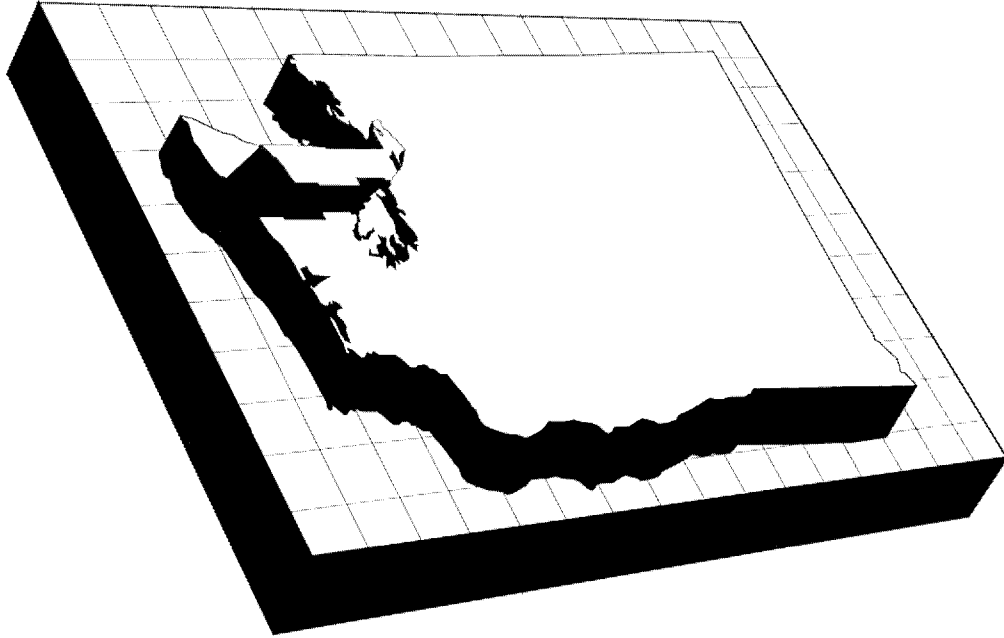


JEFFERSON COUNTY PROFILE



July 2000
Labor Market and
Economic Analysis Branch
Greg Weeks, *Director*

**JEFFERSON COUNTY PROFILE
JULY 2000**

Labor Market and Economic Analysis Branch
Employment Security Department

This report has been prepared in accordance with
RCW 50.38.050.

Carver Gayton, *Commissioner*
Washington State Employment Security Department

Greg Weeks, *Director*
Labor Market and Economic Analysis Branch
P.O. Box 9046
Mail Stop 46000
Olympia, WA 98507-9046
(360) 438-4800

Prepared by William S. Dillingham,
Senior Economic Analyst
and Rev Froyalde, *Research Analyst*
Layout by Bonnie Dalebout, *Graphic Designer*

Acknowledgements:

Economic Development Council of Jefferson County
734 Water Street
P.O. Box 877
Port Townsend, WA 98368
(360) 385-6767 or 385-6768

Port Townsend Job Service Center
1002 Lawrence Street
Port Townsend, WA 98368
(360) 385-5564

Port Angeles Job Service Center
1601 East Front Street
Port Angeles, WA 98362
(360) 457-9407

Jim Vleming, *Regional Economist*
Washington State Employment Security Department
(360) 438-4821

Price \$4.50
plus 8.0% sales tax for Washington residents

For additional labor market information, contact our

- ◆ *homepage at www.wa.gov/esd/lmea*
- ◆ *On-line database (WILMA) at www.wilma.org*
- ◆ *Labor Market Information Center (LMIC) at
1-800-215-1617*

TABLE OF CONTENTS

<p>INTRODUCTION 1</p> <p>GEOGRAPHY 2</p> <p>ECONOMIC HISTORY 3</p> <p>POPULATION 5</p> <p style="padding-left: 20px;">Trends</p> <p style="padding-left: 20px;">Towns and Cities</p> <p style="padding-left: 20px;">Age Groups</p> <p style="padding-left: 20px;">Demographics</p> <p>CIVILIAN LABOR FORCE 9</p> <p style="padding-left: 20px;">Trends</p> <p style="padding-left: 20px;">Demographics</p> <p>UNEMPLOYMENT 10</p> <p style="padding-left: 20px;">Trends</p> <p style="padding-left: 20px;">Industrial Typology</p> <p style="padding-left: 20px;">Unemployment Insurance Claims</p> <p>INDUSTRIES, EMPLOYMENT, AND WAGES 13</p> <p style="padding-left: 20px;">Employment Trend</p> <p style="padding-left: 20px;">Location Quotients</p> <p style="padding-left: 20px;">Goods and Services</p> <p style="padding-left: 20px;">Annual Average Wages</p>	<p style="padding-left: 20px;">Construction and Mining</p> <p style="padding-left: 20px;">Manufacturing</p> <p style="padding-left: 20px;">Transportation and Public Utilities</p> <p style="padding-left: 20px;">Wholesale and Retail Trade</p> <p style="padding-left: 20px;">Finance, Insurance, and Real Estate</p> <p style="padding-left: 20px;">Services</p> <p style="padding-left: 20px;">Government</p> <p>OCCUPATIONAL PROFILE 23</p> <p>INCOME 27</p> <p style="padding-left: 20px;">Personal Income</p> <p style="padding-left: 20px;">Components of Personal Income</p> <p style="padding-left: 20px;">Earned Income</p> <p style="padding-left: 20px;">Transfer Payments</p> <p style="padding-left: 20px;">Investment Income</p> <p>EMPLOYMENT SERVICES AND ECONOMIC DEVELOPMENT 31</p> <p style="padding-left: 20px;">Workforce Development</p> <p style="padding-left: 20px;">Economic Development</p> <p>SUMMARY 35</p> <p>APPENDIX - Jefferson County Selected Economic Data A-1</p>
---	--

INTRODUCTION

This report profiles the labor market and economic characteristics of Jefferson County to date. 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 profile labor market and economic conditions in each of the state'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* to more quickly access the sections of interest to them.

Like the earlier Jefferson County Profiles (1990; 1995), the purpose of this report is to provide a comprehensive labor market and economic overview of the Jefferson County area. The characteristics profiled include the following:

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

The data for this profile are derived from various state and national sources. All dollar figures are in current, or nominal, dollars, except where real values are specified. Real dollars are inflation adjusted, using the Personal Consumption Expenditures deflator with 1998 equal to 1.0. The data used are the most recently updated, even though some data are up to 2 years old.

Much of the information in this report is regularly updated on the LMEA Internet homepage. The homepage contains current and historical labor market information that can be accessed by area or by type of information. The site address is

<http://www.wa.gov/esd/lmea>

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

GEOGRAPHY

Jefferson County comprises a total land mass of 1,808 square miles, which makes it the 18th largest county in Washington. The county is situated in the upper half of the Olympic Peninsula in northwest Washington. It is bounded to the north by Clallam County, to the south by Grays Harbor and Mason counties, and to the west by the Pacific Ocean.

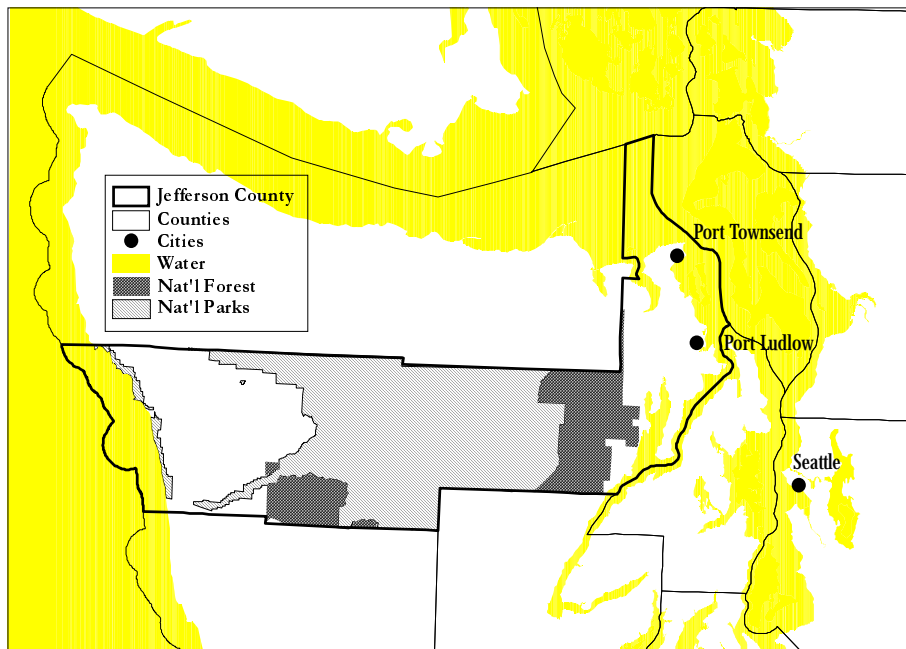
Jefferson County's eastern boundary also faces water, though in a unique way. Had the county taken the shape of a more or less normal rectangle, its eastern shoreline would have abutted only Hood Canal. However, its jurisdiction continues up to the northeastern corner of the peninsula in the form of a panhandle that is often assumed to be part of Clallam County. This panhandle includes Port Townsend and most of the other populated areas of Jefferson County. This unusual finger of land extends the county's water access to Admiralty Inlet and the Strait of Juan de Fuca.

Jefferson County's topography is best described in terms of highlands and lowlands. The highlands are mostly rugged, mountainous terrain covered by dense stands of Douglas fir. About three-quarters of the county's land mass falls within the Olympic National Park and

Olympic National Forest systems. The Olympic Mountains run through the middle of the county. The higher peaks include Mount Olympus (7,965 ft.), Mount Constance (7,743 ft.), Mount Anderson (7,321 ft.), and Mount Seattle (6,246 ft.).

Jefferson County's lowlands exist at its western and eastern reaches where land meets water. The county's western shore—also part of the Olympic National Park system—is among the peninsula's most scenic. The wind-swept coastline features rock formations set amidst the surf and pebbly beaches. Just offshore is an array of tidelands teeming with a host of shellfish and waterfowl. The western shore is also where three principal rivers—Hoh, Queets, and Clearwater—flow into the Pacific.

The lower half of Jefferson County's eastern shoreline is part of the Olympic National Forest. Consequently, the land is forested as it runs to the edge of Hood Canal. The upper half of the shore—particularly where it extends into Admiralty Inlet—is characterized by many inlets with steep and rocky cliffs. Offering protection from the elements are several deep-water harbors. The main tributaries in the eastern half of the county are the Dosewallips, Duckabush, Quilcene, and Little Quilcene rivers.



ECONOMIC HISTORY

The following was excerpted from *History of Jefferson County: With Pride in Heritage*, written by a collection of local authors and edited by the Jefferson County Historical Society. LMEA staff has added additional comments.

Long before white exploration and settlement, Native Americans engaged in commerce on the Olympic Peninsula. In what is now Jefferson County, the Hoh, Quillayute, Quinault, and Queet exploited their proximity to rivers and the ocean for fish, shellfish, and ocean mammals, and supplemented that with roots, berries, birds, and game. The Chimacum (or Chemakum) tribe was prominent around the Port Townsend area. Though numbering more than 400 in the 1850s, the tribe was completely annihilated by a combined force of Snohomish and Barclay Sound Indians in 1857.

Skillfully crafted cedar canoes gave peninsula tribes terrific mobility. That in turn afforded tribes the opportunity to trade with one another. There is evidence that they engaged in commerce with tribes around Puget Sound (e.g., the Skagit and the Skokomish) and with others as distant as the Columbia River.

White exploration of the region is believed to have commenced in July of 1775 when a Spanish expedition under Bruno Heceta called on Destruction Island off the county's Pacific coast. Heceta was followed by British explorers Cook (1778), Meares (1788), and Vancouver (1792). Vancouver charted and named many prominent local features—Port Townsend, Discovery Bay, Hood Canal, Admiralty Inlet, and Possession Sound, to name a few.

White settlement of the county began in April 1851 when Alfred Plummer filed a claim on the land where Port Townsend is located. The claim is recognized as having given birth to the town. By the following year, a number of bachelors and several families arrived to boost the town's population. They platted the town, chose a board of trustees, and filed an application in the U.S. capital for a territorial government (recognized in 1852 when Washington Territory was created).

Jefferson County—named in honor of the country's third president—was created in December 1852 by the Oregon Territorial Legislature. At that time, it included all of what are now Jefferson and Clallam counties. In 1854, though, the Washington Territorial Legislature established Clallam County by partitioning Jefferson.

Interestingly, Jefferson and Clallam counties would be much smaller than they are today were it not for the quick creation and dissolution of Quillehute County. Created in 1868, this county extended from Cape Flattery (the northernmost point on the Olympic Peninsula) to the Queets River in the south. It extended from the Pacific Ocean in the west to the western slope of the Olympic range in the east. It was dissolved the following year.

Dairy farming in the Chimacum Valley was among the first pursuits undertaken by early Jefferson County settlers. Dense forests, however, dictated that logging and timber products would eventually be the primary industries in Jefferson County. Early logging was very labor-intensive as old growth trees were felled by axes and saws, and then yarded or pulled from the stand across greased skids by teams of oxen. Even in the early 1900s, trees were still felled by hand, but steam donkeys had replaced ox teams as the means of yarding.

Timber harvesting naturally led to the emergence of a lumber processing industry. One of the first sawmills in Washington Territory was built in 1852 near Port Ludlow, on the Sound in the eastern portion of Jefferson County. Other sawmills soon appeared at places like Chimacum Creek, Hadlock, and Port Townsend. Growth in the local milling industry continued through the 1880s. The ample supply of lumber allowed local construction to proceed at a rapid pace, though most of the lumber from local mills found its way to San Francisco or to foreign markets. In 1890, for example, of the more than 1,200 ships that set sail from Port Townsend, 85 percent were bound for foreign markets while 15 percent were bound for domestic markets.

The prosperous lumber sector fueled explosive expansion of Port Townsend business establishments in the 1880s through the early 1890s, including many of the homes, hotels, and other establishments that today represent the city's Victorian-era historic district.

Like logging and lumber, pulp and paper has also been vital to the local economy's stability. This industry arrived in the form of the National Paper Products Company, a subsidiary of San Francisco-based Zellerbach Corporation. Work on the Port Townsend mill began in 1927—a project which at its peak employed 1,000 workers.

Paper milling operations began in 1928, the same year Zellerbach merged with Crown Willamette Paper to form the Crown Zellerbach Corporation. A second mill-

ing line swung into action in 1929. During this period, the mill employed roughly 275 workers. The early resilience of the industry became apparent when the company survived the Great Depression with only modest layoffs. By the 1960s, mill employment was up to 660.

