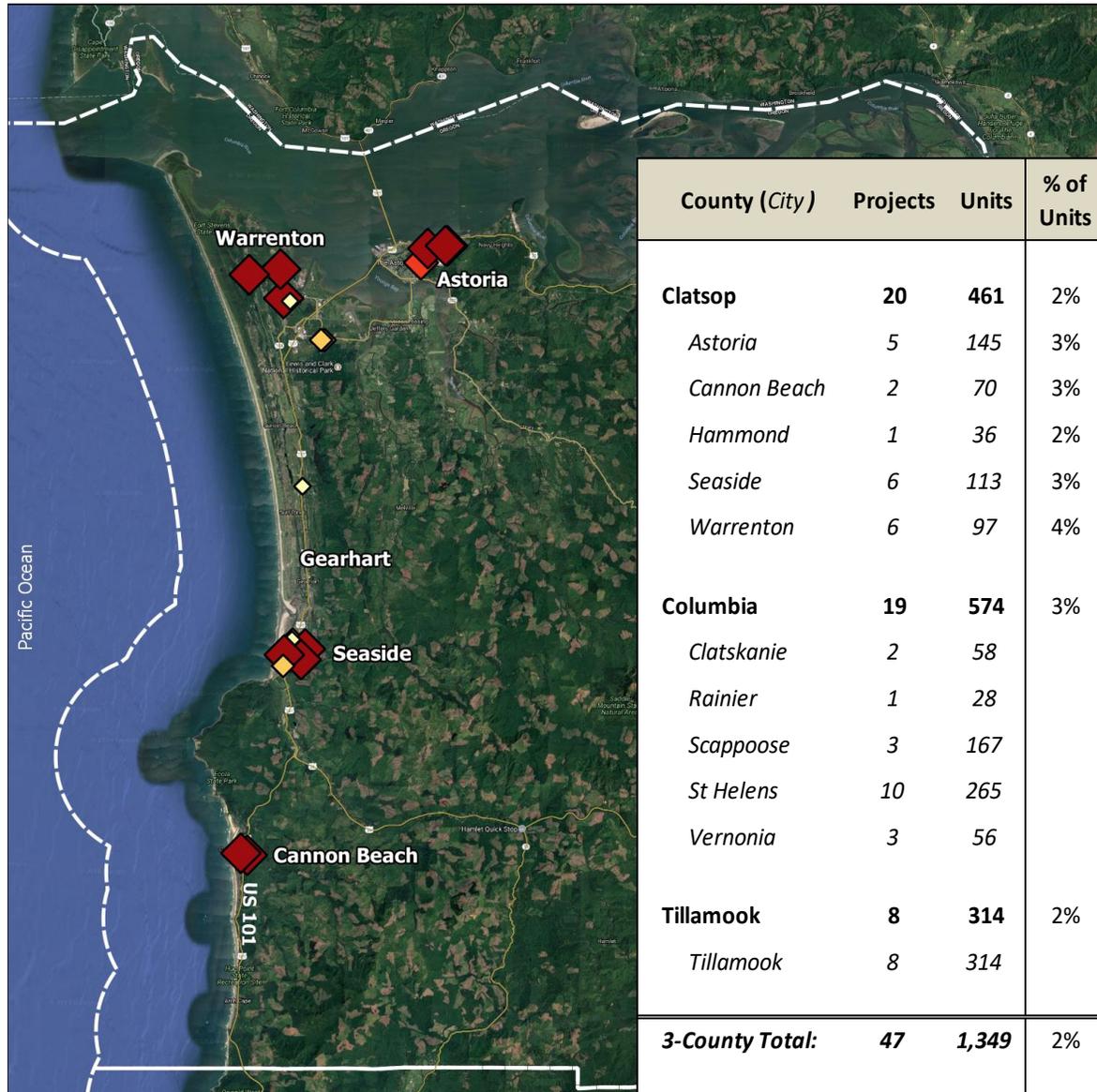


Source: US Census, Envionics Market Data, Johnson Economics

Subsidized Affordable Housing: Figure 3.13 presents a map and summary of currently available subsidized affordable housing in Clatsop County. This includes housing owned by the Housing Authority and other agencies, as well as tax-credit projects which are obligated to offer units at subsidized rents for a contractual period of time.

There are nearly 1,350 subsidized affordable units in the county in nearly 50 projects. The subsidized units make up from 2% to 4% of all housing units across the local cities and county, and is similar to the share in neighboring Columbia and Tillamook counties. This indicates that the spread of these projects is fairly equitable across the communities.

FIGURE 3.13: SUBSIDIZED AFFORDABLE HOUSING IN CLATSOP COUNTY



Source: OHCS, Northwest Oregon Housing Authority, Johnson Economics

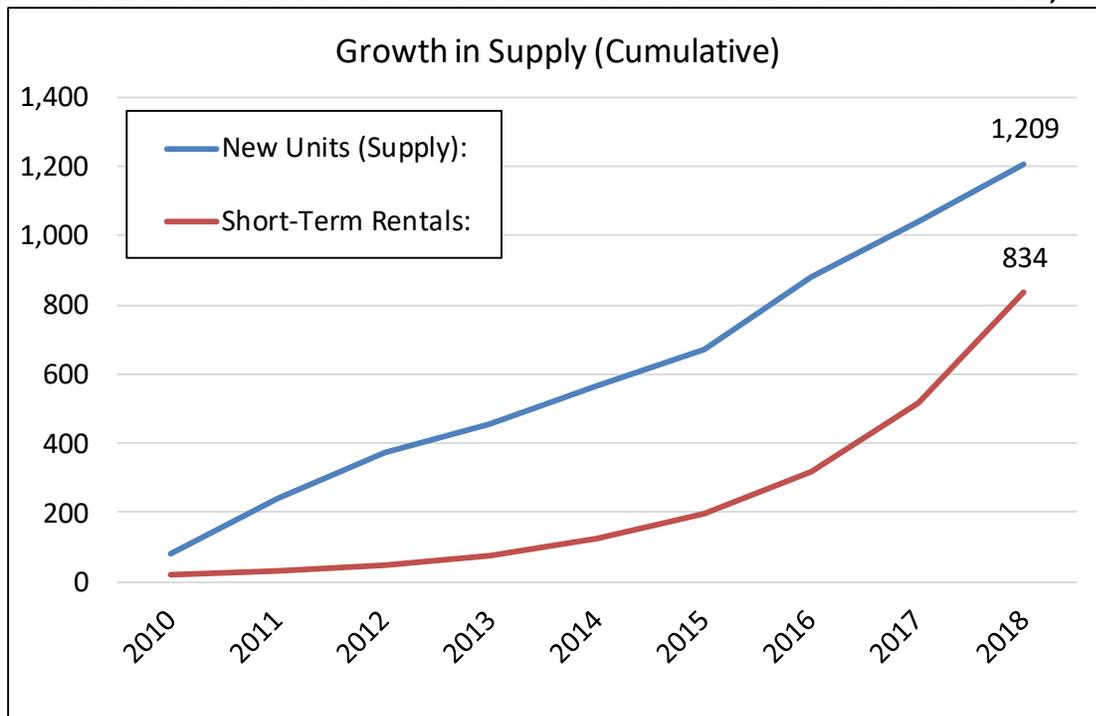
Vacation and Short-Term Rentals: Like other popular vacation and tourist destinations, Clatsop County has many homes that are used either as second homes or vacation rentals rather than as year-round homes for residents. As mentioned above, the estimated on-going vacancy rate in the county is 27% and is much higher in some of the individual cities.

In recent years, a combination of forces has added to the proliferation of “short-term rentals” in attractive destinations such as the Oregon Coast. The largest factor is the advent of new websites and apps such as AirBnb and Vacasa. While there have always been vacation rentals on the Oregon Coast, these technologies have made it much easier for property owners to rent out and manage their units remotely. These services can be used for a range of scenarios, including a permanent resident renting out a room, to distant investors who own the property purely for income and rarely if ever visit.

At the same time these services have been growing in popularity, two factors have probably contributed to the growth of this industry. First, after the “housing bust” of 2008-9, housing fell in value and was relatively inexpensive for investors who retained money to spend. Second, the prices that short-term rentals can charge has climbed since the introduction of these services as users have tested out what prices the market will pay. The combination of relatively affordable investment homes (for a few years) and rising income prospects have added to the growth in short-term rental activity.

Figure 3.14 shows estimated growth in new short-term rentals on major booking websites, compared to the estimated number of new housing units built in the County since 2010. The red line shows the growth in short-term rentals in this period, which has greatly accelerated starting roughly five years ago. (This measure is also a low estimate of short-term rental activity as the source used is not exhaustive.)

