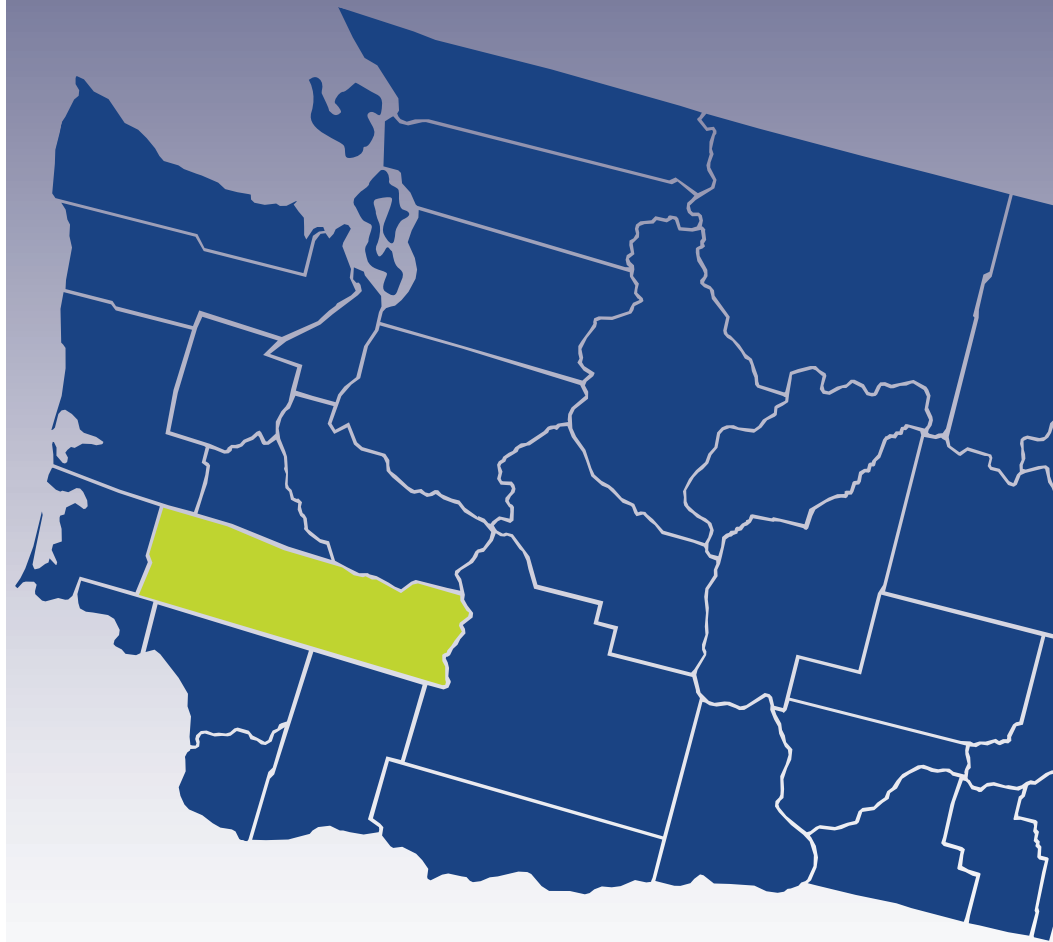


We are always seeking opportunities to bring the strengths of Western Washington University to fruition within our region. If you have a need for analysis work or comments on this report, we encourage you to contact us at: **360-650-3909** or cebr.wvu.edu



LEWIS COUNTY

2019 ECONOMIC PROFILE



About this Report

The following report is intended to give a basic overview of the local economy while illustrating factors that may impact it. Unless otherwise stated, the data in this report is the most recent complete annual data for the region, which at the time of publication includes mostly 2019 data, but also data from 2016, 2017, and 2018.

About the Authors

The Center for Economic and Business Research is an outreach center at Western Washington University located within the College of Business and Economics. The Center connects the resources found throughout the University to assist for-profit, non-profit, government agencies, quasi-government entities, and tribal communities in gathering and analyzing useful data. We use a number of collaborative approaches to help inform our clients so that they are better able to hold policy discussions and craft decisions.