To supply its mills, Crown Zellerbach operated two tree farms—Olympic Tree Farm (33,000 acres) and Neah Bay Tree Farm (80,000 acres). It got additional raw material from *utilizers*—small machines that operated among stands thinning out what would otherwise be viewed as waste trees—and by purchasing trees cleared from farmland.

Unbeknownst to many, the military once played a vital role in the local economy with its presence in Jefferson County starting at Fort Townsend. The fort was established in 1856 in response to Indian uprisings around Puget Sound. The fort was deactivated and put on a caretaking basis in 1895 after it was no longer necessary to defend Port Townsend. It was abandoned in 1927.

In 1860, the U.S. War Department commissioned a study for the defense of Puget Sound. President Andrew Johnson responded in 1866 by setting aside 24 parcels of land as military reservations. In 1896, Congress appropriated funds for two Jefferson County forts—Fort Worden at Point Wilson and Fort Flagler at Point Marrowstone. Both were heavily fortified and manned during World Wars I and II and Korea. They were also used for troop induction and training. Troops stationed at the forts supported Port Townsend's economy. Many continued to do so after discharge or retirement by remaining in or returning to the area. The forts were deactivated in 1953 in favor of an airpower defense of the

Sound. These former forts are now a state park and a recreation area.

More recently, retirement and tourism have emerged as growth industries. The major lures are historic Port Townsend and the Olympic National Park and Forest. President Grover Cleveland laid the foundation in 1897 when he established the Olympic Forest Reserve (now Olympic National Forest) which covers two-thirds of Jefferson County. Congress established the Olympic National Park in 1938. The park is very popular among tourists, hikers, campers, anglers, bird and animal watchers, scientists, and researchers. Many of the county's smaller towns benefit from the income generated by visitors.

The formation of the Townsend Electric Company in 1890 signaled the era of electric power in Jefferson County. The company entered into a contract with the Olympic Power Company of Port Angeles in 1910 to tap into the power of the Elwah River. The company changed hands several times before being purchased by Puget Sound Power and Light Company in 1923. The latter started a rural electric program in the county and by 1939 over 90 percent of the urban/rural population had electricity. The figure is now 99 percent.

Today, Jefferson County's economy has evolved from one dependent on a single industry, to a much more diversified economy. Even as recently as 1993, the major employers in the county were associated with timber. In 1998, the economy—measured in terms of the largest employers—revolved around five broadly defined industries: local government, food service, paper and allied products, tourism and recreation, and services, such as legal and health services.

POPULATION

Trends

Jefferson County's resident population was approximately 26,600 in 1999 (see Figure 1). This was an increase of 0.4 percent from 1998 and an increase of 30 percent over the 1990 level. Population growth in the county has varied greatly from year to year, peaking at 8.6 percent in 1978 and reaching a low of -0.6 percent in both 1971 and 1983. However, the average annual rate of growth going back to 1970 is 3.2 percent. By way of comparison, the rate of growth for Washington State is 1.8 percent over the same period and 1.3 percent in 1999.

Components of population change such as births, deaths, and migration can provide insight into larger population trends (see Figure 2). The trend is quite revealing in Jefferson County. Consider the 1990-99 period: the county's population grew 6,194, which translates into a growth rate of 30.4 percent—the second highest growth rate in the state during that time frame. The changes in the county's population are due exclusively to net-migration, which is the difference between the number of people moving to and the number of people moving away from the county. There were 2,010 births and 2,125 deaths, yielding a “natural increase” of -115. Compensating for this loss was an in-migration of 6,309 persons.

The largest growing segment of the population is those aged 65 and older (see Figure 3). Growth in the 65+ group has been steady over the past two decades, up from 16 percent to 21 percent of the total population (see Figure 4 on the next page). The relatively moderate climate makes the county a very hospitable location for Washington's growing retirement community. Since 1980, the number of county residents in this age group

Figure 1
Population Trends
Jefferson County, 1970-1999
Source: Office of Financial Management

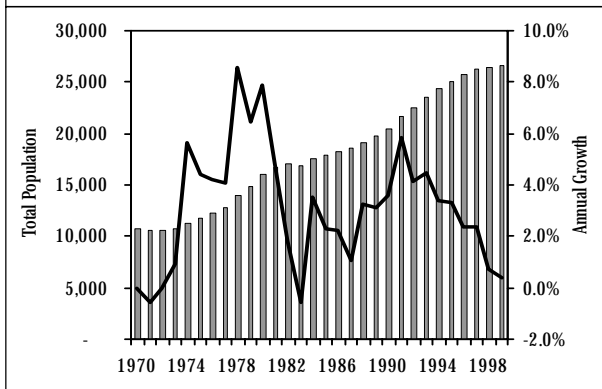


Figure 2
Components of Population Change
Jefferson County, 1990-1999
Source: Office of Financial Management

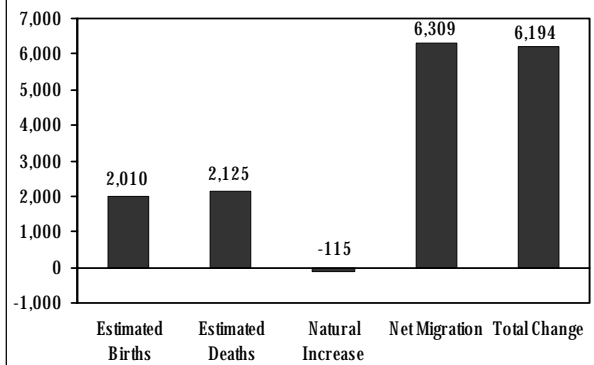


Figure 3
Population 65 and Older
Jefferson County, 1980-1999
Source: Office of Financial Management

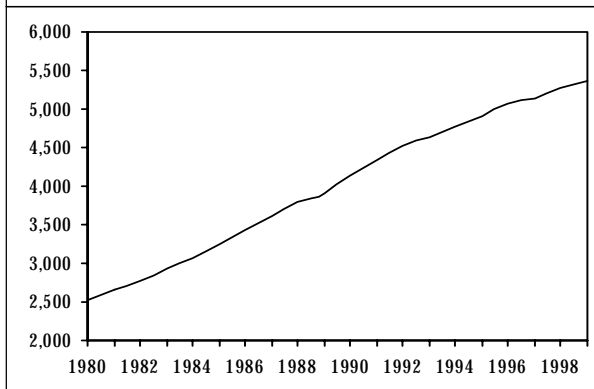
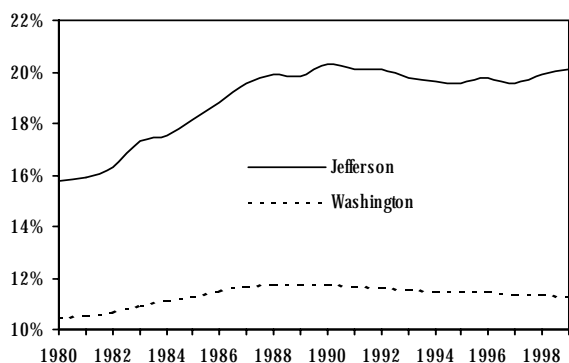


Figure 4
Population 65 & Older as Share of Total
Jefferson County and Washington, 1980-1999
Source: Office of Financial Management



has grown 112 percent—one of only four counties in the state to have experienced growth rates over 100 percent for this age group. In comparison, over the past decade, the population aged 65 and older in the state has grown by only 50 percent.

Towns and Cities

Jefferson County has only one incorporated city, Port Townsend. In 1999, one of every three county residents lived in Port Townsend (see Figure 5). The average share of the population living in Port Townsend over the decade has fallen only slightly from just above to

just below one-third. Most of the remaining two-thirds of the population live along the Sound in the towns of Irondale, Port Hadlock, Port Ludlow, Quilcene, and Center. There are only three small towns on the Pacific Coast—Kalaloch, Queets, and Clearwater.

Figure 5
Population of Cities, Towns, and County
Jefferson County, 1990-1999
Source: Office of Financial Management

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Jefferson	20,406	21,600	22,500	23,500	24,300	25,100	25,700	26,300	26,500	26,600
Unincorporated	13,405	14,370	14,970	15,760	16,360	16,935	17,425	17,970	18,155	18,200
Port Townsend	7,001	7,230	7,530	7,740	7,940	8,165	8,275	8,330	8,345	8,400

Age Groups

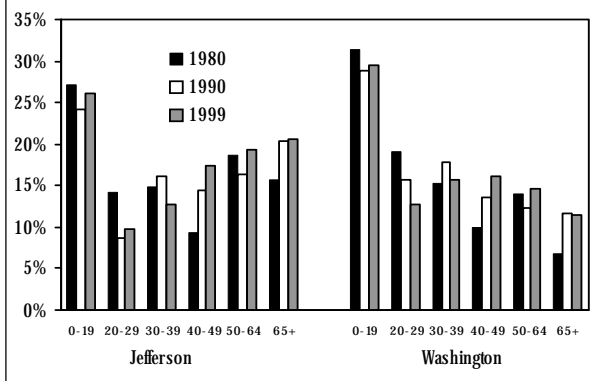
The distribution of the population among various age groups as well as changes in this distribution over time reveal patterns that are not apparent in the total population data (see Figure 6). Jefferson County and Washington State populations, measured by age group, for the last two Census periods and 1999 are used to illustrate this point. The age categories were stratified based on the following assumptions:

- 0-19 = Children and adolescents whose presence in the county is contingent
- 20-29 = New entrants into the labor force
- 30-39 = Family-aged workers

- 40-49 = Workers with years of accumulated experience and high opportunity costs
- 50-64 = Mature workers or early retirees
- 65+ = Retirees

There are several notable shifts in the data. First, the aging of the county's population was evident in both level and share terms. The number of persons in the 65+ category increased from 2,518, or 15.8 percent of the total population in 1980, to 5,170, or 20.6 percent in 1999 (see Figures 3 and 4). These shares contrast with the state's, where the age group's share of the population went from 6.8 percent to 11.4 percent. Over this period,

Figure 6
Population by Age Groups
Jefferson & Washington; 1980, 1990, & 1999
Source: Office of Financial Management

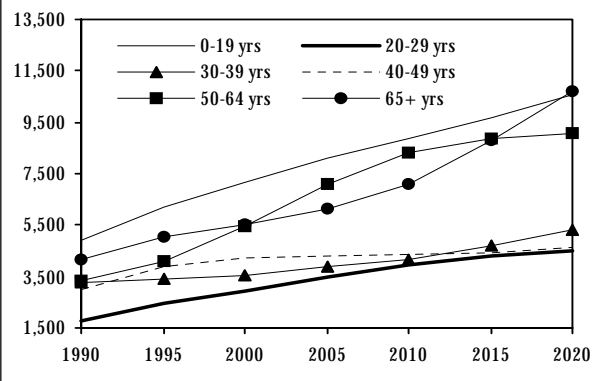


the county's median age rose from 35 to 42, whereas the median age for the state increased from 30 to 35.

Next, the share of young workers—those between 20 and 29 years of age—in the population has fallen significantly over the two-decade time frame, from a high of 14.2 percent in 1980 to a low of 8.6 percent in 1990. In 1999, the share was up slightly to 9.8 percent. In absolute numbers, there were 2,275 young workers in 1980 and 2,460 in 1999, an increase of 185. The significant decrease in share, and only slight increase in absolute number, reflect the impact of the growing state economy generating higher wages in the major metropolitan areas. In other words, younger workers sought higher wages outside of Jefferson County.

Finally, the share of workers aged 40-49 has increased significantly from 9.3 percent in 1980 to 17.3 percent in 1999. This increase is also seen in the numbers. There

Figure 7
Population Trends by Age Groups
Jefferson County, 1990-2020
Source: Office of Financial Management



were 1,478 persons in this age group in 1980 and 4,340 in 1999. This increase is partly due to the increase in professional workers in the county, but also due to the growth in the tourism-based employment.

Combined, these trends reveal an aging work force in Jefferson County. *Figure 7* shows the population projections for each age group from 2000-2020. Again, the two oldest age cohorts make significant gains, followed by the youngest. However, the middle-three groups continue to be much smaller, reflecting the current descriptions. Younger workers are leaving and older workers and retirees are moving to the county. This is not necessarily a bad thing for the county, however. The new arrivals bring acquired skills and knowledge to the labor force, as well as business opportunities to serve them. In other words, the aging population of Jefferson County is both the reason for and the driver behind the changing economy.

Demographics

Gender. The female share of total population in 1980 was 50.2 percent. The male share was the difference, 49.8 percent. In 1999, the female share had declined somewhat to 49.9 percent; the male share was 50.1 percent. Although there is not much change in the overall shares, there was a significant change in the smaller groupings. In 1980, females were just as likely as males to dominate in any single age cohort up to the late-60s, after which females were more numerous. However, in 1999 males were significantly more likely to be found in the age groups below the mid-60s range, and women significantly more likely to be found above this range.

Furthermore, the preponderance of women in the older age brackets in 1999 was significantly greater than in 1980. This shift to younger men and older women can be seen in the widening median age of males and females. In 1980, the median age for males was 34.87, and 35.14 for females. In 1999, the median age for males was 41.63, and 43.18 for females.

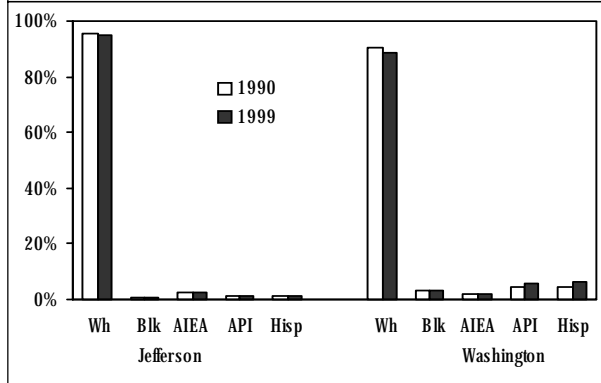
Race and Ethnicity. In accordance with the federal Office of Management and Budget, the state Office of Financial Management tracks five broad race and ethnic groups in Jefferson County: White, Black, American Indian, Eskimo, or Aleut (AIEA), Asian or Pacific Islander

(API), and Hispanic origin. The share of the total population of these categories are shown in *Figure 8*. In 1990, 95.8 percent of the county's population was categorized as white. In 1999, the share had decreased by six-tenths of one percent to 95.2 percent. Although the share had decreased slightly, the number of Whites had increased from 19,545 to 25,314, an increase of 29.5 percent. American Indians, Eskimos, or Aleuts make up the second largest group. In 1990, this group comprised 2.8 percent of the population. In 1999, this share had dropped to 2.7 percent. However, during that time, the number of AIEA increased by 26.8 percent from 574 to 728.

Whereas the shares of both White and AIEA decreased, the respective shares of Blacks and API increased. The share of the total population that was categorized as Black in 1990 was 0.4 percent and in 1999 was 0.7 percent. This reflected an increase of 98.7 percent, from 88 to 175 people. For Asian or Pacific Islanders, the share increased from 1.0 percent in 1990 to 1.4 percent of the county's population in 1999. The number of API went from 199 to 383, an increase of 92.5 percent.

