2009 WASHINGTON STATE LABOR MARKET AND ECONOMIC REPORT

Employment Security Department
Karen T. Lee, Commissioner

Labor Market and Economic Analysis
Greg Weeks, Ph.D., Director

Wages

Trends

Income

Projections

Recession

Mass Layoffs

Recovery

Occupations

Unemployment

Industry Employment

Seasonal Employment

Washington State
Employment Security Department

Labor Market and Economic Analysis

LMEA

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Labor Market and Economic Report

This report has been prepared in accordance with the Revised Code of Washington (*RCW) 50.38.040*.

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Washington State Labor Market and Economic Report

Executive Summary

The Year in Review: United States

Since the beginning of the recession in December 2007, the United States has lost approximately six million jobs, amounting to a decline of 5.2 percent. By comparison, the country lost about 1.6 million jobs in the 2001 recession, a drop of 1.2 percent.

Housing and financial markets remain troubled, while employment and income nationally continue to register declines. As of the third and fourth quarters of 2009, speculation continues on whether the recession has ended. Even if it has ended, for many it doesn't feel that way, as the country likely faces a slow recovery.

Washington's Labor Market in Recession

Washington state employment peaked a little later (February 2008) than did the nation, but didn't suffer sustained losses until the second half of 2008. Since February 2009, the state has registered employment declines in 17 of the last 19 months. However, the state unemployment rate has been lower than the national rate since spring.

The hardest hit industries in Washington during the current recession have been construction, manufacturing, and financial activities. Education and health services and government have been the only sectors to add to employment since the recession began.

Seasonal, Structural, and Cyclical Industry Employment

Changes in employment and unemployment can be classified as being seasonal, structural, or cyclical. Identifying industries that are historically influenced by one or more of these phenomena gives us a better understanding of labor markets and the causes of unemployment. Agriculture, tourism, and construction industries are the most seasonal. The list of most cyclically influenced industries has strong representation from the transportation and resource extraction industries. The software, education, health care, and services industries are very structurally influenced. All industries experience normal frictional unemployment.

Unemployment and its Dimensions

In addition to the standard unemployment rate discussed in *Chapter two*, there are many other important gauges of why people are not working. Labor force participation, discouraged workers, mass layoff statistics, and characteristics regarding the unemployment insurance program are discussed in this chapter. Virtually all of these measures reflect the very difficult experience of job seekers in Washington over the past year.

Occupations During the Recession

To better understand how occupations fared during the recession, a measure was developed using the ratio of continued unemployment insurance claims to Help-Wanted OnLine advertisements (HWOL). This ratio summarizes overall labor supply and demand trends as well as how specific occupations have fared during the recession. Health care occupations such as registered nurses and LPNs have particularly low ratios, indicating jobs where job seekers should be relatively successful. Construction and production occupations fare the worst during the recession according to this ratio.

Washington State Projections: 2007 to 2017

Washington state is projected to add an estimated 307,000 net new nonfarm jobs between 2007 and 2017, with an average annual growth rate of 1 percent. With the exception of mining and logging and manufacturing, all major industry sectors are projected to grow from 2007 to 2017.

Executive Summary (*Continued*)

Within the services-providing industries, most job growth is expected to come from professional and business services (+87,500) and education and health services (+77,400).

Computer software engineers, applications and computer software engineers, systems software are among the top 10 occupations for growth rate, level of employment, and earnings. All require higher levels of education.

Washington Income and Wages, 2008

Many measures of income and wages stagnated in 2008 as the new recession began. State per capita income in 2008 declined slightly, with earned income and investment income dropping and transfer payments increasing. Despite the stagnation, both average annual wages and median hourly wages reached all-time highs – though barely above year-ago levels.

Economic Comparisons with Other States

In *Chapter Eight*, data are presented that show how Washington ranks relative to other states in the nation on a variety of important economic and social dimensions.

2009 Washington State Labor Market Fast Facts

Labor Force and Unemployment, Washington, 1980 to 2009

Year	Labor Force	Employment	Unemployment	Unemployment Rate
1980	1,972,400	1,815,700	156,700	7.9%
1985	2,102,300	1,926,800	175,500	8.3%
1990	2,537,000	2,406,400	130,600	5.1%
1995	2,812,600	2,636,000	176,600	6.3%
2000	3,050,000	2,898,700	151,300	5.0%
2001	3,052,700	2,863,700	189,000	6.2%
2002	3,104,700	2,877,000	227,700	7.3%
2003	3,146,200	2,913,200	232,900	7.4%
2004	3,199,200	2,999,500	199,700	6.2%
2005	3,258,800	3,079,500	179,400	5.5%
2006	3,319,600	3,157,000	162,600	4.9%
2007	3,391,200	3,237,400	153,900	4.5%
2008	3,476,800	3,291,000	185,800	5.3%
2009*	**3,552,200**	**3,234,400**	**317,800**	**8.9%**

Source: LMEA/Employment Security Department, Local Area Unemployment Statistics (LAUS), Haver Analytics
Note: *(Year-to-Date Averages as of September) Not Seasonally Adjusted

Labor Force and Unemployment, Washington Metro Areas, 2009*

Metro Area	Labor Force	Employment	Unemployment	Unemployment Rate
Washington State	**3,552,200**	**3,234,400**	**317,800**	**8.9%**
Bellingham	110,100	101,200	8,900	8.1%
Bremerton-Silverdale	123,700	114,200	9,500	7.7%
Clark County	221,000	192,300	28,700	13.0%
Kennewick-Pasco-Richland MSA	128,800	119,500	9,300	7.2%
Longview MSA	45,000	38,900	6,100	13.6%
Mt. Vernon-Anacortes MSA	59,900	54,100	5,800	9.7%
Olympia MSA	134,400	124,300	10,100	7.5%
Seattle-Bellevue-Everett**	1,497,000	1,372,800	124,300	8.3%
Spokane MSA	241,800	219,900	21,900	9.1%
Tacoma**	403,500	365,600	37,900	9.4%
Walla Walla MSA	31,100	29,000	2,100	6.8%
Wenatchee MSA	62,300	57,200	5,100	8.2%
Yakima MSA	125,400	114,300	11,100	8.9%

Source: LMEA/Employment Security Department, Local Area Unemployment Statistics (LAUS), Haver Analytics
Note: *(Year-to-Date Averages as of September) Not Seasonally Adjusted
**Metropolitan Division

Projected Growth Rates, Washington, 2007 to 2017

Industry	Annual Average Employment Growth 2008:Q2-2010:Q2	2007-2012	2012-2017
Total	**-1.3%**	**0.5%**	**1.5%**
Construction	-6.3%	-1.7%	2.4%
Manufacturing	-4.9%	-1.3%	0.5%
Wholesale Trade	-0.8%	0.6%	1.3%
Retail Trade	-1.5%	0.2%	1.1%
Transportation, Warehousing, and Utilities	-1.8%	-0.1%	1.0%
Information	-3.0%	0.5%	2.2%
Financial Activities	-2.1%	-0.2%	1.0%
Professional and Business Services	-1.2%	1.6%	2.9%
Education and Health Services	2.6%	2.3%	1.8%
Leisure and Hospitality	-1.3%	0.4%	1.0%
Government	0.4%	0.9%	1.2%

Source: LMEA/Employment Security Department, Industry Projections

Covered Employment Classified by Industry, First Quarter 2009 (Preliminary)

Washington State Industry Description	Firms	Total Wages (in $Billions)	Average Employment	Average Monthy Wages
Total	**192,458**	**$33.07**	**2,808,983**	**$3,924**
Government	2,059	$6.48	525,127	$4,112
Education and Health Services	16,034	$3.53	350,221	$3,359
Professional and Business Services	27,637	$4.73	318,709	$4,944
Retail Trade	14,091	$2.16	302,421	$2,383
Manufacturing	7,028	$4.18	270,027	$5,155
Leisure and Hospitality	14,782	$1.15	258,469	$1,478
Construction	23,249	$1.88	153,077	$4,098
Financial Activities	12,213	$2.30	141,457	$5,431
Wholesale Trade	12,816	$1.92	121,825	$5,267
Other Services	48,440	$0.71	107,249	$2,212
Information	2,438	$2.52	104,565	$8,043
Transportation, Warehousing, and Utilities	4,204	$1.06	85,895	$4,123
Agriculture, Forestry, Fishing, and Hunting	7,302	$0.41	67,617	$2,029
Mining	165	$0.03	2,325	$4,548