FIGURE 3.14: GROWTH IN SHORT-TERM RENTAL LISTINGS COMPARED TO NEW UNIT GROWTH, COUNTY



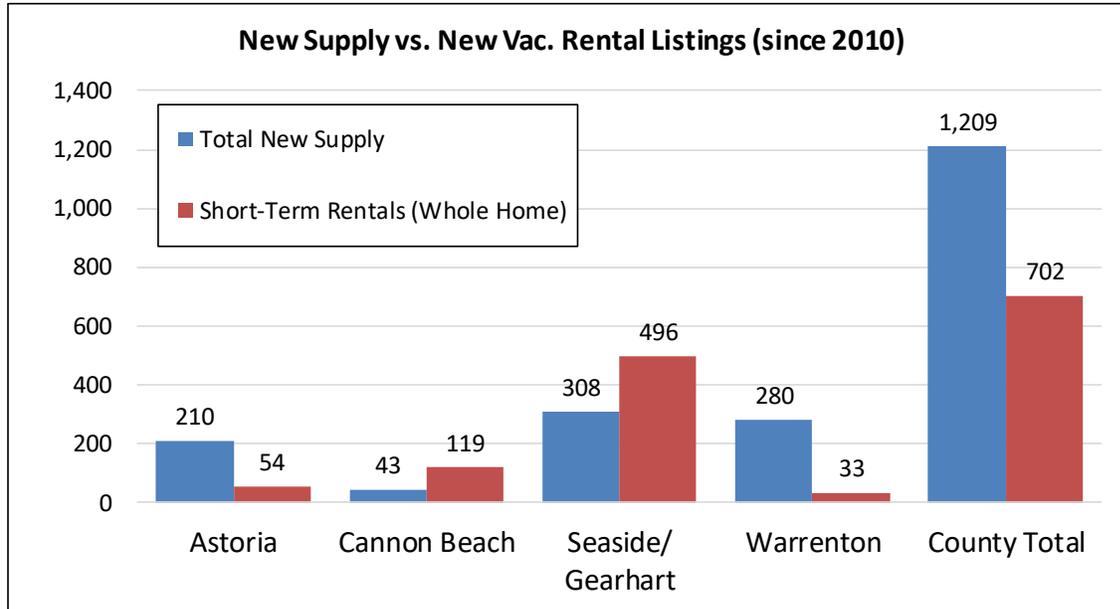
Source: US Census, AirDNA, Johnson Economics

This figure is not a direct comparison, as short-term rentals can take various forms, but it is included here as an indicator that the rapid growth of this activity can eat into the impact of adding new housing supply to the market. If the use of housing units for short-term rental activity also grows at the same time ne supply is added, that impact will have a more muted impact on alleviating the housing crunch for local households.

The following figure shows a similar comparison for the local cities. It is estimated that the growth in short-term rental activity in the beachside communities of Cannon Beach, Seaside and Gearhart outpaced the addition of new units in recent years. This chart shows just rental listings described as

“whole home” indicating that this is not a permanent resident renting out a room or portion of their home. Of the total short-term rental units tracked by AirDNA, 84% were “whole home” rentals.

FIGURE 3.15: GROWTH IN SHORT-TERM RENTAL LISTINGS COMPARED TO NEW UNIT GROWTH, CITIES



Source: US Census, AirDNA, Johnson Economics

Short-term rentals can have some significant impacts on housing supply:

- Homes that are owned purely as investment properties to generate income from short-term rentals are homes that are not available for permanent county residents.
- To the extent that owning short-term rentals is profitable, local homes may be more “valuable” for that use than as a residence. (This means only *economic* value, as opposed to social value, equity, or other measures of value). In other words, an investor may bid up the prices on available homes because as an income property they can support a higher price and still make money. Homebuyers must compete for these homes at rising prices.
- Some owners of rental properties which have traditionally been rented to permanent local households, may find that it is more profitable to rent it for short-term stays to vacationers, thus removing one permanent rental unit from the inventory.
- Short-term rentals can be disruptive to established residential neighborhoods because they are not traditional residential activity. Short-term rentals are more closely related to commercial hotel activity. While a hotel would not be permitted to open in the middle of residentially-zoned land, short-term rentals often can.

4. Future Housing Needs (20-Year) – Clatsop County Total

This section discusses the projection of future housing needs and explains the methodology used. This is provided here *at the County-wide level*. (Findings for the individual cities are presented at the end of this report, with less explanation of methodology and interim steps.)

* * *

The projected future (20-year) housing profile (Figure 4.1) in the study area is based on the current housing profile, multiplied by an assumed projected future household growth rate. The projected future growth is the official forecasted growth rate for Clatsop County generated by the PSU Oregon Forecast Program.

FIGURE 4.1: FUTURE HOUSING PROFILE, COUNTY (2038)

PROJECTED FUTURE HOUSING CONDITIONS (2018 - 2038)		SOURCE
2018 Population (Minus Group Pop.)	38,188	PSU
Projected Annual Growth Rate	0.32%	OR Population Forecast Program PSU
2038 Population (Minus Group Pop.)	40,727	(Total 2038 Population - Group Housing Pop.)
Estimated group housing population:	1,079	Share of total pop from 2010 Census US Census
Total Estimated 2038 Population:	41,806	
Estimated Non-Group 2038 Households:	17,555	(2038 Non-Group Pop./Avg. Household Size)
New Households 2018 to 2038	1,094	
Avg. Household Size:	2.32	Projected household size US Census
Total Housing Units:	24,180	Occupied Units plus Vacant
Occupied Housing Units:	17,555	(= Number of Non-Group Households)
Vacant Housing Units:	1,209	
Vacation Home, 2nd Home, Seasonal:	5,417	
Projected Market Vacancy Rate:	5.0%	(Vacant Units/ Total Units)
Projected Vacation Rate, 2nd Home:	22.4%	(US Census Est.) US Census

Sources: PSU Population Research Center Oregon Population Forecast Program, Census, JOHNSON ECONOMICS LLC

*Projections are applied to estimates of 2018 population.

The model projects growth in the number of non-group households over 20 years of roughly 1,100 new households, with accompanying population growth of 3,620 new residents. (The number of households differs from the number of housing units, because the total number of housing units includes a percentage of vacancy, including an assumption for a continuing large share of second homes and vacation properties. Projected housing unit needs are discussed below.)

PROJECTION OF FUTURE HOUSING UNIT DEMAND (2038)

The profile of future housing demand includes current and future households *but does not include a vacancy assumption* (occupied housing only). *The vacancy assumption is added in the subsequent step.* Therefore, the need identified below is the total need for actual households in occupied units (17,555).

The analysis considered the propensity of households at specific age and income levels to either rent or own their home, in order to derive the future need for ownership and rental housing units, and the affordable cost level of each. The projected need is for *all* 2038 households and therefore includes the needs of current households.

FIGURE 4.2: PROJECTED OCCUPIED FUTURE HOUSING DEMAND, COUNTY (2038)

Ownership				
Price Range	# of Households	Income Range	% of Total	Cumulative
\$0k - \$90k	614	Less than \$15,000	5.6%	5.6%
\$90k - \$130k	876	\$15,000 - \$24,999	8.0%	13.5%
\$130k - \$190k	1,098	\$25,000 - \$34,999	10.0%	23.5%
\$190k - \$240k	1,343	\$35,000 - \$49,999	12.2%	35.7%
\$240k - \$300k	2,045	\$50,000 - \$74,999	18.6%	54.2%
\$300k - \$370k	1,711	\$75,000 - \$99,999	15.5%	69.8%
\$370k - \$470k	1,309	\$100,000 - \$124,999	11.9%	81.7%
\$470k - \$560k	768	\$125,000 - \$149,999	7.0%	88.6%
\$560k - \$750k	698	\$150,000 - \$199,999	6.3%	95.0%
\$750k +	556	\$200,000+	5.0%	100.0%
Totals:	11,020		% of All:	62.8%

Rental				
Rent Level	# of Households	Income Range	% of Total	Cumulative
\$0 - \$400	995	Less than \$15,000	15.2%	15.2%
\$400 - \$600	1,290	\$15,000 - \$24,999	19.7%	35.0%
\$600 - \$900	993	\$25,000 - \$34,999	15.2%	50.2%
\$900 - \$1100	1,329	\$35,000 - \$49,999	20.3%	70.5%
\$1100 - \$1400	1,048	\$50,000 - \$74,999	16.0%	86.5%
\$1400 - \$1700	481	\$75,000 - \$99,999	7.4%	93.9%
\$1700 - \$2200	243	\$100,000 - \$124,999	3.7%	97.6%
\$2200 - \$2600	123	\$125,000 - \$149,999	1.9%	99.5%
\$2600 - \$3500	19	\$150,000 - \$199,999	0.3%	99.8%
\$3500 +	15	\$200,000+	0.2%	100.0%
Totals:	6,535		% of All:	37.2%

All Units
17,555

Sources: PSU Pop. Research Center, US Census, Envirionics, JOHNSON ECONOMICS

It is projected that the homeownership rate in the county will increase slightly over the next 20 years from 60.5% to 63%, which is in keeping with the current statewide average (62%).

FUTURE HOUSING DEMAND PROFILE

The following figure shows the total estimated future need for housing types, *including a vacancy assumption*. The estimated price ranges reflect an projection of the affordable range of what residents will need (in current dollars), not necessarily what will actually be available.

FIGURE 4.3: TOTAL (OCCUPIED AND VACANT) FUTURE HOUSING DEMAND, COUNTY (2038)

OWNERSHIP HOUSING											
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %	
			2-unit	3- or 4-plex	5+ Units MFR						
\$0k - \$90k	0	0	0	0	0	886	27	913	5.6%	5.6%	
\$90k - \$130k	475	116	0	48	137	526	0	1,302	8.0%	13.5%	
\$130k - \$190k	1,410	121	31	0	70	0	0	1,632	10.0%	23.5%	
\$190k - \$240k	1,916	80	0	0	0	0	0	1,996	12.2%	35.7%	
\$240k - \$300k	3,040	0	0	0	0	0	0	3,040	18.6%	54.2%	
\$300k - \$370k	2,543	0	0	0	0	0	0	2,543	15.5%	69.8%	
\$370k - \$470k	1,946	0	0	0	0	0	0	1,946	11.9%	81.7%	
\$470k - \$560k	1,141	0	0	0	0	0	0	1,141	7.0%	88.6%	
\$560k - \$750k	1,037	0	0	0	0	0	0	1,037	6.3%	95.0%	
\$750k +	826	0	0	0	0	0	0	826	5.0%	100.0%	
Totals:	14,335	317	31	48	207	1,412	27	16,377	% of All Units:	67.7%	
Percentage:	87.5%	1.9%	0.2%	0.3%	1.3%	8.6%	0.2%	100.0%			

