# LEWIS COUNTY PROFILE





March 2001 Labor Market and Economic Analysis Branch Greg Weeks, *Director*  Washington State Employment Security

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Labor Market and Economic Analysis Branch Employment Security Department

This report has been prepared in accordance with *RCW 50.38.050.* 

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# **EXECUTIVE SUMMARY**

After several years of economic distress in the first half of the 80s, primarily associated with cutbacks in the timber industry, Lewis County began to show fairly consistent positive growth. From 1986 to 1997, nonagriculture jobs and the civilian labor force averaged annual increases of 3.1 and 3.4 percent, respectively. Since 1995, the two largest industry divisions, trades and services, grew by 13 and 8 percent, respectively, while the combined construction and mining divisions increased 4.5 percent. On the other hand, manufacturing lost 460 jobs in 1998, and declined by 8.2 percent between 1995 and 1999. Further, the county average wage of 1999 has increased by 11 percent since it bottomed out in 1990.

The unemployment rate decreased from 11 percent in 1993 to 8.2 percent in 1999. Unemployment, while low by the county's standards, nevertheless idled about 2,500 workers in 1999 and the 8.2 percent rate is significantly higher than the state's 4.7 percent. Population and migration growth were strong from 1995 to 1997, but have since slowed down. The annual population growth rate decreased from 2.4 percent in 1997 to zero growth in 2000.

When looking at industry divisions (location quotients) the Lewis County economy appears adequately diverse. On a closer look, one observes that several of the divisions are unusually dominated by one industry. For example, about 30 percent of construction and mining employment is in coal mining; 42 percent of agriculture employment is in forestry; 60 percent of manufacturing employment is in lumber and wood products; and 50 percent of transportation and public utility employment is in trucking and warehousing. The latter three are heavily influence by the timber industry. Though the economy is improving, there remain serious problems. The average wage of \$25,362 lags the statewide average by about \$10,000. Per capita and household income are also considerably less than the statewide figures. It should be noted, though, that the state's figures are heavily influenced by the high tech and aerospace industries of King and Snohomish counties. If King County is taken out of the average wage calculation for the state it goes down to \$24,711 in 1999.

Lewis County does have some comparative advantages. The West Coast's primary north-south conduit, Interstate 5, cuts directly through the county, and Highway 12 gives good access to eastern Washington. The principal cities, Centralia and Chehalis, are about equidistant from the major markets and deep-water ports of Seattle-Tacoma and Portland-Vancouver. A major deepwater port is only minutes away in Olympia. Land and wage costs are lower than those of major employment centers in Washington, the cost of living is relatively low, and there is a readily available labor force. Port areas in Centralia and Chehalis have also recently been certified as Foreign Trade Zone (FTZ) sites which should give a boost to trade and manufacturing in the area.

The establishment of the large factory outlet mall in Centralia has also been a boon to the employment situation in the area and the coal mine and coal-fired steam plant continue to contribute heavily to the county's economy providing a large number of relatively high paying jobs. TransAlta Canada purchased both the plant and the mine in June 2000. TransAlta is spending \$200 million in new scrubber technology for the plant, as well as investing another \$100 million into the mine for boosting production. TransAlta also plans to invest \$210 million to build a new 248 megawatt (MW) gas-fired, combined cycle power plant at Centralia Power Plant site; it should be fully operational by July 2002.

# **INTRODUCTION**

This report profiles the labor market and economic characteristics of Lewis County. It was prepared by the Labor Market and Economic Analysis (LMEA) Branch of the Washington State Employment Security Department and is one in a series that profiles labor market and economic conditions in each of Washington's 39 counties.

The profile is designed to assist state and local planners in developing local economic strategies. It is also an effective tool for answering labor market and economic questions frequently asked about the county. Readers with specific information needs should refer to the *Table of Contents* or to the *data appendix* to more quickly access those sections of particular interest to them.

Like the earlier *Lewis County Profile* of 1996, the purpose of this report is to provide a comprehensive labor market and economic analysis of Lewis County. Characteristics profiled include the following:

- physical geography, economic history, and demographics
- labor force composition and trends
- industries, employment, income, and earnings
- skills and occupations
- economic development

The profile is available in a Pdf format from the LMEA Internet homepage. Much of the information included in this report is also regularly updated on the homepage. Current and historical labor market information that can be accessed by area or by type of information can be found at:

#### http://www.wa.gov/esd/lmea

Any inquiries or comments about information in the profile should be directed to the Labor Market and Economic Analysis Branch.

# GEOGRAPHY

Lewis County, located in the southwest part of Washington State, touches eight other Washington counties. To the north are Grays Harbor, Thurston, and Pierce; east is Yakima; south is Skamania, Cowlitz, and Wahkiakum; and west is Pacific County. Its boundaries are purely political creations except for that portion of the northern boundary which briefly parallels the Nisqually River, and all of the eastern boundary which tracks along the crest of the Cascade Mountains.

Lewis is the largest county in western Washington; it covers 2,452 square miles, is rectangular in shape, and measures about 90 miles (east to west) by 25 miles (north to south). The elevation in Lewis County varies widely. The broad, relatively flat and low-lying western section of the county gives way to the rugged Cascade Mountains in the east. In the Centralia-Chehalis area, for example, the elevation is about 185 feet above sea level; to the east, around White Pass, a popular skiing area, it goes above 5,000 feet. Old Snowy Mountain, near the Cascade Crest, reaches 7,950 feet—the highest point in Lewis County.

About three-fourths of the county is rugged, mountainous, and forested. The remainder is given over to, or suitable for, agriculture and is characterized by low rolling hills interspersed with rivers and tributaries. Significant rivers include the Cowlitz, Chehalis, and Newaukum. The Cowlitz is particularly important because of its fish runs and hydroelectric production. Mayfield and Riffe lakes, both man-made reservoirs, are the largest bodies of water in Lewis County and are situated in the central part of the county.

The major population centers of Chehalis and Centralia, in the western central region of the county, are located on the flood plains of the Chehalis River and its tributaries, including the Skookumchuck and Newaukum rivers. This area's topography ranges from gently rolling uplands to hilly uplands and terraces with elevations from 100 to 1,000 feet.

Beneath the surface of the land in Lewis County are varied quantities of mineral deposits and significant amounts of coal in some areas. The county contains portions of the Snoqualmie and Gifford Pinchot National Forests and Mt. Rainier National Park (Mt. Rainier is about 10 miles from Lewis' northeastern boundary). Approximately one-third of Lewis County is designated as national forest.

The mountainous eastern portion of the county tends to protect the western areas from icy temperatures; the Pacific Ocean to the west also serves as a moderating influence on the weather. Consequently, the climate of the more heavily populated areas is generally moderate with warm dry summers, long rainy winters, and few extremes to disturb the norm.



# **ECONOMIC HISTORY**

The following history is excerpted from *The History* of *Lewis County Washington*, edited by Alma and John Nix; *Washington: A Centennial History*, by Robert E. Ficken and Charles P. LeWarne; and *Centralia, The First Fifty Years*, Herndon Smith, compiler.

The first economic activity in what is now Lewis County was trade. The Cowlitz and Chehalis Indians had developed an extensive trading system between their many sub-tribes, and with other peoples from quite a distance away. Both tribes were river-dependent for the mainstay of their diet—salmon. Consequently, they developed into expert canoemen and fishermen.

Salmon, and particularly dried salmon, was their main food and their primary export. The Upper Cowlitz people, who had horses and so were more mobile and less dependent upon the rivers, would even trade with the Yakamas for roots, herbs, and berries. The Chehalis Tribe remained with the rivers to a greater degree and developed a trading route that went from the Cowlitz River system to the Chehalis River system. This canoe route with its relatively easy portages was used well into the 19th century (by whites as well as Native Americans) when the first road was built from Fort Vancouver to Fort Nisqually by the U.S. military.

Although the original Native American population in Lewis County is difficult to determine, one report indicates that a gathering of the Upper Chehalis Tribe at Ford's Prairie in 1855 was 5,000 strong. Twenty years later, Sydney Ford, an early settler and Indian Agent whose district included Lewis County, lamented that the Indian population in western Washington south of Puget Sound had decreased to only 1,200 people. Small pox, measles, the flu, venereal disease, and alcohol-related health problems had decimated the once thriving river communities. The bulk of the Indian people had been moved to the Chehalis Reservation in adjacent Grays Harbor County in 1864.

After late-18th century sea explorations by Europeans and Americans, Washington started yielding to Western style economics in the form of the Hudson's Bay Company's fur trapping and trading activities. With outposts at Vancouver and Nisqually, fur trappers scoured much of Lewis County in the early-1800s searching for marketable pelts, and were firmly entrenched when white settlers started arriving in the 1840s to farm and settle the area. In fact, it was Simon Plomondon, a Hudson's Bay Company agent, who became the first white settler in Lewis County. After scouting the Cowlitz River area for the Company, he decided to settle there and established a homestead near present-day Toledo, probably around 1820. In 1825, the Hudson's Bay Company established a farm on Cowlitz Prairie—Dr. John Mclaughlin was the overseer.

In 1845 the Oregon territorial government created Lewis County, naming it after Meriwether Lewis, the famed explorer who had passed through the Jackson Prairie area. What they created resembles the present-day county only in name. It extended from the Columbia River to the southern boundary of then Russian Alaska and from the Pacific Ocean to the Cascades. The British, believing they owned much of this territory, were not amused. After much wrangling and saber-rattling (the "Fifty-four Forty or Fight" referred to Lewis County's northern border), the boundaries were redrawn in 1851 and again in 1861 to those still in effect today.

In the interim, the Washington Territory had been established and Lewis County became a part of Washington rather than the Oregon Territory. Among the earliest settlers were George Waunch, a German immigrant (1845); Schuyler Saunders (1851), who founded the town of Saundersville, which eventually became Chehalis; and George Washington (1852), who platted the land that became Centerville, later renamed Centralia.

The U.S. government actively encouraged settlement of this region—more U.S. citizens living in the area gave the U.S. a more valid claim to the territory. Furthermore, this was the period of *Manifest Destiny* when many believed it was the right, the duty, and the obligation of the U.S. to settle the West. To encourage settlement even more, Congress passed the Donation Land Claim Act in 1850, which bestowed U.S. recognition upon land claims of settlers—320 acres for a single person and 640 acres for a married couple.

Settlers arriving in Lewis County, for the most part coming up from Oregon, chose the land on prairies and the fertile areas near the Cowlitz and Chehalis river valleys. Like the Indians before them, many became fishermen and salmon became a large part of their diet. However, some were interested in permanent settlements and agriculture. The prairies had been selected because little clearing was necessary in order to start farming. The river plains, though, required substantial clearing and a burgeoning logging business began. Logging and agriculture, over time, became the dominant industries in Lewis County. Mining also assumed some importance with the discovery of fairly high-grade coal deposits.

Agriculture in Lewis County, as in most frontier areas, started as subsistence farming. Farm sites were relatively small, compared to today's, and were practically self-sufficient. Once the subsistence level was passed and surpluses were available to sell, farmers relied upon the waterways to get their crops to market. Hand powered boats (*bateaux* and canoes) plied the Cowlitz until 1861 when the first steamboat began operating on the river. Steamboats carried the bulk of passenger and freight traffic throughout the area until 1872 when the railroad arrived in the Twin Cities (Centralia and Chehalis) from Kalama, Oregon. The link all the way to Tacoma was completed in 1880.

The arrival of the railroad spurred immigration even more; the late 19th century in Lewis County was a period of growth, construction, and prosperity (Centralia's population expanded from 700 to 3,200 in one year, 1889). But, then the depression of 1893 decimated the county. Eastern investment money dried up, the railroads stopped expanding, mills closed, and people left as fast as they had come.

Entering the new century, the county had recovered from the collapse of '93. Roads were paved, highways built, the population started growing again, and there was an air of general prosperity. After a number of failed attempts in the 1800s, coal mining became profitable and a number of mines operated, employing a substantial number of people. During the first quarter of the century, agriculture started changing; horses gave way to tractors, new farming methods were introduced, and the small family farm was eclipsed by agribusiness. Large dairy farms became prevalent, hop farming and berry farms proliferated, and egg production and poultry farming flourished.