Those recognized as being of Hispanic origin decreased in terms of share, but increased in number. Hispanic in origin implies being of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin decent, regardless of race; in other words, Hispanics are distributed across all race categories. The share of Jefferson Country residents identifying themselves of Hispanic origin fell from 1.2 percent in 1990 to 1.1 percent in 1999. The number of Hispanics, however, increased from 241 to 299, or 24.1 percent.

Figure 8
Population by Race and Hispanic Origin
Jefferson and Washington, 1990 and 1999
Source: Office of Financial Management



These county trends differ somewhat from the state-wide trends. At the state level, all major race and ethnic groups increased their respective shares except for Whites, which fell from 90.6 percent of the population in 1990 to 88.7 percent in 1999. Further, whereas AIEA respondents were the second largest category in the county, API were the second largest in the state, followed by Blacks, and then, as the smallest race cohort, AIEA. Finally, although Hispanics decreased in share size for the county, their share size and numbers increased at the state level. Thus, Jefferson County was much more homogenous than the state in 1990, and remained so in 1999.

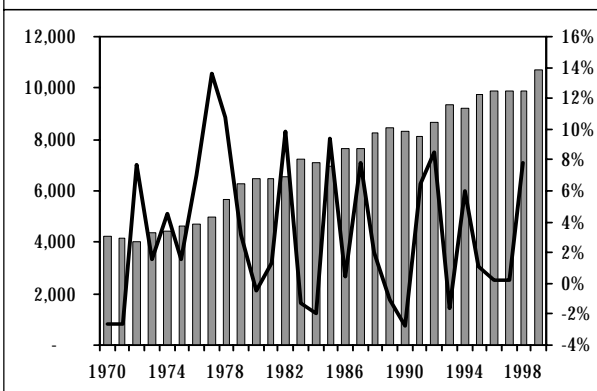
CIVILIAN LABOR FORCE

Trends

Since there is no county-level equivalent to gross domestic product or gross state product, labor force and other available measures are used as substitutes for those economic indicators. The resident civilian labor force is comprised of all persons 16 years of age and older who are either employed—excluding those serving in the armed forces—or unemployed and seeking work.

Jefferson County's resident civilian labor force grew from 4,250 in 1970 to 9,510 in 1994, and reached 10,700 in 1999 (see Figure 9). This translates into annualized growth of 3.3 percent over the 29-year period and compares favorably to the 2.7 percent statewide growth rate. However, the annual average belies the county's volatile labor market, from a high of over 13 percent to a low of negative 3 percent. One major cause of this volatility is the fact that the county's economy is greatly influenced by seasonal and cyclical factors. Further, those who have traditionally worked in the timber harvesting may have been more likely to relocate or drop out of the labor force altogether during downturns. In

Figure 9
Civilian Labor Force, Number and Growth
Jefferson County, 1970-1999
Source: Employment Security Department



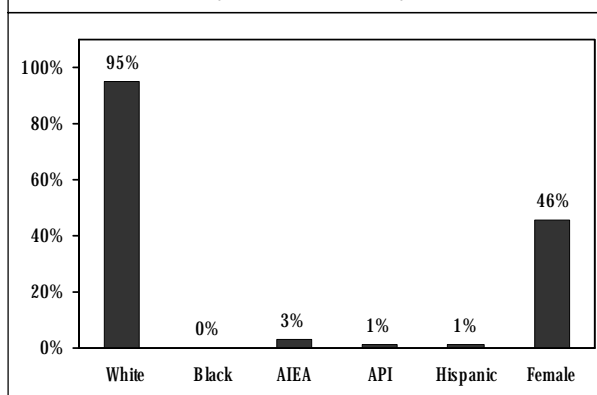
sum, the labor force of Jefferson County has been growing steadily for the past three decades, although the yearly change may be quite erratic.

Demographics

Gender. Looking at the male-female composition of Jefferson County's labor force from 1980-90, it is clear that while the composition of the population did not change much, the composition of its labor force did. In 1980, males were 61 percent of the county's labor force compared to 39 percent for females. During the past two decades, however, female participation in the labor force grew at a faster pace than did male participation. In 1999, males were 55 percent of the labor force compared to 45 percent for females—mirroring the state ratio.

Race. Although the male-female composition of Jefferson County's labor force shifted, its racial composition has changed little. The labor force's composition broken down along racial and ethnic lines is very similar to the composition of the population as a whole (see Figure 10). In 1990, Whites were 96 percent of the county labor force, but in 1998 this rate had decreased to 95 percent. Those recognized as being of Hispanic origin were a little over 1 percent of the county's labor

Figure 10
Labor Force by Race, Ethnicity, and Sex
Jefferson County, 1998
Source: Employment Security Department



force. And once again, AIEA were the largest non-white group in the labor force, at 3 percent, followed by Asians or Pacific Islanders and Blacks.

UNEMPLOYMENT

Trends

Jefferson County's 1999 average unemployment rate was 5.9 percent, significantly less than the 8.6 percent in 1994, but still above the low of 4.9 percent reached in 1990. The unemployment rate for 1999 means that 630 people were unemployed, on average, throughout the year. The 1999 county unemployment rate exceeded the 4.7 percent state and 4.2 percent national rates. A look at unemployment patterns over the 1970-99 period shows that, for the most part, rates in Jefferson County have been higher than those for the state and the nation (see *Figure 11*). There are two broadly defined reasons for the disparity, which are tied to the structure of the county's economy: because of its concentration of employment in tourism- and resource-based industries, Jefferson County tends to have a high degree of seasonal and cyclical unemployment. Since much of the economic base

is tied to the environment and out-of-doors activity, unemployment is affected by the weather, peaking in the winter and bottoming out in the summer. Further, both lumber and tourism industries are very susceptible to economic downturns.

Jefferson County's annual unemployment rates disaggregated by race, ethnicity, and sex are shown in *Figure 12*. Within Jefferson County, there was only a small difference between male and female unemployment rates in 1997, with the former at 6.1 percent and the latter, as shown, at 6.8 percent. More notable was the disparity between White and non-White unemployment rates. The overall unemployment rate for Whites was 6.4 percent, while the rate for non-Whites was 12 percent. The highest rate of unemployment was found in the AIEA population, which was at 17.9 percent.

Figure 11
Unemployment by Region
Jefferson, Washington, U.S.; 1970-1999
Source: Employment Security Department

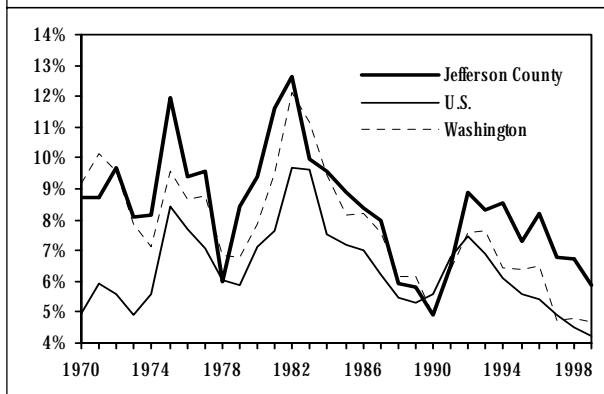
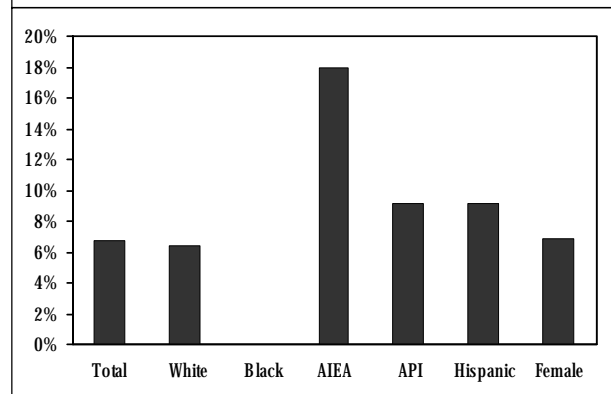


Figure 12
Unemployment by Race, Ethnicity, and Sex
Jefferson County, 1997
Source: Employment Security Department



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, cyclical, and structural maturity in the area's employment base.

These terms are defined as follows. Seasonality is associated with more-or-less predictable unemployment

patterns in particular industries over the course of the year, and often related to the seasons. For example, residential construction workers can usually expect a couple of months of unemployment during the winter. Industries, like construction and retail sales, which are susceptible to seasonal factors, are classified as seasonal.

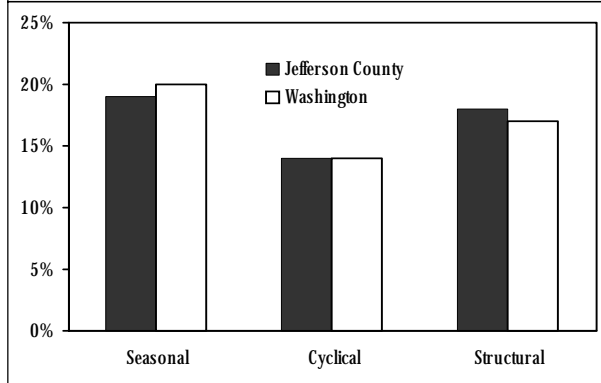
Cyclicity refers to business and unemployment patterns caused by or linked to the broader movements of the economy—expansions and contractions. Unemployment in such industries is attributable to a general decline in macroeconomic activity, especially expenditures, which occurs during a business-cycle 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.

Finally, structurally mature industries are those the sales of which have begun to taper off due to decreasing demand for their output, and not related to seasonal or cyclical patterns. 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.

This classification system produced the following 1998 industrial typology for Jefferson County: 18.8 percent of the county's industries were seasonal, 14.0 percent cyclical, and 18.4 percent structural (see *Figure 13*). Washington's typology was, by comparison, 20.4 percent seasonal, 14.0 percent cyclical, and 16.5 percent structural. As seen, Jefferson County's economy is less seasonal, equally cyclical, and more structurally mature than the state. Importantly, the county's industrial base has restructured over the decade so that in the course of 5 years, significant gains were made in insulating the economy from the vicissitudes of the state and national economies. It is important to note that an industry can be recognized in more than one category (or not at all). Tourism-related industries, for example, are very dependent on the seasons and are also highly sensitive to shifts in the business cycle, and are thus categorized as both seasonal and cyclical.

Jefferson County's employment trends are greatly influenced by the high proportion of seasonal industries, especially those associated with the tourism and recre-

Figure 13
Industrial Typology by Region
Jefferson County and Washington, 1998
Source: Employment Security Department



ation fields. Thus, seasonal employment patterns and economic activity are bound up with how food stores, hotels and other lodging places, and specialty retail stores fare throughout the year. Other seasonal industries are general building contractors, special trade contractors, and building materials and garden supplies.

The cyclicity in Jefferson County's economy is also related to tourism and recreation businesses, with food stores and hotels and other lodging places significantly affected by the ups and downs of the general economy. However, other industries also suffer booms and busts along with the state and national economies. These are primarily services, with social services, business services, and health services being the most prominent. Other industries affected by cyclical factors are general building contractors, printing and publishing firms, and automobile dealers and service stations.

Jefferson County's share of structurally mature industries decreased greatly over the decade of the 1990s. Today, the most significant industry that can be classified as structurally mature is paper and allied products. Additionally, the small-town, or neighborhood, specialty retail store, like a pharmacy, is also considered to be structurally mature, and therefore under threat of displacement.

The local economy is in some respects buffered from more severe economic swings because of its considerable public sector, mostly concentrated at the state and local levels, but also including federal personnel working in the Olympic National Forest and Olympic National Park. (This is not to suggest that the public sector is unaffected by cyclical factors. In fact, business cycles typically influence budget decisions, which affect regional economies through trickle-down effects.)

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. The accompanying *Figure 14* shows the number of UI claims filed in Jefferson County and Washington State during FY 1998-99 by occupation groupings. Jefferson County had 1,612 UI claimants between July 1, 1998 and June 30, 1999. Occupation 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.

The concentration of UI claims in Jefferson County occupation groupings appeared, by and large, to resemble the concentrations statewide. That is, the majority of UI claims fell in four principal areas: structural work, professional/technical/managerial, services, and clerical. The differences between county and state were in the degree of UI concentration in each of these areas. Jefferson County saw a much higher share of its UI claim-

ants come from structural work, professional/technical/managerial, and services occupations than was the case statewide. Conversely, the county had lesser concentrations in clerical, packing and material handling, machine trades, and processing than was seen statewide. The balance of occupational sectors saw roughly similar UI concentrations at the county and state levels. Overall, Jefferson County's unemployment is much more highly concentrated than the state's.

There was a very notable disparity between white- and blue-collar UI claimants in Jefferson County, and between this ratio and the corresponding ratio at the state level. At the county level, 73 percent of UI claimants were white-collar, versus 58.1 percent at the state level. This, however, is no surprise given that employment is concentrated in typical white-collar industries: government, services, and wholesale and retail trade. The state white- to blue-collar UI claimant ratio is more evenly distributed—greatly influenced by restructuring and downsizing in aircraft and parts production industries.

Figure 14
Unemployment Insurance Claimants
Jefferson County and Washington State, July 1, 1998 - June 30, 1999
Source: Employment Security Department

	Jefferson County		Washington	
	Claimants	Percentage	Claimants	Percentage
Structural work	420	26.1%	69,552	18.8%
Professional, technical and managerial	334	20.7%	65,042	17.6%
Service	263	16.3%	38,823	10.5%
Clerical	159	9.9%	39,843	10.8%
Agriculture, forestry and fishing	95	5.9%	29,550	8.0%
Sales	86	5.3%	19,259	5.2%
Machine trades	74	4.6%	22,377	6.1%
Motor freight and transportation	70	4.3%	18,242	4.9%
Packaging and materials handling	54	3.3%	32,096	8.7%
Benchwork	29	1.8%	12,538	3.4%
Processing	26	1.6%	19,673	5.3%
Miscellaneous, NEC	2	0.1%	2,336	0.6%
Total	1,612	100.0%	369,331	100.0%
White-Collar*	1,176	73.0%	213,260	58.1%
Blue-Collar*	434	27.0%	153,735	41.9%

*Miscellaneous/NEC occupations excluded

INDUSTRIES, EMPLOYMENT, AND WAGES

Data for this section come from two Bureau of Labor Statistics programs run in Washington by Employment Security—Current Employment Statistics (CES) and Covered Employment and Wages (ES-202). CES produces estimates of total nonagricultural employment while ES-202 reports all employment and wages covered by

the state unemployment insurance program. Data regarding employment trends in major industry divisions run from 1970 to 1999, whereas data on real wages compare 1981 to 1997, the last year for which complete data are available. Where other years are used in comparisons, such use is only for illustrative purposes.

