
1999 Washington State Labor Market and Economic Report



The Right Connection for
Labor Market Information

JOB SERVICE Washington State
Employment Security
Labor Market & Economic Analysis

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Data appendices for selected chapters are available in hard copy, on diskette, and on the LMEA Internet homepage (<http://www.wa.gov/esd/lmea>). For more information, contact Gary Kamimura at (360) 438-3152 or the Labor Market Information Center at 1-800-215-1617.

Executive Summary

- Washington's economy was a mixed bag in 1999 as it transitioned from three years of exceptionally strong job growth to more normal labor market and economic expansion, the latter of which was still very respectable. That it took place in the midst of significant downsizing at Boeing was truly remarkable since never before in Washington's history have Boeing and the state not moved in tandem. This time, the rest of the economy was scarcely affected and the resulting momentum carried the state to all-time highs.
- Temporary help services and computer data processing and software, the state's two leading growth sectors of 1997-98, continued to build sharply in 1999. Temporary help services employment jumped another 7 percent after essentially doubling since 1990. Employment in computer processing and software, which includes Microsoft, has more than tripled in the 1990s to 50,000+ in 1999. Gains in social services, finance, health care, and public and private education round out the top growth industries in 1999, each generating employment gains for 3,000 or more.
- There has been a significant narrowing of the historical gap between the state and national jobless rates as Washington has seen healthy job growth, extensive restructuring and efficiency gains in its key sectors, aggressive use of temporary help, and a shift over time to a more service-based economy. The gap has narrowed at an accelerated pace in the past several years as healthy job growth coupled with a slower labor force growth has produced three consecutive years of unemployment below 5 percent in a peacetime economy—an all-time record.
- Washington's seasonally adjusted jobless rate averaged 4.8 percent through October 1999, putting it on a path to match each of the previous two years that individually ranked as the lowest since the "Boeing Boom" in the late-1960s. This month-to-month picture is consistent with broader annual trends that show that Washington's current low rate of joblessness continues to be sustained by a healthy economy and slower labor force growth.
- Though seasonality, cyclical, and structural maturity are all present to varying degrees in Washington's economy, a key finding is that the shares of seasonal and structurally-mature employment have been subsiding; the former because the economy is diversifying, the latter because the major restructuring activity since 1990 has passed. Restructuring activity, however, may be on the rise again as the state's aerospace sector continues to lay off workers. Cyclical employment is up, but that is consistent with the fact that the state remains on the upside of the current business cycle. The situation could shift, however, as the state and national economies cool.
- Washington's labor force is expected to experience progressively lower rates of growth over the course of the current forecast period, though those rates are still expected to outpace the national norm, as the baby boom generation hits the traditional retirement age of 65 en masse around 2010.

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- Labor force participation rates in Washington are expected to peak in 2000, then subside through 2020 as the labor force ages dramatically over the forecast period (labor force participation rates are historically lower among older labor force participants).
 - Washington's nonagricultural employment is projected to expand at a decreasing rate over the current forecast period, though those rates are still expected to be higher than the national averages. Services is projected to be the strongest performer thanks to the computer and software component of business services while goods-production as a whole is projected to be well below average.
 - From an occupational perspective, new job creation is projected to be strongest in the professional, technical, and services fields in Washington over the current forecast period. Overall, the projected growth rates for the state's occupational sectors are consistent with those on the industry side, confirming that the state's economy will continue to shift toward services-producing activities.
 - Washington's total personal income was nearly \$160 billion in 1998, which translated into 6.7 percent real growth over the year. This was the strongest rate of real growth seen since 1978 and it also marked five consecutive years of increasing rates of personal income growth for the state since 1993. It also continues a pattern of personal income growth rates that emerged in the late 1980s in which the state outpaced the national average.
 - Washington's per capita income was \$28,066 in 1998, translating into over-the-year growth of 5.3 percent in real terms. This was the latest in a string of annually increasing rates of per capita income growth in Washington since 1993. The state's per capita income growth rate has exceeded that of the nation over the past three years, extending its lead over the national average to its highest level since the latter part of the 1970s.
 - Washington's average covered wage was \$33,063 in 1998, reflecting a tremendous 6.6 percent gain in real terms. This pattern has repeated itself for several years now, enabling Washington to not only close what has historically been a negative gap with the U.S. since 1985, but to surpass it as well. More importantly, the current run of strong average covered wage gains could well be signaling a break between the state's mature economy and its emerging economy.
 - Washington's real average hourly earnings remained rosy in 1998 with manufacturing, construction, and trade all continuing to post real gains. This positive picture continued within manufacturing as virtually all surveyed sectors experienced healthy gains. Additionally, the state's manufacturing sectors saw their average weekly hours worked expand in 1998 after contracting in 1997.

Labor Market and Economic Developments

Washington's economy was a mix of pluses and minuses in 1999. The period marked a transition from three years of exceptionally strong job growth to one of more normal labor market and economic expansion. The pace, nonetheless, remained very respectable. That it took place during a time of significant drawdown by the state's largest industrial employer was truly remarkable. Never before in Washington's history have Boeing and the state not moved in tandem. Secondary impacts have historically hit almost immediately both on the upside and on the downside. This time around, however, the rest of the economy hardly blinked and the resulting momentum carried the state to all-time highs.

Overall employment growth shifted during the course of the year from substantially above to basically matching the national average (see Figure 1). A sizable upward blip occurred early in the third quarter. However, the annual average for 1999 is expected to come in virtually unchanged from the cumulative nine-month year-to-date change of 2.0 percent compared to 4.1 percent in 1997 and 3.3 percent in 1998. The comparable national average is also tracking around 2.0 percent, which is little changed from 1997-98. While somewhat lower than recent experience, the current job pace is within half a percent of the state's long-run historic pattern evening out all the highs and lows over the past 50 years.

Within this setting, unemployment was virtually unchanged (see Figure 2). Washington's seasonally adjusted jobless rate averaged 4.8 percent in 1999—matching each of the previous

two years that individually ranked as the lowest since the "Boeing Boom" in the late-1960s. Three consecutive years of unemployment below 5 percent in a peacetime economy sets an all-time record. Only once during the Korean War of 1951-53 did the state achieve a similar feat. Certainly, three years of exceptional job growth is the principal

driving factor. But adding fuel to the fire has been the *birth dearth* cohort of the population that is checking labor force growth. Also, other economies across the nation are doing equally well if not better—cutting in-migration into the state sharply from the pattern earlier in the decade.

Figure 1
Nonagricultural Wage and Salary Employment Growth (Seasonally Adjusted)
Washington and United States, 1996-1999
Source: Employment Security Dept., Office of Financial Mgmt., & BLS

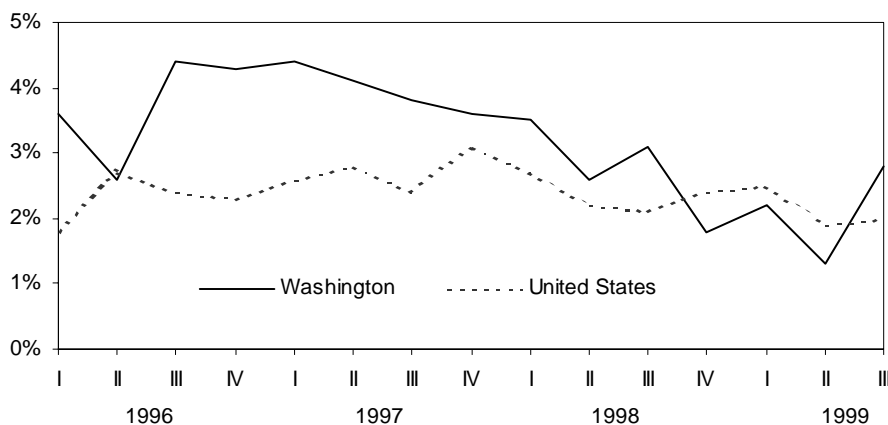
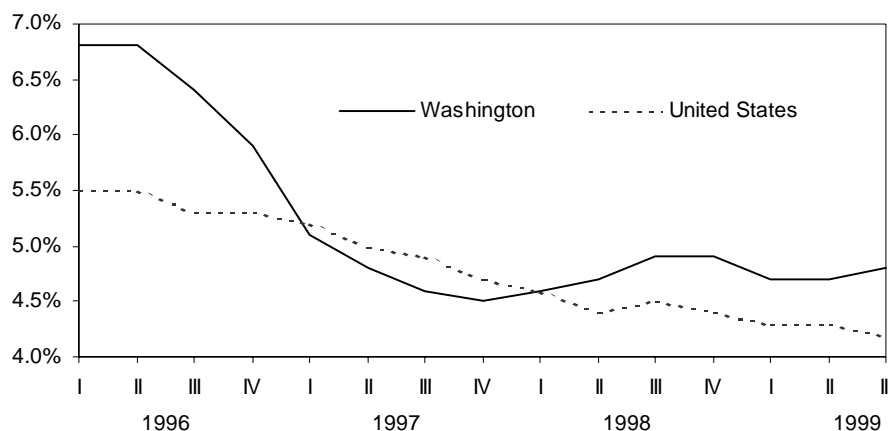


Figure 2
Unemployment Rates (Seasonally Adjusted Quarterly Averages)
Washington and United States, 1996-1999
Source: Employment Security Department, and Bureau of Labor Statistics



At this point in the business cycle, it is reasonable to assume that there is also sharp acceleration taking place in terms of churning or turnover in the economy as the active bidding process for workers intensifies. Employers that heretofore have had pretty much a captive work force—fast food outlets, eating and drinking places, and much of retailing—are having to scramble to fill openings. In turn, workers with skills in high demand are being actively pursued and actively moving up either internally or jumping from employer to employer. Many jobs are going unfilled, particularly in the high tech field, for want of qualified candidates. All this has led to one of the most active labor markets in Washington's history, despite some slowing in the rate of net new job creation.

Also significant is the narrowing taking place recently between the state and national jobless rates. Historically, the spread has been as much as four percentage points—the average in the 1970s was 2.2 percent and in the 1980s was 1.3 percent. Much of this relates to Washington's far greater than average seasonal gyrations that make for greater extremes in unemployment in much of the resource-based economies of the state during the course of the year. Washington has also been beset by sharper cyclical trends. But in the 1990s, the state-to-national differences have tightened to within half-a-percentage point of one another. And there is every reason to expect that this pattern will continue.

Three factors are essentially changing the historical relationships. One is the extensive restructuring and realignment that has taken place in many key Washington-based industries, namely lumber and wood products, aluminum, paper and allied products, shipbuilding, and finance. Inefficiencies have been weeded out and employment is far less volatile than in the past. Some of the "smoothing" in the broader economy relates to a second factor: aggressive use of point-

in-time temporary help rather than "see-saw" permanent hiring. This represents one of the most dramatic shifts in internal company staffing patterns in decades. The overall effect has been more stable core employment of the firm with seasonal additions hired as needed from the temporary help services sector.

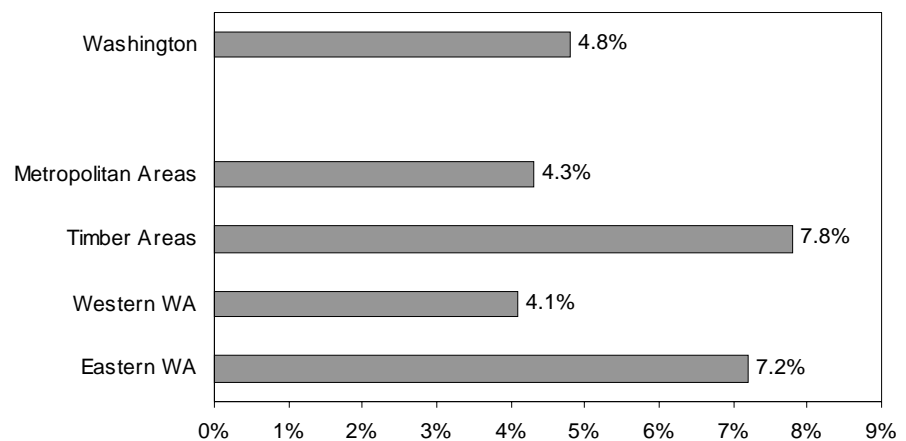
This, in turn, is contributing to a third driver: the structural shift over time to a more service-based economy. From three-quarters of the economy in 1980 and 77 percent in 1990, the services-producing sectors—as opposed to the goods-producing sectors—now constitute 81 percent of Washington's total employment base. Growth has been led by what is commonly called "producer-services"—finance, insurance, and real estate; transportation services; engineering and legal services; and business services including temporary help services and computer processing and software. All these tend to be more stable elements of the economy—both seasonally and cyclically—and each carries significant job multipliers as an important exporter of services from the region.

Certainly, the tightest labor markets continue to be centered in the central Puget Sound region. Unemployment in the Seattle-Bellevue-Everett PMSA has averaged

roughly 3.5 percent this year despite the loss of 19,000 jobs in aircraft and parts. Three years of booming construction and strong growth in services and trade continues to propel the economy. Some of this same momentum is spreading south into the neighboring Tacoma PMSA with equally strong growth in services and finance, insurance, and real estate impacting the adjoining Olympia area. Other notable metro areas include the Tri-Cities, which turned the corner economically in 1999, and Vancouver, which proceeds to march at a goodly clip.

Still, the *Two Washingtons* phenomenon continues to grip the state (see Figure 3). Higher unemployment and lower job growth characterizes great portions of the less diverse, heavily resource-based economies of the timber-dependent areas and much of the agricultural-dependent areas of eastern Washington. Overall jobless rates in 1999 averaged 7 to 8 percent compared to 4.8 percent for the state as a whole. The distribution is not much different from a year ago meaning the economies of these areas are essentially holding their own. However, the strong seasonal component inherent in the economic base of both regions will continue driving a spike above the statewide average in terms of area joblessness.

Figure 3
Regional Unemployment Rates (Percent of Civilian Labor Force)
Washington State, January-September 1999 Average
Source: *Employment Security Department*



Virtually all of the current job growth—aside from normal seasonal patterns—is coming in nonmanufacturing (see Figure 4). The shift from a manufacturing-driven employment market began in late-1998 coincident with the timing of Boeing's job turnaround. After adding roughly 1,100 workers a month in the two-and-a-half years to June 1998, Washington's aircraft and parts industry shed an average of 1,300 workers a month through September of this year. Employment is down roughly 19,000. On the other hand, the rest of manufacturing has shown little change. Aluminum is off due to a protracted strike at Kaiser, and lumber and wood continues trending down.

But offsetting gains have shown up in machinery and other manufacturing. Meanwhile, the rest of the economy has bolted ahead. Both construction and business services, in fact, picked up speed coming into 1999 after tumultuous growth in 1997-98. The new Mariners stadium and other large commercial projects certainly figured importantly in this regard. However, a booming housing market and ongoing commercial and industrial development in the Puget Sound area basically set the pace. Job growth in construction in 1999 was running two to three times greater than that of the total economy with no let-up in sight. In addition, strong gains were posted in eating and drinking places as working

families and individuals opted to eat out regularly as real disposable incomes mounted.

Two leading growth sectors of 1997-98 continued building sharply in 1999 (see Figure 5). Temporary help services employment in the state jumped another 7 percent after essentially doubling since 1990. Employment varies widely; the annual average wage is \$24,000. Also leading the pack is computer processing and software. Employment in this sector has more than tripled in the 1990s—going from roughly 15,000 in 1990 to better than 50,000 in 1999. As a result, its share of the economy has mushroomed from a little over half a percent to roughly 2 percent of total nonfarm wage and salary employment in nine years. The ratio of aircraft jobs to computer services jobs is now less than 2-to-1 compared to 8-to-1 in 1990 and job growth continues in the 7-to-8 percent range at a mean average wage of \$176,000 including stock options.

Gains in social services, finance, health care, and public and private education round out the top growth industries in 1999. Each of these generated a good 3,000 plus employment increase with wages ranging from \$16,000 to \$46,000 a year. As construction and the producer services sectors expanded sharply over the year, the drag on the economy generated from the pullback in aircraft and parts became increasingly isolated. At no time in history has there been such a seeming disconnect between the gyrations in aircraft and parts and the rest of the economy. In fact, if aircraft and parts is removed from the equation, the difference in growth rates over the past three years is only about half of one percent: 3.4 percent in 1997, 3.1 percent in 1998, and 2.8 percent in 1999.