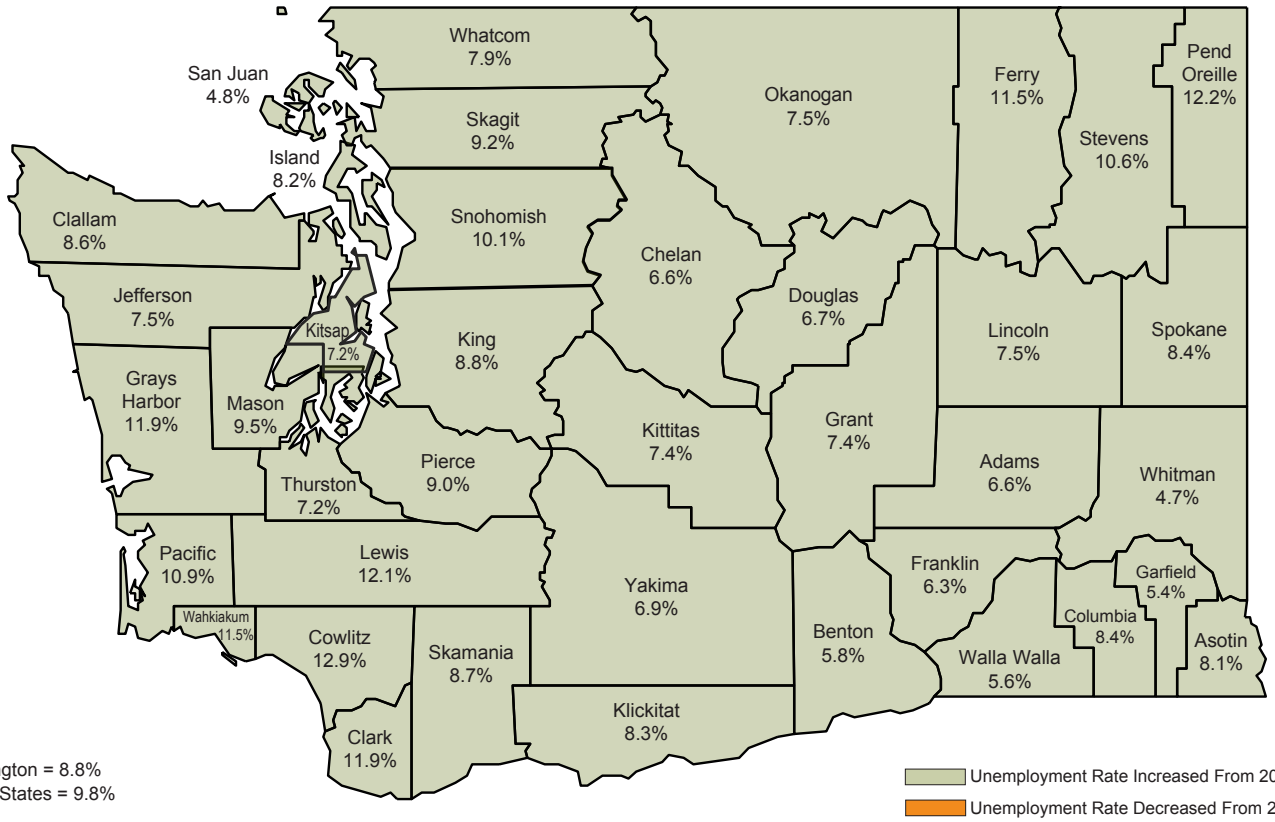
Source: LMEA/Employment Security Department, and Quarterly Census of Employment and Wages (QCEW)
Note: Public Education is included in Government

Total Unemployment Insurance Claims by Occupational Groups, Washington, Oct. 2008 to Sept. 2009

Occupational Groups	Beneficiaries* (Oct. 2008 - Sept. 2009)	Percent Change from Previous 1-Year Period	Estimated Employment 2008:Q2**
TOTAL	**389,185**	**72.5%**	**3,387,609**
Management	35,305	79.8%	132,164
Business and Financial Operations	12,340	81.7%	154,668
Computer and Mathematical	10,312	107.2%	115,818
Architecture and Engineering	10,135	169.6%	88,862
Life, Physical, and Social Science	2,925	55.3%	49,321
Community and Social Services	2,427	77.2%	54,414
Legal	1,731	39.7%	26,243
Education, Training, and Library	4,566	77.4%	194,752
Arts, Design, Entertainment, Sports, and Media	6,735	115.2%	67,936
Health Care Practitioners and Technical	3,864	48.8%	148,667
Health Care Support	4,026	48.3%	81,194
Protective Service	3,593	40.8%	57,182
Food Preparation and Serving Related	13,111	62.1%	259,651
Building and Grounds Cleaning and Maintenance	7,844	60.9%	120,668
Personal Care and Service	6,646	58.8%	141,136
Sales and Related	23,224	46.1%	350,858
Office and Administrative Support	45,379	92.2%	495,342
Farming, Fishing, and Forestry	12,992	8.2%	88,809
Construction and Extraction	74,539	61.8%	227,171
Installation, Maintenance, and Repair	19,158	70.6%	126,111
Production	53,487	114.0%	186,308
Transportation and Material Moving	33,645	67.1%	220,334
Military Specific	1,196	-0.1%	--
Information not Available	5	--	

Source: *Unemployment Insurance Data Warehouse: Continued Claims Database, Regular Benefits Program
**LMEA/Employment Security Department - Occupational Projections

September 2009 Average Unemployment Rates by County – Not Seasonally Adjusted



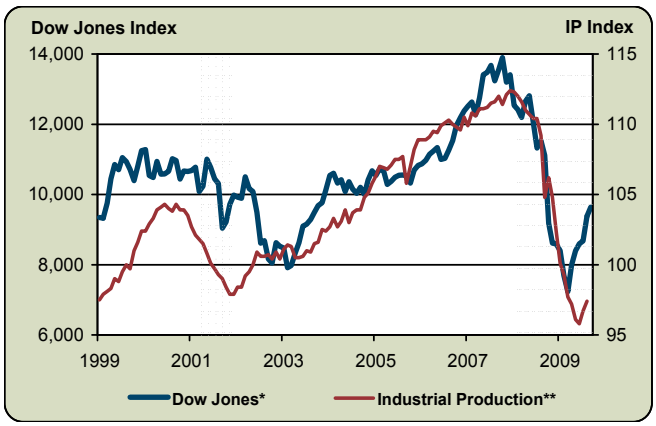
Source: Household Employment, Bureau of Labor Statistics and Haver Analytics

The Year in Review: United States

Introduction

On Wednesday October 14, 2009, a little more than a year since the United States came through the traumatic events[1] of the financial crisis, the Dow Jones Industrial Average Index passed 10,000. This was the first time since October 14, 2008, that the index hit 10,000 and amounted to a 53 percent increase since March 2009.

Figure 1
Industrial Production and the Dow Jones Industrial Average Index
United States, 1999 to 2009
Source: Haver Analytics, the Federal Reserve, and The Wall Street Journal



Notes: *30 Industrial Stocks: Average Price Close
**Seasonally Adjusted, 2002=100

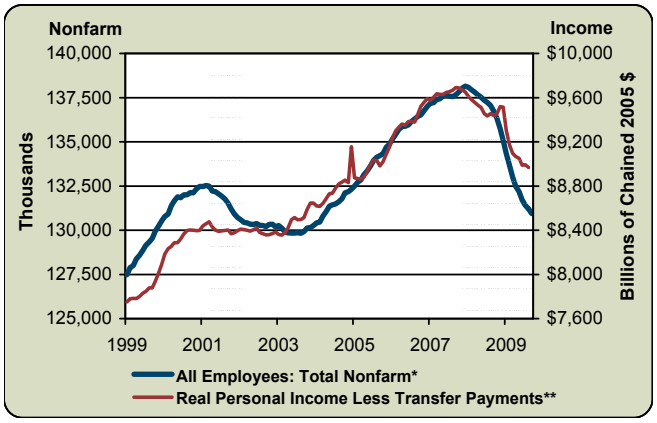
Recent reports in mid-October 2009 on retail sales, new unemployment insurance claims, and manufacturing economic activity (two months of improvement after 18 months of decline according to the *Institute for Supply Management*), all point upward and are indicative of a beginning recovery.

Despite this good news, the Dow breaking 10,000 was greeted with a completely different attitude than in March 1999, the first time 10,000 was reached. In 1999, there was a mood of optimism and triumph concerning the economy.

This time around, there is greater awareness of the fallibility of markets and the headwinds that economic recovery must face.

Housing and financial markets remain troubled, while employment and income nationally continue to register declines. As of the third and fourth quarters of 2009, speculation continues on whether the recession has ended. Even if it has ended, for many it doesn't feel that way, especially for the 15.1 million estimated unemployed (as of September 2009).

Figure 2
Real Personal Income and Nonfarm Employment
United States, 1999 to 2009
Source: Haver Analytics, Bureau of Economic Analysis, and Bureau of Labor Statistics



Notes: *Seasonally Adjusted
**Seasonally Adjusted, Annual Rate

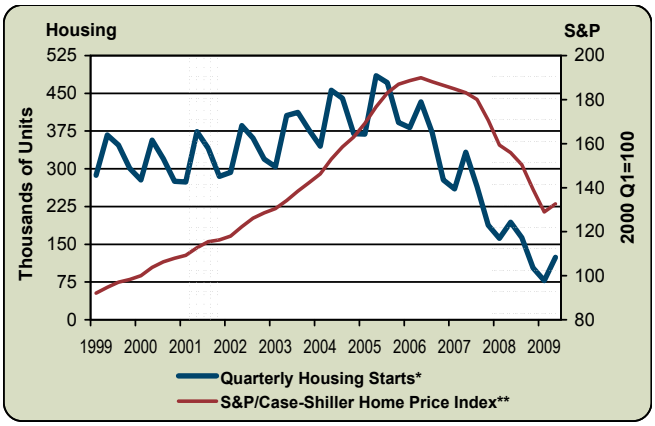
Continuing Collapse of the Housing and Financial Sectors

The past year saw what is hoped to be the closing stage of the collapse of the housing market and its related[2] financial sector. Following three straight years of decline, housing prices rose in the U.S. in the second quarter of 2009. Similarly, housing starts declined nationally since the second quarter of 2007, but turned up in the second quarter of 2009 (*Figure 3*).