The Center employs students, staff and faculty from across the University as well as outside resources to meet the individual needs of those we work with. Our work is based on academic approaches and rigor that not only provides a neutral analysis perspective but also provides applied learning opportunities. We focus on developing collaborative relationships with our clients and not simply delivering an end product.

The approaches we utilize are insightful, useful, and are all a part of the debate surrounding the topics we explore; however, none are absolutely fail-safe. Data, by nature, is challenged by how it is collected and how it is leveraged with other data sources; following only one approach without deviation is ill-advised. We provide a variety of insights within our work – not only on the topic at hand but the resources (data) that inform that topic.

The Center for Economic and Business Research is directed by Hart Hodges, Ph.D. and James McCafferty.

Living Wage

The living wage is determined by calculating the minimum income at which no more than one-third of total income is allocated for housing. For 2019, a household would need to receive an hourly wage of \$12 to rent a 1-bedroom apartment, which translates to weekly household earnings of \$480. Based on the average resale price of houses in Lewis County, a resident would need to have a minimum hourly wage of \$17 in order to afford buying a house. Due to the limited data on rents in the area, the estimated living wage for those renting apartments in the area should be taken lightly.

| Living Wage (Lewis) | | | |
|----------------------|-------|--------------------------------|--------------------------------|
| Housing Type | Rate | Required household hourly wage | Required household weekly wage |
| Rent 1 bedroom | \$693 | \$12 | \$480 |
| Rent 2 bedroom | \$908 | \$16 | \$629 |
| Median home mortgage | \$974 | \$17 | \$674 |

Source: UW Runstad Department of Real Estate Fall 2019 Report and CEBR

Minimum Wage to Purchase a Home

The minimum wage to purchase a home is based off the assumption of a 20% down payment, with the total cost of the home being based on the median home cost in Lewis County in 2019. In addition to the assumed 20% down payment, the monthly mortgage is calculated by using the principal amount and interest rate only. The minimum wage needed to purchase a home in Lewis County is then based on the wage that would be required to pay the calculated monthly mortgage.

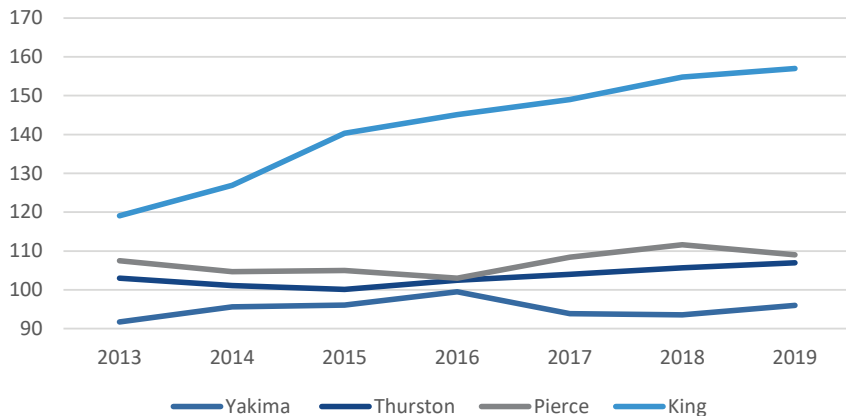
Cost of Living

The composite cost of living considers the cost of groceries, housing, utilities, transportation, and other miscellaneous goods and services. The national average is set at 100, with composite scores above 100 signaling a higher cost of living compared to the national average and composite scores below 100 signaling a lower cost of living compared to the national average. The highest composite cost of living in Washington State is 157 in King County. In neighboring Thurston and Pierce counties, the average cost of living is 107 and 109, respectively. It should be noted that Thurston and Pierce county indexes are based on Olympia and Tacoma data, respectively. In comparison, Lewis County is just below the national average with a composite cost of living estimated at 93.