In the last go-around of aircraft and parts layoffs in the early-1990s, total statewide employment growth skidded abruptly in the first year. Job growth on a seasonally adjusted basis dove from an annualized rate of 6.2 percent

Figure 4
Manufacturing and Nonmanufacturing Employment Change
Seasonally Adjusted Quarterly Averages (Index IQ1996=100)
Washington State, 1996-1999
Source: *Employment Security Department*

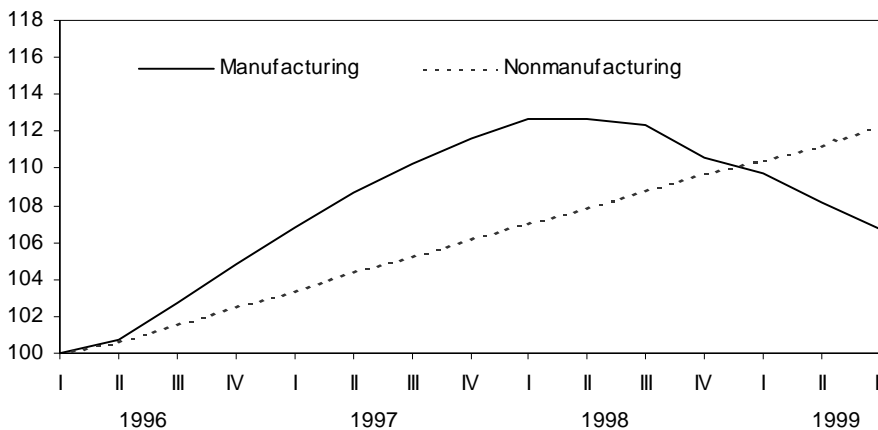


Figure 5
Leading Growth Sectors
Washington State, 3rd Quarter 1998 - 3rd Quarter 1999
Source: *Employment Security Department*

Industry	Average Covered Wage	Job Gain	Percent Change
Construction	\$33,700	8,600	6%
Eating and Drinking Places	\$11,400	6,300	4%
Temporary Help Services	\$24,000	3,600	7%
Computer Processing and Software	\$175,800	3,400	7%
Social Services	\$16,000	3,200	5%
Finance	\$46,300	2,900	5%
Health Care	\$30,500	3,300	2%
Public and Private Education	\$27,800	8,000	4%

in the first quarter of 1990 to less than one percent in the fourth quarter as aircraft and parts payrolls fell initially by 3,000 workers. Compounding the situation at that time was a national economy that slipped into recession starting in July. This time around, the cumulative 15-month job loss is touching 20,000 yet the rest of the economy is booming. The Asian Crisis has turned around faster than anyone expected, the national economy continues strong, and consumer confidence—both nationally and regionally—is gyrating around all-time highs.

Adding to performance is record-breaking output (*see Figure 6*). Regional lumber production was up 8 percent cumulative through the third quarter and all-time high fisheries catches were recorded in Alaska. Boeing's commercial production peaked in 1999 at a record 640 aircraft and the drive for increased efficiencies is paying off (*see Figure 7*). Strong financial performance returned to the commercial airplane division in the third quarter after horrendous losses a year before. Other drivers of the Washington economy have taken off as well (*see Figure 8*). Sales of office and computing equipment nationally jumped 14 percent in real terms atop double-digit gains for six consecutive years. Overall business fixed investment rose 8 percent. National housing starts were up an estimated 5 percent. Export markets also improved.

Financial conditions of households were buoyed in 1999 by a combination of strong earnings growth and sharp investment appreciation. A soaring stock market served as a major contributor. Housing values in many markets also swelled sharply. Washington's median household income, according to the Census Bureau, jumped 11 percent in 1998—the highest of any state in the nation. While these data are sample-based and thus subject to a significant margin of error, the underlying trend in actual

wages paid supports an equally bullish income picture for the state. Mean average covered wage growth shot up strongly in 1998 from 6.6 percent to 7.8 percent—the biggest annual increase in nearly two decades.

Certainly, the pressure of the labor markets is the defining element. There

is an exact inverse correlation between unemployment and wage growth (*see Figure 9*). But beyond the generalities of the economy, the next question has to do with the distribution of the wage gains by industry to determine the principal leaders and laggards. To this end, employment was grouped by the

Figure 6
Weak Employment Sectors
Washington State
Source: *Employment Security Department*

Industry	Average Covered Wage	Job Loss	Period Covered
Aircraft and Parts	\$54,000	-19,400	6/98-9/99
Lumber and Wood Products	\$34,900	-2,200	9/97-9/99
Seafood Processing	\$36,700	-3,300	4/96-4/99

Figure 7
Boeing Aircraft Production
Quarter Unit Output, 1996-1999
Source: *The Boeing Company*

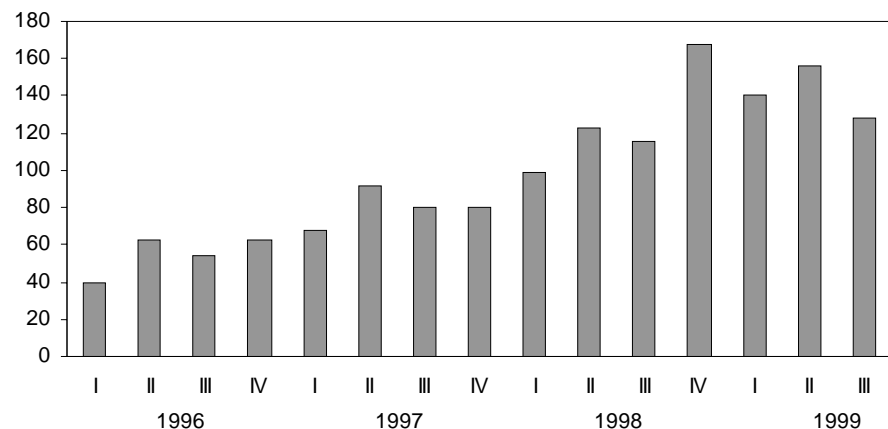


Figure 8
Key Drivers of the Washington Economy, 1999
Percent Change from a Year Ago
Source: *Employment Security Department*

	Period Covered	Percent Change
U.S. Business Fixed Investment	Jan.-Sep.	8%
Office and Computing Equipment		14%
Lumber Production (Western Region)	Jan.-Aug.	8%
Douglas Fir Lumber Prices		15%
U.S. Softwood Lumber Exports		13%
National Housing Starts		5%
Cash Receipts from Farm Markets	Jan.-Jun.	-4%
Wheat Production	est. 1999	-21%
Wheat Prices	Jul.-Sep.	19%
Median Household Income	1997-98	11%
Washington-Based Exports	Jan.-Jun.	7%

Figure 9
Average Covered Wage Growth Rates
Washington State, 1993-1998
 Source: *Employment Security Department*

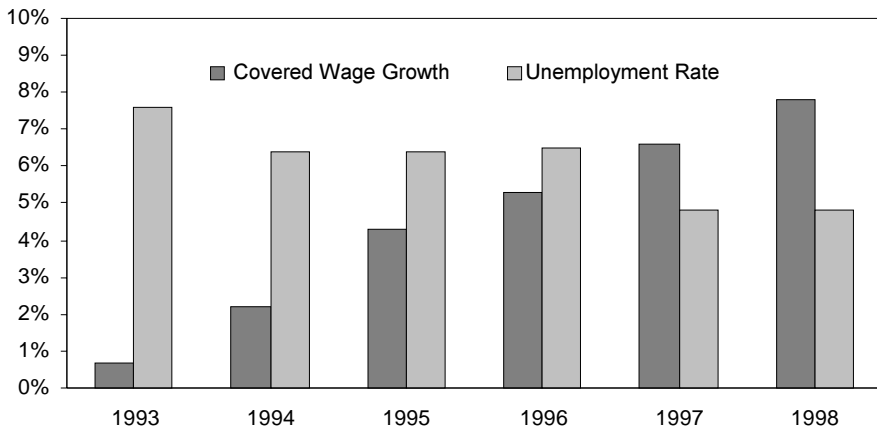


Figure 10
Average Wage Change Distribution
 Employment Grouped by Industry Average
Washington State, 1998
 Source: *Employment Security Department*

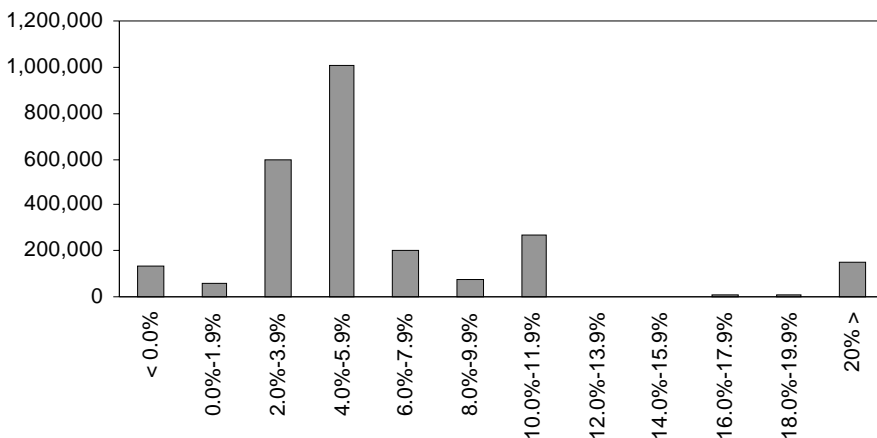
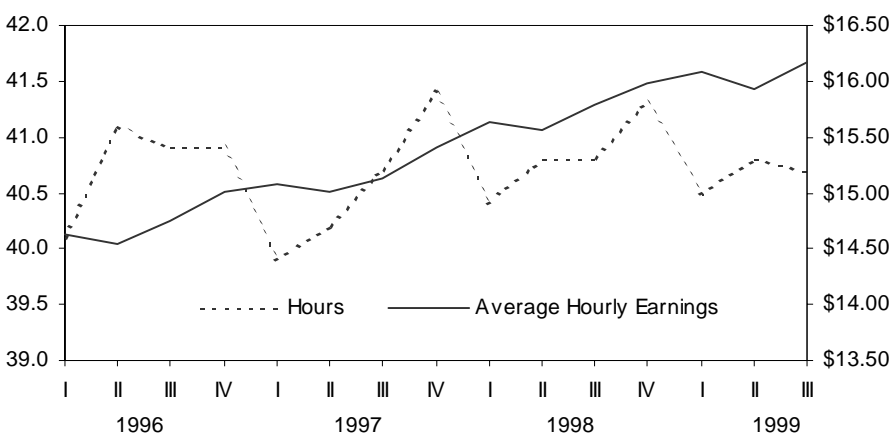


Figure 11
Hours and Earnings in Manufacturing, Quarterly Averages
Washington State, 1996-1999
 Source: *Employment Security Department*



industry average to give appropriate weight to the individual industry's performance. The results were very enlightening. In general terms, the greatest concentration of employment in the state was in the 4-to-6 percent range—roughly a million workers—with lesser numbers reported both above and below (see Figure 10).

Two significant outliers, however, pulled the average forward. One centered in the 10-to-12 percent range—approximately 270,000 workers—and the other showed up at 20 percent and over—roughly 150,000 workers. The former included industrial machinery and computer equipment manufacturing, commercial banking and security brokers, and, surprisingly, eating and drinking places. Obviously, high tech manufacturing was bidding aggressively for skilled workers. And the strength of the economy and, in turn, the stock market was driving up wages at banks and brokerage houses. The significant run up in base wages at eating and drinking establishments logically reflected chronic entry-level worker shortages and the over-the-year hike in the state's minimum wage—both from a very low base.

Looming almost as large was the 20 percent and over category. This outlier centered entirely in business services and, more specifically, prepackaged software. Stock options are included as part of the prevailing wage base. And the huge runup in Microsoft stock propelled the sectoral change. Without these dynamics, the state's overall wage gain for 1998 would have come in at about 5 percent—still significant but closer to the 1996-97 average. Meanwhile, wages of production workers continued to climb in 1999. Manufacturing payrolls posted a 2.5 percent year-to-year increase through the third quarter with construction and trade up 4.5 percent and 6.0 percent, respectively (see Figure 11).

Nationally, total compensation was running 3 percent higher a year ago—not much change from 1997-98—but

Figure 12
Employment Cost Index, Annual Percent Change
United States, 1996-1999
 Source: U.S. Bureau of Labor Statistics

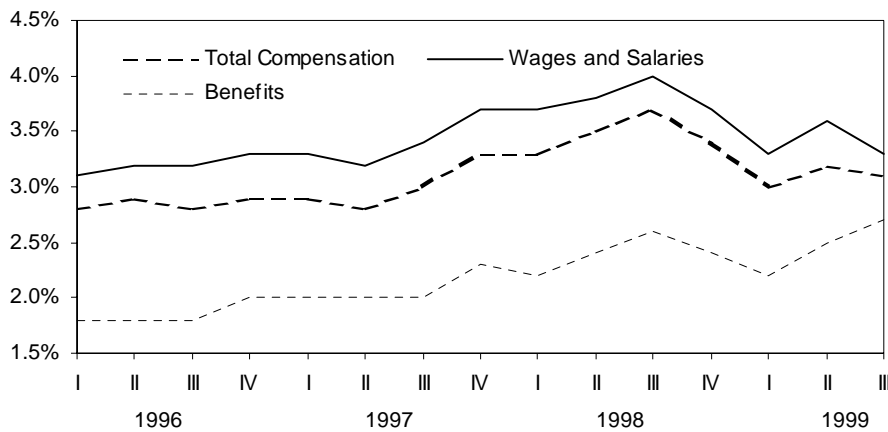


Figure 13
Consumer Price Index, Annual Percent Change
Seattle and United States, 1996-1999
 Source: U.S. Bureau of Labor Statistics

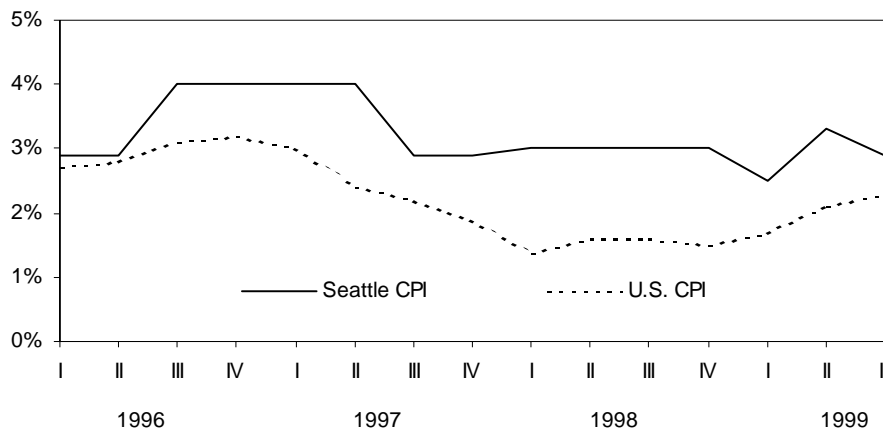
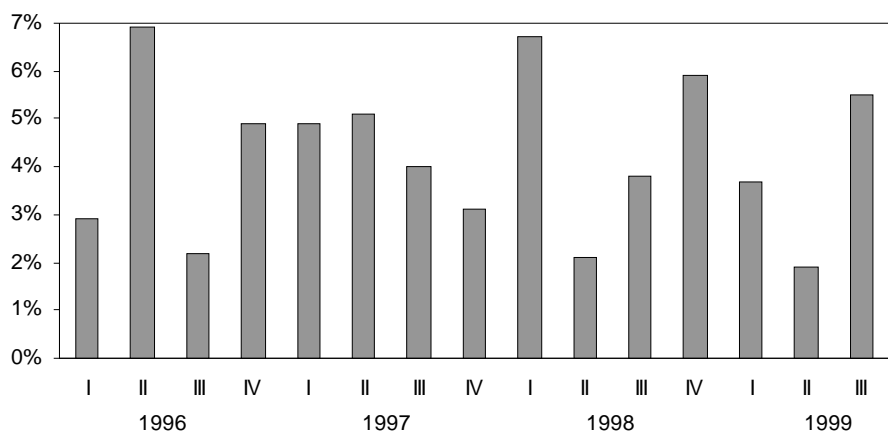


Figure 14
Real Gross Domestic Product Change; % Chg. at Seasonally Adjusted Annual Rates
United States, 1996-1999
 Source: U.S. Bureau of Economic Analysis



with an acceleration in benefit costs which were up 2.7 percent over the year in the third quarter—the highest in four years (see Figure 12). Strong productivity growth has basically offset any protracted wage hikes with the net result being flat-to-declining overall price performance in 1999. Consumer prices nationally were running about 2 percent higher than a year ago (see Figure 13). The Seattle area index is up about 3.0 percent.