RENTAL HOUSING											
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %	
			2-unit	3- or 4-plex	5+ Units MFR						
\$0 - \$400	0	0	87	143	831	126	0	1,188	15.2%	15.2%	
\$400 - \$600	0	139	277	231	770	122	0	1,540	19.7%	35.0%	
\$600 - \$900	190	100	294	485	117	0	0	1,186	15.2%	50.2%	
\$900 - \$1100	774	80	336	237	159	0	0	1,586	20.3%	70.5%	
\$1100 - \$1400	792	165	100	0	194	0	0	1,251	16.0%	86.5%	
\$1400 - \$1700	574	0	0	0	0	0	0	574	7.4%	93.9%	
\$1700 - \$2200	290	0	0	0	0	0	0	290	3.7%	97.6%	
\$2200 - \$2600	147	0	0	0	0	0	0	147	1.9%	99.5%	
\$2600 - \$3500	23	0	0	0	0	0	0	23	0.3%	99.8%	
\$3500 +	18	0	0	0	0	0	0	18	0.2%	100.0%	
Totals:	2,808	485	1,095	1,096	2,072	249	0	7,803	% of All Units:	32.3%	
Percentage:	36.0%	6.2%	14.0%	14.0%	26.5%	3.2%	0.0%	100.0%			

TOTAL HOUSING UNITS									
	Single Family Detached	Single Family Attached*	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	17,143	802	1,125	1,144	2,279	1,661	27	24,180	100%
Percentage:	70.9%	3.3%	4.7%	4.7%	9.4%	6.9%	0.1%	100.0%	

Sources: PSU Pop. Research Center, US Census, EnviroNics, Johnson Economics

* Uses Census definition, including townhomes/rowhouses and duplexes attached side-by-side, seperately metered

The vacancy assumption used here assumes a healthy 5% vacancy rate for normal “on the market” housing units for current residents. This is generally considered a balanced rate at which renters and

buyers have some availability of units to choose from, while remaining manageable for property managers. The vacancy assumption used here also assumes an estimated 22.4%. This is an estimate based on the total estimated vacancy rate in the County, minus the 5% discussed above.

This analysis assumes that the share of housing dedicated to second homes/vacation homes/income properties, etc. will hold constant in the future. Therefore, the projection of all new units that must be built in the next 20 years, *includes* the development of more second homes/vacation homes.

COMPARISON OF FUTURE HOUSING DEMAND TO CURRENT HOUSING INVENTORY

The profile of future housing demand presented above (Figure 4.3) was compared to the current housing inventory presented in the previous section to determine the total future need for *new* housing units by type and price range (Figure 4.4). *This estimate includes a vacancy assumption.*

FIGURE 4.4: PROJECTED FUTURE NEED FOR NEW HOUSING UNITS (2038), CLATSOP COUNTY

OWNERSHIP HOUSING									
Unit Type:	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	891	20	2	3	13	89	0	1,018	67.5%
Percentage:	87.5%	1.9%	0.2%	0.3%	1.3%	8.8%	0.0%	100%	

RENTAL HOUSING									
Unit Type:	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	176	30	69	69	130	16	0	489	32.5%
Percentage:	36.0%	6.2%	14.0%	14.1%	26.6%	3.2%	0.0%	100%	

TOTAL HOUSING UNITS									
Unit Type:	Single Family Detached	Single Family Attached*	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	1,067	50	71	72	143	105	0	1,507	100%
Percentage:	70.8%	3.3%	4.7%	4.8%	9.5%	7.0%	0.0%	100%	

Sources: PSU Pop. Research Center, US Census, Environics, JOHNSON ECONOMICS

Needed Unit Types

- The results show a need for just over 1,500 new housing units by 2038.
- Of the new units needed, roughly 67.5% are projected to be ownership units, while 32.5% are projected to be rental units. The reason that the need for ownership units is significantly higher, higher even than the ownership rate, is that this includes estimated need for second home

inventory as well. (Second homes/vacation homes are included in the ownership, rather than rental category.)

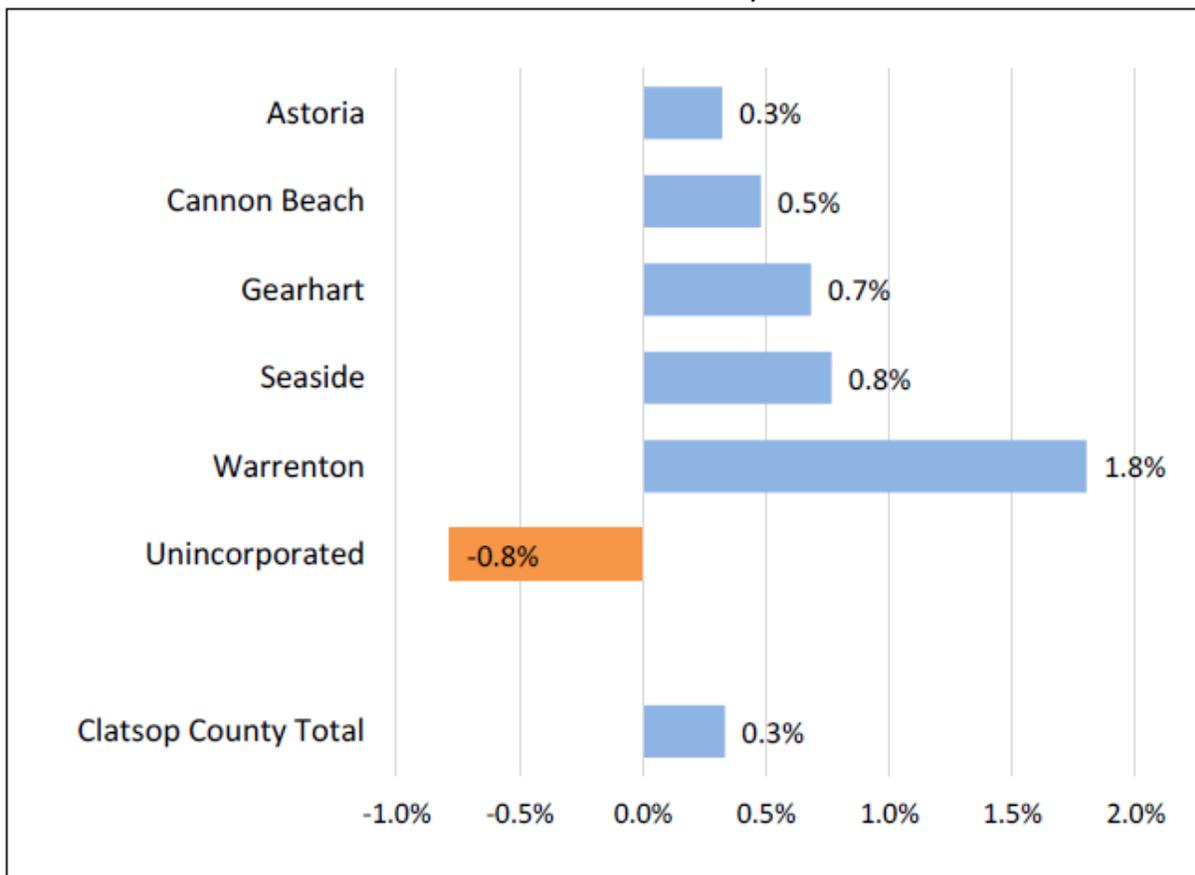
- For the same reason, 70% of the new units are projected to be single family detached homes, while 23% is projected to be some form of attached housing, and 7% are projected to be mobile homes.
- Of ownership units, 87% are projected to be single-family homes, and 9% mobile homes.
- Roughly 60% of new rental units are projected to be found in new attached buildings, with 26% projected in rental properties of 5 or more units. Single family homes and mobile homes will remain an important part of the rental needs for family households and other larger households.

5. Future Housing Needs (20-Year) – City Profiles

This section presents some preliminary housing forecasts for the five local Clatsop County cities. The methodology used for this analysis parallels that presented in the previous sections regarding the countywide analysis.

Figure 5.1 shows the local projected growth rate for the Clatsop County communities from the PSU Population Forecast Program. Warrenton has a projected growth rate higher than the statewide growth rate (roughly 1.0%), while the other cities have somewhat slower projected rates.

FIGURE 5.1: PROJECTED POPULATION GROWTH RATES 2018-2038, CLATSOP COUNTY CITIES



Source: PSU Population Research Center, Forecast Program

Figure 5.2 summarizes the projected future growth in population, households and housing units in 2038 in the cities and county. All of the communities are projected to need some new housing.

Unincorporated parts of the county are projected by the PSU program to have negative growth, as the cities absorb future growth and annex some unincorporated areas. The assumption of no future growth outside of city UGB’s is in keeping with the state’s Goal 10 housing goals.

For comparison, the following table also includes a scenario where unincorporated areas maintain the current population and housing. Therefore those areas see no new growth, but because it is no longer a negative figure, the county overall sees more growth.

FIGURE 5.2: PROJECTED GROWTH & NEW HOUSING NEED (2038), CLATSOP COUNTY CITIES

Geography	Population			Households			Housing Units		
	2018	2038	Growth	2018	2038	Growth	2018	2038	Growth
Astoria	9,918	10,578	660	4,553	4,855	302	5,187	5,532	345
Cannon Beach	1,707	1,878	171	796	876	80	1,847	2,032	185
Gearhart	1,483	1,699	216	645	739	94	1,606	1,840	234
Seaside	6,644	7,739	1,095	3,053	3,557	504	4,772	5,559	787
Warrenton	5,329	7,616	2,287	2,081	2,974	893	2,456	3,510	1,054
Unincorp. County	14,120	12,296	-1,824	5,332	4,554	-778	6,805	5,707	-1,098
Clatsop County Total:	39,200	41,806	2,606	16,460	17,555	1,095	22,673	24,180	1,507
Assuming No Loss in Unincorporated County:									
Unincorp. County	14,120	14,120	0	5,332	5,332	0	6,805	6,805	0
Clatsop County Total:	39,200	43,630	4,430	16,460	18,333	1,873	22,673	25,278	2,605

Source: PSU Population Research Center, US Census, Johnson Economics

The most new housing need is anticipated in Warrenton and Seaside, as these communities are anticipated to grow the fastest.