| Regional Cost of living | | | | | | | |
|-------------------------|-----------|---------|---------|-----------|----------------|------------|-------------------------|
| County | Composite | Grocery | Housing | Utilities | Transportation | Healthcare | Misc. Good and Services |
| Lewis* | 93 | 99 | 102 | 69 | 91 | 80 | 96 |
| Thurston** | 107 | 112 | 101 | 89 | 137 | 119 | 105 |
| Pierce*** | 109 | 111 | 108 | 88 | 103 | 122 | 114 |
| Yakima | 96 | 97 | 81 | 83 | 115 | 111 | 105 |
| King | 157 | 129 | 225 | 108 | 138 | 129 | 136 |

Source: C2ER (2019 annual report), bestplaces.net
 *Lewis County data from bestplaces.net 2020 cost of living for reference
 **Thurston County indexes are based on data from Olympia in C2ER 2019 Annual Report
 ***Pierce County indexes are based on data from Tacoma in C2ER 2019 Annual Report

Composite Cost of Living



County Demographics

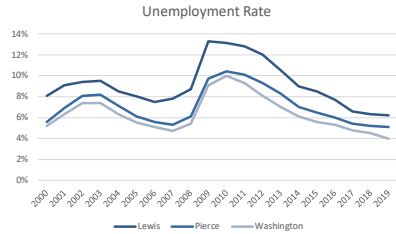
| | Chehalis | Centralia | Lewis County | WA | US |
|---|----------|-----------|--------------|-----------|-------------|
| Population | | | | | |
| Population estimates, July 1, 2019 | 7,654 | 17,745 | 80,707 | 7,614,893 | 328,239,523 |
| Population estimates base, April 1, 2010 | 7,259 | 16,658 | 75,457 | 6,724,540 | 308,758,105 |
| Population, percent change - April 1, 2010 (estimates base) to July 1, 2019 | 5.4% | 6.5% | 7.0% | 13.2% | 6.3% |
| Population, Census, April 1, 2010 | 7,259 | 16,336 | 75,455 | 6,724,540 | 308,745,538 |
| Labor Force | | | | | |
| In civilian labor force, total, percent of population age 16 years+, 2014-2018 | 56.0% | 53.7% | 53.1% | 63.5% | 62.9% |
| In civilian labor force, female, percent of population age 16 years+, 2014-2018 | 57.3% | 49.7% | 48.7% | 58.4% | 58.2% |
| Income and Poverty | | | | | |
| Median household income (in 2018 dollars), 2014-2018 | \$40,330 | \$40,815 | \$50,216 | \$70,116 | \$60,293 |
| Per capita income in past 12 months (in 2018 dollars), 2014-2018 | \$22,543 | \$22,589 | \$25,813 | \$36,888 | \$32,621 |
| Persons in poverty, percent | 17.6% | 21.4% | 12.5% | 10.3% | 11.8% |

Source: US Census

As an introduction to Lewis County, we begin by looking at the demographics of the area. This information helps build an understanding of the data found later in this profile. In Lewis County, the population grew by 7 percent between 2010 and 2019. In comparison, the population of Washington State grew by 13.2 percent, and the United States population grew by 6.3 percent. Population growth is often driven by large metropolitan areas like Seattle, which grew by 23.8 percent in 2019. As a county primarily made up smaller cities, Lewis' relatively average population growth is not unexpected.

Employment

In 2019, the unemployment rate in Lewis was 6.2 percent, which is slightly higher than the Washington State unemployment rate with sits at 4 percent for 2019. The industry subsector with the highest average quarterly wage in 2019 is mining, with the average annual wage at \$67,456. Arts, entertainment, and recreation have the lowest annual wage at \$13,976. Looking at employment, the industries with the most employees on average are government, healthcare and social assistance, retail trade, and manufacturing. Of the 29,217 people who worked in Lewis County, 23,201 workers were residents of Lewis County and 6,016 people lived elsewhere but commuted to Lewis County for work. An additional 6,958 Lewis County residents worked outside the county. When considering this, it is important to remember that the labor force participation rate is 43.4 percent.