Railroads extended the range of logging away from the river systems, where logs could be floated to mills, and into previously untapped regions. And, fortuitously, the arrival of the transcontinental railroad to Washington coincided with the depletion of the Great Lakes forests—Washington was soon the leading producer of timber in the nation, and Lewis County obtained its share of that prosperity.

The 1920s, though, did not roar as loudly for the Pacific Northwest as they did for the rest of the nation. Washington and Lewis County were harbingers of the Great Depression. Farm prices fell dramatically after the war; farmers who had extended themselves when prices were high, believing they would remain high, found themselves financially strapped. Also, prohibition had effectively destroyed hop production in Lewis County. Coupled with this, the timber industry was not doing well—overproduction had depressed prices and resulted in cutbacks that affected the regional economy. The ensuing depression only exacerbated an existing trend.

Washington's lumber production dropped from 7.3 billion feet to 2.2 billion feet in a three-year period. Employment in the industry was, in 1932, less than half of what it was in the late-1920s. The average value of a farm dropped by more than 50 percent from 1920 to 1935, even while more acreage was being put under cultivation. Lewis County, historically dominated by farming and logging, was as hard hit by the depression as any place in the nation.

It took World War II to bring full employment back to the county. Demand for timber and food stuffs, occasioned by the war, revived these moribund industries. Further, many people working in the busy Tacoma shipyards were commuters from Lewis County. Following the war, the 1950s and 1960s saw several significant developments in the county economy. Highway 12 was completed, permitting easy east-west travel and linking the county with eastern Washington. Interstate 5 was also completed and became the major north-south conduit going through the county. A series of dams and hydroelectric plants were built on the Cowlitz River during the 1960s and in 1971 the Centralia Steam-Electric Plant was opened. Finally, Lewis County celebrated its sesquicentennial (150 years) in 1995 as the oldest organized county in the Northwest.

Presently, Lewis County's economy can probably be best viewed as one in transition. While much of the county is still given over to agriculture and forestry, the timber industry has been declining. Great gains over the past couple of decades in efficiency have decreased employment, and environmental concerns may continue to cause more cutbacks in the future. On the other hand, there have been increases in light industry (Chehalis, Centralia, and most recently Packwood have developed industrial parks) and retail trade. Lewis County, with its available land and proximity between Seattle and Portland and easy access to I-5, is gaining a reputation as a good place to site regional warehouse and distribution facilities (e.g. Fred Meyer). The county is working to make the transition between a resource based, extractive economy to one with an emphasis on light manufacturing, wholesale distribution and commerce.

# **POPULATION**

The Office of Financial Management has estimated Lewis County's 2000 population at 69,000, ranking it the 15th largest of Washington's 39 counties. With an area covering 2,408 square miles, Lewis County's population density stands at 29 people per square mile, making it the 21st most densely populated county in the state. In comparison, the population density is 278 people per square mile to the north in Thurston County and 82 people per square mile to the south in Cowlitz County. Population is viewed correctly as a key economic indicator of an area's vitality. With the exception of retirees and a minority of "footloose" workers, people tend to migrate to an area that has economic opportunities. In short, people follow jobs. However, changes in population are lagging, not leading, indicators. It takes time for people to arrive in an area where jobs are prevalent, and it takes time for them to leave once the demand for labor eases. Nevertheless, population changes provide insight into how the economy is performing and how the economy has performed over time.

## **Population Trends**

The population of Lewis County increased ten fold from 45,467 in 1970 to 69,000 in 2000 (*see Figure 1*). The annual average growth rate during these thirty years was 1.4 percent, compared to 1.8 percent average growth for the state. Throughout the 1970s, Lewis County grew an average of 2.1 percent per year, with an all time high of 4.7 percent growth in 1980. In comparison the statewide average population growth rate was only 1.9 percent. Population growth then virtually stagnated at a 0.3 percent average from 1981 to 1987. The recessionary years of the early-1980s drove down the county's growth rate (the county lost population in 1983 and 1985). Statewide growth was also lower (1.3 percent) but not nearly to the same degree.



From 1988 through 1997 the average annual growth rate was 1.8 percent. Statewide average growth for the same period was 2.2 percent. Most recently the growth rate in Lewis County has been a stagnate 0.3 percent annual average from 1998 to 2000.

Components of population change such as births, deaths, and migration can provide insight into larger population trends (*see Figure 2*). From 1990 to 2000 the population of Lewis County increased by 9,642. Eighty-one percent of this growth was due to migration. This is very high compared to the statewide share of growth due to migration, which was 59 percent. Lewis County ranked 13th in terms of the percentage of popu-



Components of Population Change Lewis County, 1990-2000 *Source: Office of Financial Management* 



lation growth due to migration. *Figure 3* shows the annual rate of migration from 1970 to 1999. It can be seen that annual migration was fairly high from 1991 to 1997, with a peak of over 1,700 persons in 1995. Migration has most recently tapered off to between 350 and 400 persons in 1998 and 1999. It may be that Lewis County is becoming a "magnet" of sorts for retirees, in particular former state employees, who are looking for a nice piece of land and, to a lesser extent, folks trying to "flee" urbanization in Thurston County.



### **Towns and Cities**

Of Lewis County's 69,000 residents, 39 percent lived in incorporated areas in 2000. Since 1990, unincorporated regions have grown 18 percent, while incorporated areas have grown only 14 percent. In contrast, statewide unincorporated regions increased only 3 percent while incorporated regions grew 34 percent.

The town of Centralia, not surprisingly, is the most populous municipality, comprising 51 percent of the incorporated population. Centralia is followed by Chehalis (26 percent), and then by Morton, Napavine, and Winlock, each of which comprise 5 percent of the total incorporated population. The rest of the municipalities contribute the remaining 10 percent. *Figure 4* shows the specific population data for Lewis County between 1990 and 2000. The table also shows the level of growth for the ten year period. The greatest growth is seen for Napavine at 71 percent (530 new people). The city of Chehalis has shown a relatively low growth of 8 percent (1,500 people).

<i>Figure 4</i> Population of Cities, Towns, and County Lewis County, 1990-2000 <i>Source: Office of Financial Management</i>												
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	%Chg. 90-00
Lewis	59,358	60,500	61,500	62,900	63,600	65,500	66,700	68,300	68,600	69,000	69,000	16%
Unincorporated	35,829	36,790	37,437	38,588	38,999	40,177	41,038	41,777	42,132	42,185	42,215	18%
Incorporated	23,529	23,710	24,063	24,312	24,601	25,323	25,662	26,523	26,468	26,815	26,785	14%
Centralia	12,101	12,210	12,330	12,380	12,520	12,730	12,860	13,480	13,340	13,620	13,600	12%
Chehalis	6,527	6,560	6,670	6,710	6,740	6,910	6,975	7,035	6,965	7,010	7,020	8%
Morton	1,130	1,125	1,135	1,145	1,175	1,258	1,260	1,265	1,265	1,275	1,275	13%
Mossyrock	452	450	498	495	505	535	560	560	565	565	545	21%
Napavine	745	755	770	845	880	960	1,040	1,176	1,240	1,255	1,275	71%
Pe Ell	547	550	550	560	560	590	582	615	693	685	675	23%
Toledo	586	595	625	625	640	690	690	690	690	690	680	16%
Vader	414	425	425	462	471	488	490	485	490	490	490	18%
Winlock	1,027	1,040	1,060	1,090	1,110	1,162	1,205	1,217	1,220	1,225	1,225	19%

## Age Groups

The distribution of the population among various age groups as well as the changes in this distribution over time shows aspects of the population not revealed by the overall numbers. *Figure 5* categorizes the population of Lewis County and Washington State by age group share size for 2000. These age groups are significant when viewed in terms of labor market assumptions:

- 0-14 = Infants or adolescents a decade or two removed from the labor force
- 15-19 = Prospective new entrants into the labor force
- 20-24 = New entrants into the labor force
- 25-44 = Young workers in their prime years of productivity
- 45-64 = Mature workers with years of accumulated skills and experience
- 65 + = Retirees

By far, the largest population group in Lewis County, Washington, and the nation at this time is the 25 to 44 year olds. The primary difference between Lewis County and Washington with respect to the different age groups,



is for the 65+ age group, which is significantly higher in the county, 14 percent versus 11 percent for the state.

As can be seen in *Figure 6*, the population of Lewis County and Washington State is getting older. The share of 45-64 year olds grows progressively larger from 1990 to 2010, with a total increase of 83 percent over 20 years. The average increase for the total population during this time is 36 percent. There is then a decline in this age group in 2020 as they shift over to the 65 and over group.

From 2010 to 2020 (ten years) the 65 and over group increases by 41 percent. At the same time, the increase for the total population is only 14 percent. The only other age groups with significant growth during this time are the 0 to 14 year olds and 25 to 44 year olds with 13 and 14 percent growth, respectively. Although, the two primary wage earning cohorts (those 25 to 64) will continue to comprise at least 51 percent of the population in 2010, this will be a decline to 49 percent by 2020. At this time, the primary wage earners, 25 to 64 years, will feel the pinch of providing for a relatively larger group of retirees.



Percentage Population of Age Groups Lewis County, 2000, 2010, and 2020 *Source: Office of Financial Management* 



## **Demographics**

In accordance with the federal Office of Management and Budget, the state Office of Financial Management tracks five broad race and ethnic groups: White, Black, American Indian/Eskimo or Aleut (AIEA), Asian or Pacific Islander (API), and Hispanic origin. (People of Hispanic origin can be of any race and are tallied separately.) *Figure 7* shows the percentage of the population for each of these groups for Lewis County and Washington State, in 1990 (Census) and 1998 (estimate). The share of the female population in Lewis County declined slightly from 50.8 percent in 1990 to 50.2 percent in 1998. There is a similar decline for the state as a whole.

Racially, Lewis is one of the least diverse counties in the state. However, a comparison of the 1998 figures with the 1990 Census shows that the non-white popula-

#### *Figure 7* Population by Race and Hispanic Origin Lewis County and Washington, 1990 and 1998 *Source: Office of Financial Management*

Lewis	199	0 Census	<b>1998</b> ]	Estimates	1990-1998 % Change
Total	59,358	100.0%	68,600	100.0%	15.6%
White	56,849	95.8%	64,613	94.2%	13.7%
Black	182	0.3%	349	0.5%	91.9%
Indian/Aleut	603	1.0%	828	1.2%	37.3%
Asian/Pacific Islander	358	0.6%	377	0.5%	5.4%
Hispanic*	1,366	2.3%	2,433	3.5%	78.1%
Female	30,166	50.8%	34,451	50.2%	14.2%
Washington					
Total	4,866,692	100.0%	5,757,400	100.0%	18.3%
White	4,411,407	90.6%	5,107,571	88.7%	15.8%
Black	152,572	3.1%	198,670	3.5%	30.2%
Indian/Aleut	87,259	1.8%	109,509	1.9%	25.5%
Asian/Pacific Islander	215,454	4.4%	341,650	5.9%	58.6%
Hispanic*	214,570	4.4%	356,464	6.2%	66.1%
Female	2,452,952	50.4%	2,854,914	49.6%	16.4%
*Hispanics may be of an	y race				

tion in Lewis County is growing faster than the white population. The percentage of Whites in the Lewis County population decreased slightly from 95.8 to 94.2 percent. This shift was more pronounced for the state, from 90.6 percent to 88.7 percent. In 1998, the next largest ethnic groups after Whites were Hispanic (3.5 percent), AIEAs (1.2 percent), and then both Asian/Pacific Islanders and Blacks each comprising only 0.5 percent of the population. In contrast, for the state the order of minority ethnic groups was Hispanic (6.2 percent), API (5.9 percent), Blacks (3.5 percent) and AIEAs (1.9 percent). The only similar percentage is for AIEAs.

Despite the differences, growth rates for the different groups have been similar for the county and the state, except for Blacks and APIs. Blacks had a 91.9 percent growth in the county (an increase of 167 persons), compared to 30.2 percent for the state. In contrast the API population grew by only 5.4 percent versus 58.6 percent for the state. *Figure 8* shows the change from 1990 to 1998 in the share of population for the different mi-

nority groups in Lewis County. The greatest change in absolute numbers, besides Whites, is seen for Hispanics which had an estimated increase from 1,366 to 2,433.