The following figures present the estimated need for new units in each city over the next 20 years, and a total for the county. These tables exclude the negative forecast from the unincorporated area, therefore assuming that those areas remain stable in population and housing.

These tables break down the new unit need into projections of needed unit types for owner households (Figures 5.3), renter households (Figures 5.4), and total households (Figures 5.5).

These tables present *net new* need for housing units by 2038.

FIGURE 5.3: NET NEW OWNERSHIP HOUSING NEED BY UNIT TYPE (2038), CLATSOP COUNTY CITIES

OWNERSHIP HOUSING									
Unit Type:	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Astoria:	147 94%	2 1%	0 0%	2 1%	5 3%	1 1%	0 0%	157	8.2%
Cannon Beach:	114 97%	2 2%	0 0%	0 0%	0 0%	1 1%	0 0%	117	6.1%
Gearhart:	157 96%	5 3%	0 0%	0 0%	0 0%	1 1%	0 0%	163	8.5%
Seaside:	541 85%	21 3%	0 0%	0 0%	27 4%	48 8%	0 0%	637	33.3%
Warrenton:	677 81%	38 5%	13 2%	5 1%	0 0%	106 13%	0 0%	839	43.8%
TOTALS:	1,636	68	13	7	32	157	0	1,913	100.0%
Percentage:	85.5%	3.6%	0.7%	0.4%	1.7%	8.2%	0.0%	100.0%	

Source: PSU Population Research Center, US Census, Johnson Economics

Future Ownership Housing Need (2038): Figure 5.3 presents projected housing need by unit type in each of the Clatsop County cities. Most new ownership housing is projected to be needed in Seaside and Warrenton. Ownership housing is traditionally dominated by single family detached housing. Land constraints may force some of this need to be accommodated in other types of housing, such as attached townhomes or condominiums.

Ownership housing is traditionally dominated by single family detached housing. This forecast reflects anticipated preferences based on demographics, and does not yet integrate land inventory as a constraint. Land constraints may force some of this need to be accommodated in other types of housing, such as attached townhomes or condominiums.

Future Rental Housing Need (2038): Figure 5.4 presents projected housing need by unit type for rental housing. Astoria, Seaside and Warrenton are projected to need similar shares of future rental housing in the future, with lesser amount being accommodated in Cannon Beach and Gearhart. In total, an projected 695 rental units will be needed over the 20-year period. Roughly two thirds are projected to be some sort of attached housing unit.

One third are projected to be single family homes for rent or mobile homes. This forecast reflects anticipated preferences based on demographics, and does not yet integrate land inventory as a

constraint. As with ownership units, constraints on buildable land may determine that most of these units are built at higher density.

FIGURE 5.4: NET NEW RENTAL HOUSING NEED BY UNIT TYPE (2038), CLATSOP COUNTY CITIES

RENTAL HOUSING									
Unit Type:	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Astoria:	43 23%	10 5%	28 15%	42 22%	65 35%	0 0%	0 0%	188	27.1%
Cannon Beach:	26 39%	9 13%	18 26%	8 12%	6 9%	1 1%	0 0%	68	9.8%
Gearhart:	34 48%	2 3%	10 14%	7 10%	16 22%	2 3%	0 0%	71	10.3%
Seaside:	52 34%	10 7%	21 14%	13 9%	52 34%	3 2%	0 0%	151	21.8%
Warrenton:	66 31%	22 10%	37 17%	29 13%	50 23%	11 5%	0 0%	215	31.0%
TOTALS:	222	53	114	99	189	18	0	695	100.0%
Percentage:	31.9%	7.6%	16.4%	14.3%	27.2%	2.6%	0.0%	100.0%	

Source: PSU Population Research Center, US Census, Johnson Economics

Future Total Housing Need (2038): Figure 5.5 presents total projected housing need by unit type in each of the Clatsop County cities. There are a total of just over 2,600 combined new units needed in the cities over the next 20 years.

73% of these housing units are anticipated to be ownership units and 27% rental units. The need for second homes and vacation units are included under the “ownership” category, which elevates this need somewhat.

Among cities, Warrenton and Seaside are forecast to see the most future need, followed by Astoria, Cannon Beach and Seaside.

FIGURE 5.5: NET NEW TOTAL HOUSING NEED BY UNIT TYPE (2038), CLATSOP COUNTY CITIES

TOTAL HOUSING									
Unit Type:	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Astoria:	190	12	28	44	70	1	0	345	13.2%
	55%	3%	8%	13%	20%	0%	0%		
Cannon Beach:	140	11	18	8	6	2	0	185	7.1%
	76%	6%	10%	4%	3%	1%	0%		
Gearhart:	191	7	10	7	16	3	0	234	9.0%
	82%	3%	4%	3%	7%	1%	0%		
Seaside:	593	31	21	13	79	51	0	788	30.2%
	75%	4%	3%	2%	10%	7%	0%		
Warrenton:	743	60	50	34	50	117	0	1,054	40.4%
	71%	6%	5%	3%	5%	11%	0%		
TOTALS:	1,858	121	127	106	221	174	0	2,608	100.0%
Percentage:	71.3%	4.6%	4.9%	4.1%	8.5%	6.7%	0.0%	100.0%	

Source: PSU Population Research Center, US Census, Johnson Economics

6. City Profiles

The following pages present additional summary tables for each of the five Clatsop County cities.



CLATSOP COUNTY HOUSING TRENDS CITY PROFILES

JANUARY, 2019

A. Astoria Housing Profile

FIGURE A.1: DEMOGRAPHIC PROFILE AND TRENDS (CITY OF ASTORIA)

POPULATION, HOUSEHOLDS, FAMILIES, AND YEAR-ROUND HOUSING UNITS					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(PSU)	10-18
Population ¹	9,813	9,477	-3.4%	9,918	4.7%
Households ²	4,235	4,288	1.3%	4,553	6.2%
Families ³	2,467	2,274	-8%	2,416	6%
Housing Units ⁴	4,858	4,980	3%	5,187	4%
Group Quarters Population ⁵	223	255	14%	267	5%
<i>Household Size (non-group)</i>	<i>2.26</i>	<i>2.15</i>	<i>-5%</i>	<i>2.12</i>	<i>-1%</i>
<i>Avg. Family Size</i>	<i>2.93</i>	<i>2.86</i>	<i>-2%</i>	<i>2.81</i>	<i>-2%</i>
PER CAPITA AND MEDIAN HOUSEHOLD INCOME					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(Proj.)	10-18
Per Capita (\$)	\$18,759	\$24,838	32%	\$31,092	25%
Median HH (\$)	\$32,879	\$40,603	23%	\$50,446	24%

SOURCE: Census, PSU Population Research Center, and Johnson Economics

Census Tables: DP-1 (2000, 2010); DP-3 (2000); S1901; S19301

¹ From PSU Population Research Center, Population Forecast Program, final forecast for Clatsop Co. (2017)

² 2018 Households = (2018 population - Group Quarters Population)/2018 HH Size

³ Ratio of 2018 Families to total HH is based on 2016 ACS 5-year Estimates

⁴ 2018 housing units are the '10 Census total plus new units permitted from '10 through '18 (source: Census, Cities)

⁵ Ratio of 2018 Group Quarters Population to Total Population is kept constant from 2010.

FIGURE A.2: COMPARISON OF CURRENT HOUSING NEED AND SUPPLY (CITY OF ASTORIA)

Income Level	Ownership				Rental			
	Price Range	Estimated Current Need	Estimated Current Supply	Unmet (Need) or Surplus	Rent	Estimated Current Need	Estimated Current Supply	Unmet (Need) or Surplus
Less than \$15,000	\$0k - \$90k	105	125	20	\$0 - \$400	444	145	(299)
\$15,000 - \$24,999	\$90k - \$130k	207	140	(66)	\$400 - \$600	294	135	(159)
\$25,000 - \$34,999	\$130k - \$190k	209	567	359	\$600 - \$900	293	859	566
\$35,000 - \$49,999	\$190k - \$210k	262	260	(3)	\$900 - \$1000	443	306	(137)
\$50,000 - \$74,999	\$210k - \$300k	484	1,045	561	\$1000 - \$1400	415	572	157
\$75,000 - \$99,999	\$300k - \$360k	366	272	(94)	\$1400 - \$1700	174	68	(106)
\$100,000 - \$124,999	\$360k - \$450k	296	280	(16)	\$1700 - \$2100	43	102	59
\$125,000 - \$149,999	\$450k - \$540k	182	119	(63)	\$2100 - \$2500	18	0	(18)
\$150,000 - \$199,999	\$540k - \$730k	176	30	(146)	\$2500 - \$3400	5	50	45
\$200,000+	\$730k +	132	50	(82)	\$3400 +	4	62	59
	Totals:	2,420	2,888	468	Totals:	2,132	2,299	166

Source: Environics, Census, Johnson Economics

FIGURE A.3: FUTURE DEMOGRAPHIC PROFILE, 2038 (CITY OF ASTORIA)