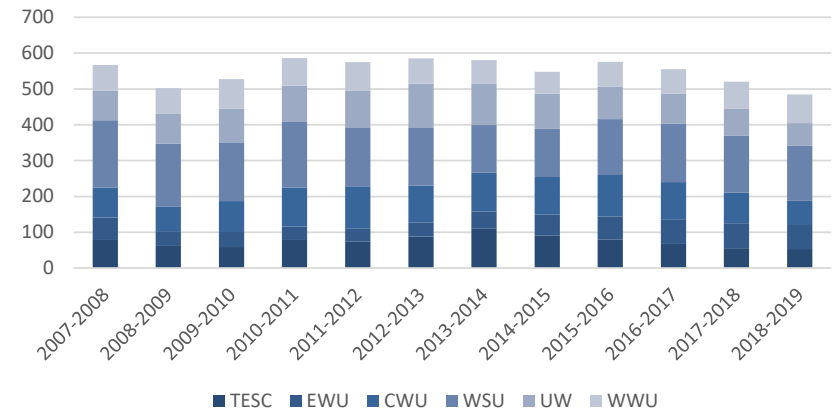
| Industry subsectors | Average Firms | Total 2019 annual wages paid | Total 2019 annual wages paid | Average annual wage |
|--|---------------|------------------------------|------------------------------|---------------------|
| Utilities | * | * | * | * |
| Management of companies and enterprises | 5 | \$3,524,715 | 64 | \$55,074 |
| Mining | 9 | \$10,590,536 | 157 | \$67,456 |
| Wholesale trade | 103 | \$46,924,638 | 786 | \$59,701 |
| Manufacturing | 98 | \$199,369,096 | 3,359 | \$59,354 |
| Healthcare and social assistance | 634 | \$194,325,651 | 3,910 | \$49,700 |
| Finance and insurance | 57 | \$17,775,075 | 339 | \$52,434 |
| Construction | 268 | \$67,593,812 | 1,314 | \$51,441 |
| Government | 100 | \$258,197,684 | 5,288 | \$48,827 |
| Information | 27 | \$9,004,031 | 186 | \$48,409 |
| Professional and technical services | 112 | \$23,265,645 | 476 | \$48,877 |
| Transportation and warehousing | 79 | \$56,844,322 | 1,243 | \$45,732 |
| Agriculture, forestry, fishing and hunting | 139 | \$51,908,680 | 1,225 | \$42,374 |
| Administrative and waste services | 85 | \$36,595,536 | 929 | \$39,392 |
| Real estate and rental and leasing | 69 | \$10,877,260 | 305 | \$35,663 |
| Retail trade | 279 | \$112,149,161 | 3,557 | \$31,529 |
| Other services, except public administration | 133 | \$13,530,145 | 452 | \$29,934 |
| Educational services | * | * | * | * |
| Accommodation and food services | 190 | \$52,590,625 | 2,513 | \$20,927 |
| Arts, entertainment, and recreation | 26 | \$4,262,630 | 305 | \$13,976 |
| Total | 2,323 | \$1,109,774,425 | 26,087 | \$737,115 |

Source: <https://esd.wa.gov/labormarketinfo/covered-employment> QCEW

Student Enrollment in Postsecondary Education

Of all the students from Chelan-Douglas that enrolled in secondary education within Washington for the 2018-2019 school year, regardless of the year they graduated, the majority attended WSU, then WWU, EWU, CWU, UW, and TESC (Evergreen State).

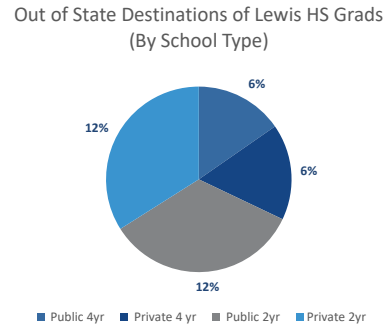
Lewis Enrollment in Postsecondary Schools