[1] September 2008 marks the worst of the financial crisis. On October 3, the House passed a $700 billion government bailout for the financial industry.

[2] The financial sector is related directly through mortgage markets, but also indirectly via the myriad of real estate investment vehicles that proliferated over the past five years.

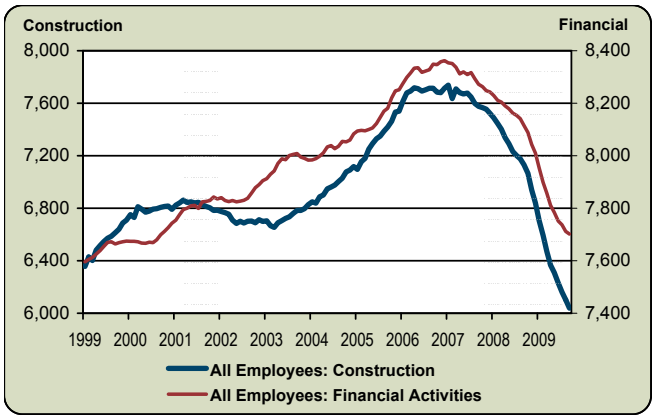
Figure 3
Housing Starts and Home Prices
United States, 1999 to 2009
Source: Haver Analytics, Bureau of the Census, and Standard and Poor's Case-Shiller Home Price Index



Notes: *1-Unit Structures, Not Seasonally Adjusted
**Not Seasonally Adjusted

While this is certainly good news for the national economy, it only represents one quarter, and has yet to positively impact employment in these two sectors. As shown in *Figure 4*, employment in both construction and financial activities continued to post declines through September 2009.

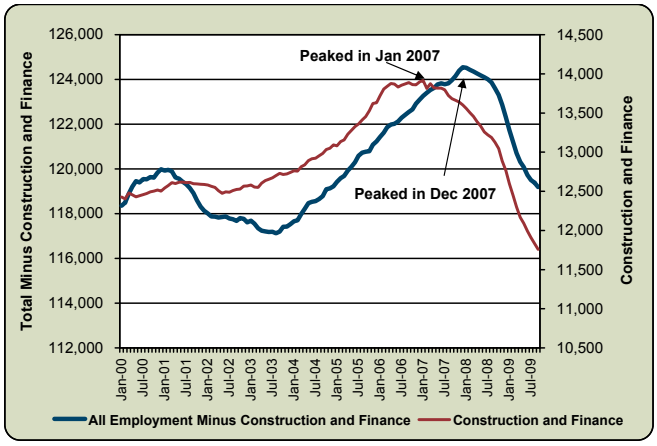
Figure 4
Employment in Construction and Financial Activities
United States, 1999 to 2009
Source: Haver Analytics and Bureau of Labor Statistics



Note: Seasonally Adjusted, in Thousands

Looking at combined employment for the two sectors shown in *Figure 5*, since January 2007, on a seasonally-adjusted basis, there has been no increase in employment in 32 months. The combined employment for construction and finance peaked in January 2007, nearly a year before the rest of the other sectors peaked. In addition to peaking much earlier, construction and finance suffered much deeper employment declines since the respective peaks; 15.5 percent compared to 4.3 percent for all other sectors combined.

Figure 5
Employment in Construction and Financial Activities Compared to All Other, Seasonally Adjusted, in Thousands
United States, 1999 to 2009
Source: Haver Analytics and Bureau of Labor Statistics



The Great Recession

The peak shown in employment minus construction and finance (*Figure 5*) during December 2007, coincides exactly with the official dating of the start of the recession from the National Bureau of Economic Research (NBER). The NBER examines other variables such as output, income, production, and sales, but the results of this wider analysis match the employment trends.

Since December 2007 the United States has lost approximately six million jobs,[3] amounting to a decline of 5.2 percent. In contrast, the country lost

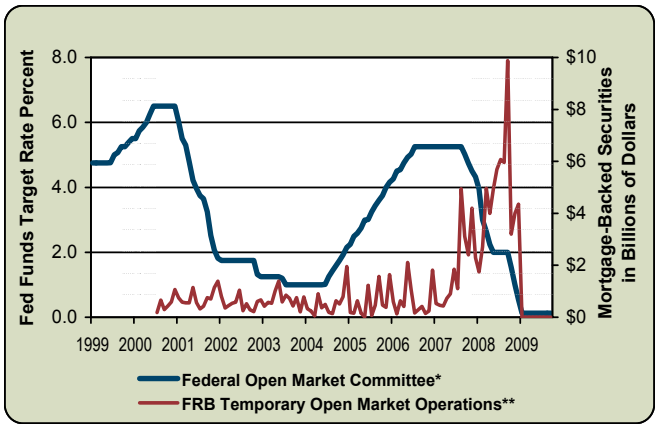
[3] From December 2007 to September 2009, there was an estimated 6,053,000 decrease in employment based on preliminary September numbers (Bureau of Labor Statistics).

about 1.6 million jobs in the 2001 recession, a drop of 1.2 percent. The magnitude of the current job loss has led to once unimaginable discussions of whether the country was in another depression, as well as the moniker "The Great Recession."

Government to the Rescue

The executive and legislative branches of the Federal government, in answer to the economic swoon, passed legislation such as the *Housing and Economic Recovery Act of 2008* (July 30, 2008), the *Emergency Economic Stabilization Act of 2008* (October 3, 2008), the *American Recovery and Reinvestment Act of 2009* (February 3, 2009), and the *Homeowner Affordability and Stability Plan* (February 18, 2009). It was however, the Treasury Department and the Federal Reserve (Fed) that generated most of the response to the crisis and were responsible for first putting a finger in the leaking financial dike.

Figure 6
The Federal Funds Interest Rate and Mortgage-Backed Securities Accepted
United States, 1999 to 2009
Source: Haver Analytics and the New York Branch of the Federal Reserve System



Notes: *Fed Funds Target Rate
**Mortgage-Backed Securities Accepted

[4] This is a temporary Open Market action; in this case buying a mortgage-backed security from a commercial bank on the condition that the bank will buy it back after a certain number of days. This is an effort to inject money into the financial system.

[5] From April 2009, sales became mostly positive (though retail was down in July and September). Industrial production has registered growth since July 2009.

The Fed began to use any and all tools available to avoid a repeat of the Great Depression.

After initial hesitation on the part of the Bernanke-led Federal Reserve, the Fed began to use any and all tools available to avoid a repeat of the *Great Depression*. As depicted in *Figure 6* and the callout box on the next page, the Federal Funds target interest rate was successively dropped from 5.25 percent in September 2007 to the range of 0.00 to 0.25 percent in December 2008. In addition, numerous tactics were tried, such as accepting mortgage-backed securities.[4] The level of these purchases by the Fed rose from $1.7 billion in January 2007 to peak at $9.9 billion in September 2008.

The Treasury Department was also very busy during the latter part of 2008 in an effort to increase liquidity and financial reserves of banks throughout the country. From September to December 2008, the Treasury was engaged in putting together relief programs for troubled assets and in making outright purchases of preferred stock in a number of U.S. banks.

By mid-2009, much of this activity from the government was beginning to subside, and the first signs of possible recovery began to appear.[5]

An Activist Federal Reserve

June 28, 2007	Federal Open Market Committee (FOMC) voted to maintain its target for the federal funds rate at 5.25 percent.
August 7, 2007	FOMC voted to maintain its target for the federal funds rate at 5.25 percent.
August 10, 2007	Federal Reserve Board announced that it "will provide reserves as necessary…to promote trading in the federal funds market at rates close to the FOMC's target rate of 5.25 percent."
August 17, 2007	Federal Reserve Board voted to reduce the primary credit rate 50 basis points to 5.75 percent.
September 18, 2007	FOMC voted to reduce its target rate to 4.75 percent.
October 31, 2007	FOMC voted to reduce its target for the federal funds rate to 4.50 percent.
December 11, 2007	FOMC reduced target rate to 4.25 percent.
December 12, 2007	Federal Reserve Board announced creation of a Term Auction Facility (TAF) in which fixed amounts of term funds will be auctioned to depository institutions.
January 22, 2008	FOMC voted to reduce its target for the federal funds rate 75 basis points to 3.50 percent.
January 30, 2008	FOMC voted to reduce its target for the federal funds rate 50 basis points to 3.00 percent.
March 7, 2008	Federal Reserve Board announced $50 billion upcoming TAF auctions and extends the TAF for at least six months.
March 11, 2008	Federal Reserve Board announced the creation of the Term Securities Lending Facility (TSLF), which will lend up to $200 billion of Treasury securities for 28-day terms against federal agency debt and securities.
March 18, 2008	FOMC voted to reduce its target for the federal funds rate 75 basis points to 2.25 percent.
March 24, 2008	Federal Reserve Bank of New York announced that it will provide term financing to facilitate JPMorgan Chase & Co.'s acquisition of The Bear Stearns Companies Inc.
April 30, 2008	FOMC voted to reduced its target for the federal funds rate 25 basis points to 2.00 percent.
June 5, 2008	Federal Reserve Board announced approval of the notice of Bank of America to acquire Countrywide Financial Corporation.
June 25, 2008	FOMC voted to maintain its target for the federal funds rate at 2.00 percent.
July 13, 2008	Federal Reserve Board authorized the New York branch to lend to the Fannie Mae and Freddie Mac, should such lending prove necessary.
July 30, 2008	Federal Reserve Board extended the TSLF and the Primary Dealer Credit Facility (PDCF) through January 30, 2009.
August 5, 2008	FOMC voted to maintain its target for the federal funds rate at 2.00 percent.
August 17, 2008	FOMC released a statement about the current financial market turmoil, and notes that the "downside risks to growth have increased appreciably."
September 16, 2008	Federal Reserve Board authorized the New York branch to lend up to $85 billion to the American International Group (AIG) and keeps target rate at 2.00 percent.
September 19, 2008	Federal Reserve Board announced the creation of the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF) to extend non-recourse loans at the primary credit rate to U.S. depository institutions and bank holding companies.