PROJECTED FUTURE HOUSING CONDITIONS (2018 - 2038)		SOURCE
2018 Population (Minus Group Pop.)	9,651	PSU
Projected Annual Growth Rate	0.32%	OR Population Forecast Program PSU
2038 Population (Minus Group Pop.)	10,293	(Total 2038 Population - Group Housing Pop.)
Estimated group housing population:	285	Share of total pop from 2010 Census US Census
Total Estimated 2038 Population:	10,578	
Estimated Non-Group 2038 Households:	4,855	(2038 Non-Group Pop./Avg. Household Size)
New Households 2018 to 2038	303	
Avg. Household Size:	2.12	Projected household size US Census
Total Housing Units:	5,532	Occupied Units plus Vacant
Occupied Housing Units:	4,855	(= Number of Non-Group Households)
Vacant Housing Units:	277	
Vacation Home, 2nd Home, Seasonal:	400	
Projected Market Vacancy Rate:	5.0%	(Vacant Units/ Total Units)
Projected Vacation Rate, 2nd Home:	7.2%	(US Census Est.) US Census

Source: PSU Population Research Center, Census, Johnson Economics

FIGURE A.4: NET NEW HOUSING DEMAND, 2038 (CITY OF ASTORIA)

OWNERSHIP HOUSING									
Unit Type:	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	148	2	0	2	5	1	0	157	45.5%
Percentage:	94.3%	1.2%	0.0%	1.0%	3.2%	0.4%	0.0%	100.0%	

RENTAL HOUSING									
Unit Type:	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	43	10	28	42	65	0	0	188	54.5%
Percentage:	23.2%	5.1%	14.8%	22.2%	34.7%	0.0%	0.0%	100.0%	

TOTAL HOUSING UNITS									
Unit Type:	Single Family Detached	Single Family Attached*	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	191	11	28	43	70	1	0	345	100%
Percentage:	55.5%	3.3%	8.1%	12.6%	20.4%	0.2%	0.0%	100.0%	

Source: PSU, US Census, Environics market data, Johnson Economics

FIGURE A.5: TOTAL HOUSING DEMAND, OCCUPIED AND VACANT, 2038 (CITY OF ASTORIA)

OWNERSHIP HOUSING										
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %
			2-unit	3- or 4-plex	5+ Units MFR					
\$0k - \$90k	117	0	0	0	0	12	0	129	4.2%	4.2%
\$90k - \$130k	181	0	0	0	78	0	0	259	8.5%	12.7%
\$130k - \$190k	183	30	0	29	19	0	0	261	8.6%	21.3%
\$190k - \$210k	320	8	0	0	0	0	0	328	10.8%	32.1%
\$210k - \$300k	610	0	0	0	0	0	0	610	20.0%	52.1%
\$300k - \$360k	462	0	0	0	0	0	0	462	15.2%	67.3%
\$360k - \$450k	375	0	0	0	0	0	0	375	12.3%	79.6%
\$450k - \$540k	231	0	0	0	0	0	0	231	7.6%	87.2%
\$540k - \$730k	223	0	0	0	0	0	0	223	7.3%	94.5%
\$730k +	167	0	0	0	0	0	0	167	5.5%	100.0%
Totals:	2,869	38	0	29	97	12	0	3,045	% of All Units:	55.0%
Percentage:	94.2%	1.3%	0.0%	0.9%	3.2%	0.4%	0.0%	100.0%		

RENTAL HOUSING										
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %
			2-unit	3- or 4-plex	5+ Units MFR					
\$0 - \$400	0	0	0	117	398	0	0	515	20.7%	20.7%
\$400 - \$600	0	0	0	171	171	0	0	342	13.8%	34.5%
\$600 - \$900	0	0	139	134	68	0	0	341	13.7%	48.2%
\$900 - \$1000	93	32	133	129	129	0	0	514	20.7%	68.9%
\$1000 - \$1400	194	97	97	0	97	0	0	484	19.5%	88.3%
\$1400 - \$1700	204	0	0	0	0	0	0	204	8.2%	96.5%
\$1700 - \$2100	52	0	0	0	0	0	0	52	2.1%	98.6%
\$2100 - \$2500	22	0	0	0	0	0	0	22	0.9%	99.5%
\$2500 - \$3400	7	0	0	0	0	0	0	7	0.3%	99.8%
\$3400 +	5	0	0	0	0	0	0	5	0.2%	100.0%
Totals:	577	129	369	550	863	0	0	2,487	% of All Units:	45.0%
Percentage:	23.2%	5.2%	14.8%	22.1%	34.7%	0.0%	0.0%	100.0%		

TOTAL HOUSING UNITS									
	Single Family Detached	Single Family Attached*	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	3,445	167	369	579	960	12	0	5,532	100%
Percentage:	62.3%	3.0%	6.7%	10.5%	17.3%	0.2%	0.0%	100.0%	

Source: PSU, US Census, Environics market data, Johnson Economics

B. Cannon Beach Housing Profile

FIGURE B.1: DEMOGRAPHIC PROFILE AND TRENDS (CITY OF CANNON BEACH)

POPULATION, HOUSEHOLDS, FAMILIES, AND YEAR-ROUND HOUSING UNITS					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(PSU)	10-18
Population ¹	1,588	1,690	6.4%	1,707	1.0%
Households ²	710	759	6.9%	796	4.9%
Families ³	419	415	-1%	424	2%
Housing Units ⁴	1,641	1,812	10%	1,847	2%
Group Quarters Population ⁵	87	121	39%	122	1%
<i>Household Size (non-group)</i>	<i>2.11</i>	<i>2.07</i>	<i>-2%</i>	<i>1.99</i>	<i>-4%</i>
<i>Avg. Family Size</i>	<i>2.70</i>	<i>2.70</i>	<i>0%</i>	<i>2.70</i>	<i>0%</i>
PER CAPITA AND MEDIAN HOUSEHOLD INCOME					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(Proj.)	10-18
Per Capita (\$)	\$24,465	\$25,490	4%	\$30,481	20%
Median HH (\$)	\$39,271	\$40,917	4%	\$49,565	21%

SOURCE: Census, PSU Population Research Center, and Johnson Economics

Census Tables: DP-1 (2000, 2010); DP-3 (2000); S1901; S19301

¹ From PSU Population Research Center, Population Forecast Program, final forecast for Clatsop Co. (2017)

² 2018 Households = (2018 population - Group Quarters Population)/2018 HH Size

³ Ratio of 2018 Families to total HH is based on 2016 ACS 5-year Estimates

⁴ 2018 housing units are the '10 Census total plus new units permitted from '10 through '18 (source: Census, Cities)

⁵ Ratio of 2018 Group Quarters Population to Total Population is kept constant from 2010.

FIGURE B.2: COMPARISON OF CURRENT HOUSING NEED AND SUPPLY (CITY OF CANNON BEACH)

Income Level	Ownership				Rental			
	Price Range	Estimated Current Need	Estimated Current Supply	Unmet (Need) or Surplus	Rent	Estimated Current Need	Estimated Current Supply	Unmet (Need) or Surplus
Less than \$15,000	\$0k - \$90k	37	0	(37)	\$0 - \$400	29	15	(13)
\$15,000 - \$24,999	\$90k - \$130k	33	2	(31)	\$400 - \$600	44	33	(11)
\$25,000 - \$34,999	\$130k - \$190k	35	40	4	\$600 - \$900	61	95	34
\$35,000 - \$49,999	\$190k - \$260k	36	134	98	\$900 - \$1200	82	99	17
\$50,000 - \$74,999	\$260k - \$320k	87	101	13	\$1200 - \$1500	67	106	39
\$75,000 - \$99,999	\$320k - \$370k	86	87	1	\$1500 - \$1700	34	9	(25)
\$100,000 - \$124,999	\$370k - \$450k	60	216	156	\$1700 - \$2100	6	6	(0)
\$125,000 - \$149,999	\$450k - \$540k	27	235	208	\$2100 - \$2500	5	8	3
\$150,000 - \$199,999	\$540k - \$710k	28	246	218	\$2500 - \$3300	2	13	11
\$200,000+	\$710k +	36	404	368	\$3300 +	2	0	(2)
	Totals:	465	1,464	999	Totals:	332	383	52

Source: Environics, Census, Johnson Economics

FIGURE B.3: FUTURE DEMOGRAPHIC PROFILE, 2038 (CITY OF CANNON BEACH)

PROJECTED FUTURE HOUSING CONDITIONS (2018 - 2038)		SOURCE
2018 Population (Minus Group Pop.)	1,585	PSU
Projected Annual Growth Rate	0.48%	OR Population Forecast Program
2038 Population (Minus Group Pop.)	1,744	(Total 2038 Population - Group Housing Pop.)
Estimated group housing population:	134	Share of total pop from 2010 Census
Total Estimated 2038 Population:	1,878	
Estimated Non-Group 2038 Households:	876	(2038 Non-Group Pop./Avg. Household Size)
New Households 2018 to 2038	80	
Avg. Household Size:	1.99	Projected household size
Total Housing Units:	2,032	Occupied Units plus Vacant
Occupied Housing Units:	876	(= Number of Non-Group Households)
Vacant Housing Units:	102	
Vacation Home, 2nd Home, Seasonal:	1,054	
Projected Market Vacancy Rate:	5.0%	(Vacant Units/ Total Units)
Projected Vacation Rate, 2nd Home:	51.9%	(US Census Est.)