On balance, the national economy continues to look good. Growth of real Gross Domestic Product soared in the fourth quarter of last year (see Figure 14). The pace eased off in the first quarter, skidded sharply in the second quarter, and then rebounded strongly again in the third quarter. Personal consumption expenditures rose at a solid 4.6 percent—down only slightly from the 5.1 percent growth in the second quarter. Slower inventory buildup and a worsening trade deficit were largely responsible for the second quarter pullback but proved less of a drag in July-to-September. Strong consumer spending and solid gains in business outlays for plant and equipment have continued propelling the economy with no end in sight.

A combination of higher-than-targeted growth and progressively tighter labor markets, however, caused the Federal Reserve to shift gears abruptly starting in June. Gradually tightening monetary policy replaced a generally accommodating stance that had been in place for nearly a year (see Figure 15). Short-term interest rates were heightened a quarter percentage point in three successive steps as a pre-emptive strike against inflation. Mortgage rates had already moved up in the first and second quarters from lows in late-1998—from 6.7 percent to 7.2 percent. And then inched up further to 7.8 percent in the third quarter. The prime rate has now shifted from 7.8 percent back up to 8.5 percent—meaning higher interest costs to both households and business from here on out.

Figure 15
Interest Rates, Average Quarterly Percentage Points
United States, 1996-1999
 Source: *Federal Reserve*

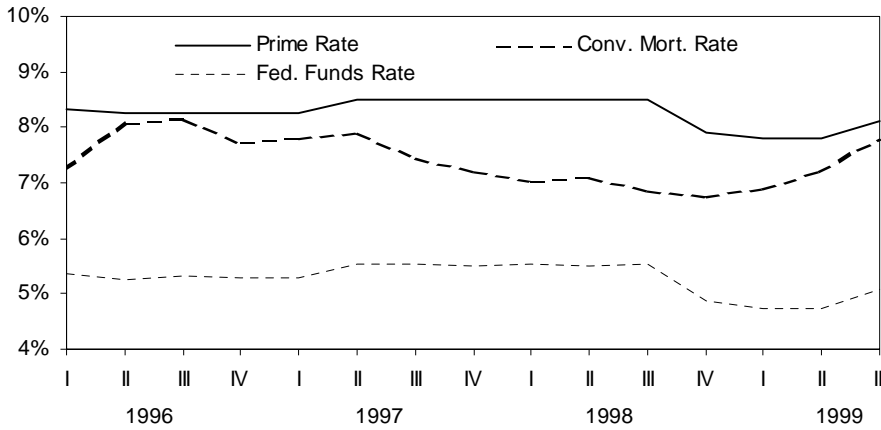


Figure 16
Consumer Confidence Index (Index IQ1996=100)
United States, 1996-1999
 Source: *Conference Board*

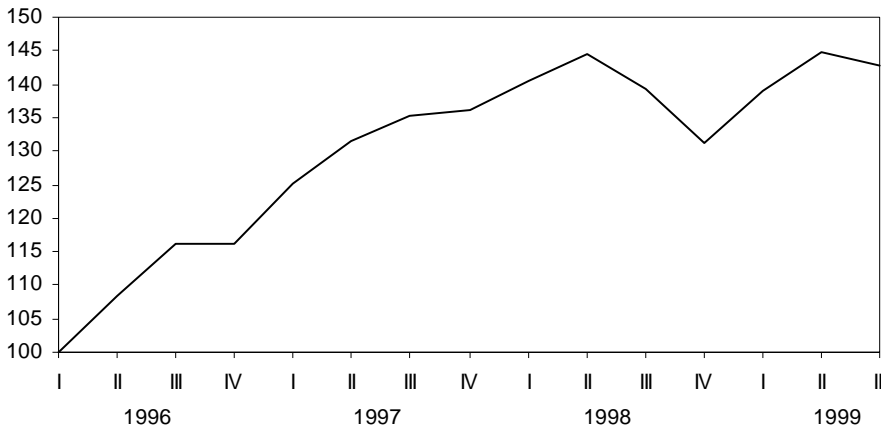
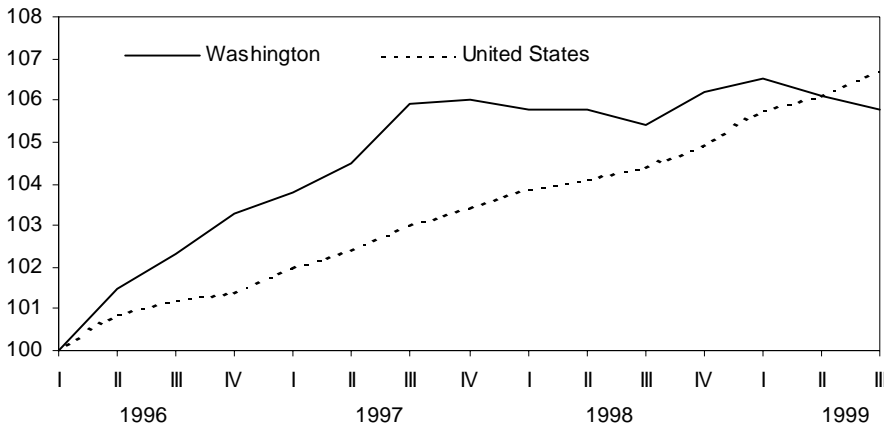


Figure 17
Index of Leading Indicators (Index IQ1996=100)
Washington and United States, 1996-1999
 Source: *Office of the Forecast Council*



The consensus is that the Fed will stay the course through the balance of the year. Economic data are likely to be distorted as businesses adjust to any potential Y2K problems. Inventories are expected to rise in the fourth quarter as a result. Two forward-looking indicators are showing some hesitancy after peaking earlier in the year—the U.S. Consumer Confidence Index and the Washington Index of Leading Indicators (see Figures 16 and 17). But both are vacillating around a very high base and both still look positive. If the fourth quarter plays out as expected, 1999 will go on the books as another year of very solid economic performance. This has been truly a remarkable run—for the state as well as the nation. The economies of both Washington and the U.S. have now posted an expansion in terms of duration, depth, and staying power that is unprecedented in postwar history.

Unemployment and Its Dimensions

State and National Unemployment Rates

As mentioned, there has been a significant narrowing of the historical gap between the state and national jobless rates (see Figure 18). Historically, the spread has been as much as four percentage points, largely due to Washington's higher than average seasonality. Washington has also had sharper cyclical trends. In the 1990s, however, the state-nation difference tightened to within one half of one percentage point due to extensive restructuring and efficiency gains in key Washington industries, aggressive use of temporary help instead of permanent hiring, and the shift over time to a more service-based economy. Notably, three consecutive years of unemployment below 5 percent in a peacetime economy is an all-time Washington record. Only once during the Korean War (1951-53) did the state achieve a similar feat. Three years of healthy job growth is the principal factor, but

contributing to the situation is the *birth dearth* cohort of the population that is slowing labor force growth. Furthermore, other economies across the nation are doing equally well or better, a factor that has sharply curtailed in-migration into Washington compared to the pattern earlier in the decade.

Washington's Monthly Unemployment Rates

Washington's monthly unemployment rates were virtually unchanged when viewed month by month in 1998 and 1999 (see Figure 19). In fact, Washington's seasonally adjusted jobless rate averaged 4.8 percent through October 1999, putting it on a path to match each of the previous two years that individually ranked as the lowest since the "Boeing Boom" in the late-1960s. This month-to-month picture simply serves to buttress the points made with respect to the broader annual trend—that Washington's current low rate of

joblessness continues to be sustained by a healthy economy and slower labor force growth.

Northwest Unemployment Rates

At 4.8 percent, Washington's unemployment rate continued to be the lowest among the Northwest states in 1998 (see Figure 20). The spread narrowed a bit over the year, however, as Washington's jobless rate remained unchanged at 4.8 percent while jobless rates fell slightly in most of the

Figure 18
Annual Average Unemployment Rates
Washington and United States, 1970-1998
Source: Employment Security Department

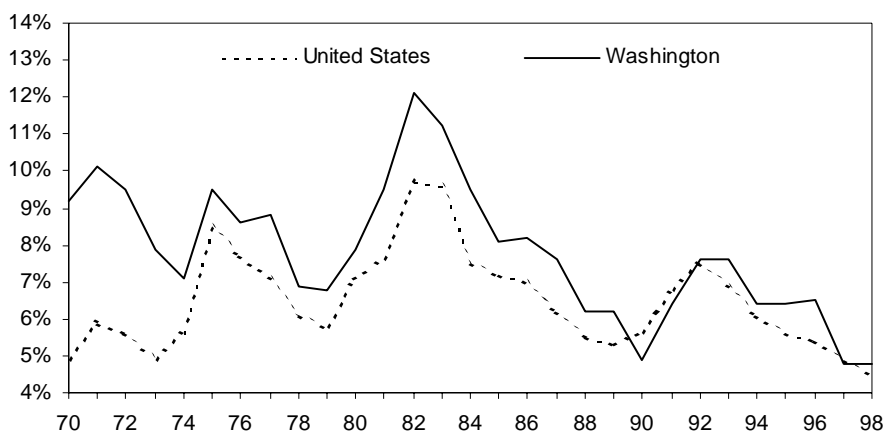


Figure 19
Annual Average Unemployment Rates
Washington and U.S., 1970-1998
Source: Employment Security

1998	WA	U.S.
January	4.6%	4.6%
February	4.5%	4.6%
March	4.6%	4.7%
April	4.6%	4.4%
May	4.7%	4.4%
June	4.8%	4.5%
July	4.8%	4.5%
August	4.8%	4.5%
September	5.0%	4.5%
October	4.9%	4.5%
November	4.7%	4.4%
December	4.9%	4.3%

1999	WA	U.S.
January	4.7%	4.3%
February	4.9%	4.4%
March	4.6%	4.2%
April	4.5%	4.3%
May	4.7%	4.2%
June	4.8%	4.3%
July	4.8%	4.3%
August	4.7%	4.2%
September	5.0%	4.2%
October	4.8%	4.1%
November	n/a	n/a
December	n/a	n/a

Figure 20
Unemployment Rates

Northwest States and United States, 1998

Source: *Employment Security Department & U.S. Bureau of Labor Statistics*

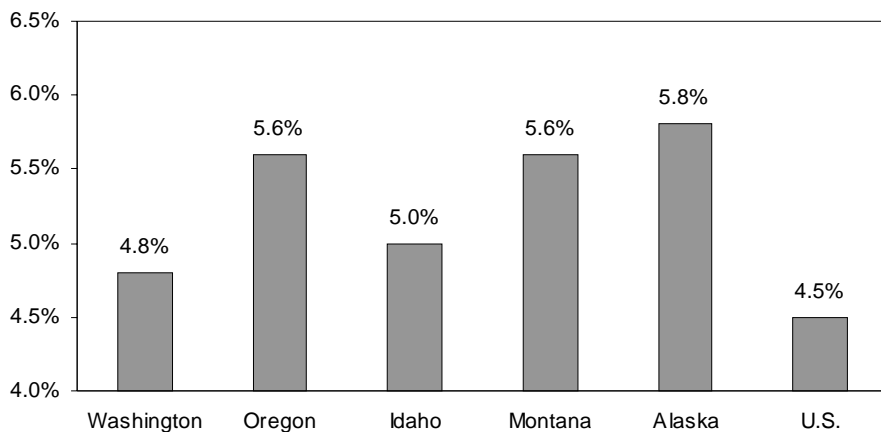
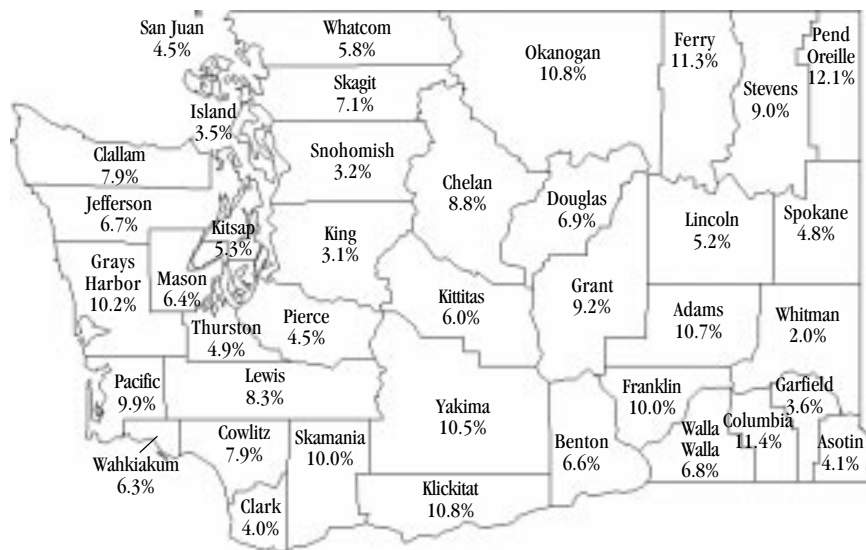


Figure 21
Unemployment Rates by County

Washington State, 1998

Source: *Employment Security Department*



neighboring states. This is not to suggest that Washington's employment picture was faltering when held up against the region as a whole. It merely highlights the fact that Washington's labor force, number of employed, and number of unemployed were rising at the same rate (1.7 percent). Jobless rates in each of the Northwest states were above the 4.5 percent national average.

Unemployment Rates by County and Region

Certainly, the tightest labor markets continue to be most visible in the central Puget Sound region with those large, urban counties boasting some of the lowest jobless rates in the state (see Figure 21). King, Snohomish, and Island counties (also known as the Seattle-Bellevue-Everett PMSA) had unemployment rates from 3.1 percent to 3.5 percent. On the other hand, some of the lowest jobless rates in the state are also associated with small,

rural, sparsely-populated counties. Whitman County, for example, had the lowest unemployment rate in Washington in 1998 at 2.0 percent. A couple of other southeast Washington counties (Asotin and Garfield) also joined in that regard. More than a quarter of Washington's counties had unemployment rates that were at least twice the state average, with Pend Oreille having the highest unemployment rate in Washington in 1998 at 12.1 percent.

The *Two Washingtons* phenomenon continues unabated when one looks at unemployment rates regionally (see Figure 22 on the next page). The jobless rate for the Puget Sound region continues to be considerably lower than that for the balance of the state while the jobless rate for western Washington continues to be considerably lower than that for eastern Washington. Higher unemployment characterizes great portions of the less diverse, heavily resource-based economies of the timber-dependent areas and much of the agricultural-dependent areas of eastern Washington. The distribution is not much different from a year ago meaning the economies of these areas are essentially holding their own. However, the strong seasonal component inherent in the economic base of both regions will continue driving a spike above the statewide average in terms of area joblessness.