| Year Statistics | | | | | | |
|----------------------|-----------------------|--------------|------------|-------------|--------------|--------------------|
| Total (Out of State) | Enrolled Out of State | | | | Total | |
| | Public 4yr | Private 4 yr | Public 2yr | Private 2yr | HS Graduates | % Going to College |
| 0-10% | 0-10% | 0-10% | 0-10% | 0-10% | 60 | 59% |
| 7% | 4% | 3-4% | 0-2% | 0-2% | 183 | 56% |
| 13-15% | 7% | 6% | 0-2% | 0-2% | 235 | 62% |
| 0-20% | 0-20% | 0-20% | 0-20% | 0-20% | 20 | 38% |
| 0-20% | 0-20% | 0-20% | 0-20% | 0-20% | 37 | 52% |
| 0-10% | 0-10% | 0-10% | 0-10% | 0-10% | 50 | 54% |
| 11-20% | 0-10% | 11-19% | 0-10% | 0-10% | 45 | 47% |
| 0-20% | 0-20% | 0-20% | 0-20% | 0-20% | 16 | 50% |
| 0-10% | 0-10% | 0-10% | 0-10% | 0-10% | 70 | 44% |
| 0-20% | 0-20% | 0-20% | 0-20% | 0-20% | 32 | 42% |
| 0-10% | 0-10% | 0-10% | 0-10% | 0-10% | 48 | 43% |
| 18% | 8% | 8% | 2% | 0-1% | 69163 | 60% |

Out of State Destinations for Lewis High School Students

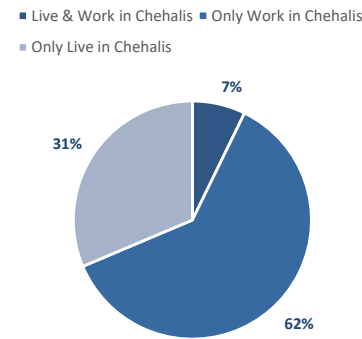
- Most 2018 Lewis high school graduates choose to stay in-state for secondary education. For those students, the average enrollment rate in a public four-year institution is lower than the statewide average.
- However, the average rate at which 2018 Lewis high school graduates enrolled in out of state public two-year institutions is higher than the statewide average, at 12% and 2%, respectively. The same trend follows for enrollment in out of state private two-year institutions at 12% and 0-1%, respectively.
- Chehalis and Onalaska School Districts have the highest percentage of 2018 high school graduates who enrolled in postsecondary out of state for the Lewis region at 13-15% and 11-20%, respectively.
- Centralia School District has the lowest percentage of 2018 high school graduates who enrolled in postsecondary out of state for the Lewis region at 7%.



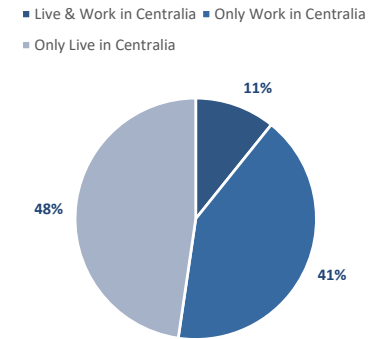
| 2015-2016 Academic | | | | | |
|------------------------|------------|-------------|--------------|------------|-------------|
| Enrolled in Washington | | | | | |
| District | Total | Public 4 yr | Private 4 yr | Public 2yr | Private 2yr |
| Adna | 88-93% | 26% | 0-10% | 62% | 0-10% |
| Centralia | 93-95% | 14% | 3-4% | 77% | 0-2% |
| Chehalis | 85-89% | 18% | 3-4% | 64% | 0-2% |
| Morton | 85-100% | 21-40% | 0-20% | 64% | 0-20% |
| Mossyrock | 79-92% | 11-19% | 0-10% | 68% | 0-10% |
| Napavine | 83-90% | 0-10% | 0-10% | 83% | 0-10% |
| Onalaska | 69-80% | 0-10% | 0-10% | 69% | 0-10% |
| Pe Ell | 82-100% | 21-40% | 21-40% | 60% | 0-20% |
| Toledo | 84-94% | 23% | 0-10% | 63% | 0-10% |
| White Pass | 86-100% | 21-40% | 0-20% | 65% | 0-20% |
| Winlock | 82-90% | 11-19% | 0-10% | 71% | 0-10% |
| Statewide | 82% | 33% | 6% | 42% | 0-1% |

<http://www.erdcddata.wa.gov/hsfb.aspx>, erdc.wa.gov/data-dashboards/public-four-year-dashboard