Source: PSU Population Research Center, Census, Johnson Economics

FIGURE B.4: NET NEW HOUSING DEMAND, 2038 (CITY OF CANNON BEACH)

OWNERSHIP HOUSING									
Unit Type:	Single Family		Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
	Detached	Attached	2-unit	3- or 4-plex	5+ Units MFR				
Totals:	114	2	0	0	0	1	0	117	63.2%
Percentage:	97.3%	2.1%	0.0%	0.0%	0.0%	0.6%	0.0%	100.0%	

RENTAL HOUSING									
Unit Type:	Single Family		Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
	Detached	Attached	2-unit	3- or 4-plex	5+ Units MFR				
Totals:	27	9	18	8	6	1	0	68	36.8%
Percentage:	39.5%	13.0%	26.3%	11.5%	8.3%	1.5%	0.0%	100.0%	

TOTAL HOUSING UNITS									
Unit Type:	Single Family		Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
	Detached	Attached*	2-unit	3- or 4-plex	5+ Units MFR				
Totals:	141	11	18	8	6	2	0	185	100%
Percentage:	76.0%	6.1%	9.7%	4.2%	3.1%	0.9%	0.0%	100.0%	

Source: PSU, US Census, Environics market data, Johnson Economics

FIGURE B.5: TOTAL HOUSING DEMAND, OCCUPIED AND VACANT, 2038 (CITY OF CANNON BEACH)

OWNERSHIP HOUSING											
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %	
			2-unit	3- or 4-plex	5+ Units MFR						
\$0k - \$90k	85	33	0	0	0	9	0	127	8.0%	8.0%	
\$90k - \$130k	112	0	0	0	0	0	0	112	7.1%	15.1%	
\$130k - \$190k	119	0	0	0	0	0	0	119	7.5%	22.6%	
\$190k - \$260k	120	0	0	0	0	0	0	120	7.6%	30.2%	
\$260k - \$320k	296	0	0	0	0	0	0	296	18.7%	48.9%	
\$320k - \$370k	295	0	0	0	0	0	0	295	18.6%	67.6%	
\$370k - \$450k	204	0	0	0	0	0	0	204	12.9%	80.4%	
\$450k - \$540k	91	0	0	0	0	0	0	91	5.7%	86.2%	
\$540k - \$710k	95	0	0	0	0	0	0	95	6.0%	92.2%	
\$710k +	124	0	0	0	0	0	0	124	7.8%	100.0%	
Totals:	1,539	33	0	0	0	9	0	1,581	% of All Units:	77.8%	
Percentage:	97.3%	2.1%	0.0%	0.0%	0.0%	0.6%	0.0%	100.0%			

RENTAL HOUSING											
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %	
			2-unit	3- or 4-plex	5+ Units MFR						
\$0 - \$400	0	0	17	0	16	7	0	39	8.7%	8.7%	
\$400 - \$600	0	15	24	18	3	0	0	59	13.1%	21.7%	
\$600 - \$900	16	21	21	16	8	0	0	82	18.2%	39.9%	
\$900 - \$1200	32	17	33	18	10	0	0	110	24.4%	64.3%	
\$1200 - \$1500	60	7	25	0	0	0	0	92	20.3%	84.6%	
\$1500 - \$1700	47	0	0	0	0	0	0	47	10.3%	94.9%	
\$1700 - \$2100	9	0	0	0	0	0	0	9	2.0%	96.9%	
\$2100 - \$2500	7	0	0	0	0	0	0	7	1.6%	98.6%	
\$2500 - \$3300	3	0	0	0	0	0	0	3	0.7%	99.3%	
\$3300 +	3	0	0	0	0	0	0	3	0.7%	100.0%	
Totals:	178	59	119	52	37	7	0	452	% of All Units:	22.2%	
Percentage:	39.5%	13.0%	26.3%	11.5%	8.3%	1.5%	0.0%	100.0%			

TOTAL HOUSING UNITS									
	Single Family Detached	Single Family Attached*	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	1,717	91	119	52	37	16	0	2,032	100%
Percentage:	84.5%	4.5%	5.8%	2.6%	1.8%	0.8%	0.0%	100.0%	

Source: PSU, US Census, Environics market data, Johnson Economics

C. Gearhart Housing Profile

FIGURE C.1: DEMOGRAPHIC PROFILE AND TRENDS (CITY OF GEARHART)

POPULATION, HOUSEHOLDS, FAMILIES, AND YEAR-ROUND HOUSING UNITS					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(PSU)	10-18
Population ¹	995	1,462	46.9%	1,483	1.4%
Households ²	450	649	44.2%	645	-0.7%
Families ³	282	429	52%	425	-1%
Housing Units ⁴	1,055	1,450	37%	1,606	11%
Group Quarters Population ⁵	0	0	0%	0	0%
<i>Household Size (non-group)</i>	2.21	2.25	2%	2.30	2%
<i>Avg. Family Size</i>	2.76	2.69	-3%	2.64	-2%
PER CAPITA AND MEDIAN HOUSEHOLD INCOME					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(Proj.)	10-18
Per Capita (\$)	\$25,224	\$28,199	12%	\$27,863	-1%
Median HH (\$)	\$43,047	\$49,063	14%	\$48,906	0%

SOURCE: Census, PSU Population Research Center, and Johnson Economics

Census Tables: DP-1 (2000, 2010); DP-3 (2000); S1901; S19301

¹ From PSU Population Research Center, Population Forecast Program, final forecast for Clatsop Co. (2017)

² 2018 Households = (2018 population - Group Quarters Population)/2018 HH Size

³ Ratio of 2018 Families to total HH is based on 2016 ACS 5-year Estimates

⁴ 2018 housing units are the '10 Census total plus new units permitted from '10 through '18 (source: Census, Cities)

⁵ Ratio of 2018 Group Quarters Population to Total Population is kept constant from 2010.

FIGURE C.2: COMPARISON OF CURRENT HOUSING NEED AND SUPPLY (CITY OF GEARHART)

Income Level	Ownership				Rental			
	Price Range	Estimated Current Need	Estimated Current Supply	Unmet (Need) or Surplus	Rent	Estimated Current Need	Estimated Current Supply	Unmet (Need) or Surplus
Less than \$15,000	\$0k - \$90k	24	27	3	\$0 - \$400	22	4	(18)
\$15,000 - \$24,999	\$90k - \$130k	38	2	(36)	\$400 - \$600	35	16	(19)
\$25,000 - \$34,999	\$130k - \$190k	49	158	109	\$600 - \$900	42	25	(17)
\$35,000 - \$49,999	\$190k - \$260k	68	53	(15)	\$900 - \$1200	20	57	37
\$50,000 - \$74,999	\$260k - \$320k	74	419	345	\$1200 - \$1500	23	60	37
\$75,000 - \$99,999	\$320k - \$370k	48	150	102	\$1500 - \$1700	5	13	8
\$100,000 - \$124,999	\$370k - \$470k	48	204	156	\$1700 - \$2200	16	38	23
\$125,000 - \$149,999	\$470k - \$560k	49	139	91	\$2200 - \$2600	10	7	(3)
\$150,000 - \$199,999	\$560k - \$750k	46	135	89	\$2600 - \$3500	0	0	0
\$200,000+	\$750k +	28	93	65	\$3500 +	0	4	4
	Totals:	472	1,382	910	Totals:	173	224	51

Source: Envionics, Census, Johnson Economics

FIGURE C.3: FUTURE DEMOGRAPHIC PROFILE, 2038 (CITY OF GEARHART)

PROJECTED FUTURE HOUSING CONDITIONS (2018 - 2038)		SOURCE
2018 Population (Minus Group Pop.)	1,483	PSU
Projected Annual Growth Rate	0.68%	OR Population Forecast Program PSU
2038 Population (Minus Group Pop.)	1,699	(Total 2038 Population - Group Housing Pop.)
Estimated group housing population:	0	Share of total pop from 2010 Census US Census
Total Estimated 2038 Population:	1,699	
Estimated Non-Group 2038 Households:	739	(2038 Non-Group Pop./Avg. Household Size)
New Households 2018 to 2038	94	
Avg. Household Size:	2.30	Projected household size US Census
Total Housing Units:	1,840	Occupied Units plus Vacant
Occupied Housing Units:	739	(= Number of Non-Group Households)
Vacant Housing Units:	92	
Vacation Home, 2nd Home, Seasonal:	1,010	
Projected Market Vacancy Rate:	5.0%	(Vacant Units/ Total Units)
Projected Vacation Rate, 2nd Home:	54.9%	(US Census Est.) US Census

Source: PSU Population Research Center, Census, Johnson Economics

FIGURE C.4: NET NEW HOUSING DEMAND, 2038 (CITY OF GEARHART)

OWNERSHIP HOUSING									
Unit Type:	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	157	5	0	0	0	1	0	163	69.7%
Percentage:	95.9%	3.3%	0.0%	0.0%	0.0%	0.8%	0.0%	100.0%	

RENTAL HOUSING									
Unit Type:	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	35	2	10	7	16	2	0	71	30.3%
Percentage:	49.5%	2.3%	14.2%	9.6%	22.2%	2.3%	0.0%	100.0%	

TOTAL HOUSING UNITS									
Unit Type:	Single Family Detached	Single Family Attached*	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	192	7	10	7	16	3	0	234	100%
Percentage:	81.9%	3.0%	4.3%	2.9%	6.7%	1.3%	0.0%	100.0%	

Source: PSU, US Census, Environics market data, Johnson Economics

FIGURE C.5: TOTAL HOUSING DEMAND, OCCUPIED AND VACANT, 2038 (CITY OF GEARHART)

OWNERSHIP HOUSING											
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %	
			2-unit	3- or 4-plex	5+ Units MFR						
\$0k - \$90k	15	51	0	0	0	13	0	79	5.1%	5.1%	
\$90k - \$130k	123	0	0	0	0	0	0	123	8.0%	13.1%	
\$130k - \$190k	159	0	0	0	0	0	0	159	10.3%	23.4%	
\$190k - \$260k	224	0	0	0	0	0	0	224	14.5%	37.9%	
\$260k - \$320k	242	0	0	0	0	0	0	242	15.7%	53.5%	
\$320k - \$370k	157	0	0	0	0	0	0	157	10.2%	63.7%	
\$370k - \$470k	157	0	0	0	0	0	0	157	10.2%	73.8%	
\$470k - \$560k	160	0	0	0	0	0	0	160	10.3%	84.2%	
\$560k - \$750k	151	0	0	0	0	0	0	151	9.8%	94.0%	
\$750k +	93	0	0	0	0	0	0	93	6.0%	100.0%	
Totals:	1,481	51	0	0	0	13	0	1,545	% of All Units:	84.0%	
Percentage:	95.9%	3.3%	0.0%	0.0%	0.0%	0.9%	0.0%	100.0%			