September 29, 2008	Federal Reserve Board expanded the TAF, announcing an increase in the size of the 84-day maturity auction to $75 billion and two forward TAF auctions totaling $150 billion.
October 6, 2008	Federal Reserve Board announced that the Fed will pay interest on depository institutions' required and excess reserve balances.
October 7, 2008	Federal Reserve Board announced the creation of the Commercial Paper Funding Facility (CPFF), which will provide a liquidity backstop to U.S. issuers of commercial paper.
October 8, 2008	Federal Reserve Board authorized the New York branch to borrow up to $37.8 billion in investment-grade, fixed-income securities from AIG.
October 8, 2008	FOMC reduced target rate to 1.50 percent.
October 21, 2008	Federal Reserve Board announced creation of the Money Market Investor Funding Facility.
October 29, 2008	FOMC reduced target rate to 1.00 percent.
November 10, 2008	Federal Reserve Board and the U.S. Treasury Department announced restructuring of the government's financial support of AIG.
November 25, 2008	Federal Reserve Board announced the creation of the Term Asset-Backed Securities Lending Facility (TALF).
December 16, 2008	FOMC reduced target rate to 0.00 to 0.25 percent.
January 16, 2009	U.S. Treasury Department, Federal Reserve, and FDIC announced a package of guarantees, liquidity access, and capital for Bank of America.
January 30, 2009	Board of Governors announced a policy to avoid preventable foreclosures on certain residential mortgage assets held, controlled, or owned by a Federal Reserve Bank.
February 3, 2009	Federal Reserve Board announced the extension, through October 30, 2009, of the existing liquidity programs scheduled to expire on April 30, 2009.
February 25, 2009	Federal Reserve Board, FDIC, and Office of the Comptroller of the Currency and Office of Thrift Supervision announced that they will conduct "stress tests" of eligible U.S. bank holding companies with assets exceeding $100 billion.
March 3, 2009	U.S. Treasury Department and the Federal Reserve Board announced the launch of the TALF.
March 18, 2009	FOMC maintained target range at 0.00 to 0.25 percent. In addition, the FOMC decided to increase the size of the Federal Reserve's balance sheet by purchasing up to an additional $750 billion of agency mortgage-backed securities.
May 1, 2009	Federal Reserve Board announced that, starting in June, commercial mortgage-backed securities (CMBS) and securities backed by insurance premium finance loans will be eligible collateral under the TALF.
June 24, 2009	Federal Reserve Board announced extensions of and modifications to a number of its liquidity programs.
August 28, 2009	Federal Reserve Board announced that the amounts of Term Auction Facility (TAF) credit offered at each of the two auctions in September will be reduced to $75 billion.

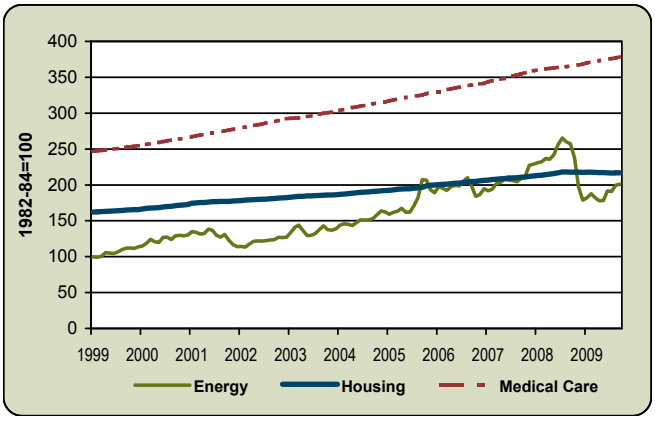
Source: St. Louis Federal Reserve Bank
http://timeline.stlouisfed.org/index.cfm?p=timeline

The Outlook for 2010?

As of the fourth quarter 2009, there is a sense that the worst of the economic crisis is over, but that there will be a hard slog ahead. The forecasting firm, *Global Insights,* currently estimates that it won't be until the fourth quarter of 2012 that the U.S. employment recovers to its pre-recession peak at the 4th quarter of 2007. This pessimism is likely due to the number of potential headwinds the economy faces.

Among the issues that could slow down or even derail a recovery are: distressed state and local budgets; the national budget deficit, which could eventually lead to a cut-off or even reversal of the current fiscal stimulus; continuing foreclosures; increasing unemployment insurance exhaustees; rising energy and medical prices; and inflation due to the rapid expansion of the money supply and the deficit.

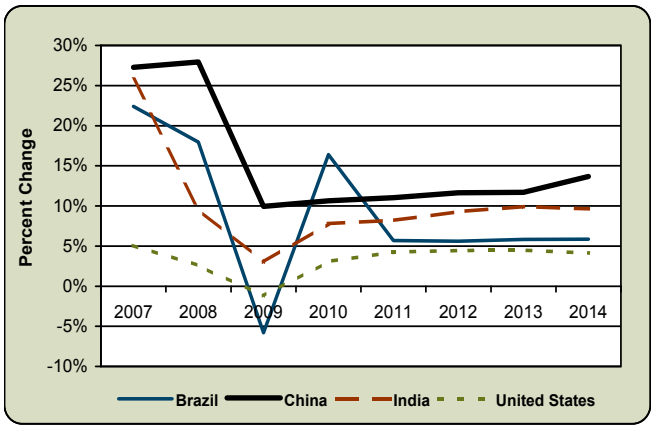
Figure 7
Consumer Price Indexes for Selected Components
United States, 1999 to 2009
Source: All Urban Consumers (CPI-U) 1982-84=100, Haver Analytics and Bureau of Labor Statistics



Note: Seasonally Adjusted

The national economy has tailwinds to aid the recovery as well as headwinds. To the previously mentioned signs of recovery (such as increasing sales, housing, and production numbers) can be added: much of the Federal stimulus has not yet been used or come into effect; much of the global economy is recovering which should stimulate demand for U.S. exports; the value of the U.S. dollar is comparatively weak (again a positive influence upon exports); and the rebound in stock markets should have a positive influence on perceived wealth.

Figure 8
Change in Gross Domestic Product in Billions of U.S. Dollars
United States and Selected Countries, 2007 to 2014
Source: International Monetary Fund (IMF)



Note: From 2009, the figures are projections on the part of the IMF

Taken in aggregate, these conditions have led most analysts to conclude that the U.S. will face slow growth for the next couple of years. *Global Insights* has forecasted Gross Domestic Product (GDP) growth at less than 2 percent for the first half of 2010 (but an overall annual growth rate of 2.1 percent for 2010). Their expectations are that this low level of economic activity will lead to falling employment and a rising unemployment rate through the first quarter of 2010. Then, employment growth is projected to not exceed 2 percent until the second quarter of 2011.

The *Congressional Budget Office* (CBO) has a rosier scenario for national growth than does *Global Insights*. The most recent annual forecast from the CBO puts GDP growth in 2010 at 2.9 percent after a decline of 0.7 percent in 2009.

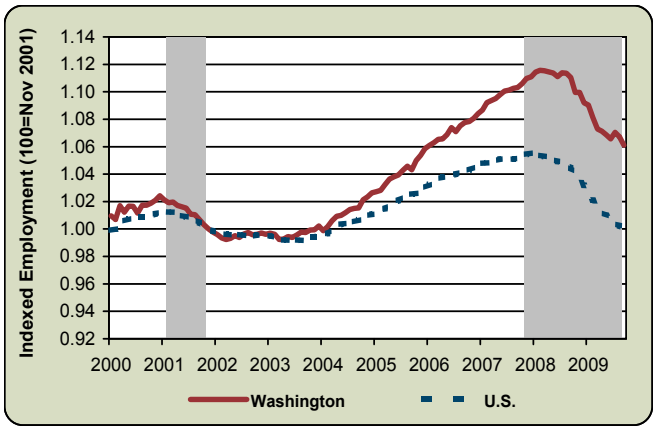
Washington's Labor Market in Recession

Comparing Washington to the Nation

In 2008, there was hope that Washington state would get through the national recession relatively unscathed. The state's flagship industries and companies did not look to be directly in the path of the recessionary cyclone as was the case in the 2001 recession.