Discouraged Workers

The Bureau of Labor Statistics significantly changed the definition of discouraged workers starting in 1994. In the past, individuals were counted as "discouraged workers" if, *for whatever reason, they felt* they could not find a job and quit searching for work. Now, the burden of proof is on the individuals to show that they actively looked for a job at least once during the past year or since their last job and that they were available to start if one had been offered. As in the past, all individuals must still acknowledge that they want a job now and that they did not look for work in

Figure 22
Unemployment Rates by Region
Washington State, 1998

Source: *Employment Security Department & Bureau of Labor Statistics*

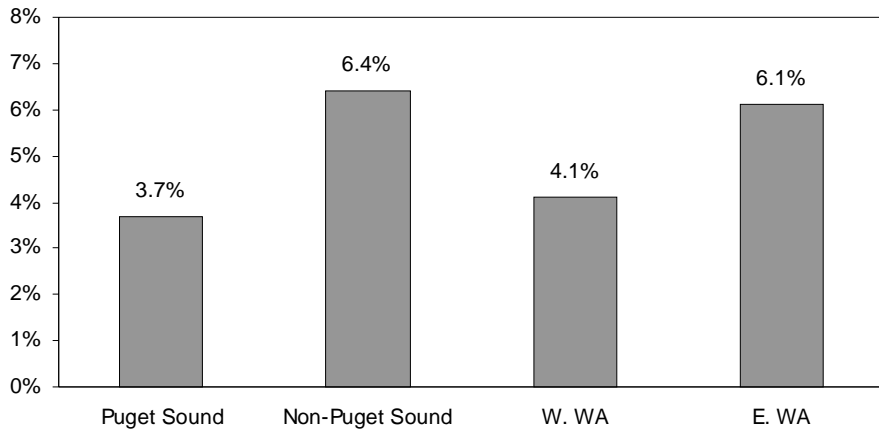
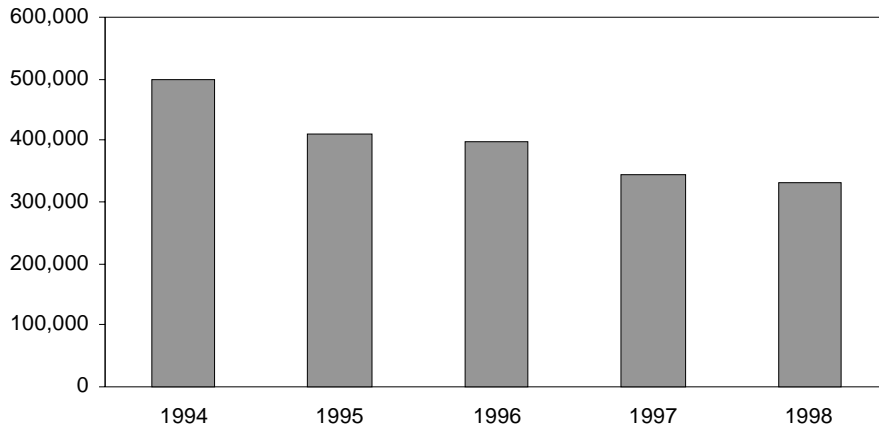


Figure 23
Discouraged Workers

United States, 1994-1998

Source: *U.S. Department of Labor, Bureau of Labor Statistics*



the prior four weeks because they (1) did not believe a job was available in their line of work or area, (2) had not been able to find work previously, (3) lacked the necessary schooling, training, skills, and experience, (4) were considered too young or old for the job or (5) experienced other forms of discrimination.

The count of discouraged workers nationally has declined each year since the new methodology was introduced (*see Figure 23*). From an estimated 500,000 (a benchmark for the new methodology) in 1994, the number of discouraged workers has fallen year after year to 331,000 in 1998. While this represents an annual rate of decline of nearly 10 percent from 1994-98, the number of discouraged workers fell only 3 percent from 1997-98. The latter decline is consistent with a healthy national economy that nevertheless is showing signs of peaking. Against this backdrop, it is unlikely that the number of discouraged workers will decline significantly more.

Seasonal, Cyclical, and Structural Employment

Seasonality, cyclicality, and structural maturity are important to include in any discussion of employment because they tend to foster higher than average rates of unemployment in those industries where they are present. This is historically the case in Washington, where the industry mix relies heavily on agricultural, natural resource, and good-producing industries. As a result, a significant share of workers are viewed as being at risk of longer and more frequent episodes of unemployment, and Washington's jobless rates have traditionally been higher and more volatile than those nationally.

Seasonality reflects regular monthly swings in economic activity. These swings produce atypically high employment or unemployment depending on the season. Workers in affected industries are hired at the start of and released at the end of, for example, the crop harvest or logging season, the school year, the summer tourist or winter ski season, etc. Complementary and support industries also tend to be affected.

Cyclicality reflects shifts in the business cycle. Business cycles tend to generate disproportionately high employment or unemployment depending on where an economy is in the cycle, namely whether it is in expansion or contraction. Turning points in the cycle are brought about by factors that influence supply and demand. For example, recessionary pressures are often brought to bear by softening demand that squeezes revenue and forces cost-cutting which, in turn, increases the likelihood of payroll reductions.

Structural maturity reflects long-range upward shifts in productivity. Shifts of this nature typically result in unemployment as affected firms introduce new equipment, processes, and technology to heighten their competitive positions and overall productivity, and replace jobs as those gains are realized. Structural pressures are also brought to bear by shifts in consumer buying patterns.

How Is It Triggered?

In 1986, the state legislature's Joint Select Committee on Unemployment Insurance and Compensation developed criteria for identifying seasonal, cyclical, and structural industries. The criteria were applied to three-digit Standard Industrial Classification code private covered employment data from the Employment Security Department. While the formulas are virtually unchanged, the observation period has been moved from 1976-84 to 1982-90 to more accurately reflect the state's current employment composition as

well as to measure the state's job performance during the most recent national economic recession.

An industry was classified as seasonal if its highest to lowest monthly employment varied 18.9 percent or more from its annual average estimate using 1993 as the reference year. Cyclicality was acknowledged if an industry's highest to lowest annual average employment varied 24 percent or more from the midpoint trend line from 1982-90. This formula was run in addition to the official threshold of 37.8 percent from the midpoint trend line from 1976-84 to capture the aircraft and parts sector, whose degree of cyclicality fell from an initial 37.8 percent to 24.0 percent from the 1976-84 business cycle to the 1982-90 business cycle. Structural industries were identified as Type 1 if employment decreased 10 percent or more from the pre-recession peak in 1990 or Type 2 if the loss was less than 10 percent from the 1990 peak.

Figure 24
Seasonal Private Covered Employment
Washington State, 1988-1998
Source: *Employment Security Department*



Seasonal Industries

Washington had 137 three-digit SIC coded industries designated as *seasonal* in 1998. Those 137 sectors translated into 438,614 workers who, in turn, represented just over one-fifth of the state's total private covered employment in 1998.

As expected, private covered employment encompassed by Washington's seasonal industries has fluctuated over time (*see Figure 24 on the previous page*). The most recent data, however, show that total private covered seasonal employment in Washington fell nearly 13 percent in 1998. Of course, this does not always translate into lessening seasonality. After all, the state's overall employment base could have been contracting as well. That was not the case in 1998, however, as seasonality as a share of total private covered employment fell nearly four percentage points to roughly 20 percent. Altogether, this suggests that Washington's economy did indeed become less seasonal in 1998.

Washington's economy may have become less seasonal in 1998, but the ranking of the largest 3-digit SIC coded seasonal industries remained essentially the same (*see Figure 25*). The list included department stores,

miscellaneous shopping goods stores, and family clothing stores, all of which do a lot of summer and holiday-related hiring. Agriculture-related sectors, namely preserved fruits and vegetables and berry crops made the list reflecting harvest cycles. Fruits and tree nuts did not make the list in 1998 due to poor market conditions that negated the hiring that normally takes place. Amusement and recreation services and hotels and motels appeared on the list due to swings generated by summer and winter activities. Construction in all forms—residential, heavy, and special trade—also appeared thanks to their weather-regulated activities as did landscaping and horticultural services, which tends to follow construction.

Perhaps most noteworthy is the fact that personnel supply services (largely consisting of temporary workers) fell off the list. This sector has traditionally been driven by summer and holiday-related hiring. It still is, but that aspect of the industry has been more than offset by its ever-increasing role as a provider of year-round, non-seasonal hires as well. This shift has been pervasive to the extent that traditional seasonal gyrations have

been muted by the overall stability of hiring over the year.

Cyclical Industries

Under the official 37.8 percent variance threshold, Washington had 129 three-digit SIC coded industries and nearly 302,335 workers identified as *cyclical* in 1998 which accounted for 14 percent of the state's total private covered employment. Though private covered cyclical employment has grown each year from 1988-98—no surprise given that the state has been on the upside of the business cycle—its share of total private covered employment has remained relatively fixed over the same period at between 13 percent and 14 percent.

Under the “adjusted” 24 percent variance threshold, Washington's economy had 198 three-digit SIC code sectors and 656,059 workers identified as cyclical in 1998, which translated into 30.5 percent of the state's total private covered employment.

One indication that some cyclicity is being washed out of Washington's economy is the fact that aircraft and parts employment—often cited as a key example of a cyclical sector—varied only 24 percent from its midpoint trend line during the 1982-90 business cycle compared to 38 percent during the 1976-82 cycle. That, of course, may change when 1999 data are available. In other words, aerospace employment did not swing or fluctuate as widely as it used to. It was less cyclical.

A list of the largest three-digit SIC coded cyclical industries at that 38 percent threshold in 1998 is topped by miscellaneous business services which, though a catch-all for business services, is heavily skewed toward security services (*see Figure 26*). Security services have become a fast-growing part of the economy thanks to our security-conscious society. It has become an equally fast growing part of business services since most firms outsource this function. Accounting, auditing and bookkeeping, manage-

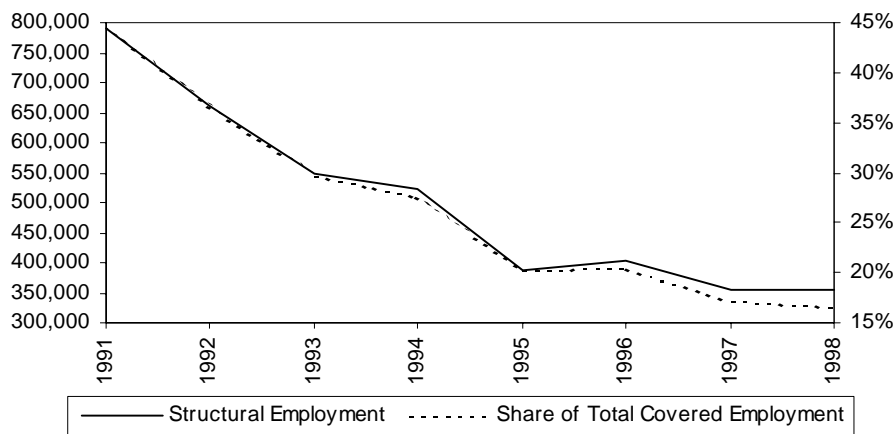
Figure 25
Largest Seasonal Industries
Washington State, 1998
Source: *Employment Security Department*

SIC	Industry	Employment
531	Department Stores	43,793
017	Berry Crops	39,160
881	Private Households	29,239
799	Misc. Amusement and Recreation Services	27,861
594	Miscellaneous Shopping Goods Stores	24,462
152	Residential Buildings Construction	20,121
864	Civic and Social Associations	15,607
203	Preserved Fruits and Vegetables	13,517
162	Heavy Construction, Except Highway	13,003
565	Family Clothing Stores	12,369
179	Miscellaneous Special Trade Contractors	11,751
078	Landscape and Horticultural Services	8,955
616	Mortgage Bankers and Brokers	7,623
357	Electronic Computing Equipment	7,583
241	Logging	6,887

Figure 26
Largest Seasonal Industries
Washington State, 1998
Source: *Employment Security Department*

SIC	Industry	Employment
738	Miscellaneous Business Services	27,551
871	Engineering and Architectural Services	23,262
832	Individual and Family Services	18,878
504	Professional & Commercial Equipment	18,784
508	Machinery, Equipment, and Supplies	18,748
873	Research and Testing Services	14,439
874	Management and Public Relations	11,577
872	Accounting, Auditing, & Bookkeeping	11,283
495	Sanitary Services	8,855
308	Miscellaneous Plastics Products, NEC	8,548
603	Savings Institutions	7,861
616	Mortgage Bankers and Brokers	7,623

Figure 27
Structurally Mature Private Covered Employment
Washington State, 1991-1998
Source: *Employment Security Department*



ment and public relations, and sanitary services are other business-related functions that are also traditionally outsourced and which have also grown during this current expansion period. The list also includes a number of interest rate-sensitive sectors like mortgage bankers and brokers, savings institutions, engineering and architectural services, research and testing. Also included are wholesale trade sectors like machinery, equipment and supplies and professional and commercial equipment which are also interest rate sensitive. The absence of aircraft and parts from this list is not an oversight; it does not appear on the “official”

list, which uses 37.8 percent employment variance as a threshold. It would, however, top the list that uses 24 percent as its threshold.

Structurally Mature Industries

Washington had 116 three-digit SIC coded industries classified as *structurally mature* in 1998 and those 116 sectors employed nearly 355,422 private covered workers. Remember there are two distinct categories of restructuring—Type 1 and Type 2. Type 1 (employment decline of less than 10 percent) captured 85 sectors and 124,395 private covered workers, while Type 2 (employment decline of 10 percent or more) captured 31

sectors and 231,027 workers. Clearly, Type 1 was more diverse industrially than Type 2 as evidenced by its having encompassed more than twice as many industry sectors. Type 2, however, encompassed a greater number of private covered workers than Type 1 despite having half the sectors.

The trend for structurally mature industries in Washington has been one of relative decline since the economic recession in 1991 (see Figure 27). This is consistent with what one should expect with respect to restructuring industries; the employment level after restructuring should be lower even against the backdrop of the state’s overall employment growth. For all intents and purposes, however, employment declines in the state’s structurally mature industries essentially played out in 1995, with the trend being pretty flat since. Indeed, it declined only 0.2 percent in 1998. Moreover, a distinct divergence between Type 1 and Type 2 structural employment trends emerged in 1998. Type 1 structural employment rose 9.5 percent while Type 2 structural employment fell 4.7 percent. This suggests that industry restructuring of greater magnitude (10 percent or more) played out more prominently than that of more modest proportions (less than 10 percent) where aggregate employment growth for the combined sectors eclipsed the losses.

One point that bears repeating is that there is considerable overlap between industries categorized as structurally-mature and cyclical. What results is an employment pattern in which the former generally resembles the latter. However, the greater presence of nonmanufacturing industries in the structurally-mature category produces a much smoother employment trend with less severe peaks and troughs. Nevertheless, 1990 was still the peak for the structurally-mature category and employment among the sectors classified as such has declined at

Figure 28
Largest Structural Industries
Washington State, 1998

Source: Employment Security Department

SIC	Industry	Employment
372	Aircraft and Parts	112,111
421	Trucking, Local and Long Distances	26,459
602	Commercial Banks	22,017
242	Sawmills and Planing Mills	13,662
591	Drug Stores and Proprietary Stores	11,469
174	Masonry, Stonework, and Plastering	10,795
271	Newspapers	9,993
243	Millwork, Plywood & Structural Members	9,218
262	Paper Mills	8,160
373	Ship and Boat Building and Repairing	6,967
241	Logging	6,887
333	Primary Nonferrous Metals	5,666
449	Water Transportation Services	5,311
483	Radio and Television Broadcasting	4,574
769	Miscellaneous Repair Shops	4,551
562	Women's Clothing Stores	4,064
729	Miscellaneous Personal Services	3,478
016	Vegetables and Melons	3,248
631	Life Insurance	3,179
208	Beverages	3,175

insurance have been consolidating nationally as well as regionally throughout the 1990s. Much has been reported on restructuring in the forest products industry as reflected in the presence of logging; sawmills and planing mills; millwork, plywood and structural members; and paper mills. Other major manufacturing sectors whose restructuring activities are well documented include ship and boat building and repairing, newspapers, and primary nonferrous metals (chiefly aluminum). Specialty drug stores have faced increased competition from “big box” retailers (soon to be joined by Internet players), accounting for their presence on the list.

Regional Patterns

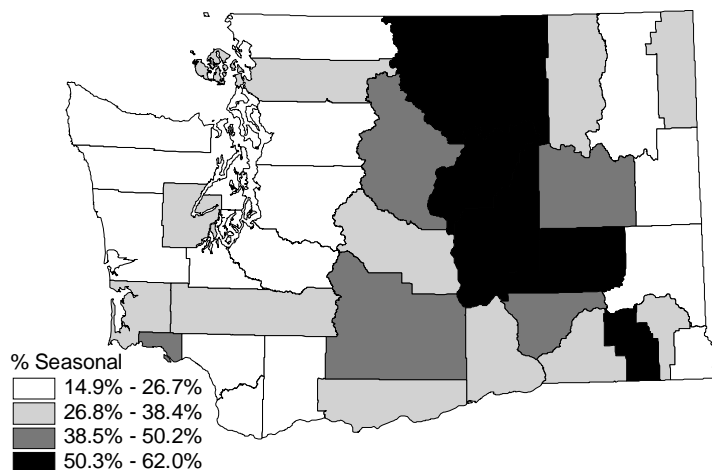
Every Washington county had some degree of seasonal, cyclical, and structural covered employment in 1998. As a general rule, though, the highest shares of the three factors can be found in the small, non-metro counties with resource-based economies. The larger metropolitan counties, however strong their resource-based employment might be, tend to have more diversified economies that dilute or offset the seasonal, cyclical, and structural components.

Seasonality. The degree of seasonality among Washington counties in 1998 ranged from a low of 15 percent in King County to a high of 62 percent in Columbia County (see Figure 29). Not surprisingly, the highest degrees of seasonality—those constituting at least one-third of an area’s covered employment—were found in roughly a third of Washington’s counties, most of them agriculture-based counties in central and eastern Washington. At the highest end, for example, Adams, Douglas, Grant, and Okanogan counties had at least half of their respective covered employment bases classified in seasonal industries.