RENTAL HOUSING											
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %	
			2-unit	3- or 4-plex	5+ Units MFR						
\$0 - \$400	0	0	8	11	11	7	0	37	12.5%	12.5%	
\$400 - \$600	0	3	18	12	26	0	0	59	19.9%	32.4%	
\$600 - \$900	26	4	14	6	22	0	0	72	24.3%	56.7%	
\$900 - \$1200	26	0	2	0	6	0	0	34	11.5%	68.2%	
\$1200 - \$1500	40	0	0	0	0	0	0	40	13.4%	81.7%	
\$1500 - \$1700	9	0	0	0	0	0	0	9	3.0%	84.6%	
\$1700 - \$2200	27	0	0	0	0	0	0	27	9.2%	93.8%	
\$2200 - \$2600	17	0	0	0	0	0	0	17	5.9%	99.7%	
\$2600 - \$3500	1	0	0	0	0	0	0	1	0.2%	99.9%	
\$3500 +	0	0	0	0	0	0	0	0	0.1%	100.0%	
Totals:	146	7	42	29	65	7	0	295	% of All Units:	16.0%	
Percentage:	49.4%	2.3%	14.2%	9.7%	22.2%	2.3%	0.0%	100.0%			

TOTAL HOUSING UNITS										
	Single Family Detached	Single Family Attached*	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	
			2-unit	3- or 4-plex	5+ Units MFR					
Totals:	1,627	57	42	29	65	20	0	1,840	100%	
Percentage:	88.4%	3.1%	2.3%	1.5%	3.6%	1.1%	0.0%	100.0%		

Source: PSU, US Census, Environics market data, Johnson Economics

D. Seaside Housing Profile

FIGURE D.1: DEMOGRAPHIC PROFILE AND TRENDS (CITY OF SEASIDE)

POPULATION, HOUSEHOLDS, FAMILIES, AND YEAR-ROUND HOUSING UNITS					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(PSU)	10-18
Population ¹	5,900	6,457	9.4%	6,644	2.9%
Households ²	2,656	2,969	11.8%	3,053	2.8%
Families ³	1,510	1,565	4%	1,647	5%
Housing Units ⁴	4,078	4,638	14%	4,772	3%
Group Quarters Population ⁵	134	47	-65%	48	3%
<i>Household Size (non-group)</i>	<i>2.17</i>	<i>2.16</i>	<i>0%</i>	<i>2.16</i>	<i>0%</i>
<i>Avg. Family Size</i>	<i>2.76</i>	<i>2.83</i>	<i>3%</i>	<i>2.88</i>	<i>2%</i>
PER CAPITA AND MEDIAN HOUSEHOLD INCOME					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(Proj.)	10-18
Per Capita (\$)	\$17,893	\$24,201	35%	\$26,031	8%
Median HH (\$)	\$31,074	\$36,670	18%	\$37,887	3%

SOURCE: Census, PSU Population Research Center, and Johnson Economics

Census Tables: DP-1 (2000, 2010); DP-3 (2000); S1901; S19301

¹ From PSU Population Research Center, Population Forecast Program, final forecast for Clatsop Co. (2017)

² 2018 Households = (2018 population - Group Quarters Population)/2018 HH Size

³ Ratio of 2018 Families to total HH is based on 2016 ACS 5-year Estimates

⁴ 2018 housing units are the '10 Census total plus new units permitted from '10 through '18 (source: Census, Cities)

⁵ Ratio of 2018 Group Quarters Population to Total Population is kept constant from 2010.

FIGURE D.2: COMPARISON OF CURRENT HOUSING NEED AND SUPPLY (CITY OF SEASIDE)

Income Level	Ownership				Rental			
	Price Range	Estimated Current Need	Estimated Current Supply	Unmet (Need) or Surplus	Rent	Estimated Current Need	Estimated Current Supply	Unmet (Need) or Surplus
Less than \$15,000	\$0k - \$90k	44	338	295	\$0 - \$400	211	77	(134)
\$15,000 - \$24,999	\$90k - \$130k	108	94	(13)	\$400 - \$600	432	19	(414)
\$25,000 - \$34,999	\$130k - \$190k	259	259	1	\$600 - \$900	222	430	208
\$35,000 - \$49,999	\$190k - \$240k	163	484	321	\$900 - \$1100	303	522	218
\$50,000 - \$74,999	\$240k - \$320k	296	606	309	\$1100 - \$1500	199	846	647
\$75,000 - \$99,999	\$320k - \$390k	223	419	196	\$1500 - \$1800	83	72	(11)
\$100,000 - \$124,999	\$390k - \$490k	120	351	231	\$1800 - \$2300	72	55	(17)
\$125,000 - \$149,999	\$490k - \$580k	67	81	14	\$2300 - \$2700	51	0	(51)
\$150,000 - \$199,999	\$580k - \$770k	81	89	8	\$2700 - \$3600	12	0	(12)
\$200,000+	\$770k +	96	31	(65)	\$3600 +	14	0	(14)
	Totals:	1,455	2,752	1,297	Totals:	1,598	2,020	422

Source: Enviroics, Census, Johnson Economics

FIGURE D.3: FUTURE DEMOGRAPHIC PROFILE, 2038 (CITY OF SEASIDE)

PROJECTED FUTURE HOUSING CONDITIONS (2018 - 2038)		SOURCE
2018 Population (Minus Group Pop.)	6,595	PSU
Projected Annual Growth Rate	0.77%	OR Population Forecast Program
2038 Population (Minus Group Pop.)	7,683	(Total 2038 Population - Group Housing Pop.)
Estimated group housing population:	56	Share of total pop from 2010 Census
Total Estimated 2038 Population:	7,739	
Estimated Non-Group 2038 Households:	3,557	(2038 Non-Group Pop./Avg. Household Size)
New Households 2018 to 2038	503	
Avg. Household Size:	2.16	Projected household size
Total Housing Units:	5,559	Occupied Units plus Vacant
Occupied Housing Units:	3,557	(= Number of Non-Group Households)
Vacant Housing Units:	278	
Vacation Home, 2nd Home, Seasonal:	1,724	
Projected Market Vacancy Rate:	5.0%	(Vacant Units/ Total Units)
Projected Vacation Rate, 2nd Home:	31.0%	(US Census Est.)

Source: PSU Population Research Center, Census, Johnson Economics

FIGURE D.4: NET NEW HOUSING DEMAND, 2038 (CITY OF SEASIDE)

OWNERSHIP HOUSING									
Unit Type:	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	541	21	0	0	27	48	0	637	80.9%
Percentage:	84.9%	3.3%	0.0%	0.0%	4.2%	7.6%	0.0%	100.0%	

RENTAL HOUSING									
Unit Type:	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	52	10	21	13	52	4	0	151	19.1%
Percentage:	34.5%	6.5%	13.7%	8.3%	34.3%	2.6%	0.0%	100.0%	

TOTAL HOUSING UNITS									
Unit Type:	Single Family Detached	Single Family Attached*	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	593	31	21	13	78	52	0	787	100%
Percentage:	75.3%	3.9%	2.6%	1.6%	10.0%	6.7%	0.0%	100.0%	

Source: PSU, US Census, Environics market data, Johnson Economics

FIGURE D.5: TOTAL HOUSING DEMAND, OCCUPIED AND VACANT, 2038 (CITY OF SEASIDE)

OWNERSHIP HOUSING											
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %	
			2-unit	3- or 4-plex	5+ Units MFR						
\$0k - \$90k	0	0	0	0	0	88	10	98	2.9%	2.9%	
\$90k - \$130k	0	0	0	0	86	159	0	245	7.2%	10.1%	
\$130k - \$190k	487	60	0	0	56	0	0	604	17.8%	28.0%	
\$190k - \$240k	326	50	0	0	0	0	0	376	11.1%	39.1%	
\$240k - \$320k	692	0	0	0	0	0	0	692	20.4%	59.5%	
\$320k - \$390k	523	0	0	0	0	0	0	523	15.4%	74.9%	
\$390k - \$490k	279	0	0	0	0	0	0	279	8.2%	83.2%	
\$490k - \$580k	156	0	0	0	0	0	0	156	4.6%	87.8%	
\$580k - \$770k	190	0	0	0	0	0	0	190	5.6%	93.4%	
\$770k +	224	0	0	0	0	0	0	224	6.6%	100.0%	
Totals:	2,878	110	0	0	142	246	12	3,388	% of All Units:	61.0%	
Percentage:	84.9%	3.3%	0.0%	0.0%	4.2%	7.3%	0.3%	100.0%			

RENTAL HOUSING											
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %	
			2-unit	3- or 4-plex	5+ Units MFR						
\$0 - \$400	0	0	0	43	185	56	0	284	13.1%	13.1%	
\$400 - \$600	0	58	146	87	292	0	0	583	26.9%	40.0%	
\$600 - \$900	121	30	45	15	91	0	0	302	13.9%	53.9%	
\$900 - \$1100	205	41	41	21	103	0	0	411	18.9%	72.8%	
\$1100 - \$1500	106	12	65	14	74	0	0	271	12.5%	85.3%	
\$1500 - \$1800	114	0	0	0	0	0	0	114	5.3%	90.6%	
\$1800 - \$2300	98	0	0	0	0	0	0	98	4.5%	95.1%	
\$2300 - \$2700	69	0	0	0	0	0	0	69	3.2%	98.3%	
\$2700 - \$3600	17	0	0	0	0	0	0	17	0.8%	99.1%	
\$3600 +	20	0	0	0	0	0	0	20	0.9%	100.0%	
Totals:	750	141	297	181	745	57	0	2,170	% of All Units:	39.0%	
Percentage:	34.5%	6.5%	13.7%	8.3%	34.3%	2.6%	0.0%	100.0%			