# **CIVILIAN LABOR FORCE**

The resident civilian labor force is defined as all persons 16 years of age and older within a specified geographic area who are either working or actively seeking work. This excludes those serving in the armed forces. Like the general population, the labor force can be seen as a key economic indicator. Patterns of growth and decline in the county's labor force are largely driven by economic cycles as well as activity in the local construction, government, and/or other predominant sectors in the county economy. Since gross domestic product and gross state product are not gathered at the county level, labor force changes, as well as other measures, serve as proxies.

The civilian labor force in Lewis County grew from 18,100 in 1970 to 31,020 in 1999 (*Figure 9*). The average annual growth rates, from 1970 to 1999, are shown in *Figure 10*. The average annual growth during this time period was 1.9 percent for Lewis County, compared to an average growth rate of 2.7 percent for the state.



The average CLF growth rates show a pattern similar to that of population growth. The CLF had an average annual growth rate of 2.9 percent from 1970 to 1980, followed by a much lower average rate of 0.2 percent from 1981 to 1987. Slow growth was partially caused by the recession of the early 1980s. This downturn hit Lewis County harder than the state as a whole partly because of the county's heavy reliance on the lumber and wood products industry. One thousand jobs were lost between 1981 and 1983; at the same time the CLF also declined by 1,000.

From 1988 to 1997 there was better growth in the CLF with an average of 2.7 percent. 1997 was a year of high job growth, low unemployment (7.7 percent), increasing labor force (4.1 percent), and even a high rate of immigration (1,428 persons). Most recently the CLF annual growth rate declined dramatically from 4.3 percent in 1998 to -6.2 percent in 1999, a loss of almost 2,000 people. This decline was preceded by a 1.6 percent decline (410 jobs) in job growth in 1998.



## **Demographics**

*Figure 11* shows the 1997 estimates, based on the 1990 Census, of the percentage share of the labor force held by each of the predominant ethnic and racial groups for both Lewis County and Washington State. In 1997, 94.8 percent of the labor force in Lewis County was white. Whites are then followed by Hispanics (2.4 percent),

AIEAs (1.4 percent), APIs (0.8 percent), and Blacks (0.5 percent). All of these groups hold a higher percentage of the labor force for the state as a whole, except for AIEAs which is the same for both the county and the state (1.4 percent). This is to be expected as these groups also represent a significantly larger portion of the population for the state.

Interestingly, representation by ethnic groups in the CLF is greater than that for the population *(see Figure 12). (It should be noted that population data are from 1998 and CLF data are from 1997).* Whites make up a lesser share of the CLF than the population, 94.8 percent of the CLF and 95.8 percent of the population. The greater representation in the CLF by the ethnic minorities is unusual.

As mentioned earlier, the population of Lewis County is relatively evenly split between males and females. The



labor force however, is not. According to the 1997 estimate, 56 percent of the work force is male while 44 percent is female. This is similar to the case statewide where males comprise 54 percent of the CLE At the same time, the labor force participation rate in 1999 was 8 percentage points less than the state average (45 and 53 percent). This is, in part, reflective of fewer job opportunities and a slower rate of secondary wage earners entering the labor force.



# **UNEMPLOYMENT**

The civilian labor force consists of both those who are working and those without a job who are looking for work. The unemployment rate is the percentage of the total labor force who are not working but who are actively looking for work. At the national level, the unemployment rate is determined by a monthly survey of households. At the local level, the state's portion of this household survey is integrated with other information (e.g., unemployment insurance claims and surveys of business establishments) to produce unemployment rates at the state and county level.

## Trend

*Figure 13* shows the unemployment rates for Lewis County, Washington, and the U.S. since 1970. Unemployment in the county over the past 30 years tracks remarkably well with unemployment in Washington and throughout the nation, rising during periods of national economic contraction and falling during economic expansions. Although the Lewis County unemployment rate follows the state trend it is on average three percentage points higher. For all three regions the unemployment rate has been on a fairly steady decline since 1982, when it peaked at 17 percent in Lewis County.

The last quarter-century has been marked by a number of recessions. The first, known locally as the *Boeing Bust* (1970-71), was centered in aerospace and did not affect Lewis County. This was the period when the state's unemployment rate exceeded the county's. The *oil embargo* of 1974-75 sent the county's unemployment rate skyrocketing but it quickly fell back to around the 10 percent level it had been previously maintaining.

#### Figure 13 **Unemployment Rates** Lewis, Washington, & U.S., 1970-1999 Source: Employment Security Department 18% Lewis 16% Washington 14% U.S. 12% 10% 8% 6% 4% 2% 1998 1970 1974 1978 1982 1986 1990 1994

The recession of the early-1980s was a different matter. Unemployment in Lewis County reached 17 percent in 1982 after losing 1,000 jobs between 1979 and 1982. Most of these were in manufacturing and trade. In 1987 the total number of jobs (18,510) finally surpassed the previous 1979 peak of 18,300 jobs. From 1982 the unemployment rate made a steady decline until it reached 7.9 percent in 1990.

The most recent national recession (1990-91) was less severe than that of the 1980s and affected different divisions. Over 500 jobs were lost in manufacturing from 1990 to 1992, and another 140 in construction and mining. In 1991, the unemployment rate increased to 10.4 percent with a corresponding decline in the CLF of 1.2 percent. Although the number of jobs made close to a complete recovery by 1992 the unemployment rate remained high at 11 percent. For the most part this was due to the high growth (6.2 percent) in the CLF.

The unemployment rate and the civilian labor force are particularly responsive to changes, both negative and positive, in job growth in Lewis County. An increase in job growth of 4.7 percent in 1994 was accompanied by a drop in the unemployment rate (from 11 percent) to 8.5 percent. The Lewis County unemployment rate reached a 30 year low of 7.7 percent in 1997; the decline occurred despite the 4.1 percent increase in CLF and in-migration of over 1,400 persons. The unemployment rate then increased to 8.3 percent (a total of 2,760 unemployed) in 1998 and stayed level at 8.2 percent in 1999.

Since 1970, unemployment in Lewis County has averaged 10.6 percent of the labor force.

Lewis County's unemployment rate ranked 26th among all 39 Washington counties in 1999. Of the western Washington counties only Pacific and Skamania had higher unemployment rates than Lewis County. The unemployment rates disaggregated by race and ethnicity for Lewis County and the state for 1997 are shown in *Figure 14*. The overall unemployment rate was 7.7 percent. Although Blacks have the highest unemployment rate (29 percent), this accounts for only 50 persons, 2.1 percent of the unemployed. All ethnic groups, except for Hispanics, have a higher unemployment rate at the county level compared to the state. *(It should be noted that demographic data are not as strong at the smaller county level and that significantly more accurate data will be available after analysis of the 2000 Census data.)* 



## **Unemployment Insurance Claims**

One of the key factors, and perhaps most reliable methods, in determining unemployment is the number of claims filed with the Employment Security Department for unemployment insurance (UI) benefits. *Figure 15* shows the number of UI claims filed in Lewis County and Washington State during FY 1999-2000 by occupational groupings. Occupational groupings differ from industry designations in that the former deal with the type of work performed regardless of industry and the latter deal with work performed within a given industry. Lewis County had 6,110 UI claimants between July 1, 1999 and June 30, 2000.

#### Figure 15

Unemployment Insurance Claims Lewis County and Washington, July 1, 1999 - June 30, 2000 Source: Employment Security Department

		Lewis	Washington		
	Claimants	Percentage	Claimants	Percentage	
Structural work	1,256	20.6%	68,041	19.2%	
Packaging and materials handling	726	11.9%	26,847	7.6%	
Service	717	11.7%	35,562	10.0%	
Machine trades	704	11.5%	21,643	6.1%	
Professional, technical, and managerial	567	9.3%	69,757	19.7%	
Clerical	531	8.7%	39,861	11.3%	
Motor freight and transportation	527	8.6%	16,993	4.8%	
Agriculture, forestry, and fishing	527	8.6%	26,856	7.6%	
Benchwork	181	3.0%	10,515	3.0%	
Sales	164	2.7%	17,729	5.0%	
Processing	142	2.3%	17,838	5.0%	
Miscellaneous, NEC	68	1.1%	2,444	0.7%	
Total	6,110	100.0%	354,086	100.0%	
White-Collar*	1,979	32.4%	162,909	46.0%	
Blue-Collar*	4,131	67.6%	191,177	54.0%	
*Miscellaneous/NEC occupations excluded					

The concentration of UI claims in Lewis County occupational groupings differ significantly from concentrations statewide. The majority of claims fell in four principal areas: structural work, packaging and material, service, and machine trades. The occupations which had a significantly greater percentage of claims in the county compared to the state include: packaging and materials handling; machine trades; and motor freight and transportation. A much higher percentage of UI claims in Lewis County are for "blue-collar" jobs compared to the state, 67.6 percent versus 54 percent. The greatest difference between the county and the state was for the number of UI claims for professional/managerial, only 9.3 percent for the county and 19.7 percent for the state.

## **Industrial Typology**

The characteristics of an area's industrial base hint at the unemployment patterns that the area might face. Therefore, calculations were made to establish the share of seasonality, cyclicality, and structural maturity in the area's employment base. These terms are defined as follows.

Industries with *seasonal* employment patterns are characterized by large employment increases and decreases in particular months of the year, for example, construction and retail sales. These variations occur during the same months each year and are caused by factors that repeat each year, for example: poor weather conditions, holiday seasons, and weather-related activities such as harvesting. A seasonal industry is one in which the maximum variation between the highest and lowest monthly employment is 18.9 percent or more of the industry's annual average employment.

Cyclicality refers to business and unemployment patterns caused by or linked to the broader movements of the economy-expansions and contractions. Unemployment in such industries is attributable to a general decline in macroeconomic activity, especially expenditures, which occurs during a business-cycle downturn. When the economy dips into a contraction, or recession, aggregate demand declines, so less output is produced and sold, and thus fewer workers and other resources are employed. Hence business activity of the cyclical variety decreases and unemployment increases. Industries that are especially sensitive to these economic swings are classified as cyclical industries, for example, ship building, aerospace, and automobile manufacturing. A cyclical industry is one in which its highest to lowest annual average employment varied 24 percent or more from the midpoint trend line from 1982-90.

*Structurally mature* industries are characterized by long-term declines in total annual average employment. These declines may be the result of increased productiv-

ity, automation, technological change, exhaustion of natural resources, or other factors. Decreasing sales are due to either displacement by less-expensive competitors, or decreasing overall demand for the good. Affected industries must either shut down, or restructure.

Areas with a high degree of structurally mature industries experience specific unemployment issues. First, structurally mature industries shed a significant number of workers causing unemployment to increase. Second, unemployment can persist because of a mismatch between the skills possessed by the available work force and the skills called for in existing and newly created jobs. The impact of structurally mature industries on local economies, therefore, can be devastating in the short run. An industry is structurally mature, if employment decreases from the pre-recession peak of 1990.

Only private industries were included when producing the figures below, so the large impact of government employment is excluded.

Note: The percentages will not necessarily total 100 percent. An industry can be recognized in more than one typology. Construction, for example, is very dependent upon weather and is also highly sensitive to fluctuations in overall economic activity, i.e., the business cycle. It has been categorized as both seasonal and cyclical.

The percentage of workers employed in these type of industries in Lewis County and the state are shown in *Figure 16.* In 1999, seasonal industries accounted for 25.7 percent of all non-government employment in Lewis County; statewide the share was only 18.8 percent. Structurally mature industries accounted for 24.8 percent of employment at the county level and 16.9 percent at the state level. Only 9.8 percent of employed persons were in cyclical industries, compared to 14.1 percent at the state level.

There are significant differences between the county and the state for all categories. Sixty percent of Lewis County's fall into one of these categories, compared to 50 percent for the state. Only cyclical employment is much less for the county than the state and this is more than compensated for by the structural and seasonal sectors. As all of these types of industries tend toward volatility and higher levels of unemployment, it follows that Lewis County's unemployment would be greater than the statewide average. Since unemployment within structural industries tends to be more prolonged, it would also follow that periods of higher unemployment would last longer than at the state level. Also, a higher share of seasonal jobs generally contributes to lower average annual earnings, which is a problem in Lewis County.