Areas with seasonal employment shares above the roughly 19 percent state average and reaching as high as 33 percent included a mix of counties

Figure 29
Seasonal Jobs as a Share of Total Private Covered Employment
Washington State, 1998

Source: Employment Security Department



annual rates of 2.5 percent or more in the proceeding five years.

The list of the largest structurally maturing sectors in Washington in terms of covered employment has not changed much over the decade (see Figure 28). Not surprisingly, the listing of the largest three-digit SIC coded structurally-mature industries is

topped by aircraft and parts, a sector that was very definitely affected by restructuring in the early 1990s and which is undergoing similar restructuring currently. Several other industries typically associated with restructuring also appear on the list. Trucking has been restructuring in the wake of deregulation. Commercial banks and

with agriculture-based and forest products-based economies. This essentially accounted for the balance of non-metropolitan counties in central and eastern Washington as well as most of the non-metropolitan counties in western Washington.

Generally speaking, Washington's metropolitan areas were among the

counties with the lowest shares of seasonal employment. King County, as noted, had the lowest seasonal share in the state. Snohomish and Spokane counties followed right after King. It is worth noting, however, that even metropolitan counties like Clark, Pierce, Kitsap, Thurston, and Whatcom

found around a fifth of their covered employment in seasonal industries.

Cyclicality. Cyclicality was less present in Washington counties than either seasonality or structural maturity (see Figure 30). The degree of cyclicality among Washington counties ranged from a low of 3.9 percent in Ferry County to a high of 30.5 percent in Benton County. Immediately following Benton County were Garfield and Lincoln counties with cyclical shares of 25.5 percent and 23.0 percent, respectively. Nevertheless, few geographic or industrial patterns seem to stand out. It should be noted, however, that the larger metropolitan areas appeared to have driven the 14 percent state average.

Structural-Maturity. Like seasonality, structural maturation left its mark on Washington counties in 1998 (see Figure 31). In terms of share of total private covered employment, the impact ranged from a low of 8.0 percent in Benton County to a high of 46.6 percent in Wahkiakum County. The most impacted counties—those with structural shares of 20 percent or more—were largely in the northeast, southwest and Olympic Peninsula regions of the state. That is, they tended to be smaller, rural and natural resource-dependent. This is consistent with the makeup of many of the industries that have experienced restructuring since 1990. At the same time, structural maturity was more present at the lower end than was either seasonality or cyclicality. This reveals the more random or haphazard nature of structural maturity, which strikes firms and industries in a less than predictable fashion.

Figure 30
Cyclical Jobs as a Share of Total Private Covered Employment
Washington State, 1998
Source: Employment Security Department

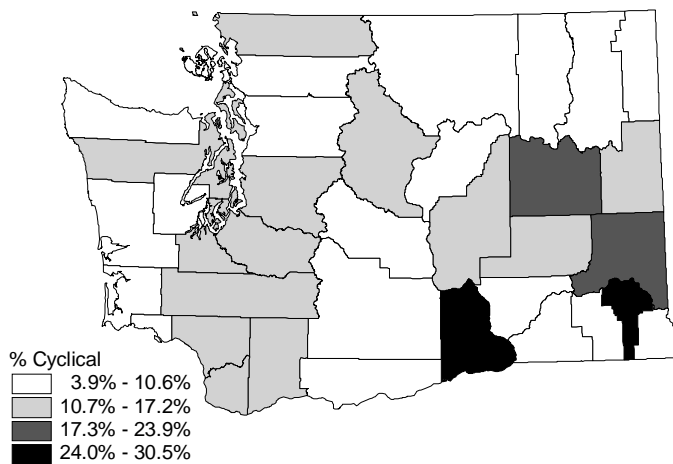
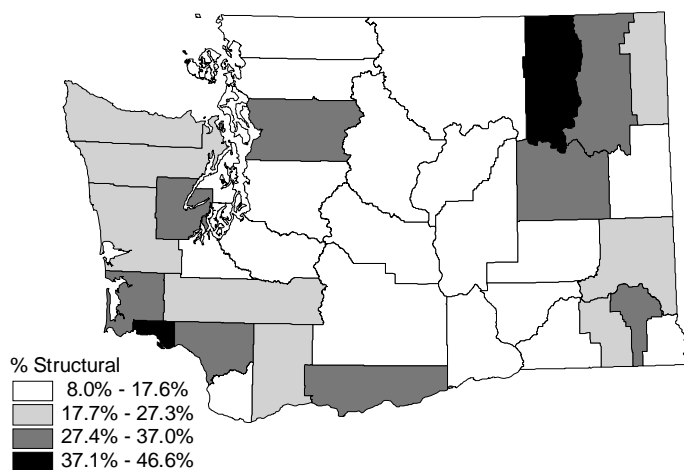


Figure 31
Structural Jobs as a Share of Total Private Covered Employment
Washington State, 1998
Source: Employment Security Department



Labor Force and Employment Projections

Labor Force Forecast

The long-term forecast for Washington's labor force (those 16 years of age and older who are either working or actively looking for work) is expected to be characterized by progressively lower annual rates of growth (see Figure 32). For example, grow is projected at an annual rate of

1.6 percent for the coming decade of 2000-2010. That rate, while higher than that of the nation, is considerably lower than the 2.1 percent annual rate anticipated once the current decade of 1990-2000 is done. The state's labor force growth rate for 1990-2000 is, in turn, expected to be lower than that in either of the two

decades preceding it. These are some of the lowest growth rates in the modern era, though they still outpace the national norm. Continued immigration will supply prospective new workers needed to boost the state's trend above the national average. Broader demographic shifts, however, will put a damper on overall state and national labor force growth rates as the baby boom generation hits the traditional retirement age of 65 en masse around 2010.

Labor force participation rates in Washington are, likewise, projected to peak in 2000 at 72 percent and then gradually subside over the balance of the forecast period, ending up at around 68 percent by 2020 (see Figure 33). The changing age structure of the population and, by extension, labor force is expected to be the driving force behind diminishing labor force participation rates. Simply put, the labor force is going to age dramatically over the forecast period and labor force participation rates are historically lower among older labor force participants.

Washington's labor force is also expected to become more racially diverse over the long-term forecast period (see Figure 34). Non-whites are projected to increase their share of the state's labor force from 8.5 percent in 1990 to 14.7 percent in 2020. Conversely, the white share of the state's labor force is expected to fall from 91.5 percent in 1990 to 85.3 percent in 2020. These gains in labor force share will be evident among all non-white groups. However, the greatest growth is projected to come among Asians and Hispanics. This is because the populations of those two

Figure 32
Labor Force Growth Rates, Actual and Projected
Washington State, 1950-2020

Source: Employment Security Department & Office of Financial Mgmt.

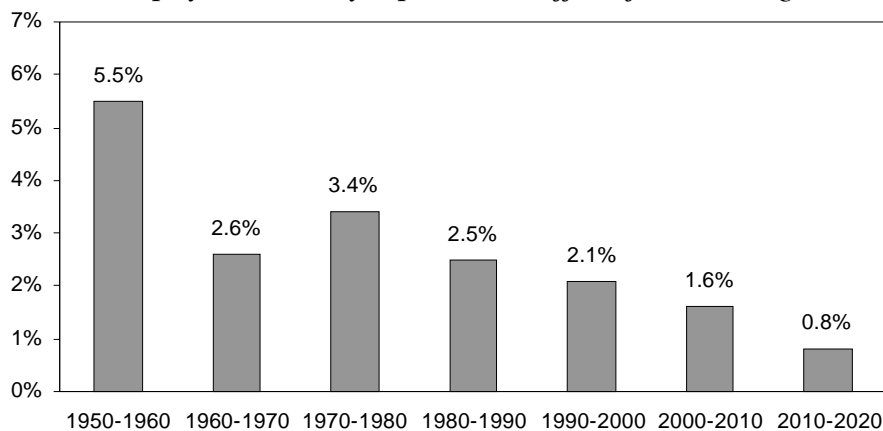


Figure 33
Labor Force Participation Rates, Actual and Projected
Washington State, 1970-2020

Source: Employment Security Department & Office of Financial Mgmt.

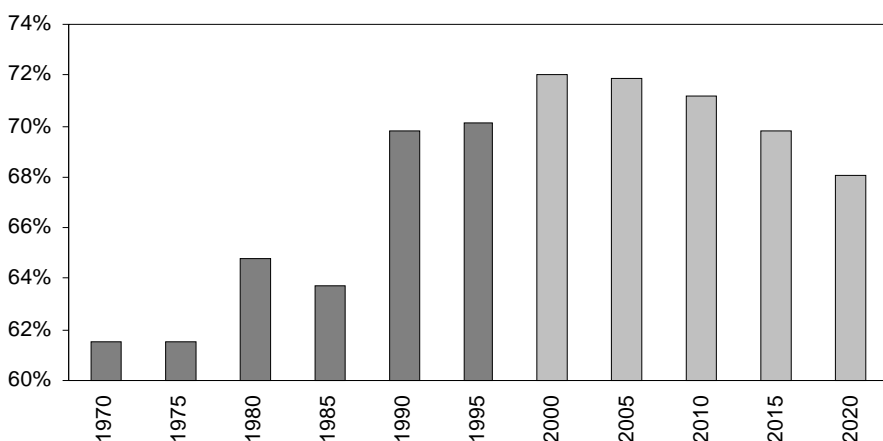


Figure 34
Labor Force Composition by Race
Washington State, 1990-2020
 Source: *Employment Security Department & Office of Financial Mgmt.*

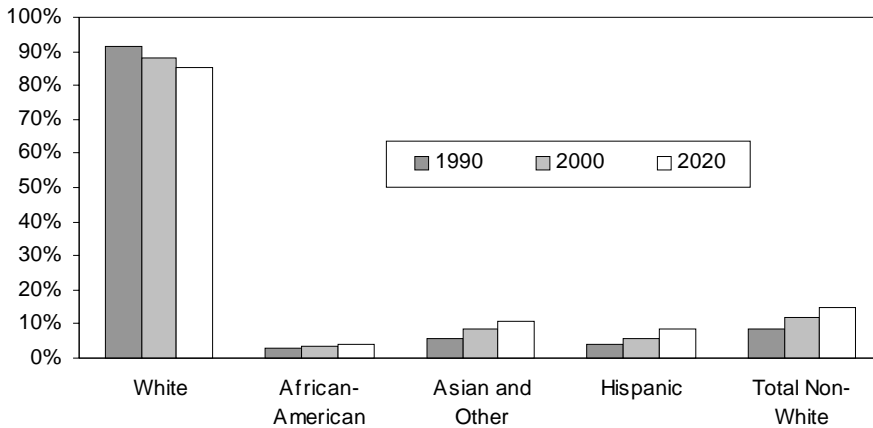


Figure 35
Nonagricultural Employment Growth Rates
Washington State, 1996-2020
 Source: *Employment Security Department & Office of Financial Mgmt.*

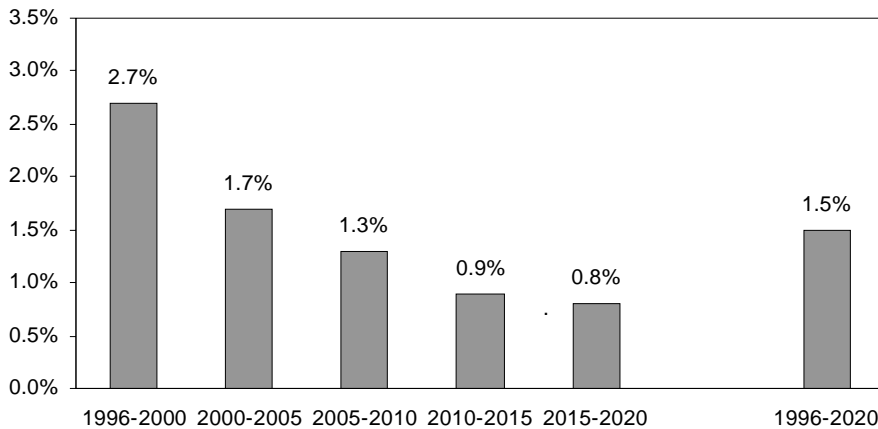
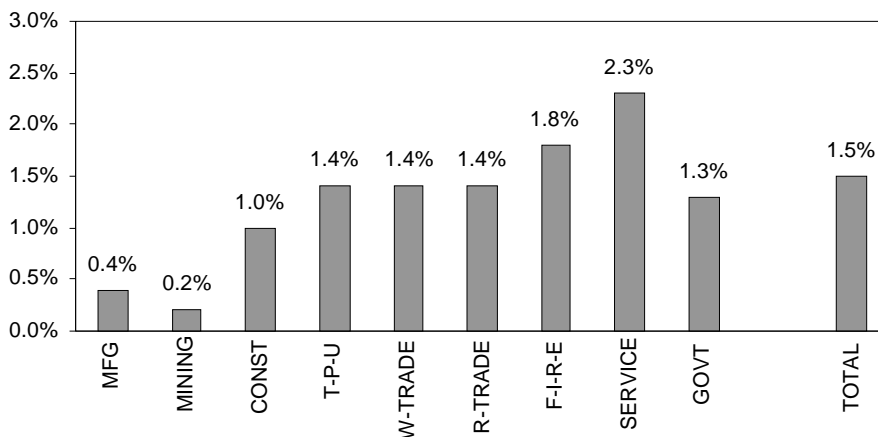


Figure 36
Nonagricultural Employment Growth Rates by Major Industry
Washington State, 1996-2020
 Source: *Employment Security Department & Office of Financial Mgmt.*



groups in particular are expected to increase the fastest in Washington and their populations will be younger than that of whites, which is more conducive to labor force participation.

Nonfarm Employment Forecast

Washington's nonagricultural employment base is projected to grow at an annual rate of 1.5 percent from 1996-2020. This is a rather sharp departure from the 2.0 percent annual growth anticipated from 1996-2000, reflecting what is expected to be the state's declining rate of nonfarm employment growth after the turn of the millennium and continuing through 2020 (see Figure 35). In fact, in the final decade of the forecast period (2010-2020), nonfarm employment growth is expected to be less than 1 percent per annum. The bottom line, however, is that the key term is still *growth*. Though the projection reflects a slowing trend, it still translates into more than 1 million net new jobs over the forecast period. Also, the rates of growth are expected to be higher than the national average.

Industry Forecast

The long-term nonfarm industry forecast for Washington reveals some of the variance in growth rates that gets lost in the aggregate nonfarm employment forecast (see Figure 36).

Starting with Washington's goods-producing sectors (mining, construction and manufacturing), employment is expected to continue posting net positive growth over the 1996-2020 period, though at rates well shy of the average for total nonfarm employment. Manufacturing is projected to see especially modest annual growth of 0.4 percent over the period. Construction and mining are expected to fare little better at 1.0 percent and 0.2 percent, respectively. This modest growth, coupled with more vigorous growth on the services-producing side, should result in the goods-producing sectors giving up over three and a half percent-

age points to the services-producing sectors to end up with nearly 16 percent of total nonfarm employment.

When distilled further, the anticipated modest gains in Washington's manufacturing sector in fact reveal a distinct set of projected "winners" and "losers" over the 1996-2010 period in terms of annual growth rates. Among the more prominent "winners" are expected to be miscellaneous manufacturing (+2.9 percent), electronic and electrical equipment (+2.8 percent), industrial machinery and equipment (+0.7 percent), and fabricated metals (+0.7 percent). Among the more prominent "losers" is expected to be ship and boat building and repairing (-0.9 percent), food and kindred products (-0.2 percent) primary metals (-0.1 percent), lumber and wood products (-0.1 percent), and paper and allied products (-0.1 percent).

Also anticipated in Washington's 1996-2020 forecast is something of a shift. Retailing is expected to expand at about the state average of 1.4 percent. However, most of the major retail subsectors (food stores, general merchandise stores, building and garden supply stores, apparel and accessory stores, auto dealers and service stations) are expected to climb only 0.8 percent to 1.0 percent per year. This is a considerable shift from the previous year's forecast when those subsectors fell into lock step with the overall retail trade average. Ultimately, employment growth in retail trade is expected to be led by eating and drinking places, which is forecast to expand at 2.0 percent per annum over the period.