TOTAL HOUSING UNITS										
	Single Family Detached	Single Family Attached*	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	
			2-unit	3- or 4-plex	5+ Units MFR					
Totals:	3,628	252	297	181	886	303	12	5,559	100%	
Percentage:	65.3%	4.5%	5.4%	3.3%	15.9%	5.4%	0.2%	100.0%		

Source: PSU, US Census, Environics market data, Johnson Economics

E. Warrenton Housing Profile

FIGURE E.1: DEMOGRAPHIC PROFILE AND TRENDS (CITY OF WARRENTON)

POPULATION, HOUSEHOLDS, FAMILIES, AND YEAR-ROUND HOUSING UNITS					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(PSU)	10-18
Population ¹	4,096	4,989	21.8%	5,329	6.8%
Households ²	1,621	1,948	20.2%	2,081	6.8%
Families ³	1,088	1,287	18%	1,378	7%
Housing Units ⁴	1,799	2,196	22%	2,456	12%
Group Quarters Population ⁵	66	216	227%	231	7%
<i>Household Size (non-group)</i>	<i>2.49</i>	<i>2.45</i>	<i>-2%</i>	<i>2.45</i>	<i>0%</i>
<i>Avg. Family Size</i>	<i>3.00</i>	<i>2.95</i>	<i>-2%</i>	<i>2.92</i>	<i>-1%</i>
PER CAPITA AND MEDIAN HOUSEHOLD INCOME					
	2000	2010	Growth	2018	Growth
	(Census)	(Census)	00-10	(Proj.)	10-18
Per Capita (\$)	\$16,874	\$19,606	16%	\$24,722	26%
Median HH (\$)	\$33,472	\$39,839	19%	\$51,056	28%

SOURCE: Census, PSU Population Research Center, and Johnson Economics

Census Tables: DP-1 (2000, 2010); DP-3 (2000); S1901; S19301

¹ From PSU Population Research Center, Population Forecast Program, final forecast for Clatsop Co. (2017)

² 2018 Households = (2018 population - Group Quarters Population)/2018 HH Size

³ Ratio of 2018 Families to total HH is based on 2016 ACS 5-year Estimates

⁴ 2018 housing units are the '10 Census total plus new units permitted from '10 through '18 (source: Census, Cities)

⁵ Ratio of 2018 Group Quarters Population to Total Population is kept constant from 2010.

FIGURE E.2: COMPARISON OF CURRENT HOUSING NEED AND SUPPLY (CITY OF WARRENTON)

Income Level	Ownership				Rental			
	Price Range	Estimated Current Need	Estimated Current Supply	Unmet (Need) or Surplus	Rent	Estimated Current Need	Estimated Current Supply	Unmet (Need) or Surplus
Less than \$15,000	\$0k - \$90k	79	179	99	\$0 - \$400	79	38	(41)
\$15,000 - \$24,999	\$90k - \$130k	155	81	(74)	\$400 - \$600	144	89	(55)
\$25,000 - \$34,999	\$130k - \$190k	169	312	143	\$600 - \$900	130	102	(28)
\$35,000 - \$49,999	\$190k - \$260k	107	142	35	\$900 - \$1200	184	191	7
\$50,000 - \$74,999	\$260k - \$300k	137	435	297	\$1200 - \$1400	121	446	325
\$75,000 - \$99,999	\$300k - \$390k	214	119	(95)	\$1400 - \$1800	58	68	10
\$100,000 - \$124,999	\$390k - \$470k	206	84	(122)	\$1800 - \$2200	38	62	24
\$125,000 - \$149,999	\$470k - \$580k	110	18	(92)	\$2200 - \$2700	22	11	(11)
\$150,000 - \$199,999	\$580k - \$770k	78	63	(15)	\$2700 - \$3600	0	0	0
\$200,000+	\$770k +	49	17	(32)	\$3600 +	0	0	0
	Totals:	1,305	1,449	144	Totals:	776	1,007	232

Source: Environics, Census, Johnson Economics

FIGURE E.3: FUTURE DEMOGRAPHIC PROFILE, 2038 (CITY OF WARRENTON)

PROJECTED FUTURE HOUSING CONDITIONS (2018 - 2038)		SOURCE
2018 Population (Minus Group Pop.)	5,098	PSU
Projected Annual Growth Rate	1.80%	OR Population Forecast Program PSU
2038 Population (Minus Group Pop.)	7,286	(Total 2038 Population - Group Housing Pop.)
Estimated group housing population:	330	Share of total pop from 2010 Census US Census
Total Estimated 2038 Population:	7,616	
Estimated Non-Group 2038 Households:	2,974	(2038 Non-Group Pop./Avg. Household Size)
New Households 2018 to 2038	893	
Avg. Household Size:	2.45	Projected household size US Census
Total Housing Units:	3,510	Occupied Units plus Vacant
Occupied Housing Units:	2,974	(= Number of Non-Group Households)
Vacant Housing Units:	176	
Vacation Home, 2nd Home, Seasonal:	361	
Projected Market Vacancy Rate:	5.0%	(Vacant Units/ Total Units)
Projected Vacation Rate, 2nd Home:	10.3%	(US Census Est.) US Census

Source: PSU Population Research Center, Census, Johnson Economics

FIGURE E.4: NET NEW HOUSING DEMAND, 2038 (CITY OF WARRENTON)

OWNERSHIP HOUSING									
Unit Type:	Single Family		Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
	Detached	Attached	2-unit	3- or 4-plex	5+ Units MFR				
Totals:	677	38	13	5	0	105	0	839	79.6%
Percentage:	80.7%	4.5%	1.6%	0.6%	0.0%	12.5%	0.0%	100.0%	

RENTAL HOUSING									
Unit Type:	Single Family		Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
	Detached	Attached	2-unit	3- or 4-plex	5+ Units MFR				
Totals:	66	22	37	29	50	12	0	215	20.4%
Percentage:	30.7%	10.0%	17.0%	13.5%	23.2%	5.5%	0.0%	100.0%	

TOTAL HOUSING UNITS									
Unit Type:	Single Family		Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
	Detached	Attached*	2-unit	3- or 4-plex	5+ Units MFR				
Totals:	743	60	50	34	50	117	0	1,054	100%
Percentage:	70.5%	5.7%	4.8%	3.3%	4.7%	11.1%	0.0%	100.0%	

Source: PSU, US Census, Environics market data, Johnson Economics

FIGURE E.5: TOTAL HOUSING DEMAND, OCCUPIED AND VACANT, 2038 (CITY OF WARRENTON)

OWNERSHIP HOUSING											
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %	
			2-unit	3- or 4-plex	5+ Units MFR						
\$0k - \$90k	0	0	0	0	0	139	0	139	6.1%	6.1%	
\$90k - \$130k	27	44	37	14	0	148	0	270	11.8%	17.9%	
\$130k - \$190k	240	55	0	0	0	0	0	295	12.9%	30.8%	
\$190k - \$260k	182	4	0	0	0	0	0	187	8.2%	39.0%	
\$260k - \$300k	240	0	0	0	0	0	0	240	10.5%	49.5%	
\$300k - \$390k	377	0	0	0	0	0	0	377	16.5%	65.9%	
\$390k - \$470k	363	0	0	0	0	0	0	363	15.9%	81.8%	
\$470k - \$580k	194	0	0	0	0	0	0	194	8.5%	90.3%	
\$580k - \$770k	137	0	0	0	0	0	0	137	6.0%	96.3%	
\$770k +	86	0	0	0	0	0	0	86	3.7%	100.0%	
Totals:	1,846	104	37	14	0	287	0	2,287	% of All Units:	65.2%	
Percentage:	80.7%	4.5%	1.6%	0.6%	0.0%	12.5%	0.0%	100.0%			

RENTAL HOUSING											
Price Range	Single Family Detached	Single Family Attached	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units	Cummulative %	
			2-unit	3- or 4-plex	5+ Units MFR						
\$0 - \$400	0	0	0	0	74	50	0	124	10.1%	10.1%	
\$400 - \$600	0	71	51	18	68	18	0	226	18.5%	28.6%	
\$600 - \$900	0	0	83	80	41	0	0	204	16.7%	45.3%	
\$900 - \$1200	52	23	74	67	72	0	0	287	23.5%	68.9%	
\$1200 - \$1400	132	29	0	0	28	0	0	190	15.5%	84.4%	
\$1400 - \$1800	93	0	0	0	0	0	0	93	7.6%	92.0%	
\$1800 - \$2200	62	0	0	0	0	0	0	62	5.0%	97.0%	
\$2200 - \$2700	35	0	0	0	0	0	0	35	2.9%	99.9%	
\$2700 - \$3600	1	0	0	0	0	0	0	1	0.1%	100.0%	
\$3600 +	1	0	0	0	0	0	0	1	0.0%	100.0%	
Totals:	375	123	208	165	284	67	0	1,223	% of All Units:	34.8%	
Percentage:	30.7%	10.1%	17.0%	13.5%	23.2%	5.5%	0.0%	100.0%			

TOTAL HOUSING UNITS									
	Single Family Detached	Single Family Attached*	Multi-Family			Mobile home	Boat, RV, other temp	Total Units	% of Units
			2-unit	3- or 4-plex	5+ Units MFR				
Totals:	2,221	227	245	179	284	354	0	3,510	100%
Percentage:	63.3%	6.5%	7.0%	5.1%	8.1%	10.1%	0.0%	100.0%	

Source: PSU, US Census, Environics market data, Johnson Economics