Employment Trend

Jefferson County's total nonagricultural employment rose at an average rate of 3.8 percent over the 1970-99 period reaching 7,590 in 1999 (see Figure 15). This outperformed statewide nonagricultural employment

growth over the same period, which was closer to 3.1 percent. However, the growth rate for the county has decreased over the past five years, averaging just 2.3 percent, less than the state's 2.9 percent (see Figure 16).

Figure 15
Nonagricultural Wage & Salary Employment
Jefferson County, 1970-1999
Source: Employment Security Department

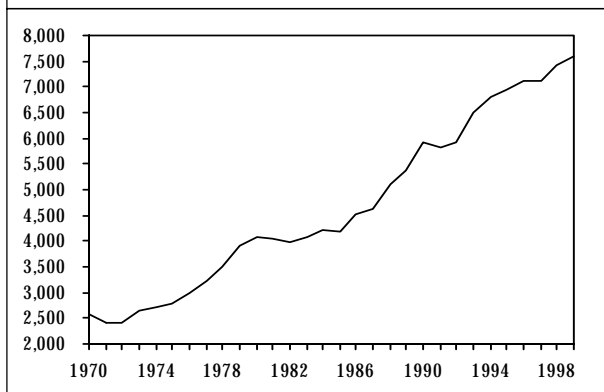
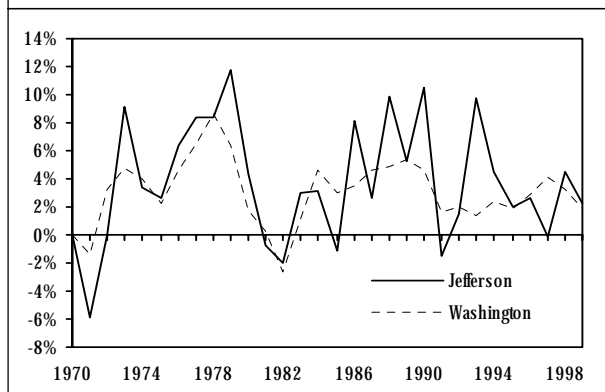


Figure 16
Nonag Wage & Salary Employment Growth
Jefferson County & Washington, 1970-1999
Source: Employment Security Department



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. Thus, location quotients reveal how Jefferson County's employment

patterns differ from those of Washington State as a whole. Location quotients compare any single industry's share of employment at the county level against the same industry's share at the state level.

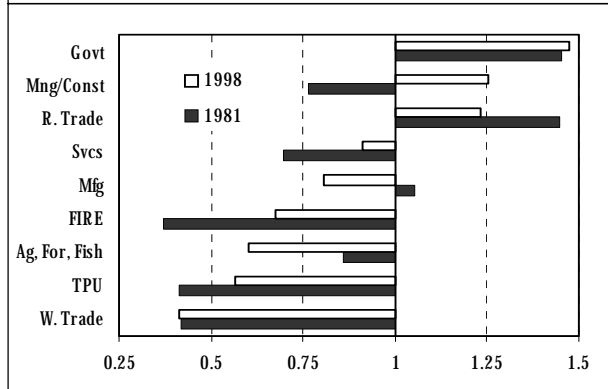
Specifically, location quotients are determined by dividing the local industry's share of local total employment by the same industry's share of total employment at the state level. A value higher than 1.0 denotes a local

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. The usefulness of this measure is premised upon the following notion: sustained economic growth at the local level is based upon production of goods and services for export. Therefore, a location quotient for a particular industry greater than 1.0 implies production in greater quantities than required for local consumption, with the difference being exported. The more industries with location quotients greater than 1.0, the greater the likelihood for sustained economic growth for the local area.

Jefferson County's location quotients both reveal and conceal several interesting characteristics (see *Figure 17*). Three of the county's industries had location quotients indicating they were export industries. These industries were government, mining and construction, and retail trade. Clearly, government is not a typical export industry, nor is construction, nor are most types of retail trade. What the location quotients do not reveal is that much of the employment within these three industries is associated with tourism, which is an export "industry." Much government employment is the result of the National Park- and National Forest-induced tourism. In the same way, retail trade is greatly dependent upon tourism. Further, the hotel (and other lodging) industry is concealed within the broad non-export oriented services division and would be expected to have an export-oriented location quotient. The construction numbers are high because of the recent boom in retirement home construction. Thus, the location quotients are indicative of economy-moving industries, if not export industries per se.

On the opposite end of the quotient scale were wholesale trade; transportation and public utilities; agriculture, forestry, and fishing; finance, insurance, and real estate; and manufacturing. These industries had a relatively smaller share of county employment. Wholesale trade and transportation have small employment bases for the obvious reason that Jefferson County is located at the top of the rural and sparsely populated Olympic Peninsula. Agriculture and forestry are limited by the fact that three-quarters of the county's land are in the Olympic National Park and Olympic National Forest. (It should be noted that the data for this division of industries have been altered by removing veterinary and other ancillary

Figure 17
Location Quotients
Jefferson County, 1981 and 1998
Source: Employment Security Department



livestock services, and landscape and horticultural services, which correspond to SIC 3-digit codes of 074, 075, and 078.) Finance, insurance, and real estate have been limited by demographic factors; as these factors change, so will the importance of FIRE in the local economy. Finally, the level of manufacturing employment is only slightly below the level of the state, and is primarily due to a large pulp and paper presence and the growth of the printing and publishing industry.

To get a better appreciation for how the county's industrial make-up has changed over the years, *Figure 17* also includes the location quotients from 1981. The three biggest differences between 1981 and 1998 are mining/construction, FIRE, and manufacturing. Mining/construction's quotient jumped dramatically from .77 to 1.25. Construction has been the one goods-producing industry that has grown progressively over the past decade, and with the growing population, this trend can be expected to continue. As mentioned above, FIRE is directly related to the demographics of the county's population. As the population ages, and becomes richer, these services become much more important. Thus, FIRE's location quotient was .37 in 1981, but grew to .67 by 1999. Manufacturing has fallen in importance primarily due to the collapse of the logging industry in the county and the significant growth of manufacturing employment in the state. This location quotient dropped from a high of 1.1 in 1981 to .81 in 1999.

Goods and Services

There are three broad sectors in an economy: primary, secondary, and tertiary. The primary sector is comprised of agricultural 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. Jefferson County offers a clear example of this (see Figure 18). A look at the past 29 years shows that the number of goods-producing jobs decreased substantially from 39 percent of Jefferson County’s employment in 1970 to approximately 20 percent by 1999. (Note: mining, which is a primary-sector industry, is coupled with construction; this slightly inflates these results). During this time, service-sector employment, excluding govern-

ment, increased from 32 percent to 55 percent of overall civilian employment.

A look at the number of workers in secondary and tertiary sector jobs tells a slightly different story, but gets to the same conclusion, namely that Jefferson County’s economy is service dominated (see Figure 19). The number of goods-producing jobs has grown by 50 percent since 1970. There has been, however, much stronger growth in the number of service-producing jobs since 1970. Primarily, growth is due to the increase in the number of retail trade outlets. The growth in trade employment is the necessary result of serving a growing population base. The growth in services has been more recent and tied to not just a growing population, but a growing population in specific income and age groupings as well as the growing tourism industry. Thus, with a relatively small growth in goods-producing jobs, and the rapid growth in service sector jobs, the percentage of those working in the former has shrunk significantly.

Figure 18
Percentage of Nonag Jobs by Sector
Jefferson County, 1970-1999
Source: Employment Security Department

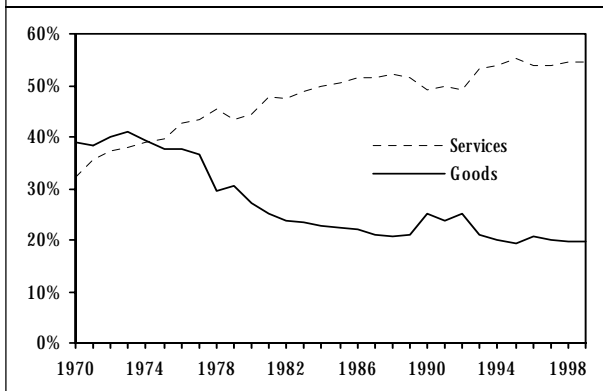
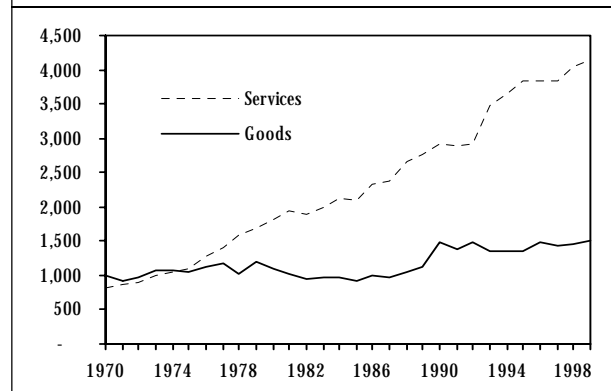


Figure 19
Number of Jobs by Sector
Jefferson County, 1970-1999
Source: Employment Security Department



Annual Average Wages

Of specific concern is how this service-dominated economy has affected wages. It is generally true that service-sector jobs pay less than goods-sector jobs. It is likely, therefore, that the county’s annual average wage has decreased as the percent of service jobs has increased.

Annual average covered wages are derived by taking the sum of wages paid over the year and dividing that total by average covered employment. Average covered

wages do not include benefits (e.g., insurance and retirement), only actual wages. Further, jobs not covered by the unemployment insurance program are not included. It is estimated, however, that 90 percent of employment falls within the coverage.

The real, or inflation adjusted, annual average covered wage in Jefferson County in 1998 was \$21,255, which was 64 percent of the \$33,062 statewide, and 68

percent of the \$31,908 national, annual average covered wage (see *Figure 20*). Not surprisingly, the county's covered wage has trailed the state's average throughout the entire 1970-99 period. A significant and persistent gap emerged in 1985 when the county's average covered wage plunged 20 percent. The gap was caused by a severe and permanent downturn in the county's lumber and wood production. This downturn is set in contrast to the equally significant 15 percent wage decline in 1974 that was cyclical in nature and eventually returned to a level in line with the previous pattern.

Of more concern is the fact that real average covered wages in Jefferson County have fallen 22 percent over the 1970-98 period. Thus, the county's average covered wage eroded at an annual rate of 0.8 percent over the 28-year period. However, real average covered wages in 1998 were 2.0 percent higher than they were in 1985, the year after the upheavals in manufacturing. Overall, this increase is due to a 7.6 percent increase since 1994.

At the state level, workers appear to have fared better. Real average annual covered wages were 11.5 percent higher in 1998 than in 1970. However, this gain is due to the 16 percent increase that has taken place since 1994. Thus, both the county and the state suf-

fered a decline in real average annual covered wages between 1970 and 1994, after which both experienced significant increases.

Annual average covered wage for major industry divisions and permissible two-digit SIC code industries for Jefferson County and Washington State in 1998 are shown in *Figure 21*. These figures should be used only to draw the most broad of conclusions because some industries are purposefully excluded for confidentiality purposes, and the inclusion of data on part-time 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.

A look at Jefferson County's industry divisions shows SIC two-digit industries 48, 49, and 16 the highest average covered wages in 1998, with wages in the mid-\$43,000 range. These industries, respectively communication, electricity/gas/sanitation, and heavy construction are not even in the top-10 for the state, which is dominated by security brokers, business services, and instrumentation manufacturers, with wages between \$55,000 and \$88,000.

The lowest average covered wages were in SIC two-digit industries 88, 78, and 58. These are domestic services, motion pictures, and eating and drinking establishments, with wages between \$7,000 and \$8,100. These, too, are at the bottom end of the scale for the state. Importantly, employees in these industries often work part time, which tends to draw down the average wage.

Of the county's industry divisions, only the adjusted agriculture, forestry, and fishing (excludes SIC 3-digits 074/5/8) had higher average covered wages than its state-wide counterpart, with an average \$18,068 compared to \$15,011. At the two-digit SIC code level, only (SIC 16) heavy construction, (SIC 32) stone, clay, and glass products, and (SIC 48) communication had higher wages at the county level than at the state.

Figure 20
Real Annual Average Covered Wage
Jefferson, Washington, & U.S., 1970-1998
Source: Employment Security Department

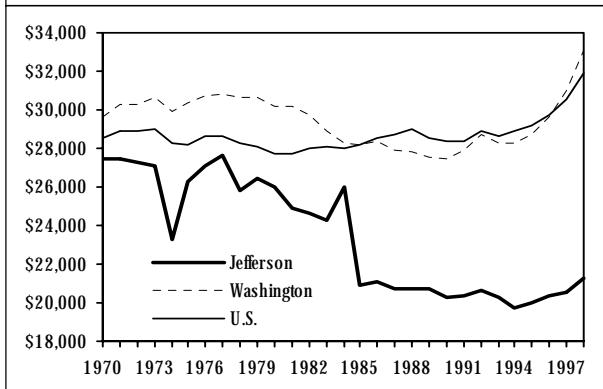


Figure 21
Covered Employment and Wages
Jefferson County and Washington State, 1998
Source: Employment Security Department

	Jefferson		Washington	
	Employment	Average	Employment	Average
Total	7,156	\$21,258	2,593,426	\$33,071
Agriculture, Forestry, and Fishing	170	\$18,068	94,576	\$15,011
Construction	441	\$25,006	133,803	\$33,653
15 General building contractors	204	\$25,859	37,433	\$32,162
16 Heavy construction, ex. building	57	\$42,796	18,264	\$42,032
17 Special trade contractors	180	\$18,406	78,106	\$32,409
Manufacturing	825	\$35,032	373,802	\$42,247
20 Food and kindred products	*	*	40,006	\$30,618
23 Apparel and other textile products	21	\$15,233	7,790	\$20,411
24 Lumber and wood products	70	\$21,588	33,428	\$34,955
26 Paper and allied products	*	*	15,989	\$50,085
27 Printing and publishing	110	\$20,326	23,550	\$31,316
32 Stone, clay, and glass products	17	\$40,825	9,365	\$34,809
33 Primary metal industries	*	*	11,878	\$44,878
34 Fabricated metal products	*	*	14,250	\$32,607
35 Industrial machinery and equipment	18	\$24,524	25,436	\$43,916
36 Electronic and other electric equipment	*	*	18,189	\$37,223
37 Transportation equipment	47	\$25,636	127,417	\$51,925
38 Instruments and related products	*	*	14,683	\$55,477
39 Miscellaneous manufacturing industries	38	\$11,931	8,619	\$30,635
Suppressed industries	504	\$43,732		
Transportation and Public Utilities	199	\$31,428	129,585	\$40,299
41 Local and interurban passenger transit	*	*	6,234	\$19,284
42 Trucking and warehousing	39	\$27,752	31,031	\$29,910
44 Water transportation	31	\$17,887	9,163	\$51,116
45 Transportation by air	*	*	24,920	\$38,034
47 Transportation services	17	\$15,840	12,966	\$29,577
48 Communication	22	\$43,341	12,960	\$29,583
49 Electric, gas, and sanitary services	70	\$43,746	29,767	\$52,599
Suppressed industries	20	\$16,616		
Wholesale Trade	167	\$22,931	148,159	\$39,140
50 Wholesale trade durable goods	50	\$31,847	84,523	\$42,402
51 Wholesale trade nondurable goods	117	\$19,121	63,636	\$34,807
Retail Trade	1,544	\$12,341	460,669	\$17,908
52 Building materials and garden supplies	135	\$16,069	21,324	\$24,227
53 General merchandise stores	*	*	47,269	\$20,388
54 Food stores	353	\$15,409	68,893	\$20,024
55 Automotive dealers and service stations	106	\$20,259	47,424	\$28,500
56 Apparel and accessory stores	*	*	25,517	\$20,023
57 Furniture and homefurnishings stores	61	\$17,686	21,468	\$24,809
58 Eating and drinking places	695	\$8,648	171,771	\$11,442
59 Miscellaneous retail	174	\$11,529	57,003	\$18,055
Suppressed industries	20	\$10,138		