The outlook for Washington's services sector is much more vibrant. Between 1996 and 2020, services is projected to expand at a relatively robust annual rate of 2.3 percent—almost a full percentage point above the state average. Business services generally and computer and data processing (which includes prepackaged software) specifically will be the undisputed drivers of the sector with

anticipated annual growth rates of 3.9 percent and 6.5 percent, respectively. Social services should also expand at a healthy annual rate of 2.9 percent. Health services (2.3 percent) is also expected to contribute to the sector's anticipated strong gains. With the exception of those sectors, other services are expected to perform at below average rates. One interesting, though not necessarily surprising, observation is that almost half of the net new jobs in this forecast period will be in the services sector. As a result, services should see its share of total nonfarm employment climb almost six percentage points to more than 32 percent.

Government will also see some shifts. Federal government employment is expected to decline at 0.1 percent per annum from 1996-2020, despite the consolidation of military activity that would appear to favor Washington. State government employment is expected to grow at a less than average annual rate of 1.5 percent while local government employment growth is also projected to be at 1.5 percent.

Occupational Forecast

Short-term projections for Washington's major occupational divisions from 1998-2008 show that at an annual rate of 2.3 percent, the

professional, paraprofessional, and technical grouping is expected to be the most vibrant occupational growth sector in the state (*see Figure 37*). Strong growth is also anticipated in managerial and administrative occupations and service occupations at 2.0 percent and 2.1 percent, respectively. None of the state's occupational divisions is projecting net negative change; however, agriculture, forestry and fishing and clerical are expecting relatively modest annual growth of 0.3 percent and 0.9 percent, respectively. These projected occupational growth rates are consistent with those seen on the industry employment side; namely, that the state's economy is continuing to shift toward services-producing activities.

The fastest growing occupations can be viewed in terms of growth rates and nominal growth (*see Figures 38 and 39*). By way of growth rates, computer-related occupations were the most visibly represented among the occupations projected to be the fastest growing in Washington from 1998-2008. This is not terribly surprising. More specifically, computer scientists, computer engineers, database administrators, and systems analysts are projected to post the highest growth rates at 6 percent per year and higher. Health-care related occupations were also well represented among the

Figure 37
Occupational Employment Projections, Annual Rates
Washington State, 1998-2008
Source: *Employment Security Department*

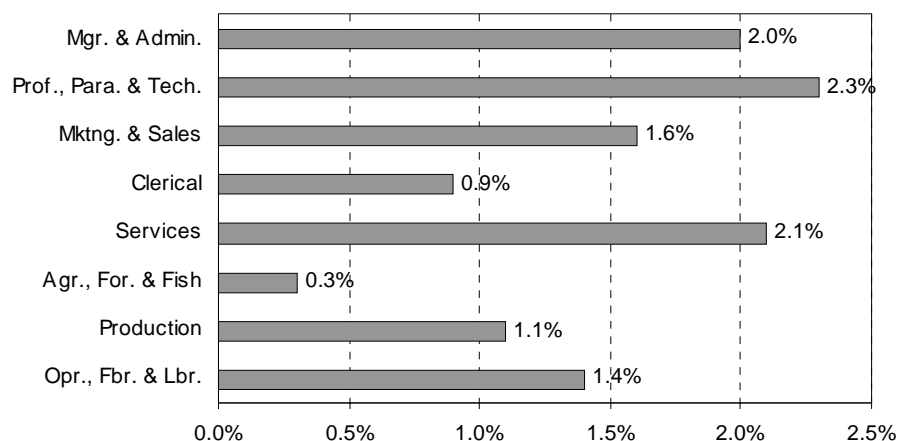


Figure 38
Fastest Growing Occupations, Annual Percent Change
 (Based on 1998 Employment of 3,000 or more)
Washington State, 1998-2008
 Source: *Employment Security Department*

Occupational Title	1998	2008	Nominal Change	Annual Percent Change
Computer Scientists, NEC	5,167	16,261	11,094	12.1%
Computer Engineers	13,739	34,154	20,415	9.5%
Personal/Home Care Aides	4,196	7,556	3,360	6.1%
Systems Analysts	15,703	27,483	11,780	5.8%
Computer Support Specialists	4,224	7,383	3,159	5.7%
Engineer, Math, Natural Science Mgrs	6,863	10,587	3,724	4.4%
Dental Hygienists	4,407	6,722	2,315	4.3%
Human Services Workers	3,367	5,054	1,687	4.1%
Adjustment Clerks	4,990	7,485	2,495	4.1%
Correction Officers	4,754	7,019	2,265	4.0%
Securities/Financial, Sales	4,495	6,557	2,062	3.8%
Instructors and Coaches, Sports	8,968	12,950	3,982	3.7%
Technical Writers	3,151	4,526	1,375	3.7%
Dental Assistants	7,543	10,786	3,243	3.6%
Bill and Account Collectors	4,284	6,053	1,769	3.5%
Flight Attendants	4,220	5,892	1,672	3.4%
Residential Counselors	4,736	6,584	1,848	3.3%
Social Workers, Medical & Psychological	7,606	10,573	2,967	3.3%

Figure 39
Fastest Growing Occupations, Nominal Change
Washington State, 1998-2008
 Source: *Employment Security Department*

Occupational Title	1998	2008	Nominal Change	Percent Change
Computer Engineers	13,739	34,154	20,415	9.5%
Salespersons, Retail	97,677	115,535	17,858	1.7%
Managers and Administrators, NEC	55,880	69,371	13,491	2.2%
Systems Analysts	15,703	27,483	11,780	5.8%
General Managers and Top Executives	67,791	79,401	11,610	1.6%
Cashiers	61,164	72,644	11,480	1.7%
Computer Scientists, NEC	5,167	16,261	11,094	12.1%
Combined Food Prep/Serv. Workers	44,768	55,008	10,240	2.1%
Marketing/Sales Supervisors	54,673	63,985	9,312	1.6%
Reception/Information Clerks	31,132	40,061	8,929	2.6%
Child Care Workers	25,631	34,508	8,877	3.0%
Waiters and Waitresses	42,370	50,341	7,971	1.7%
Teachers, Elementary	32,290	40,164	7,874	2.2%
Hand Packers and Packagers	23,883	31,651	7,768	2.9%
Food Preparation Workers	25,086	32,631	7,545	2.7%

occupations expected to be the fastest growing over the 10-year forecast period, with home care aides, therapists, medical assistants, medical records technicians and emergency medical technicians topping the list.

When we examine the jobs with the largest nominal growth over the 1998-2008 period, things change a bit. Though most of the same computer-related occupations make this list as well, it is dominated by retail and service occupations such as salespersons, cashiers, clerks, janitors and cleaners, food service workers, and waiters and waitresses. Teachers and teachers aides at the K-12 level are also projected to be in great demand. The greatest health care demand in absolute terms is expected to be for registered nurses.

An assessment of declining occupations in Washington over the 1998-2008 period reveals few surprises (*see Figures 40 and 41 on the next page*). Office operations-related workers as a group are expected to show the greatest rate of decline. This group is also on the list of occupations with the greatest number of replacement jobs. Natural resource related occupations are also projected to contract at a higher than average rate of decline because of technological changes, market shifts, and changing business practices. Child care workers operating in private households revealed a rather significant decline in its base. The list of fastest declining occupations in terms of absolute number of jobs lost is not altogether different from that reflecting occupations expected to post the greatest rate of decline.

Figure 40
 Fastest Declining Occupations, Percent Change
 (Based on 1998 Employment of 3,000 or more)
 Washington State, 1998-2008
 Source: *Employment Security Department*

Occupational Title	1998	2008	Nominal Change	Annual Percent Change
Computer Operators, Except Peripheral	4,383	3,090	-1,293	-3.4%
Aircraft Struct Assemblers, Precision	5,099	4,460	-639	-1.3%
Inspectors/Testers/Graders, Precision	5,151	4,537	-614	-1.3%
Typists, Including Word Processing	12,372	11,126	-1,246	-1.1%
Sewing Machince Operators, Garment	4,018	3,670	-348	-0.9%
Production/Planning/Expediting Clerks	6,007	5,688	-319	-0.5%
Farm Workers, Farm/Ranch Animals	5,550	5,290	-260	-0.5%
Aircraft Mechanics	4,055	3,871	-184	-0.5%
First Line Supervisors: Ag, Forest, Fish	4,598	4,434	-164	-0.4%
Insurance Policy Process Clerks	4,344	4,212	-132	-0.3%
Reservation & Transit Ticket Agents	4,946	4,821	-125	-0.3%
Aeronautical and Astro Engineers	3,751	3,672	-79	-0.2%
Engr. Technician/Technologist, NEC	6,579	6,465	-114	-0.2%
Farm Workers, Food and Fiber Crops	41,764	41,260	-504	-0.1%
Farm Equipment Operators	6,389	6,335	-54	-0.1%

Figure 41
 Fastest Declining Occupations, Nominal Change
 Washington State, 1998-2008
 Source: *Employment Security Department*

Occupational Title	1998	2008	Nominal Change	Annual Percent Change
Computer Operators, Except Peripheral	4,383	3,090	-1,293	-3.4%
Typists, Including Word Processing	12,372	11,126	-1,246	-1.1%
Aircraft Structural Assemblers, Precision	5,099	4,460	-639	-1.3%
Inspectors/Testers/Graders, Precision	5,151	4,537	-614	-1.3%
Welfare Eligibility Workers	2,217	1,699	-518	-2.6%
Farm Workers, Food and Fiber Crops	41,764	41,260	-504	-0.1%
Office Machine Operators, NEC	1,196	705	-491	-5.1%
Peripheral EDP Equipment Operators	716	284	-432	-8.8%
Central Office Operators	868	438	-430	-6.6%
Sewing Machine Operators, Garment	4,018	3,670	-348	-0.9%
Production/Planning/Expediting Clerks	6,007	5,688	-319	-0.5%
Statistical Clerks	2,159	1,864	-295	-1.5%
Farm Workers, Farm/Ranch Animals	5,550	5,290	-260	-0.5%

Income, Earnings, and Wages

Personal Income

Personal income measures the pre-tax income received by or on behalf of the residents of a geographic area (e.g., region, state, county). Consequently, it is one measure used to assess economic stability and change in an area and to compare areas against one another. This is different from gross domestic product (GDP) which applies to the U.S. economy or gross state product (GSP) which applies to the state and measures the value of all goods and services produced.

Personal income data are compiled by the U.S. Department of Commerce, Bureau of Economic Analysis. It is the total income received by persons from all sources: (1) wages and salaries, (2) proprietors' income, (3) dividends, interest and rent, (4) government transfer payments and (5) other labor income. Adjustments are made for contributions to social insurance and for differences between place of work and residence.

State. Washington's total personal income was nearly \$160 billion in 1998, which translated into 6.7 percent growth over the year in real terms. This was even stronger than was seen in the two years prior, marking the third consecutive year that the state's rate of personal income growth rose at an increasing rate. It was also the third consecutive year that state personal income growth outpaced national personal income growth. Moreover, Washington's strong personal income growth put it in rather select company vis-à-vis other states. Only Colorado (8.9 percent), Arizona (7.9 percent), and Texas (7.6

percent) posted higher year-over-year growth rates than Washington.

Over the 1970-98 observation period, the state's total personal income increased (with the exception of a small real decline in 1982) at an annual rate of 3.9 percent in real terms (*see Figure 42*). U.S. total personal income, by comparison, rose

at a less robust annual rate of 3.0 percent in real terms.

Looking at state and national total personal income from a slightly different angle, Washington's 1998 increase marked the latest in a pattern of higher-than-average annual rates of growth compared to the U.S., a trend begun in the latter half of the 1980s.

Figure 42
Total Personal Income (in millions of dollars)
Washington State, 1970-1998
Source: U.S. Bureau of Economic Analysis

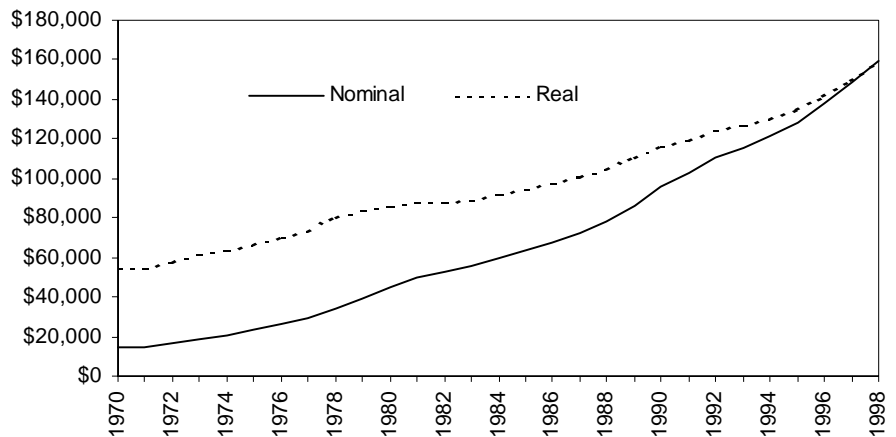


Figure 43
Derivation of Personal Income (in thousands of dollars)
Washington State, 1997-1998
Source: U.S. Bureau of Economic Analysis

	1997	1998	% Chg
Earnings by Place of Work	\$105,959,000	\$116,101,000	9.6%
(-) Personal Contribution for Social Insur.	\$7,622,000	\$8,292,000	8.8%
(+) Adjustment for Residence	\$1,811,000	\$1,855,000	2.4%
(=) Net Earnings by Place of Residence	\$100,148,000	\$109,664,000	9.5%
(+) Dividends, Interest, and Rent	\$25,752,000	\$26,533,000	3.0%
(+) Transfer Payments	\$23,476,000	\$23,242,000	-1.0%
(=) Total Personal Income	\$148,500,000	\$159,674,000	7.5%
Earnings By Place of Work	\$105,959,000	\$116,101,000	9.6%
Wages and Salaries	\$85,272,000	\$94,027,000	10.3%
Other Labor Income	\$7,979,000	\$8,396,000	5.2%
Proprietors' Income	\$12,708,000	\$13,678,000	7.6%

This enabled Washington to lift its share of total personal income nationally from 1.9 percent to 2.2 percent over the last decade. In fact, 2.2 percent is the largest share of the national total the state has ever commanded.

As noteworthy as the 6.7 percent real growth in Washington's total personal income were the dynamics of that growth as captured by activity in the components by which it is derived (see *Figure 43 on the previous page*). Inasmuch as the more than \$116 billion in net earnings by place of work constituted nearly three-quarters of the state's total personal income in 1998, what takes place within this component has a considerable impact on personal income as a whole. In 1998, earnings by place of work climbed a healthy 9.6 percent and effectively set the pace for similarly healthy personal income growth. The \$26.5 billion in dividends, interest and rent (17 percent of total personal income) represented a 3.0 percent over-the-year increase, the result of a strong stock market and stable bond market. Interestingly, it was the \$23.2 billion in transfer payments (15 percent of total personal income) that acted as a drag on state personal income growth by declining 1.0 percent. The modest growth in transfer payments was tied to over-the-year reductions in income maintenance benefit payments, unemployment insurance, and federal education and training assistance payments in the wake of a strong state economy and WorkFirst initiatives.

As noted, strong growth in earnings by place of work set the pace for similarly strong growth in total personal income. Likewise, the impressive 10.3 percent growth in wages and salaries (which makes up more than 80 percent of earnings by place of work) in Washington in 1998 established the pattern for similarly strong growth in earnings by place of work. By comparison, proprietors' income and other labor income rose 7.6 percent and 5.2 percent, respectively.

Counties. An analysis of total personal income in 1997 (there is a one-year lag between state and sub-state data) for Washington's 39 counties revealed few surprises (see *Figures 44 and 45*). As expected, the state's larger metropolitan counties topped the list in terms of absolute dollars while its smaller, non-metropolitan counties were concen-

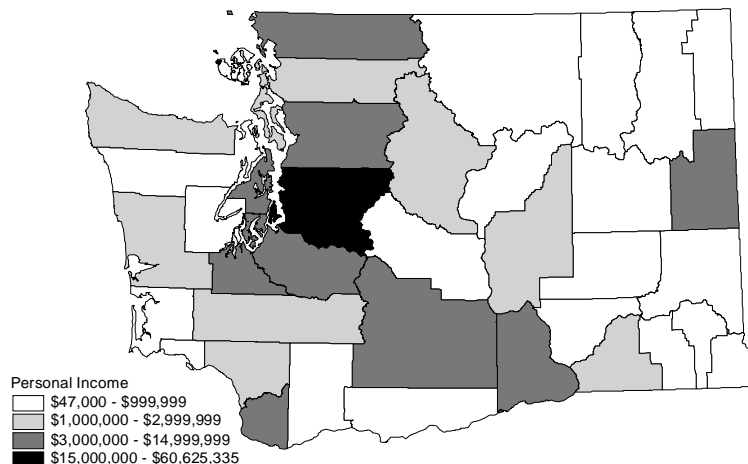
trated at the bottom. This is merely illustrative of the intractable relationship between population and employment, on one hand, and personal income, on the other.