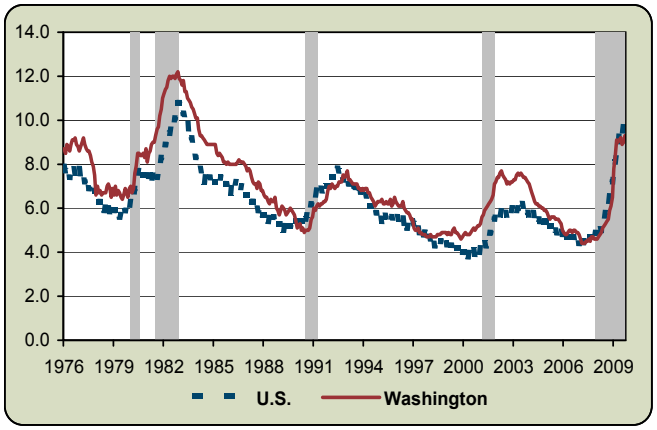
Now, in 2009, it is clear that our hopes were optimistic. Nationally, payroll employment has fallen for 21 straight months and is down by 5.2 percent as of September 2009. Washington state employment peaked a little later, in February 2008, but didn't suffer sustained losses until the second half of 2008. Since February, the state has registered employment declines in 17 of the last 19 months. During the official recession period, the *Evergreen State* experienced a 4.5 percentage point drop in employment.

Figure 9
Indexed Employment, Seasonally Adjusted
United States and Washington, 2000 to 2009
Source: Bureau of Labor Statistics and LMEA/ESD



The picture is pretty similar when looking at the unemployment rate (*Figure 10*). The unemployment rate began rising for the nation and the state at about the same time, but in recent months the national rate has outpaced the state rate. At the start of the recession, Washington's rate was a little lower – 4.6 percent compared to 4.9 percent for the nation. Since then, the national rise in unemployment has outpaced that of the state, increasing by 4.9 percentage points to reach 9.8 percent as of September 2009. Washington's rate rose by 4.7 percentage points to reach 9.3 percent during the same period.

Figure 10
Unemployment Rates, Seasonally Adjusted
United States and Washington, 1976 to 2009
Source: Bureau of Labor Statistics and LMEA/ESD



The picture arising in this cycle is that Washington state has suffered, but not quite to the extent as the nation as a whole. When looking at employment change during the recession, Washington ranked 21st (29 states had higher job losses on a percentage basis).

Washington in Recession

It is apparent that the magnitude of the current recession is larger than its 2001 predecessor, as well as for all other official recessions going back to the 1970s. Overall, employment has fallen in Washington by 4.5 percent since December 2007, with job losses totaling 132,600 (*Figure 11*). The closest recession since the 1970s in terms of per-

centage job losses is that of 1981 to 1982, with a 3.7 percent employment decline. Three of the five recent recessions had job losses less than 2 percent.

In addition to employment declines, the duration of the current recession stands out. Assuming that as of September 2009 we are still officially in recession,[6] the economy marks the 21st consecutive month of recession (*Figure 11*).

The hardest hit industry in Washington during the current recession has been construction.

Figure 11
Washington Employment during Recent Recessions
Seasonally Adjusted
Washington State, November 1973 to September 2009
Source: LMEA/Employment Security Department

Start	End	Starting Employment	Ending Employment	Number Change	Percent Change	Months in Recession
November 1973	March 1975	1,168,000	1,216,800	48,800	4.2%	16
January 1980	July 1980	1,614,300	1,597,800	-16,500	-1.0%	6
July 1981	November 1982	1,617,000	1,556,900	-60,100	-3.7%	16
July 1990	March 1991	2,148,600	2,164,700	16,100	0.7%	8
March 2001	November 2001	2,717,900	2,665,700	-52,200	-1.9%	8
December 2007	***September 2009****	2,962,600	2,830,000	-132,600	-4.5%	21

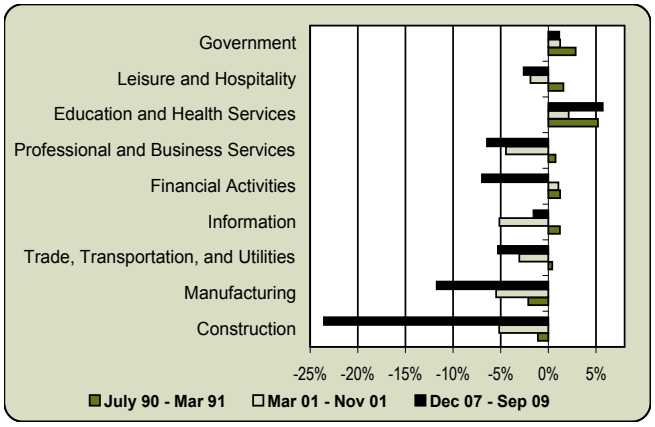
Note: *This assumes that September 2009 will be part of the eventual official recession period.

Industries During the Recession

During this current recession, all industries experienced more job losses (on a percentage basis) than during the two most recent recessions, with the exception of the information sector. Construction and manufacturing were the only two major sectors to see falling employment between July 1990 and March 1991.

The hardest hit industry in Washington during the current recession has been construction, which has seen payrolls fall by nearly 24 percent. In contrast, during the 2001 recession, construction payrolls were off by just over 5 percent and by only 1 percent in the early 1990s recession (*Figure 12*).

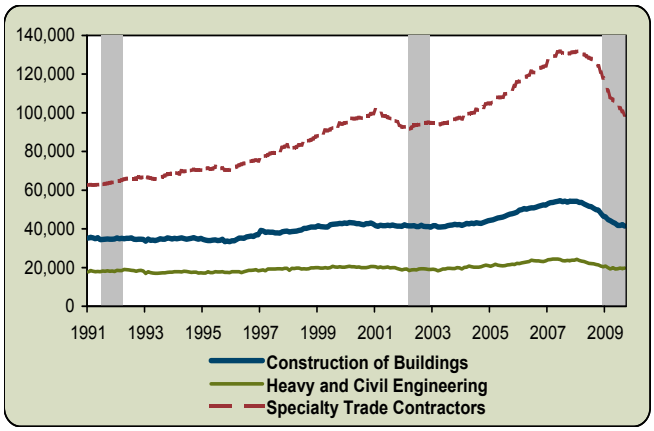
Figure 12
Percent Change in Employment by Sector
Washington State, Recent Recessions
Source: LMEA/Employment Security Department



[6] As of this writing, no official end of the recession has been identified. In hindsight we may well learn that the trough occurred in months prior to September.

Of the job losses in construction, nearly two-thirds are from the specialty trade contractors sub-industry. Since December 2007, this group has shed a quarter of its payroll. During most of the recession, this trend was driven by the residential side of specialty trade contractors. However, recent months have seen the non-residential side begin to show more job losses.

Figure 13
Employment in Construction Sub-Industries
Washington State, 1991 to 2009, Seasonally Adjusted
Source: LMEA/Employment Security Department



In addition to construction, manufacturing employment declined in all three recent recessions. Unlike construction, the losses are fairly evenly spread across the board. The wood products manufacturing industry has the most losses, both in percentage (-31.7) and absolute (-5,900 jobs) terms. At the other end of the scale is aerospace, which fell by only 1.2 percent (-1,000 jobs).

Benton-Franklin was the state's only growth region due to cleanup at Hanford and strong food processing growth.

Education and health services and the government sectors have proven to be recession proof, adding jobs over the last three recession periods. All other services-providing industries declined over the current recession period as did all goods-producing industries.

The financial activities sector, which has been hammered by the subprime meltdown as well as by the wider financial crisis, shed 7 percent of its payroll. Professional and business services lost nearly as much, down 6.4 percent, without the direct connection to the housing and financial problems. Professional and business services, which contains the highly-cyclical employment services industry, was struck when the wider economy went into recession. The trade, transportation, and utilities sector, which is dominated by retail and wholesale trade, was down 5.3 percent during the recession. This group was also affected indirectly as the recession led to cutbacks in consumer purchases.

The information sector was the only one to fare better in the current recession than in the "dot.com" recession. During the "dot.com" recession, information lost over 5 percent of employment compared to just 1.6 percent since December 2007.