Figure 21 (continued)
Covered Employment and Wages
Jefferson County and Washington State, 1998
Source: Employment Security Department

	Jefferson		Washington	
	Employment	Average	Employment	Average
Finance, Insurance, and Real Estate	243	\$18,960	131,806	\$40,700
60 Depository institutions	75	\$21,786	37,282	\$36,300
61 Nondepository institutions	*	*	11,179	\$52,613
62 Security and commodity brokers	*	*	7,206	\$88,127
63 Insurance carriers	*	*	26,398	\$45,843
64 Insurance agents, brokers, and service	32	\$20,246	13,727	\$39,468
65 Real estate	109	\$14,269	33,798	\$24,876
Suppressed industries	27	\$28,528		
Services	1,695	\$14,594	676,209	\$35,887
70 Hotels and other lodging places	330	\$11,287	28,001	\$15,890
72 Personal services	44	\$11,326	22,083	\$16,326
73 Business services	235	\$15,099	151,132	\$69,522
75 Auto repair, services, and parking	60	\$18,460	25,106	\$23,985
76 Miscellaneous repair services	15	\$16,566	7,608	\$28,378
78 Motion pictures	56	\$8,090	9,224	\$14,096
79 Amusement and recreation services	79	\$11,635	38,332	\$19,267
80 Health services	207	\$21,322	180,251	\$30,514
81 Legal services	10	\$13,183	16,746	\$41,273
82 Educational services	80	\$16,213	21,553	\$25,793
83 Social services	371	\$14,919	58,944	\$16,052
84 Museums, botanical, zoological gardens	*	*	1,321	\$20,397
86 Membership organizations	56	\$11,133	24,053	\$20,830
87 Engineering and management services	60	\$24,823	60,580	\$44,707
88 Private households	78	\$7,175	29,402	\$8,811
89 Services, nec	*	*	1,873	\$42,205
Suppressed industries	14	\$13,374		
Government	1,845	\$26,943	441,415	\$33,872
Federal	166	\$40,643	67,236	\$42,806
State	198	\$33,773	113,871	\$33,635
Local	1,481	\$24,494	260,308	\$31,668
Not Elsewhere Classified	197	\$20,328		

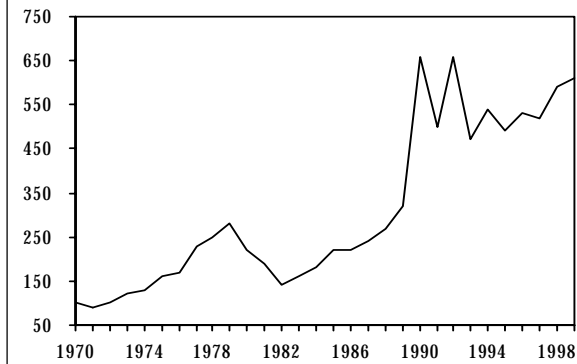
** Employment and wages suppressed to avoid disclosure of data for individual employers*

Construction and Mining

The combined divisions of construction and mining, with an average annual growth rate of 8.8 percent, were the fastest growing divisions in Jefferson County from 1971-98 (see Figure 22). However, most of that growth is due to a 108 percent annual increase between 1989-90, which resulted from the building of a local school and the expansion of the local hospital. Recent numbers in this combined category have been sustained by the strength of the residential building industry.

Through most of the 1970s and 1980s, construction and mining employment ranged from 100 to 300 with a normal cyclical pattern and represented 4 to 6 percent of the county's nonagricultural employment base. However, since 1990 construction and mining employment shot up to and has remained in the 500 to 660 range. Accordingly, it represents from 7 percent to 11 percent of the county's total nonagricultural employment. Wages in these fields were an average \$25,818 for 1998, which is 23 percent below the state average of \$33,666.

Figure 22
Construction and Mining Employment
Jefferson County, 1970-1999
Source: Employment Security Department

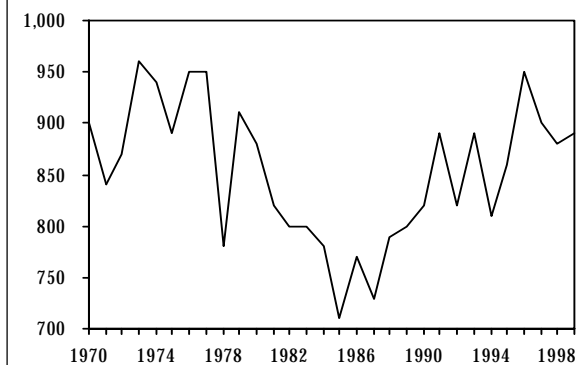


Manufacturing

Jefferson County's economy has historically been based on manufacturing. And while it still remains a significant factor in the local economy, manufacturing has seen its share of nonagricultural employment drop significantly since 1970. In that year, manufacturing represented a full 35 percent of nonagricultural workers, but by 1999, that share was down to 11.7 percent. However, as pointed out elsewhere, this outcome is the result of growth in other areas of the economy and not due to a sustained decrease in manufacturing (see Figure 23).

Jefferson County's manufacturing employment reveals two economic forces that have become the hallmark of manufacturing nationwide—cyclical and structural factors. The business cycles are standard fare with peaks and troughs much in evidence over the 1970-99 observation period. A more profound employment impact was structural in nature, which lowered employment more significantly and for a longer duration throughout the first half of the time frame. As discussed above, structural changes imply a major change in the industrial make-up of a region. Jefferson County's manufacturing base went through a significant change in the late 70s and early 80s as its lumber and paper manufacturing industries began restructuring, to some extent, and closing. Shortly afterward, however, manufacturing picked up in other industries, among them printing and pub-

Figure 23
Manufacturing Employment
Jefferson County, 1970-1999
Source: Employment Security Department



lishing. Thus the structure of the manufacturing base evolved to adapt to market realities.

Lumber and wood products (SIC 24) had historically been a mainstay of the Jefferson County economy. However, over the time period, lumber and wood products employment and wages have gone from relative dominance to near insignificance. In the early 1980s, the timber giant and economic cornerstone Pope and Talbot was first bought out and then restructured out of exist-

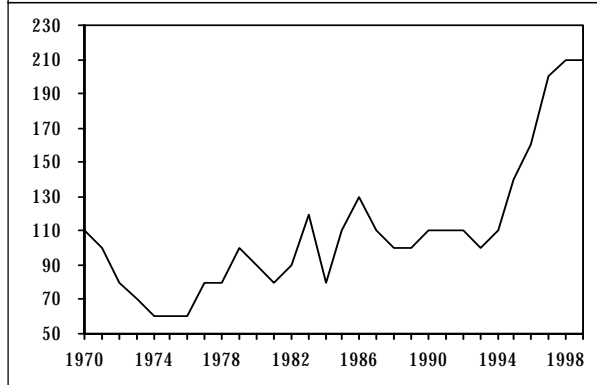
ence in a move that took lumber and wood products employment from roughly 250 down to around 100. Then in the early 1990s, timber supply constraints within the federal Olympic National Forest caused further employment losses in the remaining small mills. By 1998, Jefferson County's lumber and wood products manufacturing employment was at 70, with average wages at \$21,588, well below the state average of \$34,955. The average wage at the county level was a full 50 percent less, in real terms, than the wage in 1981. Paper and allied products (SIC 26), a downstream industry to timber harvesting, has remained strong, however. In fact, SIC 26 firms employed more workers than any other manufacturing industry in the county in 1998.

Jefferson County's transportation equipment (SIC 37) division was also a major contributor to both manufacturing employment and wages. One of the most important industries in this division during the 1990s was ship and boat building. From less than 50 workers in 1970, employment in SIC 37 grew to nearly 200 by 1996. Specifically, there were 188 people employed in various capacities in transportation equipment manufacturing in 1996, earning an average, in 1998-dollar terms, of \$25,050. But within a year, ship and boat building went through a major restructuring, driving employment down to 80. By 1998, there were less than 50 people working in this sector. However, average wages had increased to \$25,600.

Transportation and Public Utilities

Jefferson County's transportation, communications, and public utilities division was the smallest nonagricultural division over most of the 1970-99 period. However, employment has grown from 100 in 1993, to 210 in 1999 (see Figure 24). Prior to 1993, however, the sector was among the least dynamic in terms of overall growth, even as the year-to-year changes were rather dramatic. In terms of the division's employment—as a percentage of total nonagricultural employment—its share went from a high in 1970 of 4.3 percent, to a low in 1993 of 1.5 percent, back up in 1999 to 2.8 percent. In terms of growth in employment, this division has grown at an average annual rate of 14.3 percent since 1995, making it the fastest growing division in the county. Given the recent trends in employment growth, and the sustained growth in population, it is reasonable to expect continued moderate employment growth. Average wages for the division were relatively strong within the county, at \$31,428, but 22 percent less than the \$40,299 earned at the state level.

Figure 24
TPU Employment
Jefferson County, 1970-1999
Source: Employment Security Department



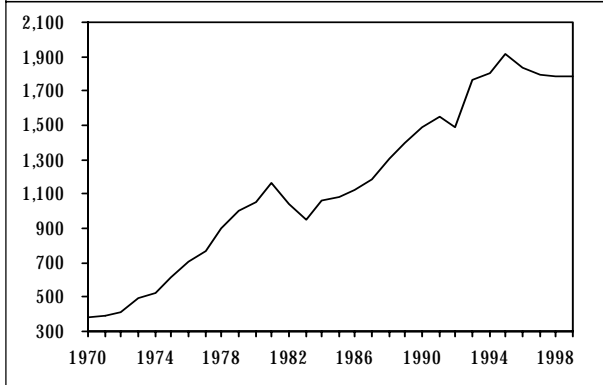
Wholesale and Retail Trade

Wholesale and retail trade was one of the strongest growth industries in Jefferson County from 1970-78. During this time, trade employment increased from 14.8 percent of the county's employment to 25.7 percent. Since 1978, the share of employment in wholesale and retail trade has remained relatively constant, although it appears to be trending downwards recently (see Figure 25). In terms of the number of workers in these divisions, Jefferson County has experienced a very smooth upward growth throughout the period 1970-99, increas-

ing from 380 to 1,780. The leveling off of trade's share of covered employment is simply a result of the growth of employment in other fields.

Much of the growth in trade has come in food stores (SIC 54), eating, drinking places (SIC 58), and wholesale traders of nondurable goods (SIC 51) who supply them. In 1998, employment in these three industries was 353, 695, and 118, respectively, up strongly from the 1981 levels of 223, 533, and 53. Real wages in these

Figure 25
Wholesale and Retail Trade Employment
Jefferson County, 1970-1999
Source: Employment Security Department



same industries were \$15,409, \$8,648, and \$19,121. As with almost every other industry, wages were higher at the state level: \$20,024, \$11,442, and \$34,807.

As Jefferson County (particularly the east side) has steadily grown more populated, so too has employment in food stores. The 1981-98 pattern shows the county's food store industry climbing at a fairly steady pace. In numbers, employment rose from roughly 220 to 350. However, real average wages in the county's food store sector have fallen while employment has increased, from approximately \$20,500 to less than \$15,409.

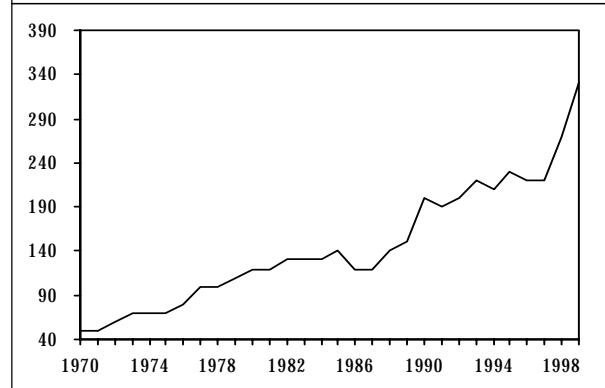
Eating and drinking places employment stood at 533 in 1981. However, along with the increased discovery of the Olympic Peninsula as a major tourist destination in the late 1980s—with the Port Townsend area as one of its jewels—employment in eating and drinking places had risen to about 700 by 1998. Much of this latter-day growth was fueled by a concerted local effort to promote tourism and recreation in the Port Townsend area specifically and in the east Jefferson County area generally. Real wages in its eating and drinking places, however, fell from \$10,263 to \$8,650 during the growth period.

Finance, Insurance, and Real Estate

Jefferson County's finance, insurance, and real estate (FIRE) division has experienced a very interesting growth pattern over the past 29 years. FIRE industries have increased employment from a mere 50 in 1970, when it represented only 1.9 percent of the work force, to approximately 330 in 1999, representing 4.3 percent by 1999 (see Figure 26). The division's average annual growth rate in employment was 10 percent from 1995 to 1999, ranking second only to transportation and public utilities.

Wages in this division, as with other divisions, have declined in real terms since 1981. The real annual average wage in 1998 was \$18,960, just 81 percent of the \$23,551 real annual average wage in 1981. The state's 1998 average annual wage in this division was a much greater \$40,700, inflated by the high earnings in security brokering. Given recent demographic changes, however, in the county, one could legitimately expect to see FIRE earnings in the county climb in the coming

Figure 26
Finance, Insurance, Real Estate Employment
Jefferson County, 1970-1999
Source: Employment Security Department



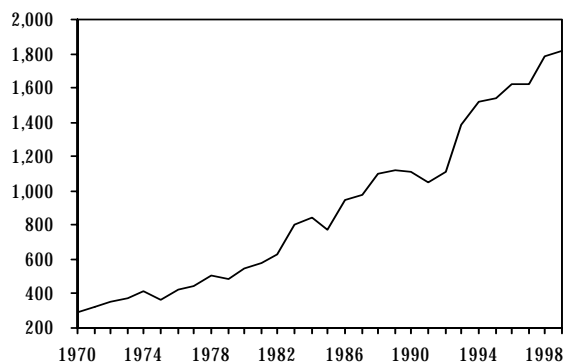
years as these high-earning tertiary sector jobs become more commonplace.