Chehalis Labor Force



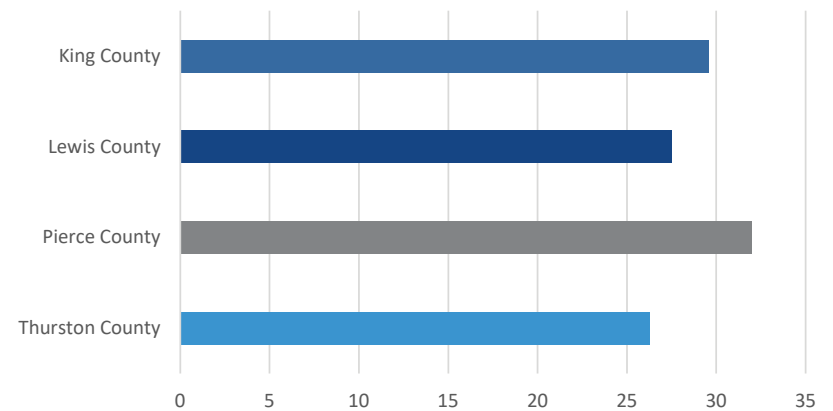
Centralia Labor Force



Commute

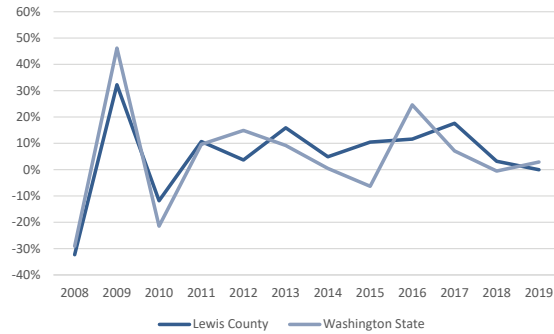
The mean commute time in Lewis County is 27.5 minutes. Neighboring Thurston County had a slightly lower average commute of 26.3 minutes while neighboring Pierce County has one of the higher average commute times of 32 minutes. Asotin and Snohomish Counties continue to have the shortest and longest commutes at 15.6 and 32.2 minutes respectively. The state average increased marginally from 23.2 to 23.5 minutes. It should be noted that these mean commute times reflect data collected by the American Community Survey from 2014-2018 and may not reflect current commute times.

Mean Commute Time (minutes)



All Housing Sales Annual Percent Change

From 2014 to 2018, the annual percent change in home resales grew steadily in Lewis County, although both Washington State and Lewis County saw a slowdown in home resales in 2018. Lewis county went from an 18% increase in 2017 to a 3 percent increase in 2018, followed 0 percentage change in home resales in 2019. It should be noted that a 0 percent change means annual sales are at the same level as the year prior.

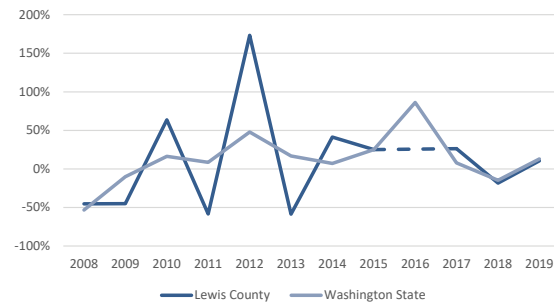


| | 2016 | 2017 | 2018 | 2019 |
|------------------|------|------|------|------|
| Lewis County | 12% | 18% | 3% | 0% |
| Washington State | 25% | 7% | -1% | 3% |

Source: <http://realestate.washington.edu/research/wcrer/housing-reports/>

Building Permits Annual Percent Change

While there is no data available for 2016, the percent change in permits in Lewis tends to be more volatile than the Washington average. However, in 2019 the annual change in building permits for Lewis County and Washington State were pretty similar, with an increase of 11 percent in Lewis County and 13 percent for Washington State.