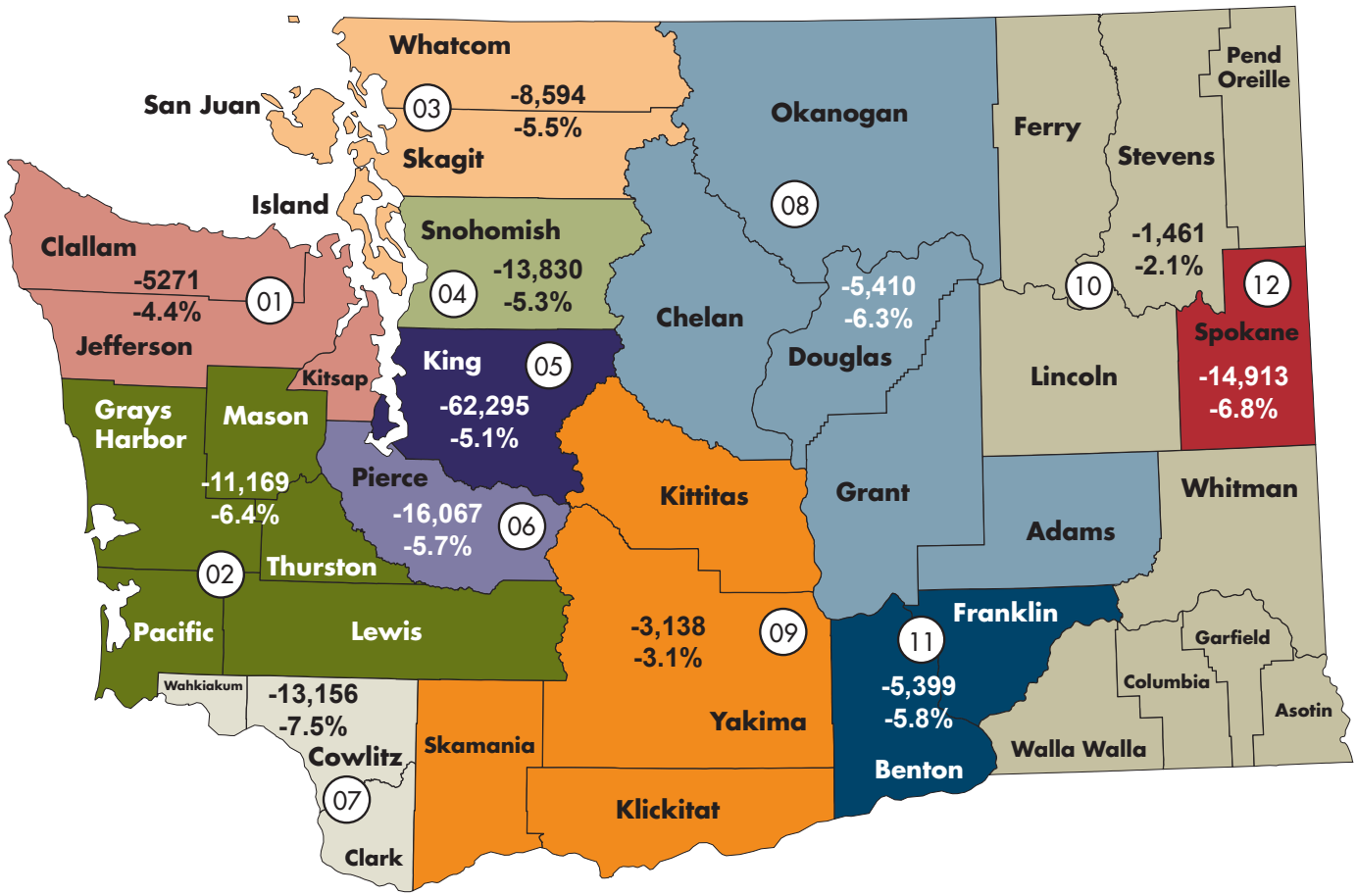
Workforce Development Areas During the Recession

When viewing how the recession played out across Washington state, one area stands out as the state's only growth region – Benton-Franklin. During this period, the region added about 5,399 jobs, amounting to a growth rate of 5.8 percent. This trend was in part supported by the Federal cleanup at the Hanford site, as well as by strong food processing growth.

The region to lose the most jobs during the recession was King County (-62,295 jobs), though this comes as little surprise given that King County provides about 40 percent of the state's workforce. The Southwest Workforce Development Area (WDA) had the highest percentage job loss at 7.5 percent, followed by the Spokane WDA at 6.8 percent.

Figure 14
Workforce Development Areas in Recession, Change in Employment, Seasonally Adjusted
Washington State, December 2007 to September 2009
Source: LMEA/Employment Security Department

WASHINGTON STATE WORKFORCE DEVELOPMENT AREAS IN RECESSION



The geography of the recession is quite different from that of 2001. The recession in the early part of the decade was centered on the Seattle area, with the non-Puget Sound regions, in particular, surviving relatively unscathed. By contrast, the current recession appears to be "an equal opportunity" recession (with the exception of Benton-Franklin), leaving very few areas unaffected.

Outlook

A year ago there was much speculation as to whether the country was in a recession. Likewise, this time around there is much speculation over when and if the recession has officially ended. The consensus is that sometime during the second half of 2009 will mark the official end of the recession. Remember, however, that the official

end of a recession just marks the end of the economic contraction, and is merely the beginning of the road to recovery. Following the previous recession, it took the state more than three and a half years to get back to its pre-recession level of nonfarm employment. In the Seattle area, matters were even worse – it was more than five years before the region attained its pre-recession employment levels. *Global Insights*[7] predicts that it will take until the first quarter of 2012 for Washington state to return to peak employment levels.

Global Insights predicts that it will take until the first quarter of 2012 for Washington state to return to peak employment levels.

There are significant headwinds that Washington faces as it goes toward recovery. Given that a good portion of the state's revenue is dependent on sales taxes, budget shortfalls loom for the state and local governments. This will negatively impact a sector that has helped to moderate job losses during the recession. The state also has serious infrastructure problems, such as heavy traffic congestion in the I-5 corridor, that, if not corrected, could crimp future growth. Lastly, there is a perception (whether justified or not), that the state has a somewhat negative business climate. This perception may hamper efforts to attract new firms as well as efforts to retain existing ones.

Fortunately, there are tailwinds that can aid Washington coming out of this recession. The state's mix of companies and industries is relatively well positioned as we exit the down cycle. In particular, the services sector should see more demand as a response to recent in-migration. The state is also well located to take advantage of the strong growth in Asia. Finally, the injection of Federal stimulus money may also help, but given that the state has lost over 130,000 jobs since its peak, it will no doubt take some time for a sustained recovery.

[7] This is based on the September 2009 Regional Forecast.

Seasonal, Structural, and Cyclical Industry Employment

Introduction

Changes in employment and unemployment are usually attributed to three factors – seasonal, cyclical, or structural. Identifying industries that are historically influenced by one or more of these factors gives us a better understanding of labor markets, causes of unemployment, and ways to plan for its impact.

Seasonal employment refers to employment that tends to occur at the same time each year. For example, construction jobs traditionally taper off in the winter, rebound in the spring, and peak during summer months. In the same way, employment in education jumps in the fall and drops off in the summer.

Structural employment changes are attributable to shifting forces that alter the long-term outlook of a given industry and/or occupation. Declines in the past several decades in Washington's timber industry were driven by new technology as well as enactment of environmental regulations. These employment declines are characteristic of structural changes.

An example of a cyclical economic cycle is the aerospace industry which goes through ups and downs, though not necessarily in conjunction with the national economy.

In this analysis we examine two different approaches to analyzing economic cycles. The *first* approach defines the cycle as "persistent deviation from the trend." So, in a sense, it quantifies employment changes of a cyclical nature for that industry, independent of other industries and economy-wide cycles. An example of this cycle is the aerospace industry in Washington, which goes through ups and downs, which are not necessarily in conjunction with the national economy. The *second* approach looks at how employment changes are related to the economic fluctuations of the business cycle.

The purpose of this chapter is to identify industries across Washington that share one or more of these characteristics. This analysis has been done with the Employment Security Department's covered[8] employment data series, primarily at the three- and four-digit North American Industry Classification (NAICS) level. Using a time series for each of these industries, factors of employment change were broken into four different components – seasonal, structural, cyclical, and irregular.

Seasonal Effects on Industries

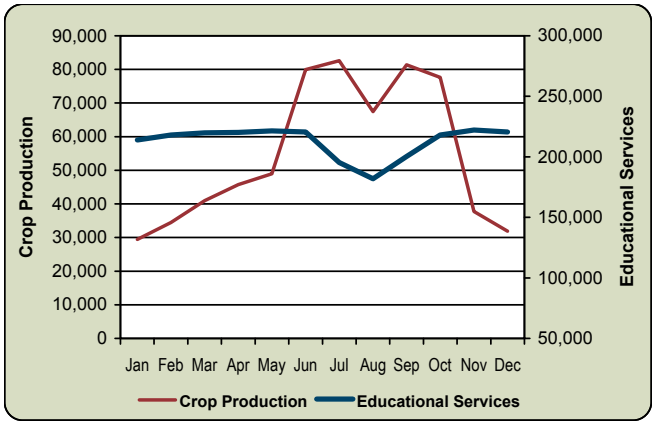
Figure 15
Industries Showing the Highest Degree of Seasonality
Washington, January 1990 to December 2008
Source: LMEA/Employment Security Department

Highly Seasonal Industries		
NAICS Codes	Industry Title	Seasonal Factor
111	Crop Production	35.1%
487	Scenic and Sightseeing Transportation	14.8%
115	Agriculture and Forestry Support Activities	13.8%
237	Heavy and Civil Engineering Construction	9.2%
114	Fishing, Hunting, and Trapping	9.0%
213	Support Activities for Mining	8.6%
711	Performing Arts and Spectator Sports	8.0%
721	Accommodation	6.0%
611	Educational Services	5.0%
311	Food Manufacturing	4.8%
448	Clothing and Clothing Accessories Stores	4.6%
713	Amusements, Gambling, and Recreation	4.5%
512	Motion Picture and Sound Recording Industries	4.5%
452	General Merchandise Stores	4.3%
492	Couriers and Messengers	4.1%
312	Beverage and Tobacco Products Manufacturing	4.1%

[8] For more information on the methodology used as well as the complete table, go to: **http://www.workforceexplorer.com/admin/uploadedPublications/9390_NAICS_Empl_timeseries.pdf**.