Services

Employment in the services division grew dramatically between 1970 and 1999, from 290 to 1,820 (see *Figure 27*). This corresponded to an increase in the division's share of total nonagricultural employment from 11.3 percent to 24 percent. This growth marked services as the most dynamic division in the county. Growth in wages for the division, however, did not keep up with the growth in employment. Real wages grew from \$13,987 in 1981 to \$14,571 by 1998. This appears to break from the trend of declining real wages set by other divisions. However, a close examination of the division indicates that the addition of several well-paid industries not previously existing in the county is greatly responsible for the increase. For most of those industries tracked in both 1981 and in 1998, real wages did, indeed, decline.

Significant exceptions to this general decline are in three important and growing industries. The wages for both social and health services increased in real terms. Real average annual wages increased from \$13,278 and \$16,377, to \$14,879 and \$21,322, respectively. Employment in social services jumped from 43 to 372 during this time. Health services employment increased slightly from 184 to 207. Both of these industries are experiencing real growth primarily as a result of the changing demographics of the county. In as much as the demand for these services increases, so too must wages in order to

Figure 27
Services Employment
Jefferson County, 1970-1999
Source: Employment Security Department



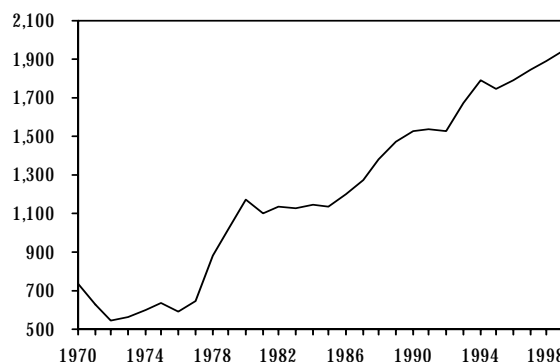
attract more and better-qualified workers from outside the area. There is no reason to suspect that this trend will not continue as long as the population of the county continues to grow in terms of older age groups.

The wages in hotels and other lodging places also posted a gain in real wages, although modest. Real average annual wages were \$11,116 in 1981, inching up to \$11,287 in 1998. This increase accompanies a more than doubling of employment, from 134 to 330. Growth in these industries results from the Jefferson County's maturity into a prime tourist destination on the Peninsula.

Government

Although government is the largest employment division in the county—a distinction that this division has held more often than any other since 1970—its share of total nonagricultural employment dropped from a high of 28.8 percent in 1970 to 25.7 percent in 1999. This drop in share occurred despite the increase in employment over that time from 740 to 1,950 (see *Figure 28*). As *Figure 27* makes clear, however, this has not been a steady decline in share, or increase in employment. The largest growth in employment was in local government, which came close to doubling its ranks from 763 in 1981, to 1,480 in 1998. Government has lost share, despite the growth in employment because other divisions, especially trade and services, have grown much more rapidly over this time.

Figure 28
Government Employment
Jefferson County, 1970-1999
Source: Employment Security Department



OCCUPATIONAL PROFILE

A different but informative way to view an area's work force is in terms of occupational groupings rather than industry 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. Such data, unfortunately, are not readily available for each county. Thus, the following presents employment by major occupational division in the combined Jefferson and Clallam counties and in Washington State for 1998.

The combined Jefferson/Clallam occupation categories reveal only a modest departure from the state's occupational structure (see Figure 29). The county's occupational shares exceed the state's in only 3 categories: services; agriculture, forestry, and fishing; and precision production, craft, and repair. The biggest differences between the counties' and state's shares occur in two areas: services, where 20.7 percent of all county-level workers were categorized, versus 15.4 percent at the state level; and professional, paraprofessional, and technical in which 18.5 percent of counties' labor force are located, versus 22.7 percent of state-level workers.

Service occupations command the plurality of jobs because of the significance of tourism- and retirement-based industries within the two-county economy. As the two counties have increasingly harnessed their respective environments to attract both year-round retirement residents as well as seasonal visitors, employment has grown steadily in those occupations directly associated with and influenced by this evolution. Two such examples are health-related businesses and lodging establishments, both of which are service occupations.

The relative dearth of employment in professional, paraprofessional, and technical occupations is greatly influenced by structural factors affecting the counties' respective economies. However, as these economies evolve to take advantage of new opportunities, one can expect the gap between the counties' and the state's shares of professional employment to narrow.

In general terms, the counties' combined economy is more "blue-collar" than the state's, and the state's economy is more "white-collar" than the counties'. Blue-collar work is defined loosely as work done for wages, as opposed to salary, and usually involving some form of manual labor. Therefore, the final three occupations listed in the figure are combined to generate the total share of all blue-collar workers. Blue-collar work represented a total of 29.8 percent of the counties' com-

Figure 29
Occupational Employment
Jefferson and Clallam Counties and Washington State, 1998
Source: Employment Security Department

	Jefferson/Clallam		Washington	
Total	36,269	100.0%	3,042,950	100.0%
Managerial & Administrative	2,839	7.8%	236,687	7.8%
Professional, Paraprofessional, & Technical	6,726	18.5%	689,989	22.7%
Marketing & Sales	3,708	10.2%	345,850	11.4%
Clerical & Administrative Support	4,695	12.9%	474,747	15.6%
Services	7,500	20.7%	469,185	15.4%
Agriculture, Forestry, Fishing, & Related	2,135	5.9%	119,106	3.9%
Precision Production, Craft, & Repair	4,527	12.5%	336,198	11.0%
Operators, Fabricators, & Laborers	4,139	11.4%	371,188	12.2%
White-Collar	25,468	70.2%	2,216,458	72.8%
Blue-Collar	10,801	29.8%	826,492	27.2%

bined economy, versus 27.2 percent for the state's. White-collar work described 70.2 percent of the counties' occupations, versus 72.8 for the state's.

Occupational employment projections for the Jefferson and Clallam counties are shown in *Figure 30*. Projections are for the two-county region and are based on estimated annual openings over the 1998-2008 period. The results are displayed as a percentage of total jobs. The data show that for the occupations listed, services will grow from 20 percent of all jobs to nearly 23 percent. Professional, paraprofessional, and technical jobs are expected to account for one-fifth of new jobs in the counties by 2008. This growth is related to providing services to a more wealthy and aging population, such as financial advice and tax preparation. The other occupation groupings change more modestly, with the decrease in agriculture, forestry, and fishing the most significant because it cements the decline of an era of natural resource-based economic dominance in the region.

Figure 31 on the next page shows wages by occupation levels one step more detailed than the levels used to calculate shares and projected shares. The data are based on the Occupational Employment and Wage Surveys (OES), a three-year-cycle survey conducted by the Employment Security Department, the most recent of which was completed in the Fourth Quarter of 1998. Again, the data cover the combined Jefferson and Clallam counties region. Though the surveys are somewhat dated, the oc-

Figure 30
Occupational Projections
Jefferson & Clallam Counties, 1998 & 2008
Source: Employment Security Department

	1998	2008
Total	100.0%	100.0%
Managerial & Administrative	7.8%	7.4%
Professional, Paraprof., & Tech	18.5%	20.1%
Marketing & Sales	10.2%	11.0%
Clerical & Admin. Support	12.9%	13.6%
Services	20.7%	22.8%
Ag., Forestry, Fishing & Related	5.9%	3.6%
Prec. Produc. ,Craft, & Repair	12.5%	11.0%
Operators, Fabric. & Laborers	11.4%	10.6%
White-Collar	70.2%	71.1%
Blue-Collar	29.8%	28.9%

cupations and wages presented offer a good perspective of the range of nonfarm occupations in the county and the levels of pay they command. Earnings are displayed at a per hour wage or annual salary. The rankings are in terms of numbers of actual employees at the time of the survey. Thus, retail salespersons were the most numerous occupational workers in the two-county area, while lawyers, physicians, and dentists are the most highly paid. For some occupations, local wages were not available and statewide averages were used instead.

Figure 31
Occupational Wages
Jefferson and Clallam Counties, 1998
Source: Employment Security Department

Occupational Title	Wage*	Rank**	Occupational Title	Wage*	Rank**
Managerial and Administrative			Physical Therapist	25.82	172
Financial Manager	23.1	49	Registered Nurse	20.81	18
Personnel, Train & Labor Relation Mgr	20.98	192	Licensed Practical Nurse	12.96	56
Purchasing Manager	18.82	193	Emergency Medical Technician	12.84	94
Marketing, Advertising, Public Rel Mgr	21.94	139	Optician, Dispensing & Measuring	11.81	189
Administrative Service Manager	20.61	93	Pharmacist	30.5	145
Education Administrator	29.27	66	Medical & Clinic Laboratory Technologist	18.85	121
Medicine & Health Service Manager	26	101	Medical & Clinical Laboratory Technician	14.95	123
Property & Real Estate Manager	10.62	48	Dental Hygienist	30.14	150
Construction Manager	20.17	102	Radiologic Technologist	17.3	183
Communication, Transport, Utilities Mgr	20.32	179	All Other Health Prof. Paraprof, Tech	15.73	104
Food Service & Lodging Manager	11.87	22	Writer & Editor	14.31	74
General Manager & Top Executive	24.09	6	Artist & Related	11.26	157
All Other Manager & Administrator	21.87	9	Designer, except Interior Design	11.75	115
Professional, Paraprofessional, & Technical			All Other Professional, Paraprof, Tech	17.56	41
Tax Preparer	17.35/s	167	Sales & Related		
Accountant & Auditor	18.35	38	First Line Supervisor, Sales & Related	14.67	7
All Other Financial Specialist	16.37	156	Insurance Sales Worker	17.03	141
Wholesale, Retail Buyer, except Farm	14.46	140	Broker, Real Estate	35.81	174
Personnel, Train & Labor Relation Spec	17.12	187	Sales Agent, Real Estate	14.66	50
Cost Estimator	21.33	162	Travel Agent	10.06	161
Comply Officer & Inspector, exc Const	15.72	176	Sales Rep, exc Retail, Sci, Related	16.81	126
All Other Management Support Worker	17.53	168	Salesperson, Retail	9.31	1
Civil Engineer, including Traffic	23.48	163	Salesperson, Parts	11.08	100
Drafter	15.86	160	Counter & Rental Clerk	7.78	83
Surveying & Mapping Technician	15.11	188	Stock Clerk, Sales Floor	8.37	54
Forester, Conservation Scientist	20.93	169	Cashier	8.17	3
Biological Scientist	21.08	125	All Other Sales & Related Occupation	12.57	110
Biologic, Agri, Food Tech, exc Health	10.74	128	Clerical & Administrative Support		
Psychologist	21.7	146	First Line Supervisor, Clerical	15.34	33
Social Work, Medical & Psychiatric	14.83	85	Bank Teller	8.86	55
Social Work, exc Medical & Psychiatric	15.67	43	Welfare Eligibility Worker, Interviewer	17.51/s	190
Residential Counselor	9.68	79	Hotel Desk Clerk	7.15	81
Human Service Worker	11.52	119	Library Assistant & Bookmobile Driver	10.01	134
Recreation Worker	8.9	87	Teacher Aide & Educational Asst, Clerk	8.72	45
Lawyer	30.81	57	Legal Secretary	11.3	170
Teacher, Elementary	37,570	17	Medical Secretary	10.24	116
Teacher, Secondary School	37,570	11	Secretary, except Legal & Medical	11.49	16
Teacher, Special Education	36,400	88	Receptionist, Information Clerk	8.92	23
Teacher, Vocational Education	16.44	103	Typist, including Word Processing	9.87	84
Instructor, Nonvocational Education	13.26	98	File Clerk	8.75	135
Instructor & Coach, Sport	13.7	120	Customer Service Represent, Utilities	14.65	171
All Other Teacher, Instructor	26,640	147	Bookkeeping, Accounting & Auditing Clerk	11.2	2
Librarian, Professional	19.2	191	Billing, Cost & Rate Clerk	11.05	136
Technical Assistant, Library	11.66	144	General Office Clerk	9.69	10
Vocational & Educational, Counselor	19.23	153	Postal Mail Carrier	16.04	86
Teacher Aide, Paraprofessional	9.66	36	Dispatcher, exc Police, Fire & Ambulance	15.77	180
Physician & Surgeon	54.72	75	Stock Clerk, Stockroom or Warehouse	9.85	59
Dentist	34.93	107	Traffic, Shipping & Receiving Clerk	11.97	58
Veterinarian, Veterinary Inspector	26.26	109	All Other Clerical & Admin Support	9.93	60

**Wages are either hourly or annual*
***Ranking is by amount of employment per occupation, from highest (1) to lowest (193)*
/s = State data, no county data available

Figure 31 (continued)
Occupational Wages
Jefferson and Clallam Counties, 1998
Source: Employment Security Department