It has become increasingly clear, however, that the total personal income gap between metropolitan counties and non-metropolitan counties is continuing to widen. In

Figure 44
Total Personal Income, Selected Counties (in millions of dollars)
Washington State, 1996 and 1997
Source: U.S. Bureau of Economic Analysis

	1996	1997	% Change
King	\$54,633	\$60,625	11.0%
Pierce	\$14,130	\$14,973	6.0%
Snohomish	\$12,899	\$13,904	7.8%
Spokane	\$8,604	\$9,037	5.0%
Clark	\$7,269	\$8,114	11.6%
Kitsap	\$4,756	\$5,053	6.2%
Thurston	\$4,453	\$4,719	6.0%
Yakima	\$4,101	\$4,179	1.9%
Whatcom	\$3,151	\$3,309	5.0%
Benton	\$2,995	\$3,083	2.9%
Pacific	\$376	\$390	3.7%
Klickitat	\$337	\$342	1.5%
Adams	\$296	\$282	-4.7%
Lincoln	\$227	\$227	0.0%
Pend Oreille	\$173	\$183	5.8%
Skamania	\$169	\$182	7.7%
Ferry	\$102	\$106	3.9%
Columbia	\$86	\$77	-10.5%
Wahkiakum	\$68	\$73	7.4%
Garfield	\$50	\$48	-4.0%

Figure 45
Total Personal Income by County (in millions of dollars)
Washington State, 1997
Source: U.S. Bureau of Economic Analysis



1997, for example, the state's metropolitan counties represented 87 percent of the state's total personal income (compared to 80 percent in 1996). King County alone accounted for more than 40 percent of the state total (compared to 35 percent in 1996). This disparity also emerged when viewed as averages. For instance, the mean average for total personal income among Washington's counties in 1997 was \$3.8 billion compared to a median average of less than \$900 million. Even after King County was excluded, the mean average was \$2.3 billion while the median barely moved. This extended further to personal income in a metropolitan versus non-metropolitan context as metropolitan counties had a mean average of \$12.7 billion (\$7.4 billion when King County was excluded) compared to \$741 million for non-metropolitan counties.

To underscore the tremendous extremes in total personal income among Washington counties, there is the previously cited example of King County with total personal income of more than \$60 billion (highest) versus Garfield County with total personal income of less than \$48 million (lowest). Garfield's total personal income measured less than one-tenth of one percent (0.078 percent) of that in King County.

It is, of course, the rate of total personal income growth that enables us to examine changes among counties. One observation was that western Washington metropolitan areas posted higher year-over-year personal income growth rates than their eastern Washington counterparts. The "star performer" among the metro areas was Clark County with a 10.3 percent gain. The Tri-Cities, with only 2.6 percent growth, registered the slowest personal income growth among the metropolitan areas. While this seemed to provide further evidence of the *Two Washingtons* phenomenon, it was not iron clad. For example, two eastern

Washington grain counties, Lincoln and Whitman, and two southeast Washington counties, Columbia and Garfield, joined Clark with the highest rates of personal income growth in Washington.

Northwest. Among the northwest states, Washington had far and away the highest total personal income at nearly \$160 billion (see Figure 46). Oregon's personal income, though the second highest in the region, was only a little more than half of Washington's. Idaho, Montana, and Alaska each generated personal income totals that were less than one-sixth of Washington's. It was also Washington that led the region in personal income growth over the year with a non-adjusted increase of 7.5 percent. It was also the only Northwest state that outpaced the nation's 5.7 percent rate of total personal income growth.

Per Capita Income

Per capita personal income is another measure of economic performance and change. More importantly, it provides a basis for comparing otherwise disparate geographic and populated areas than the total personal income estimate from which it is derived.

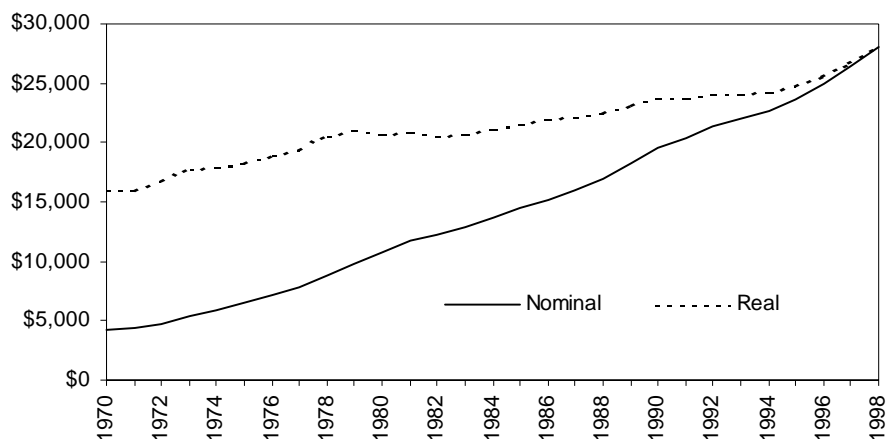
State. Washington's per capita income was \$28,066 in 1998, translating into over-the-year growth of 5.3 percent in real terms. This represents five consecutive years of increasing rates of per capita income growth in Washington. In fact, the past three years of per capita income growth rates were stronger in Washington than they were nationally. As a result, Washington's per capita income level rose to 106 percent of the U.S. average in 1998.

The strong per capita income growth trend displayed by Washington

Figure 46
Total Personal Income (in millions of dollars)
Northwest States and United States, 1997 and 1998
Source: U.S. Bureau of Economic Analysis

Area	1997	1998	% Change
Washington	\$148,500	\$159,674	7.5%
Oregon	\$77,579	\$81,310	4.8%
Idaho	\$24,651	\$25,901	5.1%
Montana	\$17,276	\$17,827	3.2%
Alaska	\$15,222	\$15,823	3.9%
United States	\$6,770,650	\$7,158,176	5.7%

Figure 47
Per Capita Personal Income
Washington State, 1970-1998
Source: U.S. Bureau of Economic Analysis



of late has not been an historical constant. Over the 1970-98 observation period, Washington's per capita income progressed in cyclical fashion at an annual rate of 2.0 percent in real terms (see Figure 47 on the previous page). U.S. per capita income, by comparison, virtually matched Washington's overall outcome or performance with 1.9 percent growth in real terms. The big difference between the two over the long term is that U.S. per capita income has generally exhibited more cyclical volatility (i.e., higher gains and lower declines). Over the near-term, the big difference has been Washington's more robust growth pattern. For example, over the last five years (1993-98), Washington's per capita income has grown at an annual rate of 3.0 percent in real terms compared to 2.6 percent for the U.S. Clearly, Washington's income base is currently expanding at faster than the nation's.

Counties. Unlike total personal income, which when rank-ordered generally distinguishes counties based on size of population and employment base, per capita income tends to reveal distinctions tied to unique economic factors (see Figures 48 and 49). As expected, county per capita income data for 1997 (again, there is a one-year lag in the generation of sub-state data) reveal three counties that perennially occupy the top five listing—King, Snohomish, and San Juan. King and Snohomish, of course, effectively partner up to fuel the state's economic engine. San Juan is home to expensive residential enclaves for upper-income professionals, retirees and assorted celebrities. Perhaps more noteworthy than those counties with a continuing presence are the over-the-year inclusions and exclusions from the list. Chief among them is the accession of Clark County, a boost delivered by the economic gains it received as part of the booming Portland CMSA. Though the accession took place in 1996, it appears that Clark County, by virtue of its ties to the

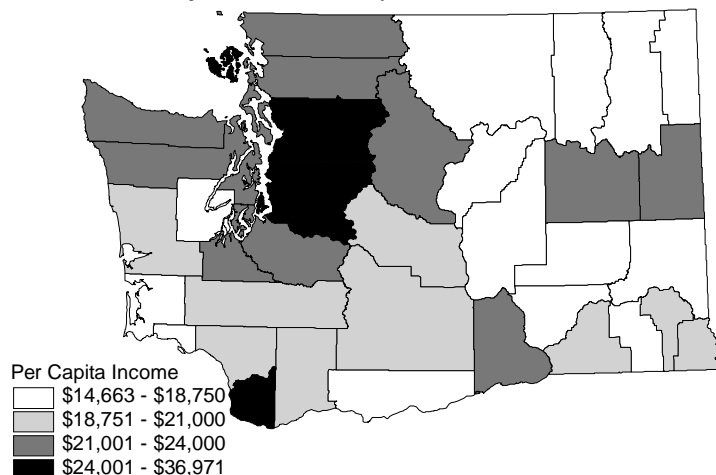
Portland CMSA, could turn into another perennial presence on the list. Conversely, but equally notable, was Benton County's removal from the list—a move attributable to restructuring losses at the Hanford site—and its having been supplanted by Thurston County, which retained that spot on the list in 1997. In Thurston County, per capita income growth is coming not from state government payrolls but rather from state and military retirees.

The counties in the state's lowest per capita income tier have also changed little over time. The resource-dependent counties in the northeastern corner of Washington—Ferry, Stevens, and Pend Oreille—continue to post among the lowest per capita income levels in the state. To illustrate the gap between the lowest and highest per capita incomes in Washington, Ferry County's per capita income of \$14,663 (the lowest) was 40 percent of King

Figure 48
Per Capita Personal Income, Selected Counties
Washington State, 1996 and 1997
Source: U.S. Bureau of Economic Analysis

		1996	1997	% Change
Highest:	Washington	\$24,958	\$26,451	6.0%
	King	\$33,764	\$36,971	9.5%
	San Juan	\$31,080	\$32,542	4.7%
	Clark	\$23,819	\$25,599	7.5%
	Snohomish	\$23,686	\$24,438	3.2%
	Thurston	\$22,665	\$23,607	4.2%
Lowest:	Whitman	\$17,485	\$17,564	0.5%
	Franklin	\$17,443	\$17,311	-0.8%
	Pend Oreille	\$15,636	\$16,254	4.0%
	Stevens	\$15,494	\$16,071	3.7%
	Ferry	\$14,173	\$14,663	3.5%
	Other Metros:	Benton	\$22,354	\$22,807
Pierce		\$21,551	\$22,511	4.5%
Spokane		\$21,300	\$22,293	4.7%
Kitsap		\$20,597	\$21,580	4.8%
Whatcom		\$20,694	\$21,438	3.6%
Yakima		\$19,154	\$19,367	1.1%

Figure 49
Per Capita Personal Income by County
Washington State, 1997
Source: U.S. Bureau of Economic Analysis



County's \$36,971 (the highest) in 1997. Also appearing near the bottom of the list is Whitman County, whose substantial farm income is more than offset by the significantly large number of WSU students who raise the population denominator but generate little or no income. Agriculture-based Franklin County also carried over from the previous year at \$17,311.

The metropolitan counties again were in the upper tiers of per capita income. However, owing to the tremendous upward pull exerted by King County on the state average, none matched or surpassed the state average. With the exception of King County, per capita income in the state's metropolitan counties were within the \$19,000-\$26,000 range.

Northwest. Washington continued to generate, for all intents and purposes, the highest per capita income in the northwestern United States with \$28,066 in 1998 (see Figure 50). In fact, 1997 saw Washington's per capita income build upon gains of several years previous to put an even greater distance between itself and its neighbors. Alaska, for example, had the second highest per capita income in the region, yet Washington's per capita income was nearly \$2,300 higher (the spread was less than \$1,500 in 1996). Washington's non-adjusted per capita income growth rate of 6.1 percent had a lot to do with it, owing largely to the tremendous run-up in software stock-related wealth on top of a state economy that was otherwise stronger than those in its neighboring states. That growth rate was far and away the highest among Northwest states, and it was the only one that surpassed the national average. Oregon was the closest competitor with a 3.6 percent gain. Idaho, Montana, and Alaska saw their per capita income levels rise at similarly modest rates ranging from 3.0 percent to 3.4 percent.

Average Covered Wages

Average covered wages are simply a matter of taking total covered wages paid over the year and dividing by average monthly covered employment. *Covered* means covered by the Unemployment Insurance (UI) program. Though not all-inclusive—among others, many self-employed persons and corporate officers are not covered under the UI system—nearly 90 percent of all employment in Washington was covered in 1997. The data are derived from UI tax reports and published quarterly by the Employment Security Department.

State. Washington's average covered wage was \$33,063 in 1998, reflecting a 6.6 percent gain in real terms. Most

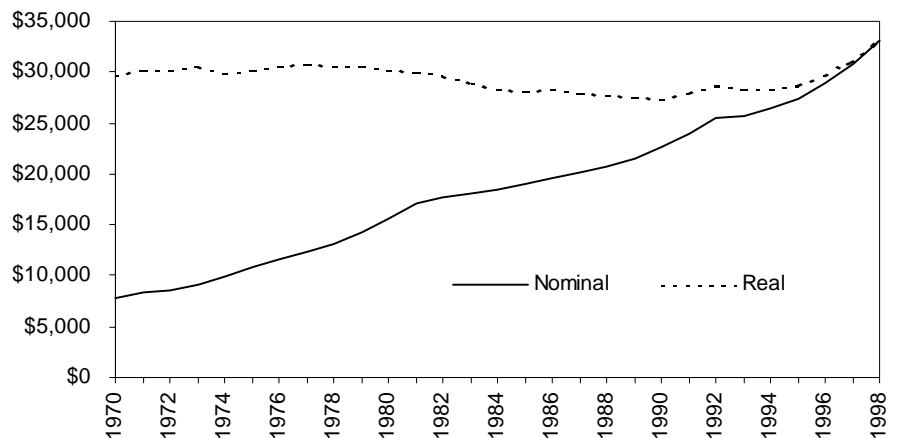
noteworthy, however, is the fact that healthy real average covered wage gains have occurred for several years now, enabling Washington to not only close the negative average covered wage gap it has historically had with the U.S., but to surpass the U.S. average as well (see Figure 51).

More important than helping Washington surpass the U.S., this current run of strong average covered wage gains could well be signaling a break between the state's *mature* economy and its *emerging* economy. Because of the state's historical dependence on resource-related industries (typically referred to as mature industries), its long-run average covered wage pattern reflected

Figure 50
Per Capita Personal Income
Northwest States and United States, 1997 and 1998
Source: U.S. Bureau of Economic Analysis

	1997	1998	Percent Change	Share of U.S.
Washington	\$26,451	\$28,066	6.1%	106.0%
Alaska	\$24,969	\$25,771	3.2%	97.3%
Oregon	\$23,920	\$24,775	3.6%	93.6%
Idaho	\$20,392	\$21,080	3.4%	79.6%
Montana	\$19,660	\$20,247	3.0%	76.5%
U.S.	\$25,288	\$26,482	4.7%	100.0%

Figure 51
Average Covered Wage
Washington State, 1970-1998
Source: Employment Security Department



considerable volatility, particularly during turning points in the business cycle. As such, despite the current rosy picture, the state's long-term average covered wage trend has been less stellar. From 1977 (when average covered wages peaked during the mature economy) to 1990, real average covered wages in Washington declined at an annual rate of 0.9 percent. Fast-forward to the present and it is clear that Washington's average covered wage has been locked in a growth pattern in the 1990s. From 1990-98, for example, Washington's real average covered wage has climbed at an annual rate of 2.3 percent. Moreover, that growth has recently come at increasing rates (4.0 percent annual growth from 1994-98). A robust state economy and accompanying labor and skill shortage have been factors, no doubt. However, as noted in *Labor Market and Economic Developments*, it is increasingly clear that much of the state's average covered wage gain has been centered in business services, specifically prepackaged software. Without the enormous uptick in that sector, the state's overall wage gain for 1998 would have come in at about 5 percent. It is this phenomenon that may be signaling the shift from a mature economy to an emerging one—and with it a different trend in real average covered wages in Washington.