According to this methodology, since 1990 crop production employment has been more influenced by seasonal patterns than any other category, showing a seasonal factor of 35.1 percent. As depicted in *Figure 16*, employment in educational services, the ninth most seasonal industry, is very stable until the summer months when it dips before returning to form in the fall. Crop production has a nearly opposite employment pattern. Employment quickly rises in the spring to a peak in June/July, takes a dip between the cherry and apple harvests, and peaks again in late summer/early fall.

Figure 16
Average Monthly Employment in Educational Services and Crop Production
Washington, January 1990 to December 2008
Source: LMEA/Employment Security Department



At the other end of the spectrum are industries showing very little seasonal impact. The industries listed in *Figure 17* show those with the least amount of seasonal fluctuation. Hospitals and credit intermediation and related activities top the list.

Medical, manufacturing, and technology-related industries are predominant in this list of relatively nonseasonal industries. Merchant wholesalers of durable goods, business services, certain manufacturing, and information-based industries make up most of these nonseasonal industries. It is interesting to note that food manufacturing is very seasonal due to the timing of food harvests, while other manufacturing industries such as aerospace, chemical, computer, electrical equipment and appliance, machinery, and primary metal manufacturing have very low seasonality. These industries are more affected by structural and cyclical factors.

Figure 17
Nonseasonal Industries
Washington, January 1990 to December 2008
Source: LMEA/Employment Security Department

Nonseasonal Industries		
NAICS Codes	Industry Title	Seasonal Factor
622	Hospitals	0.3%
522	Credit Intermediation and Related Activities	0.3%
524	Insurance Carriers and Related Activities	0.4%
621	Ambulatory Health Care Services	0.4%
541	Professional and Technical Services	0.4%
551	Management of Companies and Enterprises	0.4%
334	Computer and Electronic Product Manufacturing	0.4%
623	Nursing and Residential Care Facilities	0.4%
523	Securities, Commodity Contracts, and Investments	0.5%
511*	Other Publishers	0.5%
423	Merchant Wholesalers, Durable Goods	0.6%
3364	Aerospace Products and Parts Manufacturing	0.6%
331	Primary Metal Manufacturing	0.7%
333	Machinery Manufacturing	0.7%
521	Monetary Authorities – Central Bank	0.7%
518	ISPs, Search Portals, and Data Processing	0.7%
335	Electrical Equipment and Appliance Manufacturing	0.7%
325	Chemical Manufacturing	0.7%
5171	Wired Telecommunications Carriers	0.8%
5112	Software Publishers	0.8%
562	Waste Management and Remediation Services	0.8%
323	Printing and Related Support Activities	0.8%
515	Broadcasting, except Internet	0.8%
488	Support Activities for Transportation	0.9%
624	Social Assistance	0.9%
486	Pipeline Transportation	0.9%
481	Air Transportation	1.0%
336*	Other Transportation Equipment Manufacturing	1.0%

Note: *Indicates an aggregated code.

Structural Effects on Industries

Industry employment can also be analyzed to see the long-term trends due to structural change. This analysis is referred to as the structural component of growth, and is typically due to changes in technology, changing products and services demand, and policies that favor or discourage growth within certain industries.

The structural analysis process measures how much structural factors contribute to employment change as opposed to recurring cyclical ups and downs.

According to this analysis, employment in the software publishers industry is the most influenced by long-run economic changes (*Figure 18*). A full 74.4 percent of employment changes between 1990 and 2008 can be explained by structural factors as opposed to cyclical changes. During this period, over 43,348 jobs were added by software publishers, amounting to an increase of 586 percent. Since the early 1990s this industry has experienced tremendous growth. After software publishers, the industries most strongly influenced by structural factors were ambulatory health care services and social assistance, no doubt driven by long-term demographic changes.

Figure 18
Industries Most Influenced by Economic and Policy-Driven Structural Phenomena
Washington, January 1990 to December 2008
Source: LMEA/Employment Security Department

NAICS Codes	Industry Title	Structural Change Component	1990 to 2008 Employment Change	
			Percent	Number
5112	Software Publishers	74.4%	586%	43,348
621	Ambulatory Health Care Services	61.9%	67%	49,774
624	Social Assistance	61.7%	140%	40,133
903	Local Government (other)	59.2%	63%	56,966
453	Miscellaneous Store Retailers	59.2%	27%	4,314
622	Hospitals	58.6%	64%	36,895
722	Food Services and Drinking Places	58.4%	44%	61,219
611	Educational Services	57.6%	50%	82,311
541	Professional and Technical Services	57.3%	74%	68,065
523	Securities, Commodity Contracts, and Investments	53.7%	98%	5,558
425	Electronic Markets and Agents and Brokers	53.7%	52%	4,983
623	Nursing and Residential Care Facilities	53.5%	43%	18,210
423	Merchant Wholesalers, Durable Goods	53.1%	34%	17,160
812	Personal and Laundry Services	52.2%	32%	6,499
238	Specialty Trade Contractors	51.7%	95%	57,344
5171	Wired Telecommunications Carriers	51.5%	-22%	-3,320
331	Primary Metal Manufacturing	51.5%	-56%	-7,256
333	Machinery Manufacturing	51.4%	31%	3,611
814	Private Households	51.2%	657%	32,690
332	Fabricated Metal Product Manufacturing	50.4%	33%	4,886

Cyclical Effects on Industries

Using the same method of breaking down contributions to employment growth, we can also identify cyclical industries (*Figure 19*). Specifically, these are industries that have internal cycles that show recurring deviation from trend levels of operation.

[9] The scenic and sightseeing industry is basically divided by whether the sightseeing occurs on water or land. The water side of the industry growth has been trending upward, whereas the land side has been flat or declining. However, when combined these two growth trends essentially cancel one another out and the employment patterns look trendless.

Figure 19
Industries Most Influenced by Cyclical Factors
Washington, January 1990 to December 2008
Source: LMEA/Employment Security Department

NAICS Codes	Industry Title	Cycle	Correlation with Total Employment
487	Scenic and Sightseeing Transportation	85.1%	-74.9%
213	Support Activities for Mining	80.1%	-80.5%
112	Animal Production	78.1%	72.3%
483	Water Transportation	76.7%	-11.3%
316	Leather and Allied Product Manufacturing	75.7%	-85.1%
486	Pipeline Transportation	73.4%	-86.5%
515	Broadcasting, except Internet	73.1%	-72.3%
221	Utilities	73.0%	-87.4%
324	Petroleum and Coal Products Manufacturing	72.4%	34.3%
711	Performing Arts and Spectator Sports	72.0%	-17.4%
114	Fishing, Hunting, and Trapping	71.2%	-94.3%
446	Health and Personal Care Stores	70.9%	80.3%
313	Textile Mills	70.9%	-77.4%

The scenic and sightseeing industry has employment that is most attributable to cyclical factors (85.1 percent). It has exhibited inconsistent trends, primarily because component sub-industries are trending differently.[9] The industry with the next highest level of cyclicality is support activities for mining. Overall, the list has strong representation from the transportation and resource extraction industries. Note also that most of the industries listed in *Figure 19* have a negative correlation with total employment. This negative correlation means that employment in these industries tends to move in a direction opposite of the direction of overall employment.

The scenic and sightseeing industry has employment that is most attributable to cyclical factors and has exhibited inconsistent trends.

Figure 20
Industries Most Influenced by Overall Economic Growth
Washington, January 1990 to December 2008
Source: LMEA/Employment Security Department

NAICS Codes	Industry Title	Cycle	Correlation with Total Employment
561	Administrative and Support Services	51.2%	98.7%
441	Motor Vehicle and Parts Dealers	58.9%	98.7%
541	Professional and Technical Services	42.7%	98.6%
335	Electrical Equipment and Appliance Mfg.	59.9%	98.4%
812	Personal and Laundry Services	47.8%	98.3%
722	Food Services and Drinking Places	41.6%	98.1%
485	Transit and Ground Passenger Transportation	58.6%	97.5%
423	Merchant Wholesalers, Durable Goods	46.9%	97.4%
611	Educational Services	42.4%	97.3%
622	Hospitals	41.4%	97.3%
443	Electronics and Appliance Stores	66.1%	97.2%
713	Amusements, Gambling, and Recreation	50.1%	97.1%
5112	Software Publishers	25.6%	97.1%
444	Building Material and Garden Supply Stores	57.9%	96.7%
532	Rental and Leasing Services	52.5%	96.5%

Services and retailers are the most common among industries highly influenced by total employment.

We can also focus on industries that move in conjunction with the economy as a whole, that is, overall economic growth. The administrative and support services industry shows the strongest relationship to the state's growth pattern, with a correlation of 98.7 percent (*Figure 20*). Services and retailers are the most common among industries highly influenced by economic growth. As the economy grows, there is more overall demand for various services, and with more people employed, there is more overall consumption. It is worth noting that the "cycle" percentages displayed in *Figure 20* are not particularly high. For all industries analyzed, the average cyclical percentage was 53.1 percent, a number only surpassed by 5 of the 15 industries shown.