Occupational Title	Wage*	Rank**	Occupational Title	Wage*	Rank**
Services			Millwright	18.17	151
Housekeeping Supervisor, Institutional	8.98	131	Maintenance Repairer, General Utility	13.59	12
All Other Service Supervisor	12.8	24	Automotive Mechanic	14.19	28
Fire Fighter	13.56	130	Automotive Body, Related Repairer	13.09	62
Police Patrol Officer	18.89	148	Bus & Truck Mechanic & Diesel Specialist	15.85	89
Correction Officer & Jailer	16.91/s	27	Mobile Heavy Eq Mechanic, exc Engine	16.8	149
Sheriff & Deputy Sheriff	19.1	181	Electric Home Appliance & Power Tool	14.28	175
Guard & Watch Guard	9.27	99	Heat, A/C, Refrigeration Mech & Install	14.3	173
All Other Protective Service	12.41	95	Office Machine, Cash Register Servicer	13.07	152
Host & Hostess, Restaurant, Lounge	6.44	77	Tire Repairer & Changer	9.79	184
Bartender	7.23	34	All Other Mechanic, Installer & Repairer	16.62	112
Waiter & Waitress	5.85	8	Carpenter	16.75	4
Dining Room, Cafeteria & Bartender Help	6.63	52	Drywall Installer	16.49	68
Counter Attendant, Lunchroom, Cafeteria	6.51	73	Taper	15.98	122
Baker, Bread & Pastry	9.84	92	Electrician	19.14	39
Cook, Restaurant	8.21	30	Painter & Paperhanger, Constr & Maint	16.09	42
Cook, Institution or Cafeteria	9.57	64	Plumber, Pipefitter, Steamfitter	19.42	69
Cook, Fast Food	6.36	63	Carpet Installer	15.62	132
Cook, Short Order	7.77	51	Highway Maintenance Worker	16.52/s	133
Food Preparation Worker	7.12	13	Roofer	14.29	164
Combined Food Preparation & Service	6.22	19	Glazier	12.42	165
All Other Food Service Worker	7.64	142	All Other Const & Extract, exc Helper	15.05	177
Dental Assistant	12.29	71	Machinist	16.39	113
Medical Assistant	10.54	90	Cabinetmaker & Bench Carpenter	13.04	159
Nursing Aide, Orderly & Attendant	7.67	29	Operators, Fabricators & Laborers		
Home Health Aide	7.26	37	Sawing Machine Operator/Tender	12.63	97
All Other Health Service Worker	10.39	124	Laund, Dry-clean Mach Op/Tend, exc Pres	7.58	106
Maid & Housekeeping Cleaner	7.2	21	Paper Goods Machine Setter/Set-Up Op	14.94/s	44
Janitor & Cleaner, except Maid	8.99	14	Boiler Operator & Tender, Low Pressure	15.39	182
All Other Cleaning & Building Service	8.12	127	All Other Machine Operator/Tender	14.78	185
Hairdresser & Cosmetologist	7.22	26	Welder & Cutter	15.33	138
Amusement & Recreation Attendant	7.47	53	All Other Hand Worker	9.29	108
Personal Home Care Aide	7.69	96	Truck Driver, Heavy or Tractor-Trailer	14.32	5
Child Care Worker	7.54	20	Truck Driver, Light, incl Delivery & Rel	10.57	31
All Other Service Worker	8.07	158	Bus Driver, except School	11.61	82
Agriculture, Forestry, Fishing & Related			Bus Driver, School	12.09	46
First Line Supervisor, Agr, Forest, Fish	20.1	111	Driver/Sales Worker	11.21	70
Faller & Buckler	22.85	61	Captain, Water Vessel	24.42	178
Choke Setter	13.33	154	Service Station Attendant	7.57	76
Log-Handling Equipment Operator	17.38	15	All Other Transportation Related Worker	13.92	117
Logging Tractor Operator	16.25	47	Excavating & Loading Machine Operator	16.18	114
Forest & Conservation Worker	14.91	137	Grader, Bulldozer & Scraper Operator	18.56	155
Animal Caretaker, except Farm	8.48	143	Industrial Truck & Tractor Operator	11.8	118
Laborer, Landscaping & Groundskeeping	9.41	35	Operating Engineer	18	78
All Other Agricultural, Forestry, Fish	12.19	32	All Other Material-Moving Equipment Op	13.56	67
Precision Production, Craft & Repair			Helper, Carpenter & Related Worker	11.76	166
First Line Supervisor, Mechanic & Repair	20.32	91	Machine Feeder & Offbearer	11.6	105
First Line Supervisor, Constr & Extract	21.53	65	All Other Freight, Stock, Mat Move, Hand	9.18	80
First Line Supervisor, Production	19.76	72	Hand Packer & Packager	7.93	40
First Line Supervisor, Transportation	21.26	186	Vehicle Washer & Equipment Cleaner	7.8	129
			All Other Help, Labor, Matl Move, Hand	10.63	25

*Wages are either hourly or annual

**Ranking is by amount of employment per occupation, from highest (1) to lowest (193)

/s = State data, no county data available

INCOME

The following sections relate to income, which includes both wage and non-wage sources. The data are derived from the U.S. Department of Commerce, Bureau

of Economic Analysis. Income data are discussed in current dollars, unless specified as being real (inflation-adjusted) dollars.

Personal Income

Personal income (PI) is generally viewed as an important measure of regional economic vitality. The PI of an area is the income received by all the individuals who are residents of an area, regardless of where that income was earned. Conceptually, personal income captures all forms of income: wages, salary disbursements, transfer payments, retirement income, farm income, self-employed income, proprietors' income, interest income, dividend income, and rent, but minus contributions toward social insurance. By definition, business and corporate income are not included.

Total personal income in Jefferson County measured \$568.5 million in 1997, the most recent year for which complete data are available. The 1970-97 period saw the county's nominal total personal income increase by 278 percent, from \$150 million in 1970 to \$568.5 million in 1997. Moreover, nominal income grew along a relatively constant trajectory (see Figure 32). The county posted an average annual total personal income growth of 5.1 percent from 1970-97, compared to 3.82 percent statewide. Real income, however, fell by 0.19 percent during the period, although average growth was marginally positive, at 0.05 percent. However, real income

has shown a more positive growth trend recently, averaging 1.25 percent since 1990.

Dividing total personal income by resident population yields per capita Income (PCI). Per capita income is useful as an indicator of the character of consumer markets and of the overall economic well being of the residents of an area. PCI in Jefferson County displayed a more varied pattern of growth than total PI, as it rose 56 percent from \$14,140 to \$22,104 over the 1970-97 period (see Figure 33). The large swings in growth left the average annual PCI growth at a mere 1.7 percent from 1970 to 1997. It should be noted, however, that PCI is sensitive to changes in the resident population of an area, even when employment and wage growth are steady. In spite of the low average annual PCI growth rate, Jefferson County's ranked 11th in the state. The statewide average PCI for 1997 was \$26,451, up 66 percent from the 1970 level of \$15,883. Average annual growth in PCI for the state was 1.9 percent, slightly more than for Jefferson County. The national PCI data are included for the purposes of comparison. Although less than Washington PCI, the national PCI growth rate was more than Jefferson County's.

Figure 32
Total Personal Income
Jefferson County, 1970-1997
Source: Bureau of Economic Analysis

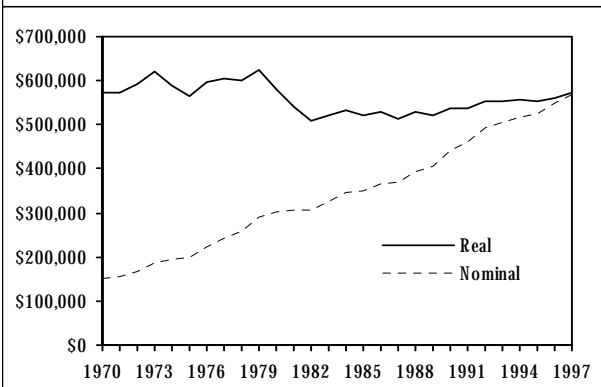
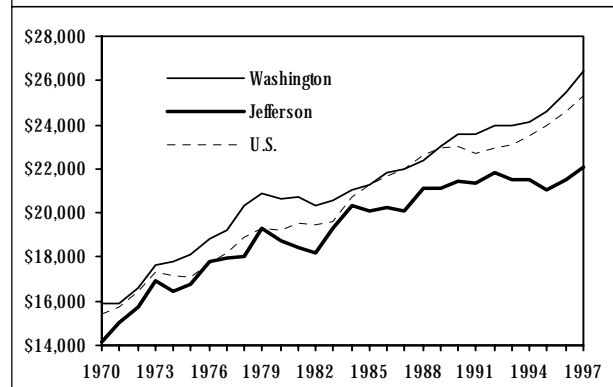


Figure 33
Per Capita Income
Jefferson, Washington, & U.S., 1970-1997
Source: Bureau of Economic Analysis

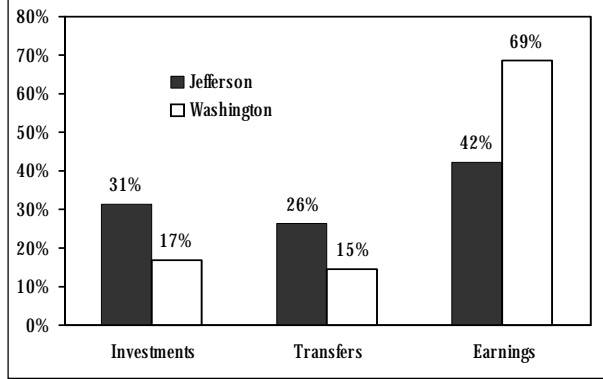


Components of Personal Income

As mentioned above, PI encompasses a number of income sources. These sources fall into three broad categories: earned income, transfer payments, and investment income. Earned income includes wages, salaries, proprietors' income, and other income. Transfer payments include income maintenance, unemployment insurance, and retirement payments. Finally, investment income includes interest, dividends, and rent. (Note: these categories do not sum to total personal income since earned income is adjusted for place of residence and social insurance costs.)

The composition of Jefferson County's total personal income in 1997 is compared to Washington State's in *Figure 34*. Earned income is the largest single source of income at both the county and state levels. However, the county's residents derive less income through earnings and more through transfers and investments than do residents of the state. Specifically, 42 percent of county PI is "earned," which is much less than the state's figure of 69 percent. This reflects the demographics of the resident population. As discussed above, the population of Jefferson County is aging, which means more recipients

Figure 34
Personal Income Components
Jefferson County and Washington, 1997
Source: Bureau of Economic Analysis



of transfer Social Security payments. Further, retirees are much more likely to have investment income than younger workers are. Investment income has grown faster than either earned income or transfers over the 1970-97 period.

Earned Income

As noted, the largest component of personal income in Jefferson County is earned income. Earned income is the sum of three components of PI: wage and salary disbursements, other labor income, and proprietor's income. Earned income is important because it shows how much income is derived directly from work and

work-related factors by residents of Jefferson County, regardless of where individuals work.

The county's earned income rose at an average annual rate of 3.4 percent from \$92.7 million in 1970 to \$220.8 million in 1998 (see *Figures 35 and 36*). Over the same time frame, the state's earned income rose at

Figure 35
Personal Income Components
Jefferson County, 1970-1997
Source: Bureau of Economic Analysis

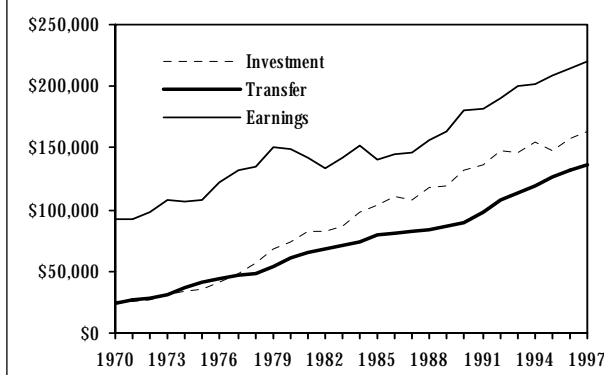
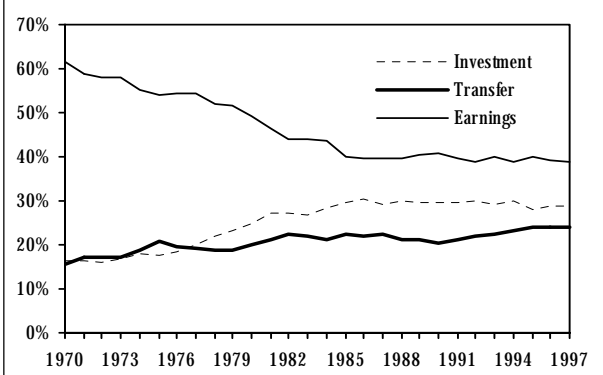


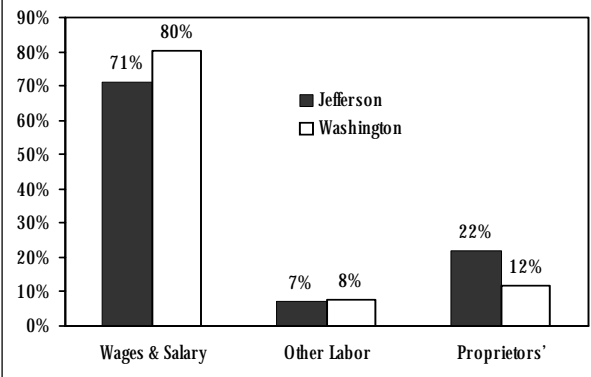
Figure 36
Personal Income Components Trends
Jefferson County, 1970-1997
Source: Bureau of Economic Analysis



an annual rate of 3.6 percent from \$41.7 billion to \$105.9 billion. At the county level, wage and salary disbursements accounted for 71 percent of earned income, versus 80 percent at the state level (see Figure 37). This difference is primarily in proprietors' income, defined as current-production income (including "in kind") of sole proprietorships and partnerships. In other words, this is income earned by small business owners. This source of income is much more prevalent in Jefferson County than in the state due to the concentration of family owned businesses and 'bed & breakfast' establishments catering to the tourist population.

Other labor income was the smallest component of earned income. Other labor income consists of employer payments to private pension and profit-sharing plans, private group health and life insurance plans, privately administered worker's compensation plans, and supplemental unemployment benefit plans. This component grew at a real annual rate of 6.1 percent over the 1970-98 period, almost twice the rate of earned income itself. Other labor income increased 370 percent over the 28-year period, from \$3.3 million to \$15.3 million—boosting its share of earned income from 3.5 percent to nearly

Figure 37
Components of Earned Income
Jefferson County and Washington, 1997
Source: Bureau of Economic Analysis



7 percent. The most significant factor in this growth was increased employer contributions to employee health care plans—which is not a real surprise given that health care costs were rising faster than the rate of inflation. Another factor was increased employer contributions to employee deferred compensation plans. Both are growing faster than wages and salaries.

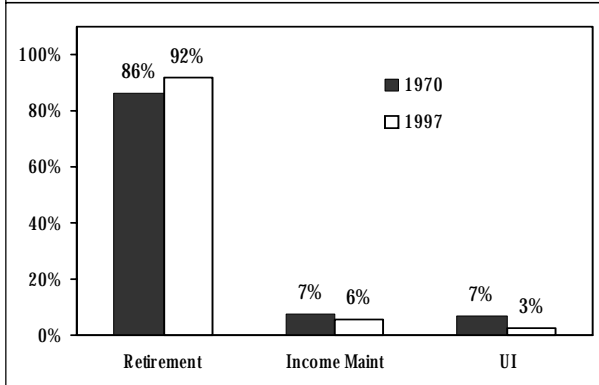
Transfer Payments

Transfer payments are generally viewed as payments by all levels of government (and some businesses) to individuals, in return for which no service is expected. Government transfer payments include retirement and disability insurance benefits, medical payments, income maintenance benefits, and Federal grants and loans to students. This source of income has grown from \$23.5 million and a 15 percent share of personal income in 1970, to \$136.9 million and a 24 percent share in 1997 (see Figures 35 and 36). The increase is primarily due to a steady increase in retirement income. As explained above, this reflects the increasing retirement-aged population of the county.

Comprised of social security, federal civilian and military retirement, and state and local government retirement, retirement-related payments are by far the largest aspect of transfer payments in Jefferson County (see Figure 38). The value of retirement income increased from \$20.2 million in 1970, which accounted for 86 percent of transfer income, to \$125.5 million in 1997, accounting for 92 percent of transfer income.