Counties. The sub-state ranking of average covered wages in 1998 was little changed from that of the previous years (see *Figures 52 and 53*). Metropolitan counties dominated the higher end. King County, as usual, occupied the top spot with an average covered wage of \$41,274—generating a more than \$8,200 spread between it and the state average. Though software and aircraft come to mind, King County has a diverse range of industries that contribute to its status as the principal economic driver in Washington. Snohomish County, the other major presence in the Seattle-Bellevue-

Everett PMSA, followed at nearly \$33,586 with aircraft providing the major thrust there as well. Just behind Snohomish County was Benton County with Hanford driving its higher than average covered wages to \$32,204. Clark County in southwest Washington was a strong performer at \$29,323. Thurston County with its stable state government base was at \$28,452.

At the lower end, the same counties tend to appear as well. The lowest average covered wage belonged to

Okanogan County at \$18,101—nearly \$15,000 below the state average and \$23,000 below King County. For the most part, the common denominator with respect to these counties was the fact that they were rural, sparsely populated, and agriculturally dominated. San Juan County, a western Washington entry, is rural and sparsely populated, but has a tourism-driven economy instead of an agriculturally driven economy. Its average covered wage was \$20,234 in 1998.

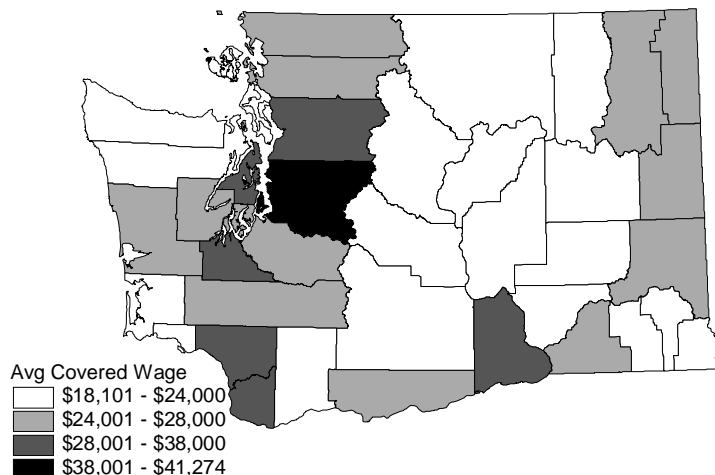
Figure 52
Average Covered Wages, Selected Counties
Washington State, 1997 and 1998

Source: *Employment Security Department*

		1997	1998	% Change
Highest:	Washington	\$30,756	\$33,063	7.5%
	King	\$37,299	\$41,274	10.7%
	Snohomish	\$32,243	\$33,586	4.2%
	Benton	\$30,614	\$32,204	5.2%
	Clark	\$28,091	\$29,323	4.4%
Lowest:	Thurston	\$27,306	\$28,452	4.2%
	San Juan	\$19,548	\$20,234	3.5%
	Columbia	\$20,762	\$20,170	-2.9%
	Douglas	\$19,031	\$19,587	2.9%
	Adams	\$18,056	\$18,925	4.8%
Other Metros:	Okanogan	\$17,432	\$18,101	3.8%
	Kitsap	\$27,525	\$28,372	3.1%
	Pierce	\$26,442	\$27,499	4.0%
	Spokane	\$25,532	\$26,561	4.0%
	Yakima	\$20,704	\$21,476	3.7%

Figure 53
Average Covered Wage by County
Washington State, 1998

Source: *Employment Security Department*



In terms of over-the-year changes in sub-state average covered wages, a positive note was that a vibrant state economy helped raise real average covered wages in all but a few counties, including those in non-metropolitan counties that have tended to fall behind. Nevertheless, the average covered wage gap between the “haves” and “have nots” grew noticeably, something that can be traced to counties dominated by emerging economies versus those dependent on mature economies. The data also underscore the challenge of closing the wage gap given that there were counties that experienced real average covered wage declines (Asotin, Clallam, Chelan, Columbia, Ferry, and Wahkiakum) despite an otherwise strong state economy.

Industries. Average covered wages as measured by Washington’s industrial activity were, for the most part, quite positive in 1998 thanks to the oft-mentioned strong state economy (see Figure 54). On the bright side, the state’s relatively large and well-paying manufacturing sector saw its average covered wage rise 3.8 percent to just over \$42,255. Interestingly, that gain was built on the strength of sectors other than those typically regarded as key manufacturing sectors in Washington (e.g., transportation equipment, lumber and wood products, paper and allied products, food and kindred products). These sectors saw average covered wage increases, but of much more modest levels. The gain was instead derived from sectors like instruments, chemicals, and industrial machinery and computer equipment. As for other goods-producing sectors, average covered wages in the state’s construction sector posted a gain of 3.3 percent, while those in its mining sector fell -2.9 percent. Washington’s services-producing industries fared better with all of its component sectors posting strong average covered wage gains over the year. The average covered wage in the state’s diverse services sector

soared 16.0 percent to nearly \$35,855 thanks largely to the high wages, including stock options, paid in the booming software sector. The state’s finance, insurance, and real estate sector also posted a higher-than-average increase of 8.6 percent in its covered wage. Even the state’s transportation and public utilities sector saw a healthy average covered wage increase of 4.4 percent over the year.

Average Hours and Earnings

Hours and earnings for selected industries are estimated by the state Employment Security Department’s Current Employment Statistics (CES) program. The major industry divisions surveyed are construction, trade,

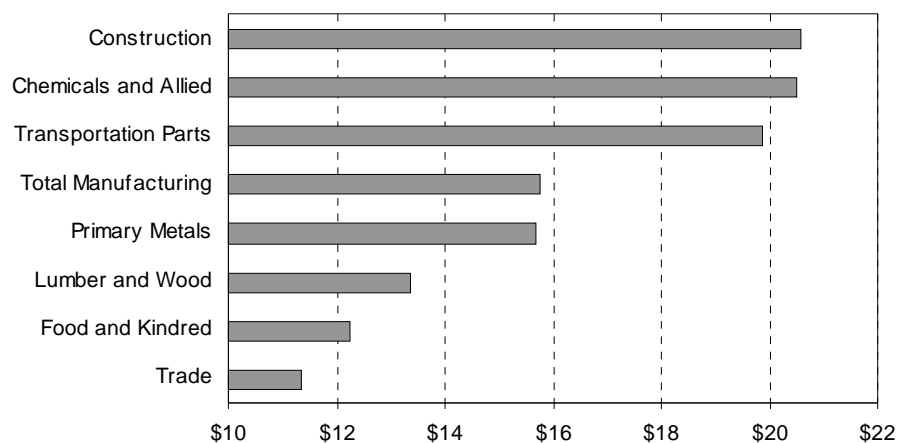
manufacturing and five specific manufacturing activities.

Average Hourly Earnings. As has historically been the case, construction (\$20.58), manufacturing (\$15.75), and trade (\$11.35) held their positions relative to one another with respect to average hourly earnings in Washington in 1998 (see Figure 55). The same relationships held constant among the state’s manufacturing sectors, too, as high-skill, value-added sectors like chemicals (\$20.51) and transportation equipment (\$19.88) had much higher average hourly earnings than more resource-dependent, labor-intensive sectors like lumber and

Figure 54
Average Covered Wages by Major Industry Division
Washington State, 1997 and 1998
Source: *Employment Security Department*

	1997	1998	% Change
State Average	\$30,756	\$33,063	7.5%
Agriculture, Forestry and Fishing	\$15,369	\$15,613	1.6%
Mining	\$44,227	\$42,942	-2.9%
Construction	\$32,600	\$33,668	3.3%
Manufacturing	\$40,726	\$42,255	3.8%
Transportation and Public Utilities	\$38,603	\$40,289	4.4%
Wholesale Trade	\$36,654	\$39,046	6.5%
Retail Trade	\$16,821	\$17,908	6.5%
Finance, Insurance and Real Estate	\$37,481	\$40,719	8.6%
Services	\$30,942	\$35,885	16.0%
Government	\$32,827	\$33,869	3.2%

Figure 55
Average Hourly Earnings, Selected Industries
Washington State, 1998
Source: *Employment Security Department*



wood products (\$13.36) and food and kindred products (\$12.25).

More noteworthy, however, were the real hourly earnings increases within virtually all of the surveyed sectors—gains that had been rather elusive over the past couple of decades. These real hourly earnings increases were induced in large part by a vibrant state economy that was increasingly beset by a broad-based labor shortage. Real average hourly earnings were up in Washington’s manufacturing (3.1 percent), construction (1.1 percent), and trade (4.3 percent) sectors in 1998. Most impressive were the gains in trade, where real hourly earnings in 1998 grew at a significantly higher rate than in the previous couple of years. While the minimum wage hike probably had some impact, this was more indicative of the challenges facing even the trade sector in the face of a robust state economy and labor shortage.

Most notable within the state’s manufacturing sector was the fact that

real hourly earnings in lumber and wood products posted a 2.4 percent gain in 1998, halting years of decline. Also, transportation equipment, a sector dominated by aerospace, reversed its 3.7 percent decline in 1997 by posting a 2.7 percent increase in 1998. Real hourly earnings in the state’s chemicals and allied products industry increased 1.3 percent in 1998, which continued the pattern of real hourly earnings that have been increasing at a decreasing rate over the past several years. Real hourly earnings in primary metals were up 1.1 percent in 1998 continuing that sector’s string of modest real increases. Food and kindred products was the only sector that did not see its real hourly earnings increase in 1998.

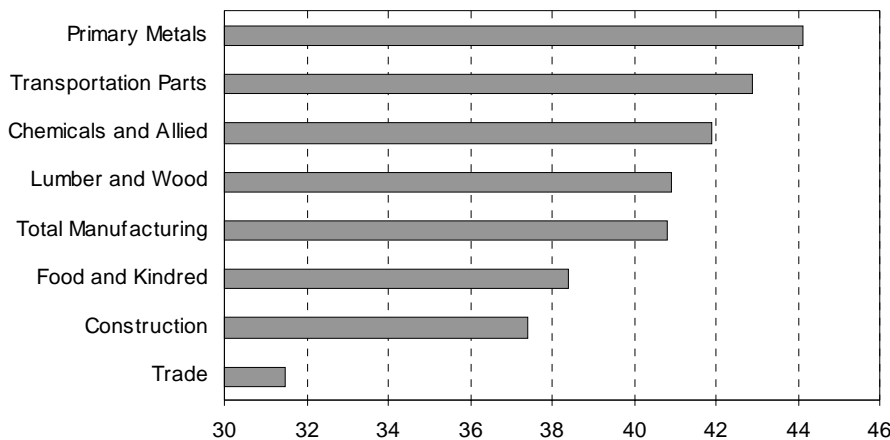
Hours Worked Per Week. Average weekly hours worked did a relative about-face among the Washington sectors surveyed over the 1997-98 period (see Figure 56).

In 1997, for example, all of the manufacturing sectors except for

transportation parts saw declines in their average weekly hours worked as supply and demand constraints took their toll on the state’s resource-related manufacturing sectors, especially in overseas markets. This was captured in the 0.5 percent dip in average weekly hours worked for all manufacturing. Things have turned around over the year, however, as overseas markets have stabilized and as domestic consumption continues strong. As a result, average weekly hours worked was up 8.5 percent in food and kindred products, 6.6 percent in chemicals, 4.9 percent in primary metals, 4.3 percent in lumber and wood products. Moreover, it moved up another 3 percent in transportation equipment, which was consistent with the ongoing ramp-up in aircraft and parts necessary to winnow down order backlogs (1999 could continue the up-trend despite layoffs as the remaining workers continue to work long hours to deal with record delivery schedules).

The state’s construction and trade sectors did an about-face as well. In their case, however, their average weekly hours worked declined in 1998. Specifically, construction saw its average weekly hours worked fall 2.6 percent while retail trade saw hours fall 0.1 percent. With respect to construction, the state’s residential and commercial building continued strong in 1998, which suggests that the contracting in average weekly hours worked might have been weather related. Meanwhile, the slight pull back in average weekly hours worked in the state’s trade sector may be a statistical non-event as consumer spending remained strong.

Figure 56
Average Hours Worked Per Week, Selected Industries
Washington State, 1998
Source: Employment Security Department



About the Economic and Policy Analysis Unit

The Economic and Policy Analysis unit within the Labor Market and Economic Analysis (LMEA) Branch of the Employment Security Department has primary responsibility for providing analysis and commentary on Washington's current labor market situation. Toward that end, it is the chief voice for the department and principal point of contact with the public for labor market information and analysis. The unit is staffed by four economists (Dennis Fusco, Robert Wm. Baker, Gary Kamimura, and Jay Barrier), a research analyst (Revelyn Froyalde), and a graphic designer (Bonnie Dalebout). In addition to the *Labor Market and Economic Report*, the unit's other notable publications include the *Washington Labor Market, LMI Review, County Profiles*, and *Studies in Industry and Employment*. These publications are also available on the LMEA Internet homepage. The unit's work is also showcased at the *LMEA Economic Symposium* held annually in November.

Washington State Employment Security Department

LABOR MARKET INFORMATION

REVIEW

A Quarterly Review of Washington State Labor Market and Economic Trends



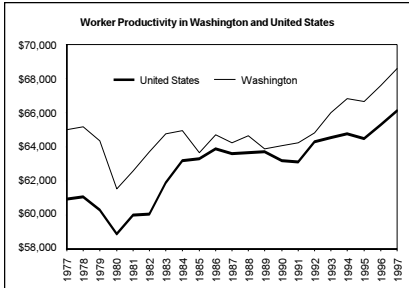
In this issue:

- Labor Market Information that Works
- Slower and Steadier
- Wealth and Income Effects of Employee Ownership
- Income by State: 1997, *From Your New Friendly Neighborhood IRS*
- Temporary and Part-Time Workers in Washington State

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Studies in Industry and Employment

Worker Productivity Trends in Washington, 1977-97



Washington State Employment Security
Labor Market and Economic Analysis Branch
Carver Gayton, Commissioner


October 1999

Washington Labor Market

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Labor Market and
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In Cooperation with the
Employment and Training
Administration
U.S. Department of Labor

October 1999



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JOB SERVICE Washington State
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SAN JUAN COUNTY PROFILE



September 1999

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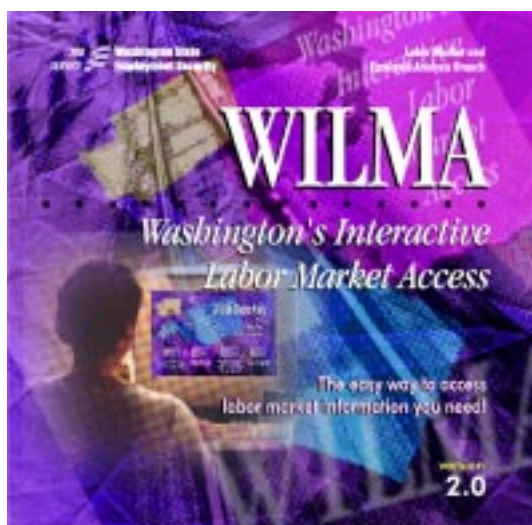


Accessing Labor Market Information on the Internet at <http://www.wa.gov/esd/lmea>

LMEA's homepage provides 24-hour access to a broad variety of Washington labor market information. A variety of publications detailing state-wide and area information is available electronically, together with statistical data in downloadable files, special studies and analysis, and links to other related sites.

Subject Areas:

- Current Employment Information
- Online Publications
- Special Reports
- Career Information
- LMI by Area
- LMI by Type
- Downloadable Software and Spreadsheets
- LMI Links Outside Washington
- WILMA



Washington's Interactive Labor Market Access (WILMA) JobSeeker

brings together current and historical information for career and program planning, economic analysis, and job search activities in an easy to use format. This product contains information about occupational employment including projections, wages, and descriptions. It also contains industry level employment, population, labor force, and various other economic data. The system utilizes a graphical interface to access, display, and extract information and provides mapping and graphing capabilities for easy visualization.

WILMA's address: <http://www.wilma.org>



The Occupational Researcher's Computer Assistant (ORCA)

is making a big splash with job seekers! It is the latest of Employment Security's Labor Market and Economic Analysis (LMEA) products designed to help Washington State job seekers expedite informed career decision making. The program provides a self-assessment tool; helping clients to pinpoint their personal work values and the occupations they are best suited for. Ultimately, a job seeker refines their choices and prints a career development plan.

The ORCA compact disc uses occupational information in the O*NET databases (developed by the U.S. Department of Labor) and integrates it with a user-friendly interface. ORCA is presented in an application that is effective and fun for the customer. It was developed after gathering input from a broad base of labor market information customers. For more information, contact Mike Paris at the Washington State Occupational Information Coordinating Committee: (360) 438-4803.