# INDUSTRIES, EMPLOYMENT, AND WAGES

Data in this section are derived through two different Bureau of Labor Statistics programs, which are conducted in Washington by the Employment Security Department. Current Employment Statistics (CES) generates monthly *nonagricultural* employment figures. The Quarterly Employment and Wages program (ES-202) includes data on both agricultural and nonagricultural employment *covered* under the state unemployment insurance program. Approximately 90 percent of all workers in the state are covered by unemployment insurance.

### **Employment Trend**

Since the "double-dip" recessions of the early 1980s, which brought down the county's employment to 17,300 in 1982, nonfarm employment in Lewis County has increased every year except for 1991 and 1998 (*Figure 17*). Since 1983, job growth has averaged 2.2 percent annually hitting an all-time high of 25,120 in 1997 and then declining to 24,970 in 1999. The average growth rate for this time period at the state level was 3.1 percent.

*Figure 18* shows the annual job growth rates from 1970 to 1999 for Lewis County and Washington State. Although Lewis County tends to follow the state trend, the peaks and valleys tend to be higher and lower for Lewis County compared to the state. The annual job growth rate climbed from -1.0 percent in 1985 to an all-time high of 7.3 percent in 1989. The growth rate then declined to -1.2 percent in 1991 before gradually increasing to a new peak of 4.7 percent in 1994. The job

#### *Figure 17*

#### Nonagricultural Wage & Salary Employment Lewis County, 1970-1999 Source: Employment Security Department



growth rate then steadily declined to -1.6 percent in 1998. The 1999 growth rate improved to 1.1 percent.

The negative growth rates in both 1991 and 1998 were due predominately to jobs lost in the construction and mining, and manufacturing sectors. On the other hand, the high growth rate in 1994 was due to more jobs in trade (450), manufacturing (340), government (170) and services (130).

The labor force figures discussed earlier showed Lewis County employment in 1999 to be 31,020. The nonfarm figures above showed there were 24,970 jobs in the county. Aside from agricultural workers (about 1,000) and the self-employed who are included in the total, the difference can largely be attributed to commuting. The labor force numbers are based on residence, i.e., those who live in Lewis County, regardless of where they work. The nonfarm numbers are based on workplace location.

#### Figure 18

Nonagricultural Wage & Salary Growth Rates Lewis County and Washington, 1970-1999 *Source: Employment Security Department* 



A good number of workers residing in Lewis County commute to workplaces outside the county. According to the 1990 Census (the only readily available source for this type information), about 3,500 residents of Lewis County worked elsewhere. The largest number, some 1,750, worked in Thurston County. About 600 worked in Cowlitz County, and Pierce and King counties also had fair numbers of commuters. These are substantial numbers: if the ratio from 1990 still holds, some 15 percent of the county's employed persons—over 4,000 workers—commute to work outside the county (and bring their paychecks back into the county). The income section will again refer to this issue.

With the sale of the Centralia steam plant and mine in 2000 a strong resurgence is underway in operation of

that facility. Over \$200 million in new pollution control equipment expenditures means the mining/power plant employment base seems secure for the long term. In addition, with power uncertainty emerging in 2000/2001, it seems the unique status of coal based power production will receive an additional boost. In fact, net new hiring is underway in 2001, an action that had not taken place for over 15 years.

In addition to the coal burning plant, there has been a recent announcement (March 2001) that Chehalis Power Ltd. signed an agreement with the state to build a 520-megawatt plant in Chehalis. Construction on the plant will begin in May, and the plant should start operating in November 2003.

### **Location Quotients**

One way of determining the industrial makeup of an area, and thereby its relative economic strength or weakness, is to compare it to another area. This comparison can be done using various measures of economic activity, such as employment, income, or retail sales. In the following analysis, location quotients are calculated using employment figures.

The following section shows fairly specifically, by industry division, how Lewis County's employment patterns both differ from and coincide with Washington State's. When comparing an industry's share of total employment at the county level to the same industry's share at the statewide level, it becomes apparent that some county employment is distributed differently than statewide employment. The location quotient compares the share of total employment in a particular industry division in the county with the share it represents in Washington State.

The quotient is determined by dividing the local industry's share of local total employment by the same industry's share of total employment at the state level. A value higher than 1.0 denotes a local industry with a higher percentage of employment than exists in the same industry at the state level. A value below 1.0 denotes the opposite. A quotient of 1.0 denotes an industry in which the county is comparable to the state as a whole.

A quotient above 1.0 suggests that the good or service produced by an industry is exported from the area; a quotient below 1.0 is a sign that, hypothetically, goods or services must be imported into an area to provide the same consumption patterns found at the state level. The

greater the value above or below 1.0, the stronger the suggestion of exporting or importing becomes.

*Figure 19* shows the location quotients of the major industry divisions in Lewis County. Except for finance, insurance, and real estate (FIRE) (0.54), wholesale trade (0.66) and retail trade (1.37) the divisions are fairly close to the statewide norm (quotient of 1.0), indicating that importing/exporting consumption patterns in the county are similar to the statewide patterns.

Four of the nine divisions are importing divisions, but only to a small degree. FIRE services are likely imported from Olympia or Longview. Many industries in the services and FIRE divisions are viable only in relatively large population centers, so county residents must go to them rather than vice versa.



The positive quotients for retail, construction, manufacturing, agriculture, and government reflect the diversity of the Lewis County economy and the continued presence of a still quite large lumber and wood products industry and an unusually large coal mining industry. The large factory outlet shopping mall and antique shops in Centralia, which attract shoppers from far beyond the county's borders, account for the export of retail trade.

## **Goods and Services**

There are three broad sectors in an economy: primary, secondary, and tertiary. The primary sector is comprised of agriculture and mining. The secondary sector is the goods-producing sector, comprised of manufacturing and construction. Finally, the service sector is everything else—although government is often excluded. (The easiest way to remember the difference between a 'good' and a 'service' is that dropping a 'service' on one's foot doesn't hurt.) Over the past several decades, most job growth in the U.S. has been in the service sector.

*Figure 20* shows the total number of jobs in the "goods" and "service" production sectors in Lewis County. While employment in the goods sector has only barely increased from 5,530 jobs in 1970 to 5,580 jobs in 1999, the service sector has more than doubled from 8,100 jobs in 1970 to 19,080 in 1999. *Figure 21* shows how although there is still a higher percentage of jobs in the goods sector (24 percent in 1999) compared to the state (20 percent), the decline since 1970 has been much more pronounced for Lewis County.

Although the seven major industrial divisions are grouped into either "goods" or "services" it is more illuminating to compare the individual divisions. *Figure* 



22 shows the employment share of each division for 1970, 1990, and 1999. Although construction and mining declined from 11 percent in 1970 to 7 percent in 1990 it then plateaued. On the other hand, manufacturing declined from 29 percent in 1970 to 20 percent in 1990 and to 16 percent by 1999. Growth within the service sector was driven primarily by trade and services.

#### *Figure 21*

Percentage of Jobs in Goods-Producing Sector Lewis County and Washington, 1970-1999 Source: Employment Security Department







## **Annual Average Covered Wage**

Annual average covered wages are derived by dividing the total wages paid in an area by the annual average employment in that area. Jobs not covered by the unemployment insurance program are excluded; however, approximately 85 percent of all employment in the state is covered under the program. *(Note: all amounts here have been inflation adjusted to 1998 dollars.)* The average wage does not include any benefits (e.g., insurance or retirement plans) other than actual wages.

*Figure 23* shows the real annual covered wage from 1970 to 1999 for Lewis County, Washington State, and the nation. For Lewis County the annual wage peaked in 1978 at \$28,746. It then declined steadily until it bottomed out at \$22,826 in 1990. Since then the annual wage has increased each year until reaching \$25,362 in 1999, compared to the state wage of \$35,724. Although the Lewis County average covered wage follows the state trend, with peaks and valleys occurring in the same years, there is always a gap between the two. The state average has been consistently higher than the county wage, but the gap has increased over the years from \$1,443 in 1970 to \$10,362 in 1999. The gap doubled from \$5,343 in 1995 to \$10,362 in 1999.

It should be remembered that King County, with its huge population and highly paid high-tech and aerospace industries, is the strongest driver of the statewide average. This effect has been even more pronounced most recently with the growth in "high-tech" industries. In fact, King County was the only county to have an annual covered wage higher than the state average of \$35,724. Lewis County ranked 16th of all 39 counties. If King County were removed from the state average it would fall to \$24,711.

Although the annual wage has improved since 1990, the fact that in 1998 it was less than it was 20 years earlier is a matter of concern that has been a subject of considerable discussion. It is a national trend as well as one occurring in Washington and in Lewis County. Some of the explanations proffered are listed below; undoubtedly, each is a contributing factor.

- Pay declines within industries caused by international competition, restructuring, the decreased power of unions to set wages, and other factors.
- An overall decline in high paying goods-producing jobs accompanied by a large increase in lower paying trade and services jobs.
- The substitution of employee benefits for direct pay increases.
- Încrease in part-time workers.

#### Figure 23 Bool Appuel Covered

Real Annual Covered Wage Lewis, Washington, & U.S., 1970-1999 Source: Employment Security Department



The annual average 1999 covered wage, and the number employed, for major industry divisions and permissible two-digit SIC code industries are shown in *Figure* 24 for Lewis County and Washington State. Note that the average wage by division throughout the state is almost always higher than Lewis County's average wage, and in many cases it is double. (Again, the state's average wage data are heavily influenced by King County: the high-paying aerospace and high-tech industries drive up the wage for the densely populated county and, consequently, for the state as a whole.)

A look at Lewis County's industry divisions shows that only four of the SIC two-digit industries have slightly higher salaries than for the state. These include: heavy construction (16), passenger transit (41), building materials retail (52), and general merchandise retail (53). The average salary for trucking and warehousing (42) is very close to the state average, \$30,083 compared to \$30,801.

Only two industries pays more than \$40,000: heavy construction with a salary of \$46,897 and electric, gas, and sanitary services (\$52,686). The lowest average covered wages were for motion pictures (78), and private households (88) both paying less than \$8,000.

These figures should be used only to draw broad conclusions. Some industries are purposefully excluded for confidentiality purposes, and the inclusion of data on parttime workers and executive earnings exaggerate wage disparities between otherwise comparable industries. Moreover, the wages have not been adjusted for regional cost-of-living variations, which can be very significant. In the following sections the different employment divisions are discussed using two different data sources. Except for agriculture, the employment trend for the division is discussed based on data from the CES program. Then each division and industries within the division are discussed in terms of 1999 employment and average salary based on ES-202 data. These data are shown in *Figure 24*.