Income maintenance includes Temporary Assistance to Needy Families—the successor to Aid to Families with Dependent Children—general assistance, food stamps,

Figure 38
Components of Transfer Payments
Jefferson County, 1970 and 1997
Source: Bureau of Economic Analysis



and other payments regarded as welfare. Income maintenance in Jefferson County was \$7.6 million in 1998, which translated into 5.6 percent of total transfer payments. Despite rising from \$1.7 million to \$7.6 million over the 1970-97 period, income maintenance as a share of transfer payments actually fell slightly from 7.2 percent in 1970.

Unemployment insurance (UI) payments are, on average, the smallest component of transfer payments, but show the greatest degree of volatility owing to the ups and downs of business cycles and subsequent expansions and contractions in the labor market. Like income maintenance, UI has fallen as a percentage of

total transfer payments, even as the dollar amounts have increased. Total UI payments for 1997 were \$3.8 million, making up 2.7 percent of total transfer payments, which compares favorably to the state's 3.4 percent of transfer payments.

Investment Income

Collectively called investment income, dividends, interest, and rent make up the final part of personal income. The investment vehicles usually revolve around stock or bond purchases, interest on checking and saving accounts or loans, and income from rental properties. The most recent year for which these data are available is 1997.

Investment income grew at an average annual rate of 7.4 percent over the 1970-1997 period (*see Figures 35 and 36*). However, in terms of its share of personal in-

come, most of the growth was between 1970 and 1986, during which time the share value increased from 16.5 percent to 30.4 percent. Average annual growth between 1970 and 1986 was a robust 10 percent. That took the county's investment income in real terms from \$95 million to \$161.2 million. Between 1986 and 1997, interest income grew at an average annual rate of 3.7 percent, bringing real investment income to \$165.4 million. Investment income represented 28.9 percent of personal income in 1997.

EMPLOYMENT SERVICES AND ECONOMIC DEVELOPMENT

Workforce Development

The *Workforce Investment Act (WIA)* of 1998 replaced the Job Training Partnership Act (JTPA) of 1982 on July 1, 2000. The purpose of WIA is to provide training, education, and other services that prepare all individuals, not just youth and unskilled adults, for current and future jobs. It is guided by several principles: universal access, individual empowerment, streamlined services, state and local flexibility, strong local role, increased accountability, and improved youth programs. It is upon this legislation that the Employment Security Department and other providers base their training and employment service programs.

The Olympic Consortium. The Olympic Consortium is the regional job training organization that oversees the Workforce Investment Act's activities in Kitsap, Jefferson, and Clallam counties. Among the main functions of the Consortium are certifying eligible training providers, workforce development policymaking, and certifying WorkSource Career Development Centers, including that in Jefferson County. The Olympic Consortium is located at 614 Division Street, Mail Stop 23, Port Orchard, Washington 98366. Staff can be reached by phone at (360) 337-7185, by fax at (360) 337-7187, or by email at pcavanaugh@pic.kitsap.wa.us. The Consortium's website address is www.esd.wa.gov/ws/olympic.

Port Townsend Career Development Center. The Port Townsend Career Development Center (CDC) operates on a smaller scale than a WorkSource Center and is run by service providers who focus their efforts on specific populations or services. They will be able to provide linkages to core services to anyone entering the system at that site or through Internet linkage. The CDC might include community-based organizations, local offices of state agencies, and education and training institutions. In terms of service, the CDC must:

- provide all the required core services either through staff or through a linkage on Internet or other electronic linkages;
- provide at least one of the required programs directly on site;

- provide all of the self-service activities and some of the group and individual activities offered at a Center;
- provide access to WorkSource services offered elsewhere in the system;
- provide referrals for services not provided through the One-Stop or WorkSource System.

The Port Townsend CDC, in collaboration with the Olympic Consortium, offers core services that are available to all job seekers and employers. Those services include the following:

- Initial assessment to evaluate job readiness based on job skills, experience, aptitudes, interests, and abilities.
- Job counseling to help customers determine what services are available and best use of the information.
- Job referral and placement providing access to available jobs and posting of resumes.
- Employer services that provide access to labor market information, recruitment, screening, and referral of qualified applicants.
- Information and referral to services such as housing, food, and medical assistance.
- Information on training and retraining programs such as basic skills, literacy, occupational skills training, and apprenticeships.
- Labor market information on current occupational supply and demand and occupational wages.
- Computers with Internet access.
- Access to a telephone to file for Unemployment Insurance benefits.
- Translation services to customers in their first language using AT&T services or the Internet.

The program offerings (eligibility required) will eventually include at least one of the following:

- WIA Title I (adults, dislocated workers, youth, and national programs)
- Title V of the Older Americans Act
- Veterans' Employment Programs
- Claimant Placement Program
- Worker Retraining
- Post Secondary Vocational-Technical Programs
- Vocational Rehabilitation

- Welfare to Work
- Adult Basic Education Programs
- ESL Programs
- Worker Profiling
- Migrant Farm Worker Services
- NAFTA/Trade Assistance Act
- HUD Employment & Training
- Early Intervention services to potentially dislocated workers
- Rapid Response to plant closures
- WorkFirst (employment services only)
- Community Services Block Grant

Youth 14 and older along with adults 18 and older and dislocated workers may qualify for more intensive WIA activities. If eligible, individuals may be able to access vocational training, on-the-job training, basic skills remediation, and/or work experience jobs.

The Port Townsend Career Development Center is located at 1002 Lawrence Street, Port Townsend, Washington 98368. Its office hours are 8:00 a.m. to 5:00 p.m., Monday through Friday. Staff can be reached by phone at (360) 385-5564 or by fax at (360) 379-5035.

Economic Development

Economic Development Council (EDC) of Jefferson County. The EDC, a private, nonprofit corporation, facilitates the strengthening of existing enterprises and the development of new economic opportunities for the residents of Jefferson County. The EDC's strategic work plan is guided by community goals, values, and resources, as expressed in local comprehensive plans.

The EDC offers programs and services designed to:

- support the creation of new businesses;
- assist existing businesses as they expand;
- promote Jefferson County to investors and entrepreneurs interested in relocating their businesses;
- create a healthy environment for business.

Founded in 1983, the EDC currently has a membership of over one hundred and fifty businesses and individuals. EDC policy is formulated by a Board of Directors comprised of local business people and public sector representatives and is implemented by a professional staff.

Services and programs of the EDC can be divided into four categories: (1) business counseling and entrepreneurial training, (2) business data and demographics, (3) financing assistance and (4) expansion and recruitment.

Business Counseling and Entrepreneurial Training. Through its affiliations with the Small Business Development Center program of the U.S. Small Business Administration, Washington State University and the Service Corps of Retired Executives, one-on-one counseling is available to small business owners as well as entrepreneurs interested in starting their own businesses. EDC staff and counselors are available to assist in the development of business plans and financial projections. The EDC also conducts management and training seminars on topics of interest to the local community.

Business Data and Demographics. The EDC houses a library of business statistics, local, state and national demographics, regulatory information, economic development program materials, and other sources of information relevant to the Jefferson County business community. Business owners and entrepreneurs can use our materials to identify local sources of supply, potential customers, and new market opportunities. Our library also contains many reference materials useful to local residents interested in developing business plans for their new or existing businesses.

Finance. Through the EDC, small businesses can access a number of local, state, and federal financial assistance programs. These include guarantees through the Small Business Administration, state-sponsored programs like the Coastal Loan Fund and other revolving funds, and private sector development programs. The EDC also provides technical and loan packaging assistance.

Expansion and Recruitment. For local businesses seeking to expand or modernize their facilities, or companies interested in relocating to Jefferson County, the EDC offers assistance and information on:

- public and private business loans;
- business permits and licenses;
- demographic data;
- wage and tax rates;
- site locations and costs;
- labor availability and training programs;
- tax incentives.

For more information on these programs and services, contact the EDC by telephone at (360) 385-6767, by e-mail at info@edcjc.com, or visit their website at www.edcjc.com. The EDC offices are located at 734 Water Street, second floor in downtown Port Townsend. Their mailing address is P.O. Box 877, Port Townsend, Washington 98368. Office hours are 9:00 a.m. to 6:00 p.m., Monday through Friday.

Port of Port Townsend. Established in 1924, the Port of Port Townsend covers the entirety of Jefferson County. In 1997, the Port completed construction of the Port Townsend Shipyard, culminating years of planning and design. The new port offers many services for both the private and commercial boat owners. In addition to the shipyard, the Port also operates a co-located boat haven and industrial park, featuring a 425-slip marina and upland storage for over 200 boats. Travelift services include 60, 70, and 300-ton lifts, moving everything from a 20-foot sailboat to 300-ton yachts and work boats. The Port's facilities also provide easy access to the quality products and services offered by over 100 local marine trade businesses.

Most of the Port's efforts revolve around developing and managing the county's publicly-owned industrial property and the Jefferson County International Airport. The Port of Jefferson County maintains and operates three industrial development areas:

1. *Port Townsend Industrial Park.* Sited on 40-acres on Port Townsend Bay, the park is fully served by water and sewer and is zoned for light industry. Because of its mobile straddle lifts, the park is currently home to much of the county's marine trade industry.

2. *Jefferson County International Airport Industrial Park.* Located in the Tri-Area (Port Hadlock, Irondale, and Chimacum), the park is home to the Jefferson County International Airport (see Air Transportation) and a 150-acre site served by city water and zoned for light manufacturing.

3. *Quilcene Boat Haven.* Though principally a small marina located in southeast Jefferson County, the boat haven is also home to a shellfish hatchery and processing facility operated on 50-acres of property.

Port of Port Townsend business offices are located at 2601 Washington Street, Port Townsend, Washington 98368. Port staff can be contacted by telephone at (360) 385-0656 or by e-mail at info@portofpt.com. Their website is www.portofpt.com. Office hours are 7:30 a.m. to 5:00 p.m., Monday through Friday.

Mainstreet Project of Port Townsend. Comprised of local businesses and officials, the Port Townsend Mainstreet Project is a group committed to revitalizing the downtown Port Townsend area and preserving its historic character. The Mainstreet Project office and mailing address is 211 Taylor Street, Port Townsend, Washington 98368. Staff can be reached by telephone at (360) 385-7911 or by e-mail at mainstreetpt@olympus.net.

Port Townsend Chamber of Commerce. The Port Townsend Chamber of Commerce was established some time during the 1850s—thus making it one of the oldest such groups in Washington State. It was actively involved in virtually all major development efforts in the area, including the entire array of military, naval, and coast guard stations, federal lighthouse maintenance, U.S. Port of Entry and internal revenue collection, development of the timber industry, and water projects. The Chamber is located at 734 Water Street (Second Floor) Port Townsend, Washington 98368. Staff can be reached by telephone at (360) 385-7869 or by e-mail at ptchamber@olympus.net. Their web page can be viewed at www.olympus.net/ptchamber.

Rural chambers based in Jefferson County include:

Port Ludlow Chamber of Commerce
P.O. Box 65305
Port Ludlow, Washington 98365
(360) 437-0120
www.portludlowchamber.org

Port Hadlock/Tri-Area Chamber of Commerce
P.O. Box 1223
Port Hadlock, Washington 98339
(360) 379-5380
www.ohwy.com/wa/p/porthacc.htm

Quilcene Brinnon Chamber of Commerce
P.O. Box 774
Quilcene, Washington 98376
(360) 765-4999
www.northolympic.com/qb

Infrastructure. Infrastructure is integral to economic development. The following are the primary infrastructure elements currently in place in Jefferson County.

Roads and Highways. The principal route to and from Jefferson County is U.S. 101, which extends north and south near the county's east and west coasts as it circumnavigates the Olympic Peninsula. State Route 20 links Port Townsend and U.S. 101. The Washington State Ferry system's Port Townsend to Keystone run links Jefferson County and Island County. State 104 links Jefferson and Kitsap counties via the Hood Canal Bridge. Smaller local roads provide access to the Olympic National Park and Forest.

Air Transportation. Jefferson County International Airport is a general utility class airport with a 3,000-foot runway. Located 6 miles from Port Townsend, it is home

to the privately-owned aircraft Port Townsend Airways, which offers service to Sea-Tac International and other regional airports.

Marinas. There are six major marinas in Jefferson County—Port Townsend, Port Ludlow, Pleasant Harbor, Point Hudson, Port Hadlock, and Quilcene. Five of the six accommodate both fisheries products and pleasure craft (Pleasant Harbor handles only pleasure craft). There are also four barge slips at Port Townsend (one of which is owned by Port Townsend Paper).

Utilities. Major providers include:

- Telecommunications: U.S. West Communications (north county), FairPoint Communications (competitive local exchange company), Sprint (south county), and Century Tel (west end)
- Power: Puget Sound Energy, Mason County PUD No.1 (south county), and Clallam County PUD No.1 (west end)
- Water: City of Port Townsend and Jefferson County PUD No. 1
- Sewer: City of Port Townsend (sanitary sewer and waste water treatment for the city only; septic tanks used for the remaining areas of the county)
- Cable: Millennium Digital Media

SUMMARY

Jefferson County is situated on the scenic and climate-blessed Olympic Peninsula. Consequently, it has developed its economic base, in recent years, largely around the retirement and tourism industries. This economic base is in stark contrast to that which had existed for many decades: a manufacturing sector based on timber and timber products.

Although the manufacturing sector continues to provide 12 percent of total employment, based primarily on paper and allied products, its relative importance in the Jefferson County economy has fallen off in recent years. In the place of manufacturing have risen two dominant economic divisions: trade and services. In particular, the trade and services industries that are involved with providing services to both a growing retirement-aged population and tourists have grown tremendously over the past decade. Further, these primary economic drivers are expected to continue growing in through the coming years.

The labor force in Jefferson County has shown steady growth over the past several decades, although with some significant breaks from trend. That labor force has remained predominantly white in race, but is increasingly male and increasingly older. Unemployment in the county has fallen substantially over the period of the recent economic expansion, which has led to some real increases in wages.

The average covered wage has increased in real terms for the past 5 years, reaching \$21,255 in 1998. Personal income also has increased over the past 5 years, with per capita PI at \$22,104 in 1997. Much of the increase in income is due to the increasingly aged population's retirement income, which is comprised largely of transfers and investment income, both of which grew at rates over 4 percent in 1997. However, the recent trend of positive growth in real earned income should not be overlooked either. Earned income grew by 3.2 percent in 1997, while real earned income grew by 1.3 percent.

Thus, Jefferson County seems to have turned the corner on its economically troubled past. The recent years show a strong economy linked to a more diversified industrial base, overcoming the legacy of being subject to the severe swings in the timber and timber products markets. This does not mean that a cyclical downturn would spare the county hard times. Both the retirement- and tourist-linked industries of the county would suffer in the event of a major economic slowdown. The former because stagnant or falling real income requires a decrease in spending; the latter because tourism is especially sensitive to cyclical downturns. However, a more diversified economy is the sign of a growing and maturing economy.