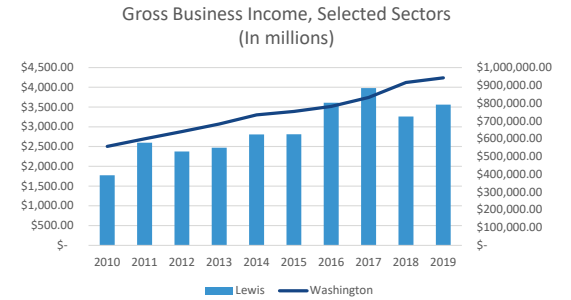


| | 2016 | 2017 | 2018 | 2019 |
|------------------|---------|------|------|------|
| Lewis County | NO DATA | 26% | -18% | 11% |
| Washington State | 86% | 8% | -15% | 13% |

Source: <http://realestate.washington.edu/research/wcrer/housing-reports/>

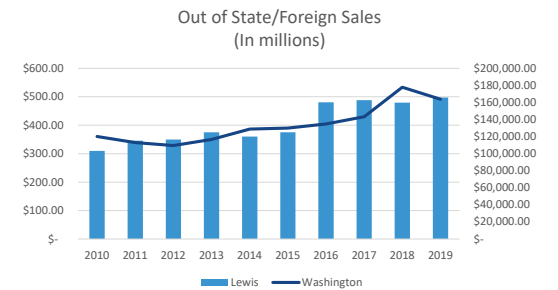
Gross Business Income

Gross business income in Lewis County and Washington State rose in 2019 by \$303 million \$26 billion, respectively. Since 2013, Lewis County has seen a rise in annual gross business income, with the exception of a loss of \$721 million in 2018. The average annual increase in Lewis from the prior five years has been \$157 million.



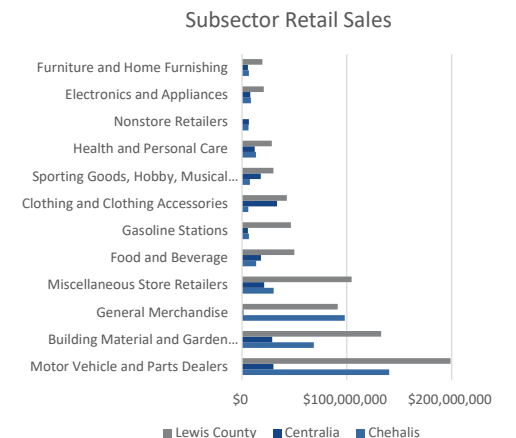
Out of State/Foreign Sales

Lewis County’s out of state and foreign sales rose by \$18 million in 2019, following a decrease of \$9 million in 2018. Over the prior five years, annual growth of out of state and foreign sales in Lewis County has averaged \$21 million. However, annual changes to Lewis County’s out of state and foreign sales is rarely on par with that average.



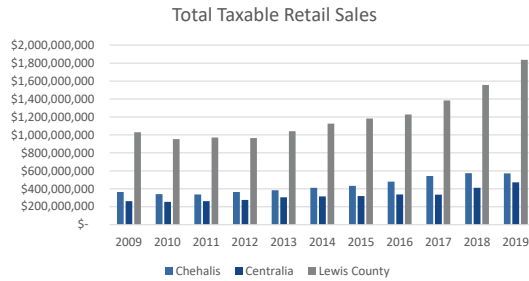
Subsector Retail Sales

In 2019, most sales in the retail trade sector came from motor vehicle and parts dealers in Lewis County at nearly \$200 million in sales. This held true for Chehalis and Centralia as well, with sales at \$140 million and \$30 million, respectively, in the motor vehicle and parts dealer’s subsector.



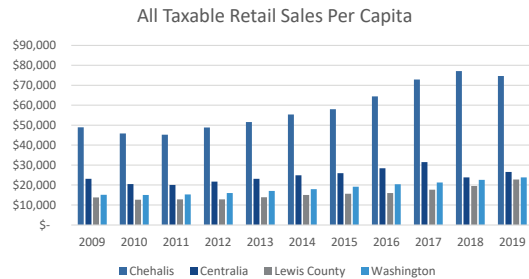
Taxable Retail Sales

As the largest city in Lewis, Centralia consistently accounts for about a quarter of taxable retail sales in the county, specifically 26% in 2019. The average annual percent growth in retail sales in Centralia over the prior five years is 26%. Since 2012, there has been continual growth in Lewis County's retail sales, with an annual average percent growth of 42% over the prior five years.