### Figure 24

Annual Covered Wages and Employment Lewis County and Washington State, 1999 Source: Employment Security Department

			Lewis		ington
SIC		Employment	Avg Wage	Employment	Avg Wage
	Total	25,192	\$24,310	2,616,100	<b>\$35,37</b> 4
	Private-Total	20,332	\$24,008	2,165,823	\$35,309
	Agriculture, Forestry, and Fishing	963	\$15,528	87,115	\$19,697
01	Agricultural Production - Crops	249	\$13,018	54,110	\$13,647
02	Agricutural Production - Livestock	173	\$17,153	5,738	\$20,133
07	Agricultural Services	135	\$14,345	24,890	\$18,96
08	Forestry	406	\$17,595	2,377	\$26,042
09	Fishing, Hunting, and Trapping	10	\$23,615	2,677	\$57,73
	Construction and Mining	1,724	\$34,676	146,492	\$39,630
12	Coal Mining	513	\$57,449	541	\$56,05
13	Oil and Gas Extraction	*	*	38	\$32,46
14	Nonmetalic Minerals, except Fuels	105	\$27,930	2,310	\$36,40
15	General Building Contractors	279	\$24,610	39,143	\$34,38
16	Heavy Construction, except Building	451	\$46,897	18,988	\$44,20
17	Special Trade Contractors	357	\$24,683	85,472	\$34,26
	Manufacturing	3,924	\$24,709	341,236	<b>\$38,74</b> 4
20	Food and Kindred Products	446	\$27,267	40,591	\$31,154
22	Textile Mill Products	*	*	1,008	\$34,86
23	Apparel and Other Textile Products	78	\$14,703	7,070	\$21,45
24	Lumber and Wood Products	2,367	\$36,732	33,147	\$37,77
25	Furniture and Fixtures	38	\$16,129	4,611	\$27,87
27	Printing and Publishing	183	\$23,573	23,572	\$33,46
28	Chemicals and Allied Products	*	*	6,104	\$70,89
30	Rubber and Miscellaneous Plastic Products	*	*	10,015	\$31,24
31	Leather and Leather Products	*	*	371	\$21,71
32	Stone, Clay, and Glass Products	49	\$26,159	8,633	\$35,51
33	Primary Metal Industries	*	*	11,586	\$44,06
34	Fabricated Metal Products	170	\$23,778	14,185	\$32,87
35	Industrial Machinery and Computer Equip.	61	\$27,103	24,413	\$46,55
36	Electronic Equipment, except Computer	*	*	18,231	\$41,02
37	Transportation Equipment	306	\$27,733	114,616	\$55,59
38	Instruments and Related Products	5	\$13,671	14,537	\$54,86
39	Miscellaneous Manufacturing Industries	49	\$17,981	8,546	\$37,72
	Transportation and Public Utilities	1,016	\$32,980	123,991	\$39,21
41	Local and Interurban Passenger Transit	18	\$24,900	6,680	\$19,70
42	Trucking and Warehousing	525	\$30,083	31,672	\$30,80
45	Transportation By Air	*	****	26,406	\$38,48
47	Transportation Services	97	\$23,208	11,923	\$33,85
48	Communication	118	\$34,615	31,694	\$59,05
49	Electric, Gas, and Sanitary Services	219	<b>\$52,686</b>	15,616	\$53,41

		Le	wis	Washii	ngton
SIC		Employment	Avg Wage	Employment	Avg Wag
	Trade	7,183	\$21,026	621,591	\$26,08
	Wholesale Trade	<b>948</b>	\$31,502	149,133	\$40,08
0	Wholesale Trade - Durable Goods	537	\$39,423	84,772	\$44,22
51	Wholesale Trade - Nondurable Goods	411	\$23,580	64,361	\$35,94
	Retail Trade	6,235	\$18,407	472,458	\$22,58
52	Building Materials and Garden Supplies	353	\$26,022	21,861	\$25,03
3	General Merchandise Stores	1,474	\$21,974	49,287	\$21,02
64	Food Stores	892	\$18,148	69,332	\$20,30
5	Automotive Dealers and Service Stations	825	\$22,985	48,050	\$30,51
6	Apparel and Accessory Stores	190	\$14,430	25,405	\$21,03
57	Furniture and Homefurnishings Stores	222	\$19,059	21,526	\$27,49
58	Eating and Drinking Places	1,816	\$9,863	176,049	\$12,25
9	Miscellaneous Retail	463	\$14,778	60,948	\$22,99
	Finance, Insurance, & Real Estate	692	30,030	134,122	\$52,99
60	Depository Institutions	271	\$28,489	38,184	\$37,55
51	Nondepository Institutions	24	\$37,051	11,538	\$49,43
52	Security and Commodity Brokers	*	*	7,981	\$96,21
3	Insurance Carriers	123	\$33,394	26,869	\$44,64
64	Insurance Agents, Brokers, and Service	60	\$22,466	13,328	\$40,63
65	Real Estate	181	\$13,019	33,633	\$26,37
7	Holding and Other Investment Offices	28	\$12,278	2,589	\$76,0
	Services	4,820	\$16,820	708,599	\$28,69
<b>'</b> 0	Hotels and Other Lodging Places	234	\$9,342	28,212	\$16,63
2	Personal Services	100	\$13,205	22,450	\$17,39
'3	Business Services	673	\$19,783	165,464	\$88,79
'5	Auto Repair, Services, and Parking	161	\$19,838	25,900	\$24,82
<b>′</b> 6	Miscellaneous Repair Services	35	\$20,304	7,575	\$29,8 <sup>°</sup>
8	Motion Pictures	34	\$7,732	9,928	\$13,4
'9	Amusement and Recreation Services	181	\$9,432	40,268	\$19,64
80	Health Services	2,033	\$28,766	185,827	\$31,61
81	Legal Services	71	\$22,949	17,528	\$44,84
82	Educational Services	46	\$16,151	22,720	\$27,13
33	Social Services	436	\$11,872	59,140	\$17,08
84	Museums, Botanical, Zoological Gardens	*	*	1,532	\$21,4
86	Membership Organizations	83	\$12,427	24,580	\$22,14
37	Engineering and Management Services	103	\$31,018	64,036	\$46,62
88	Private Households	628	\$7,634	33,439	<b>\$8,8</b> 1
	Government	4,860	\$30,966	450,277	\$36,80
	Federal	305	\$34,964	67,631	\$42,85
	State	1,109	\$31,048	116,784	\$35,09
	Local	3,446	\$26,884	265,862	\$32,47

## Agriculture, Forestry, and Fishing

In 1999, the agricultural division employed 963 workers, 3.8 percent of the county's covered employment. Washington State, as a whole, has 3.3 percent of its covered workers in the division. Lewis County agricultural employers paid an annual average wage of \$15,528 in 1999, somewhat less than the statewide salary of \$19,697. Forty-two percent of the division's employment was in forestry, significantly less than the 52 percent of 1994. The location quotient for this one industry is 17.7 which indicates that it is highly export oriented, compared to the location quotient of 1.15 for the division as a whole. Lewis County still has vast wooded areas which require care and maintenance to produce a good timber harvest. Over 400 workers are employed in this endeavor.

In terms of agriculture, Lewis County produces relatively small amounts of crops such as barley, oats, green peas, and corn. Some hay and winter wheat is also grown. The major employment in this industry comes from ornamental horticulture (about 200 workers) and dairy farms (about 130 workers). Lewis County ranks number one in the state for broiler production (12 million broilers in 1996) but this industry creates only a few jobs (about 15 in 1999).

### **Construction and Mining**

*Figure 25* shows the employment trend for construction and mining from 1970 to 1999 in Lewis County, which had an overall increase of 21 percent. A sharp decrease in construction and mining employment began in 1972 and bottomed out in 1975. This correlates with completion of the Centralia Steam-Electric Plant and a number of dams that were being built at that time in the region. (The abrupt increase in employment in 1978) is only a record keeping phenomena—mining employment, which had been carried under services, was switched to construction.) After dipping during the 1990-91 national recession, division employment expanded until reaching a high of 2,180 in 1997. There was then a decline to 1,750 in 1998 and then an increase to 1,870 in 1999. Construction and mining increased by 4.5 percent from 1995 to 1999.

In 1999, 6.8 percent of all employment in Lewis County was in the construction and mining division. The share of employment was significantly less for the state at 5.5 percent. Unlike most counties, mining in Lewis County is a significant portion of the construction and mining division, accounting for over 30 percent of the division's 1,724 jobs. Statewide mining accounts for only 0.4 percent of the total division employment. Within mining the predominant industry is coal, which is a necessary adjunct to operation of the coal-fired Centralia power plant. There are only 541 people employed in coal mining throughout the state, and 513 of these workers are based in Lewis County. Coal mining has an industry location quotient of 98.

Within the construction division, Lewis County has a higher proportion of heavy construction workers than the state, 26 percent compared to 13 percent. Because heavy construction is generally higher paid (\$46,897) than other construction employment, this helps push up the entire division's average wage. While the construction and mining division accounts for 6.8 percent of all covered employment, it makes up a larger share (11 percent) of all wages paid. The next largest group, with about 21 percent of total division jobs, was special trade contractors. These include plumbers, painters, heating and air conditioning specialists, carpenters, etc.

At \$34,676 the construction and mining average salary is the highest division salary in the county, and yet it is still less than the state average salary for the same division (\$39,360). On the other hand, the salaries for coal mining and heavy construction are both higher than the state averages. They are also the first and third highest salaries in the county.



### Manufacturing

Despite very low growth, manufacturing still holds a comparatively large share of county private employment compared to the state, 16 percent versus 13.8 percent. Sixty percent of employment within manufacturing is in the lumber and wood products industry (2,367 workers). The location quotient for this industry alone is 7.6 indicating a high level of exportation. In fact, if government is excluded, it accounts for 11.6 percent of all covered employment in Lewis County. The majority of these (1,600) are employed in logging and sawmills. The lumber and wood products industry pays the highest salary within the division, \$36,732. Unfortunately, this industry is hard hit by government regulation and international competition and will likely continue to show long-term employment declines.

The next two largest industries within the division are food processing (frozen fruits and vegetables) with 11 percent of employment, and transportation equipment with almost 8 percent of division employment. Both of these industries also pay salaries higher than the division average of \$24,709, which is also higher than the county average. The manufacturing division is a key to the county's economy. Its 16 percent employment share generates 20 percent of the county's entire payroll. Some food processing firms have announced cut-backs and closures in 2000, and as more agriculture tends to shift to eastern Washington, Oregon, and Idaho, this trend may continue.

*Figure 26* shows that manufacturing in Lewis County was at its highest in 1978 with 5,250 workers. It then declined steadily until it bottomed out at 3,620 in 1986. Since then it has increased steadily, except for a few small ups and downs, until reaching 4,470 in 1997. It then decreased to 4,010 in 1999, a loss of 460 jobs. The manufacturing division in Lewis County has had a very low average growth rate of 0.2 percent since 1970, compared to 1.6 percent for the state. The division's share of



total private employment has steadily decreased from 29 percent in 1970 to 16 percent in 1999.

The lumber and wood products industry share of manufacturing has decreased from 72 percent in 1981 to 60 percent in 1999. While the industry will probably never regain its historical dominance, it nevertheless remains a significant part of the county's employment base. At the time that the profile was last written (1996), the industry had somewhat "bottomed out" from the drastic timber harvest cutbacks of the early 1990s. However, the current situation of excess supply and falling demand contributing to low prices is possibly chipping away at the remaining base.

In Lewis County, the number of jobs in lumber and wood processing decreased from 3,307 in 1981 to as low as 2,151 in 1991. It then increased steadily until peaking at 2,652 in 1996, before declining to 2,188 in 1998. It then increased to 2,367 in 1999. While lumber and wood products declined by 28 percent since 1981, manufacturing overall declined by a lesser 13 percent.

### **Transportation and Public Utilities (TPU)**

Transportation and Public Utilities (TPU), which includes trucking, warehousing, and utilities, is one of the county's smallest divisions with only 4 percent of all employment. Statewide TPU accounts for 4.7 percent of total private employment. The largest industry in the division is trucking and warehousing, with 52 percent of division jobs (525 workers). The statewide share of employment for this industry is 25 percent. The second largest industry within the division is electric, gas, and sanitary with 22 percent of division employment and the highest average salary for the county (\$52,686). The communications industry, which includes cable, broadcast TV, radio, and telephone service, accounts for almost 12 percent of division employment. Compared to other divisions, TPU growth has been diminutive. As shown in *Figure 27*, employment in TPU increased from only 820 workers in 1970 to 1,150 workers in 1999, a 40 percent increase. The division had an average annual growth rate of 1.2 percent, compared to 2.3 percent for the state. Within TPU, industries have had dramatically different growth rates. While electric, gas, and sanitary services declined by 17 percent, trucking and warehousing increased by 68 percent since 1981. From 1981 to 1999 overall TPU growth was 21 percent.



### Trade

Trade employment has had the highest divisional average annual growth rate of 3.7 percent (services had the same growth rate) from 1970 to 1999, outpacing the state growth rate of 3.4 percent. Employment increased from 2,680 in 1970 to 7,430 in 1999 (*see Figure 28*). Its share of total employment increased from 20 to 30 percent. Employment in trade has, to a large degree, taken up the slack created by the decline or stagnation in other industries. In 1999, there were 7,183 jobs in the division, 948 in wholesale and 6,235 in retail.

Trade has accounted for 42 percent of all the new jobs created in Lewis County since 1970. A particularly bright spot for the county has been the manufacturers' outlet shopping center in Centralia which provides a large number of jobs. A more significant positive success has been in attracting regional warehouse and distribution firms. The central location of Centralia-Chehalis—equal distance between Seattle and Portland—has supported this trend.

The growth in trade, though, is not an unmixed blessing. Eighty-seven percent of trade employment is in retail, which had an average wage of \$18,407 in 1999, the second lowest divisional wage after services. Although the average wholesale trade salary (\$31,502) is much higher, it accounts for only 14 percent of trade employment. The average wage is strongly influenced by the division's largest industry, eating and drinking places, which accounts for 29 percent of divisional employment



(1,816 workers) and has an average wage of only \$9,863. (Much of that work is part time, and the computations for the average wage do not include tip income. Also these jobs usually do not provide benefits.)

Other large retail industries were general merchandise stores, food stores, and auto dealers and service stations. Wholesale trade employment is distributed among a large number of industries, each with a relatively small number of employees. The larger ones include farm supplies, industrial machinery and equipment, metal products, and construction and mining machinery. None of these, though, employ many more than 120 workers.

## Finance, Insurance, and Real Estate (FIRE)

The finance portion of the economy includes banks, savings and loans, credit unions, mortgage banks, loan brokers, and security and commodity brokers. Insurance encompasses carriers, agents, and brokers. Real estate includes agents, brokers, apartment managers, and even title abstract offices. FIRE is the smallest division in Lewis County and employs only 692 people. Its 2.7 percent share of total employment is significantly less than the statewide FIRE share of 5.1 percent.

In 1999, some 39 percent of division jobs were with depository institutions (banks, credit unions, savings and loans, etc.) while 26 percent were in real estate. Those employed by depository institutions earned an average salary of \$28,489, while people in real estate earned the lowest divisional wage of \$13,019. Insurance carriers accounted for 18 percent of division employment. The average wage for the FIRE division was \$30,030, driven strongly by the wages of insurance carriers (\$33,394), the highest paid industry in the division.

*Figure 29* shows the trend for employment in the FIRE division for Lewis County which almost doubled from 380 in 1970 to 710 in 1999. The division had an average annual growth rate of 2.4 percent, somewhat less than





the state average growth rate of 3.0 percent. After good growth through the 1970s, employment stagnated and declined during the 1980s. The average rate of growth from 1978 to 1989 was -0.5 percent. New jobs started appearing in 1990, and growth has been quite strong averaging 3.4 percent from 1990 to 1999. Most recently the annual growth rate declined from 4.3 percent in 1998 to -1.4 percent in 1999.

### **Services**

The services division has a diverse and large number of different industries, ranging from health care and legal services to car repair and hotels and lodging places. The service division share of total private employment increased from 13 percent in 1970, to 18 percent by 1990, and 19 percent by 1999 *(Figure 22)*, compared to the 26.9 percent share statewide. The service division provided 2,910 net new jobs for the Lewis County economy from 1970 to 1999. This was again second only to trade in the number of new jobs.

The largest share of service division jobs was in health services, an unusually large 42 percent (over 2,000 workers), compared to 26 percent for the state as a whole. Health services includes hospitals, offices of private medical and dental practitioners, and nursing care facilities. The largest employers within the health services industry were the general hospital, skilled nursing facilities, and private medical doctors. Lewis County has Providence Centralia Hospital and is, as a result, one of the few "rural" counties with such a significant health care presence. The health service average wage of \$28,766, is the second highest salary in the division and close to the average for health care workers statewide (\$31,616). It should also be noted that while the nondeflated total average wage increased 64 percent from 1981 to 1999, the health services wage increased 150 percent during that time. Other industries with fairly substantial employment were business services (14 percent), private household help (13 percent), and social services (9 percent).

Along with trade, the services division has been the fastest growing and is now the largest division in Lewis County, growing from 1,760 jobs in 1970 to 4,670 in 1999 *(Figure 30)*. (Once again, the big decline occurring in 1978 in Lewis County was not a real one; mining employment was shifted out of the services category and placed in with construction.) The average annual growth rate was 3.7 percent, compared to the state growth rate of 5.2 percent. The average wage for 1999 was \$16,820, compared to the statewide average of \$28,692.



### Government

Government, of all the divisions, has in the past probably been the least affected by the vicissitudes of economic change and so has been a strong stabilizing factor in county employment. Government accounted for a 19 percent share of total nonfarm employment, somewhat greater than the statewide share of 17 percent. The government division provided 23 percent of all new jobs since 1970.

The U.S. Postal Service is the largest federal employer. At the state government level, the larger employers are Centralia College and the correctional facilities. Local government, primarily concerned with K-12 education, has about 71 percent of its employment (3,446 workers) devoted to the public school system. The average wage in government, \$30,966 in 1999, is significantly higher than the county's overall average wage of \$24,310. The federal government paid an average of \$34,964, state government averaged \$31,048, and local government, \$26,884. This is important because the first and second major contributors to new employment (trade and services) both pay below the county average.



Government employment increased from 2,480 workers in 1970 to 5,120 workers in 1999 (*see Figure 31*). The average growth rate since 1970 was 2.6 percent, compared to 2.3 percent for the state.

## **Industry Projections**

Nonfarm employment projections for the 1998-2003 period, for Lewis County and Washington State, are shown in *Figure 32*. The projections are made by Employment Security Department analysts based on historical trends and anticipated developments in the various industries. The projections are modified according to economic outlook and anticipated developments such as plant openings and closures, energy availability, foreign and domestic trade volume, and government resource policies.

The county is expected to show somewhat less growth in its employment base than the state, 8.7 percent compared to 9.3 percent, which translates into 2,130 more jobs for the county. The greatest growth for the county is expected in services at 15 percent, which is comparable to expected growth for the state. Wholesale and retail trade are expected to grow by 13 percent, compared to state growth of only 9.3 percent. The only other division expected to have greater growth than the state is transportation and public utilities, 5.5 percent in the county and 4.8 percent for the state. Although a decline is expected in manufacturing for both the county and the state, the decline is somewhat less for Lewis County, -1.0 percent versus -2.3 percent.

#### *Figure 32* Industry Projections Lewis County and Washington State, 1998 and 2003 *Source: Employment Security Department*

		Lewis				Washington			
	<b>1998</b>	2003	% Change	# Jobs	<b>1998</b>	2003	% Change		
Total Nonfarm Employment	24,430	26,560	8.7%	2,130	2,595,000	2,837,600	9.3%		
Manufacturing	3,990	3,950	-1.0%	-40	378,800	370,100	-2.3%		
Construction & Mining	1,720	1,810	5.2%	90	147,000	162,100	10.3%		
Transportation & Utilities	1,100	1,160	5.5%	60	136,100	142,700	4.8%		
Wholesale & Retail Trade	7,320	8,270	13.0%	950	624,000	681,800	9.3%		
Finance, Ins. & Real Estate	720	760	5.6%	40	135,000	142,900	5.9%		
Services	4,530	5,210	15.0%	680	710,000	829,400	16.8%		
Government	5,050	5,400	6.9%	350	464,100	508,600	9.6%		

# **OCCUPATIONAL PROFILE**

A different but informative way to view an area's work force is in terms of occupational divisions rather than industrial divisions. Occupation data differ from industry data in that the former are categorized by job function regardless of output, whereas the latter are categorized by final product. In other words, an occupation category, such as managerial and administrative, tracks employment and wages for all workers (16 and older) who perform a certain class of duties regardless of the industry. *Figure 33* shows employment in the major occupational divisions, as well as the share of each grouping for Lewis County and the state for 1998 and the 2008 projections. The data are based on Occupational Employment Surveys (OES) conducted in the area by the Employment Security Department in 1998. The occupational makeup reveals a substantive departure from the state's occupational structure. The most visible disparities between the county and state were for services (17 versus 15.4 percent), agricultural (7.5 versus 3.9 percent), and operators/fabricators, which accounted for a significantly larger share of employment in Lewis County than for the state (18.2 percent versus 12.2 percent). On the other hand, there was a much lower share of professional/paraprofessional occupations in Lewis County (15.6 percent) than for the state (22.7 percent).

Occupational employment projections are also shown in *Figure 33*. The greatest growth for Lewis County occupations is expected for marketing and sales, and services, both of which change by over 20 percent. Within

### *Figure 33* Occupational Projections Lewis County and Washington State, 1998 and 2008 *Source: Employment Security Department*

			Lewis C	ounty		
	1998	% Share	2008	% Share	% Chg	Jobs
Total	30,713	100.0%	35,288	100.0%	14.9%	4,575
Managerial and Administrative	1,990	6.5%	2,360	6.7%	18.6%	370
Professional and Paraprofessional	4,801	15.6%	5,705	16.2%	18.8%	904
Marketing and Sales	3,481	11.3%	4,268	12.1%	22.6%	787
Clerical and Admin. Support	3,642	11.9%	4,177	11.8%	14.7%	535
Services	5,218	17.0%	6,274	17.8%	20.2%	1,056
Ag., Forestry, Fishing, and Related	2,311	7.5%	2,156	6.1%	-6.7%	-155
Prec. Production, Craft, and Repair	3,688	12.0%	4,187	11.9%	13.5%	499
Operators, Fabricators, & Laborers	5,582	18.2%	6,161	17.5%	10.4%	579
White-Collar	19,132	62.3%	22,784	64.6%	19.1%	3,652
Blue-Collar	11,581	37.7%	12,504	35.4%	8.0%	923
			Washin	gton		
	1998	% Share	2008	% Share	% Chg	Jobs
Total	3,042,950	100.0%	3,583,190	100.0%	17.8%	540,240
Managerial and Administrative	236,687	7.8%	288,456	8.1%	21.9%	51,769
Professional, Paraprof., & Tech.	689,989	22.7%	869,794	24.3%	26.1%	179,805
Marketing & Sales	345,850	11.4%	406,194	11.3%	17.4%	60,344
Clerical & Admin. Support	474,747	15.6%	519,647	14.5%	9.5%	44,900
Services	469,185	15.4%	574,817	16.0%	22.5%	105,632
Ag., Forestry, Fishing, & Related	119,106	3.9%	122,271	3.4%	2.7%	3,165
Prec. Production, Craft, & Repair	336,198	11.0%	374,422	10.4%	11.4%	38,224
Operators, Fabricators, & Laborers	371,188	12.2%	427,589	11.9%	15.2%	56,401
White-Collar	2,216,458	72.8%	2,658,908	74.2%	20.0%	442,450
Blue-Collar	826,492	27.2%	924,282	25.8%	11.8%	97,790

these categories specific occupations which are expected to add more than 100 positions include sales clerks, cashiers, sales supervisors, and childcare workers.

Substantial growth (over 18 percent) is also expected for managerial/administrative positions and professional occupations. For these categories the only specific occupation which is expected to grow by more than 100 positions are general managers. Although service occupations are expected to overtake operators and fabricators by 2008, it will only be by a fraction of a percentage.

Occupations in Lewis County are significantly more "blue-collar" than for the state as a whole. Blue-collar jobs include the bottom three categories in the table (agriculture, precision production, and operators). Bluecollar jobs account for 37 percent of all jobs in Lewis County, compared to 27 percent for the state. On the other hand projections for 2008 show that there will be less growth for blue-collar jobs in Lewis County than for the state, 8 percent compared to 11.8 percent. And yet the county and the state show similar growth for whitecollar jobs, about 20 percent.

The only occupation expected to decline, and substantially so, is agriculture with a 6 percent negative growth. Most of the lost jobs will be related to forestry (fallers/buckers, choke setters, forest conservation workers, logging tractor operators, etc.). Greatest growth for specific occupations within the blue-collar categories are for carpenters and heavy truck drivers.

Along with the rest of the state and nation, the Lewis County economy is also becoming more service oriented. Over 1,000 jobs will be added to the service division by 2008; this is more than for any other category. Similar occupational growth is expected for the state only higher rates for each category.

*Figure 34* is also based on occupational surveys conducted in Lewis County by the Employment Security Department in 1998. The list of occupations and wages presents the 197 most common nonfarm jobs in the area and their average level of pay. Wages are generally provided as hourly rates, except for those occupations for which hourly rates are unavailable. The rank of each occupation, in terms of the number of people employed, is also shown. The occupation of salesperson is ranked number 1, which means there are more persons employed in sales than any other occupation.

The occupations are organized under seven broad categories, for example, "Managerial and Administrative Occupations." Within each category the occupations are sorted by rank, the most common occupation will be at the top of the list within its category. For example, the most common occupation within "professional, paraprofessional, and technical occupations" is elementary teacher.