All Taxable Retail Sales per Capita

Chehalis' taxable retail sales per capita far exceed both County and State levels. Chehalis' taxable retail sales per capita in 2019 was \$74,622. This can likely be attributed to the mixture of available retail in Chehalis and the number of retail tourists drawn to the city. Lewis County's 2019 taxable retail sales per capita was \$22,744 and Washington State's was \$23,792.



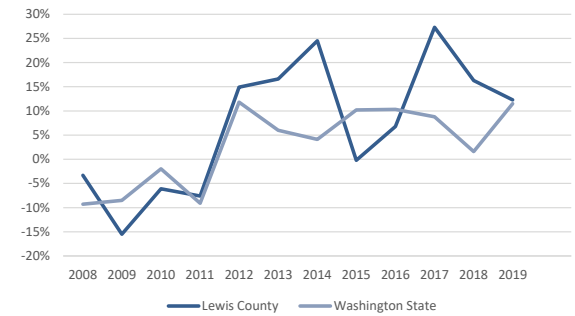
Taxable Sales in Top Sectors

Looking at the top four sectors of taxable sales in Lewis County for 2019, retail trade accounted for 43% of sales, followed by the construction sector at 22%. The proportion of taxable sales that is accounted for by retail trade has fallen from 51% in 2016.



Median House Resale Annual Percent Change

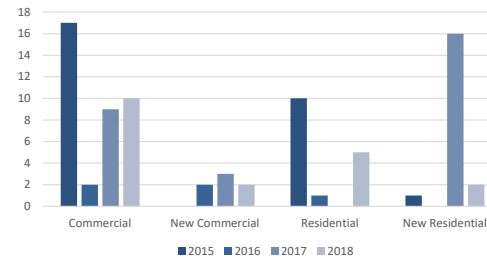
Historically, the median home resale prices grew faster in Lewis than in Washington, with an exception in 2015-2016. For example, in 2018 the annual percent change of median home resale prices was 16 percent in Lewis and 2 percent in Washington. However, in 2019 both Lewis County and Washington State saw a 12 percent increase in median home resale price.



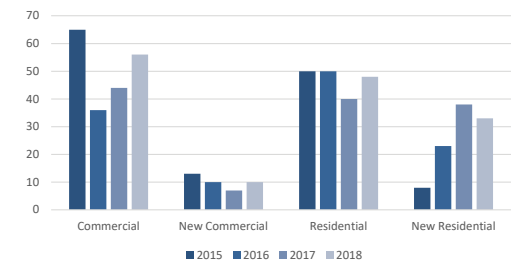
| Median House Resale Price Annual % Change | | | | |
|---|------|------|------|------|
| | 2016 | 2017 | 2018 | 2019 |
| Lewis County | 7% | 27% | 16% | 12% |
| Washington State | 10% | 9% | 2% | 12% |

Source: <http://realestate.washington.edu/research/wcwr/housing-reports/>

Annual Chehalis Building Permits



Annual Centralia Building Permits



The largest job holder age group in Lewis County in 2019 was the 55 and older category. This group made up 26.5% of employment across all industries but were prevalent in mining, educational services, transportation and warehousing, real estate and rental and leasing, public administration, and utilities

Centralia Coal Plant
The Boilers are set to shut down in 2020 and 2025. The Plant supports \$55m in local clean energy and community development

Over the span of 2010-2019, Lewis County's employment growth, 13.94%, has trailed the national average of 17.88%

Mt Rainier National Park

Lewis County's average annual wage in 2019 was \$44,692, which is significantly below the statewide average of \$69,615

Port of Centralia
Home to 30 businesses in its parks providing over 1400 jobs to the region and 20% to Centralia's tax base

Gifford Pinchot National Forest
Receives 1,800,000 visitors a year That's more than 1 visitor per acre

The original borders of Lewis County encompassed half of Washington State and British Columbia

2019 Q4
Median home: \$254,900
An increase of 61% since 2015

Mt. St. Helens Volcanic Monument

The average age of a Lewis resident is 5.4 years above the state median of 37.7

2019