### *Figure 34* Occupational Wages Lewis County, 1998 *Source: Employment Security Department*

Occupational Title	Wage*	Rank**	Occupational Title	Wage*	Rank**
Managerial and Administrative Occupations			Personnel, Train & Labor Relation Spec	\$17.12	189
General Manager & Top Executive	\$24.09	4	Instructional Coordinator	\$22.75	192
All Other Manager & Administrator	\$21.87	9	Photographer	\$13.55	193
Food Service & Lodging Manager	\$11.87	62	Dentist	\$34.93	194
Financial Manager	\$23.10	68	Sales and Related Occupations		
Education Administrator	\$29.27	84	Salesperson, Retail	\$9.31	1
Purchasing Manager	\$18.82	94	Cashier	\$8.17	2
Property & Real Estate Manager	\$10.62	108	First Line Supervisor, Sales & Related	\$14.67	7
Industrial Production Manager	\$25.54	113	Stock Clerk, Sales Floor	\$8.37	49
Construction Manager	\$20.17	115	Sales Rep, exc Retail, Sci, Related	\$16.81	60
Marketing, Advertising, Public Rel Mgr	\$21.94	123	Salesperson, Parts	\$11.08	63
Medicine & Health Service Manager	\$26.00	131	All Other Sales & Related Occupation	\$12.57	78
Communication, Transport, Utilities Mgr	\$20.32	157	Counter & Rental Clerk	\$7.78	112
Public Admin, Chief Exec & Legislator	\$16.02	177	Sales Rep, Science & Related, exc Retail	\$24.59	124
Professional, Paraprofessional, and Technical	Occupations		Sales Agent, Real Estate	\$14.66	127
Teacher, Elementary	\$37,420	10	Insurance Sales Worker	\$17.03	178
Teacher, Secondary School	\$37,570	13	Sales Agent, Advertising	\$13.79	195
Teacher Aide, Paraprofessional	\$9.66	16	Clerical and Administrative Support Occupa	tions	
Registered Nurse	\$20.81	19	General Office Clerk	\$9.69	5
Social Work, exc Medical & Psychiatric	\$15.67	48	Bookkeeping, Accounting & Auditing Clerk	\$11.20	6
Licensed Practical Nurse	\$12.96	50	Secretary, except Legal & Medical	\$11.49	14
Accountant & Auditor	\$18.35	56	Receptionist, Information Clerk	\$8.92	31
Teacher, Special Education	\$36,400	69	First Line Supervisor, Clerical	\$15.34	36
Wholesale, Retail Buyer, except Farm	\$14.46	72	Traffic, Shipping & Receiving Clerk	\$11.97	38
Human Service Worker	\$11.52	76	Postal Mail Carrier	\$16.04	61
Physician & Surgeon	\$54.72	81	Stock Clerk, Stockroom or Warehouse	\$9.85	64
Forester, Conservation Scientist	\$20.93	88	Bank Teller	\$8.86	66
All Other Professional, Paraprof, Tech	\$17.56	98	All Other Clerical & Admin Support	\$9.93	105
Lawyer	\$30.81	101	Medical Secretary	\$10.24	110
Residential Counselor	\$9.68	126	Typist, including Word Processing	\$9.87	118
Interior Designer	\$12.42	129	File Clerk	\$8.75	133
Artist & Related	\$11.26	132	Teacher Aide & Educational Asst, Clerk	\$8.72	136
Technical Assistant, Library	\$11.66	135	Billing, Cost & Rate Clerk	\$11.05	139
Psychologist	\$21.70	137	Switchboard Operator	\$10.08	161
All Other Teacher, Instructor	\$26,640	138	Legal Secretary	\$11.30	163
Teacher, Vocational Education	\$16.44	144	Welfare Eligibility Worker, Interviewer	\$17.51	172
Pharmacist	\$30.50	145	Court Clerk	\$11.69	175
All Other Postsecondary Teacher	\$32,530	147	Bill & Account Collector	\$10.89	186
Designer, except Interior Design	\$11.75	149	Insurance Claims Clerk	\$11.37	190
Cost Estimator	\$21.33	153	Bill, Post & Calculate Machine Oper	\$10.68	196
Vocational & Educational, Counselor	\$19.23	154	Dispatcher, exc Police, Fire & Ambulance	\$15.77	197
Social Work, Medical & Psychiatric	\$14.83	158	Service Occupations		
Instructor & Coach, Sport	\$13.70	159	Waiter & Waitress	\$5.85	8
Recreation Worker	\$8.90	162	Janitor & Cleaner, except Maid	\$8.99	17
Drafter	\$15.86	166	<b>Combined Food Preparation &amp; Service</b>	\$6.22	20
Radiologic Technologist	\$17.30	167	Food Preparation Worker	\$7.12	22
Civil Engineer, including Traffic	\$23.48	171	Nursing Aide, Orderly & Attendant	\$7.67	24
Dental Hygienist	\$30.14	173	Cook, Restaurant	\$8.21	25
Writer & Editor	\$14.31	174	Child Care Worker	\$7.54	26
Purchase Agent, exc Whlsl, Retail, Farm	\$17.82	184	Home Health Aide	\$7.26	33
Instructor, Nonvocational Education	\$13.26	185	Cook, Fast Food	\$6.36	40

### *Figure 34 (Continued)* Occupational Wages Lewis County, 1998 *Source: Employment Security Department*

ccupational Title	Wage*	Rank**	Occupational Title	Wage*	Rank
aid & Housekeeping Cleaner	\$7.20	44	Sewing Machine Operator, Garment	\$7.87	4
ounter Attendant, Lunchroom, Cafeteria	\$6.51	45	Mobile Heavy Eq Mechanic, exc Engine	\$16.80	4
artender	\$7.23	53	Bus Driver, School	\$12.09	4
l Other Service Supervisor	\$12.80	54	First Line Supervisor, Production	\$19.76	:
lice Patrol Officer	\$18.89	58	Bus & Truck Mechanic & Diesel Specialist	\$15.85	:
nusement & Recreation Attendant	\$7.47	67	Cannery Worker	\$8.52	
ook, Institution or Cafeteria	\$9.57	74	Electrician	\$19.14	
uard & Watch Guard	\$9.27	79	First Line Supervisor, Mechanic & Repair	\$20.32	
ining Room, Cafeteria & Bartender Help	\$6.63	92	Welder & Cutter	\$15.33	
edical Assistant	\$10.54	102	All Other Mechanic, Installer & Repairer	\$16.62	
l Other Health Service Worker	\$10.39	107	Excavating & Loading Machine Operator	\$16.18	
ental Assistant	\$12.29	109	All Other Freight, Stock, Mat Move, Hand	\$9.18	
ıker, Bread & Pastry	\$9.84	117	Service Station Attendant	\$7.57	
irdresser & Cosmetologist	\$7.22	119	All Other Material-Moving Equipment Op	\$13.56	
ook, Short Order	\$7.77	121	Helper, Mechanic & Repairer	\$9.94	
l Other Cleaning & Building Service	\$8.12	134	First Line Supervisor, Constr & Extract	\$21.53	
Other Food Service Worker	\$7.64	140	Mobile Home Installer & Repairer	\$11.49	
re Fighter	\$13.56	146	Driver/Sales Worker	\$11.21	
rrection Officer & Jailer	\$16.91	150	Grader, Bulldozer & Scraper Operator	\$18.56	
ossing Guard	\$12.15	155	Plumber, Pipefitter, Steamfitter	\$19.42	
utcher & Meat Cutter	\$12.29	164	All Other Machinery Mechanic	\$21.52	
ost & Hostess, Restaurant, Lounge	\$6.44	168	Automotive Body, Related Repairer	\$13.09	
ysical, Corrective Therapy Asst, Aide	\$10.31	169	Painter & Paperhanger, Constr & Maint	\$16.09	
griculture, Forestry, Fishing, and Related	Occupations		Vehicle Washer & Equipment Cleaner	\$7.80	1
g-Handling Equipment Operator	\$17.38	18	Machinist	\$16.39	1
ller & Bucker	\$22.85	21	Woodwrking Mach Op/Tender, exc Sawing	\$11.53	1
rest & Conservation Worker	\$14.91	27	Drywall Installer	\$16.49	1
borer, Landscaping & Groundskeeping	\$9.41	37	Cabinetmaker & Bench Carpenter	\$13.04	1
l Other Agricultural, Forestry, Fish	\$12.19	41	Tire Repairer & Changer	\$9.79	1
rmworkers, Farm/Ranch Animals	\$9.27	43	Cementing & Gluing Machine Op/Tender	\$11.42	1
rmworkers, Food/Fiber Crops	\$6.79	52	Farm Equipment Mechanic	\$12.03	1
noke Setter	\$13.33	55	Production Inspector, Grade, Sort, Test	\$11.04	1
rst Line Supervisor, Agr, Forest, Fish	\$20.10	70	Machinery Maintenance Worker	\$17.00	1
gging Tractor Operator	\$16.25	86	Taper	\$15.98	1
rm Equipment Operator	\$8.17	87	Pipelayer	\$17.55	1
l Other Timber Cutting & Related Work	\$15.90	116	Head Sawyer	\$17.18	1
nimal Caretaker, except Farm	\$8.48	125	All Other Hand Worker	\$9.29	1
ader & Sorter, Agricultural Product	\$7.23	187	Machinery Maint Mechanic, Water /Power	\$21.49	1
oduction, Construction, Oper. Maint & M			Highway Maintenance Worker	\$16.52	1
uck Driver, Heavy or Tractor-Trailer	\$14.32	3	Woodworking Mach Setter/Op, exc Sawing	\$12.00	1
aintenance Repairer, General Utility	\$13.59	11	Separate, Filter & Rel Machine Op/Tender	\$14.53	1
urpenter	\$16.75	12	Laund, Dry-cln Mach Op/Tend, exc Pres	\$7.58	1
l Other Help, Labor, Matl Move, Hand	\$10.63	15	Rigger	\$15.29	1
perating Engineer	\$18.00	23	Water, Liquid Waste Treat Plant, Sys Op	\$16.35	1
and Packer & Packager	\$7.93	28	Roofer	\$14.29	1
achine Feeder & Offbearer	\$11.60	29	Packaging & Filling Machine Op/Tend	\$11.69	1
dustrial Truck & Tractor Operator	\$11.80	20 30	Grinding & Polishing Worker, Hand	\$10.05	1
wing Machine Operator/Tender	\$12.63	32	Conveyor Operator & Tender	\$13.52	1
itomotive Mechanic	\$14.19	34	Refuse & Recyclable Collector	\$11.61	1
uck Driver, Light, incl Delivery & Rel	\$10.57	35	Helper, Carpenter & Related Worker	\$11.76	1
	\$10.05	39	Small Engine Specialist	\$11.29	1

# **PERSONAL INCOME**

This section deals with income rather than wages, which were discussed earlier and which are only one aspect of income. Data in this section are derived from the U.S. Department of Commerce, Bureau of Economic Analysis. *All income data have been adjusted to 1998 dollars.* 

### **Total Personal Income**

Personal income is generally seen as a key indicator of a region's economic vitality. Conceptually, personal income captures all forms of income: wages, salaries, government transfer payments, retirement income, farm income, self-employed income, proprietors' income, interest, dividends, and rent, but not contributions toward social insurance. By definition, business and corporate incomes are not included.

*Figure 35* shows real and nominal total personal income for Lewis County from 1970 to 1998.

In 1998, total personal income in Lewis County was \$1.36 billion, up 1.6 percent from the previous year. Lewis County ranked 17th among the 39 counties in terms of total personal income in 1997.

*Figure 36* shows the annual growth rates for total personal income for both Lewis County and Washington State from 1970 to 1998. The total personal income annual growth rate averaged 2.6 percent from 1970 to 1998. For the same period, the state had an average annual growth rate of 4.0 percent. Until 1979, the growth rates for the county and the state were very similar with personal income increasing by about the same percentage each year for both. The "double-dip"

**Total Personal Income, Real and Nominal** 

#### Figure 35



national recessions beginning in January of 1980 had a much more severe affect on Lewis County than on the state as a whole. While the growth of personal income staggered briefly in Washington (1982 and 1983), the county's personal income was essentially stagnant from 1978 through 1987. The recessions and the restructuring of the timber industry brought county growth to a standstill for an entire decade.

Growth in Lewis County personal income has been fairly healthy since 1988, ranging between 2.4 and 3.9 percent, except for 1991 when the annual growth rate was only 0.4 percent, and in 1998 (1.6 percent). However, a new gap between state and county growth rates began to emerge in 1996 and has since continued to widen. This is due to unusually high growth for the state, driven primarily by the King County area.

The total amount of income in an area is only a sensible concept if there is some relationship to the number of people in an area. Per capita income (PCI) captures that. By dividing total personal income by the population, one arrives at a figure that can be used as a common denominator between different time periods or different areas.



*Figure 37* shows PCI for Lewis County, Washington, and the U.S. since 1970. While the statewide and national PCIs have gradually increased over the years, the PCI for Lewis County has barely increased. Per capita income in the county grew robustly for most of the 1970s until reaching a peak of \$18,570 in 1979, which was not to be seen again until 1990. From 1990 to 1998, when it reached a new high of \$19,969, the Lewis County PCI increased only 7.5 percent.

The narrowest gap between the county and state PCI was in 1971 when the county's per capita income was only \$1,087 less than the state's. Although there have been some ups and downs in the differential, it has in general been gradually widening over the years. In 1998 (the most recent figures available), Lewis County's per capita income was \$19,969 and Washington's was \$28,719, a difference of more than \$10,000. Lewis County had the second lowest PCI of all western Washington counties, and ranked 29th out of all 39 counties.

It should be remembered that King County, with its huge population and highly paid high-tech and aerospace industries, is the strongest driver of the statewide income averages. In fact, King and San Juan counties were the only counties to have PCIs higher than the state average.

Per capita personal income is a good measure of how personal income is growing relative to the population. However, it gives no indication of how income is distributed among the population. To a degree, median house-

#### Figure 37 **Per Capita Income** Lewis, Washington, & U.S., 1970-1998 Source: Bureau of Economic Analysis \$30.000 \$28,000 Lewis \$26,000 --- Washington \$24,000 U.S. \$22,000 \$20,000 \$18,000 \$16,000 \$14,000 \$12,000 1970 1974 1978 1982 1986 1990 1994 1998

hold income does that. It indicates the point in income where half of all households have a higher income and half have a lower income. Washington State's Office of Financial Management estimated the median household income of Lewis County to be \$30,586 in 1998. This was quite a bit less than the statewide median income of \$48,289. (However, only King and Snohomish counties had median incomes greater than the statewide average.) Lewis County ranked 25th among the 39 counties for median income. It is important that the median income is higher than the PCI; this indicates an equitable distribution of income within the county.

## **Components of Personal Income**

As mentioned earlier, personal income encompasses many different types of income. All the various types, however, can be subsumed under the three broad categories: earnings, transfer payments, and investment income. Earnings include wages, salaries, and proprietors' income; transfer payments include income maintenance, unemployment insurance, medical, and retirement payments; investment income consists of interest, dividends, and rent.

*Figure 38* shows two major differences between Lewis County and Washington State with respect to shares of the personal income components in 1998. A much higher percentage of Lewis County income is in the form of transfer payments, 22 percent compared to 12 percent for the state. In contrast, only 63 percent of income is from earnings, compared to 72 percent for the state.



*Figure 39* shows how the shares of personal income components for Lewis County have changed over time, from 1970 to 1998. Compared to the state (*see Figure 40*) the changes are fairly dramatic. Earnings as a share of personal income has declined from 76 to 63 percent. The statewide earnings as a share of personal income declined from 78 to 72 percent. Investment has increased from 14 to 20 percent (virtually the same statewide), and most importantly transfer payments have increased from 13 to 22 percent of total personal income.



### **Earned Income**

Earnings constitute the lion's share of personal income, although its share size has fallen significantly over the last two decades. There are three types of earnings: wages and salaries, proprietors' income, and "other labor income." Other labor income includes a number of types but is mainly driven by employer contributions to health care and retirement plans. The components which comprise earned income are based on residence within the county. In addition to the three primary components there is also an "adjustment for residence," referred to as "external" income. This is the amount of income earned outside of the county by residents of the county, or, if the figure is negative it is the amount of money earned within the county by nonresidents of the county. This can be a very large percentage in counties with substantial numbers of commuters.

*Figure 41* compares the share of each earned income component for Lewis County and Washington State in 1998. Similar to the state the majority (77 percent) of



Since 1970, transfer payments and investment income

increased by 360 and 300 percent, respectively, while earned income increased by only 170 percent. Statewide,

transfer payments and investment income increased 355

and 395 percent, respectively and earned income in-

creased 276 percent. The low growth for earned income

and its lower comparative share of total personal income

is reflective of a declining availability of higher paying

jobs in Lewis County and an increasing migration of re-

tired persons—many of whom are on fixed incomes. This shift is also driven by the very low average sale value

earned income in Lewis County is from wages and salary. On the other hand, a higher percentage of earned income in Lewis County comes from proprietors' income, 14 versus 11 percent.

Almost \$12 million (1.4 percent) of income earned within the county is earned by those living outside of the county. In comparison, 1.6 percent of earned income within Washington State was earned by those working outside of the state; this share has increased from 0.6 percent in 1970. External income can be in the form of any of the other three components (wages and salary, proprietor's, or other labor).

*Figure 42* shows how the number of dollars earned by those living outside of the county has changed over time. Through 1976, dollars were being brought into the county by residents working outside of the county. Since 1977, much larger amounts of income is being earned within Lewis County by non-residents. From 1970 to 1998, there were approximately 3,000 more employed people in Lewis County than there were jobs, it would seem that those who are commuting into Lewis County earn higher incomes than those who are commuting outside of the county.

*Figure 43* shows the change of the three smaller earned income components (other labor, proprietors', and external income) for Lewis County from 1970 to 1998. External and other labor income have had the greatest growth, each increasing by 360 percent since 1970. The percentage of external income increased from 0.7 percent in 1970 to -2.4 percent in 1997 and then to -1.4 percent in 1970 to a peak of 10.4 percent in 1994; it then gradually declined to 8.8 percent in 1998. In dollars, this meant a steady increase from \$20 to \$75 million. The big increase in other labor income stems from the tax advantages accruing to employers (and employees) on indirect sorts of compensation.

Wages and salaries grew by 167 percent from 1970 to 1998, and consistently held an approximate 78 percent share of earned income. This minimal growth in wage and salaries is echoed in the average wage data discussed earlier, for it, like wage and salaries, only reflects direct pay and not the various other forms of income.







Proprietors' income grew the least (133 percent) and declined from 18 percent of total earnings in 1970 to 14 percent in 1998, with much fluctuation in between. In absolute numbers, proprietors' income declined from a peak of \$129 million in 1973 to \$120 million in 1998. Proprietors' income is the aggregate of all the self-employed workers in the county, including farmers.

### **Transfer Payments**

The second component of personal income is transfer payments, which has shown the strongest growth over the last thirty years. A transfer payment is a payment, usually from the government, to someone from whom no service is required. *Figure 44* shows the transfer payment components for Lewis County and Washington State in 1998. (*Note: The total does not add up to 100 per*- *cent as veterans' benefits and other smaller components are not included for this analysis.*) Previous county profiles included the medical component under retirement. But, as this component has become a significant percentage of transfer payments over time, it is now shown as a separate component.



Interestingly, even though Lewis County has a higher percentage of transfer payments, the component shares are very similar to the state. By far, retirement and medical are the largest transfer components for both the state and the county. In Lewis County retirement and medical account for 43 and 34 percent, respectively. Medical and UI have only slightly higher percentages in the county compared to the state.

*Figure 45* shows the components of transfer payments from 1970 to 1998 for Lewis County. Medical increased steadily from 12 percent of transfer payments in 1970 to 35 percent in 1998. All other components decreased as a share of the total over time. Unemployment insurance decreased from 11 to 5 percent of the total, with great fluctuation in between; income maintenance fluctuated between 8 and 12 percent; and retirement decreased from 51 to 43 percent. Income maintenance are those payments generally thought of as welfare. Some of the various programs are AFDC, food stamps, and general assistance. Unemployment insurance does not follow a trend like the others but expands and contracts along with the economy, growing greatly as unemployment increases and falling off as it decreases.

From 1970 to 1998, medical transfer payments increased by 1,000 percent. This was followed by income maintenance which grew 338 percent, retirement which



increased 305 percent, and unemployment insurance which increased by only 184 percent. Interestingly, all transfer payments had higher growth rates than for the state as a whole, except for retirement. Statewide, income maintenance increased by 249 percent, retirement by 358 percent, unemployment insurance by 116 percent, and medical by 800 percent. Retirement, which includes government (federal, state, and local), military retirement plans, and social security still holds the largest share of transfer payments. So even though one might suspect that the higher share of transfer payments in Lewis County is driven by retirement payments it is more likely driven by the higher share of medical.

In 1991, income maintenance and UI showed sudden increases of 23 and 40 percent, respectively. There were also double digit increases in 1992. Although there have been no other similar large annual increases since then, neither have there been any significant reductions down to pre-recession levels. The average annual rate of growth from 1993 to 1998 was 0.9 percent for income maintenance and 1.6 percent for unemployment insurance. On the other hand, UI increased by 25 percent in 1998. Unemployment insurance payments tend to rise and fall in conjunction with economic cycles to a much greater degree than other transfer payments.

### Investment

Income derived from investments (dividends, interest, and rent) constitutes the third component of personal income.

As can be seen in *Figure 39*, investment as a share of total personal income has increased from 14 percent in 1970 to 20 percent (\$272 million) in 1998. At 395 percent total growth, investment income had the highest growth of all income earned components. The annual investment growth rate has closely followed the statewide growth rate (*see Figure 46*), although it has lagged behind from time to time, most recently in 1990. Investment income has had an average annual rate of growth of 4.1 percent since 1970, with annual rates ranging from a high of 13.2 percent in 1978 to a low of -5.4 in 1992. The statewide average annual growth rate is 5.1 percent. Most recently the county average growth rate from 1994 through 1998 was 5.4 percent compared to the statewide average of 6.4 percent.

### Figure 46

Annual Investment Growth Rates Lewis County, 1970-1998 *Source: Bureau of Economic Analysis* 



# **Economic Development**

The **Lewis County Economic Development Council (EDC)** is a private, nonprofit corporation formed in 1983 to diversify and expand the economic base of Lewis County. The Board of Directors represents industry, government, labor, and education. The board is committed to encouraging business development. The EDC advises prospective and expanding companies on all issues related to finding, evaluating, and costing a new business location or expansion. Its professional services include:

- Analyzing costs for defined projects
- Identifying and assessing site locations
- Assistance in gaining available incentives
- Help in solving regulatory issues
- Support for arranging project financing

**Ports and Industrial Parks.** The Port of Centralia, the Port of Chehalis, and the Chehalis Industrial commission are located adjacent to Interstate 5 and are jointly served by two rail carriers. The three areas are prepared to provide interested businesses with assistance regarding site development, building design and construction, and other functions. The industrial parks are fully serviced with underground utilities. Recent work involves establishment of a business park in Packwood in east Lewis County and in Morton.

The U.S. Department of Commerce approved establishment of the South Puget Sound Foreign Trade Zone (FTZ). The FTZ includes the ports of Centralia and Chehalis, the city of Chehalis, and South Prairie Industrial Park (south of Chehalis) along with other sites around Puget Sound. Because the designation as a FTZ gives importers, exporters, and manufacturers certain advantages relating to import duties, it should benefit international trade and economic development efforts.

**Chambers of Commerce** are generally comprised of business owners and other interested individuals who work together to further the business interests of their communities. The Twin-Cities Chamber of Commerce serves the Centralia and Chehalis area, the South County Chamber of Commerce serves the south county area, and Mossyrock and Morton chambers serve their respected areas.

**The Lending Network**, working with the Rural Economic and Community Development Agency, administers a 2.8 million dollar revolving loan fund. This is used for diversifying employment and creating or retaining family wage jobs in the county. Priority is given to manufacturers, distributors, or wholesalers who are expanding in or moving into the area that need facilities, equipment, or expansion capital. Loan amounts range from \$50,000 to \$150,000 and they typically will loan 10 percent to 50 percent of the total project.