While most of this report focuses on the 2007 to 2009 recession, it is important to remember that there are other factors at play, such as seasonality and long-term structural changes in the economy, all of which influence our employment patterns.

Unemployment and its Dimensions

Introduction

Many indicators are used to determine the difficulty of obtaining employment in a given labor market. The regular unemployment rate is widely used in economic research as a lagging indicator of the overall direction of the economy. Lesser used, but no less important, are the characteristics of the unemployed.

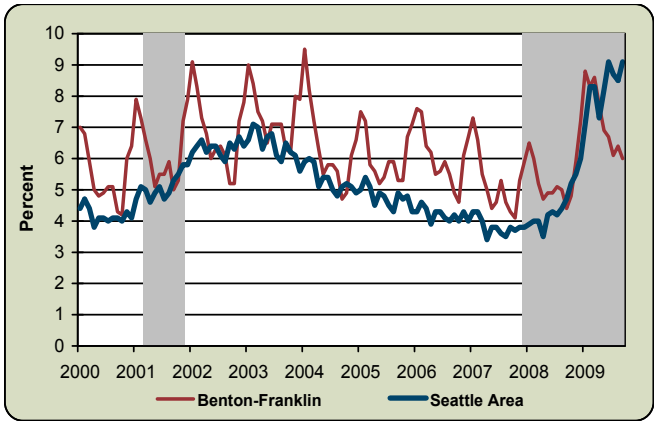
The Regular Unemployment Rate

The unemployment rate is the ratio of the estimated number of unemployed divided by the labor force. Only individuals who are actively looking for work are counted as unemployed. The labor force includes both those working as well as those who are looking for but unable to find work.

The Local Area Unemployment Statistics (LAUS) program is a Federal-State cooperative effort which estimates total employment and unemployment. The concepts and definitions underlying LAUS data come from the *Current Population Survey* (CPS), the household survey that is the official measure of the labor force for the nation. State model estimates are controlled to sum to national monthly labor force estimates from the CPS. These models combine current and historical data from the CPS, the *Current Employment Statistics* (CES) program, and state *unemployment insurance* (UI) systems to arrive at state estimates.

The labor force includes both those working as well as those who are looking for but unable to find work.

Figure 21
Unemployment Rates Over Time, Seattle and Benton-Franklin Counties
Washington State, January 2000 to September 2009
Source: Local Area Unemployment Statistics, and Haver Analytics



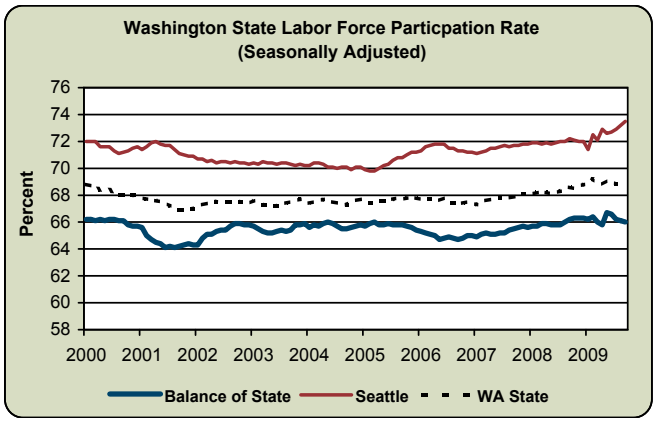
As discussed in *Chapter two*, Washington state's seasonally adjusted unemployment rate shows a similar trend to that of the U.S. The state rate started the year at 7.8 percent, was passed by the national rate in May 2009, before rising to 9.3 percent in September 2009.

The Seattle metropolitan area, which makes up about 40 percent of the state labor force, follows the state and national patterns, rising rapidly during the recessionary period. In February 2008, the Seattle rate stood at 3.5 percent. Since then it has risen 5.6 percentage points to reach 9.1 percent in September 2009. As pointed out in *Chapter two*, the Benton-Franklin area has bucked the recessionary trend. In contrast to Seattle, Benton-Franklin has only seen its UI rate rise by 1.3 percentage points to reach a high of 6 percent in September.

Labor Force Participation Rate

The labor force participation rate is the ratio of the labor force divided by the noninstitutionalized population aged 16 and older. A higher participation rate means that a higher percent of a given population is either working or seeking work. The Seattle Metropolitan Division (MD – Seattle-Bellevue-Everett) has posted a higher rate than the state and balance of the state, estimated at 73.5 percent in September 2009. The overall Washington participation rate in September was 68.9 percent. The balance of the state was 66 percent in September. The United States labor force participation rate has been trending down over the past decade and stands at 65.2 percent for September 2009.

Figure 22
Monthly Labor Force Participation Rate
Washington State, January 2000 to September 2009
Source: Local Area Unemployment Statistics, and Haver Analytics

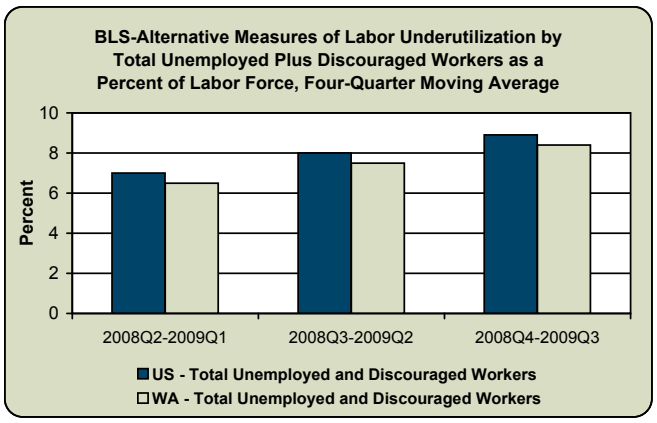


Discouraged Workers

Discouraged workers are those individuals not working who have given up looking for work because they believe that they will not find a job. The term discouraged worker is often confused with the term dislocated or displaced worker. The most important distinction is that the dislocated or displaced worker can be a member of the labor force, whereas the discouraged worker is not.

The Bureau of Labor Statistics provides data on *Alternative Measures of Labor Underutilization* for the states, which measures total unemployment plus discouraged workers as part of the civilian labor force. If you compare a four-quarter moving average for first quarter 2009, second quarter 2009, and third quarter 2009, you see that the *discouraged workers plus the total unemployed workers* (known as U-4) have risen sharply as a percent of the labor force throughout 2009. This indicates that increasing numbers of workers have given up looking for work and have dropped out of the labor force during this recession.

Figure 23
Average Total Unemployed and Discouraged Workers
Washington, January 2009 to September 2009
Source: Bureau of Labor Statistics, Local Area Unemployment Statistics, Alternative Series U-4



Mass Layoff Statistics

The Mass Layoff Statistics (MLS) program is a federally-funded program that has collected Washington state mass layoff information since 1996. Each week, this program collects data on firms with ten or more UI initial claims that are filed against an establishment during a consecutive five-week period. If those initial claims total 50 or more, the MLS program contacts those establishments to determine whether those separations are at least 31 days in duration. The program also asks the employer:

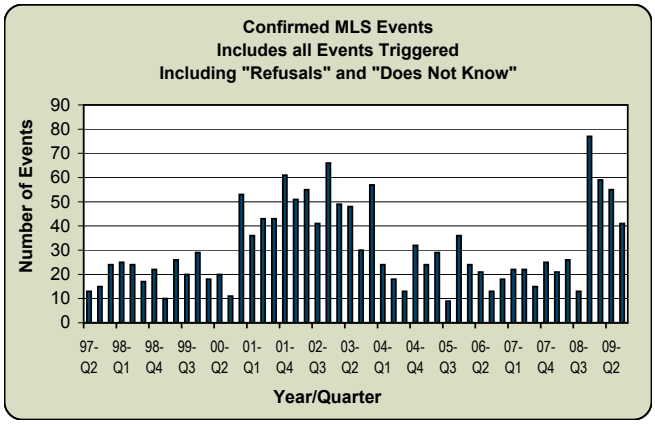
- the reason for the layoff;
- if there will be an expected recall; and
- if the layoff is associated with the movement of work domestically or globally.

The general purpose of the MLS program is to identify areas and industries within the state that are potentially economically distressed. The data are also used to help allocate services and funding to those distressed workers and areas for re-employment resources.

The historical MLS data show a downward trend of mass layoff events and separations since 2003. This trend changed direction abruptly in the fourth quarter of 2008, with 77 mass layoff events. In the period from fourth quarter 2008 to third quarter 2009, Washington state employers reported 232 mass layoff events that resulted in the separation of 23,695 workers from their jobs for at least 31 days. Mass layoff events increased by 173 percent for the period from fourth quarter 2008 to third quarter 2009 compared to the same four quarters a year earlier. The number of events increased by 85 between the fourth quarter 2007 and third quarter 2008, then by 232 between fourth quarter 2008 and the third quarter 2009. Separations reported for mass layoffs increased by 135 percent for the same time period, with 10,068 reported in 2008 and 23,695 reported in 2009. The mass layoff events for the last four quarters have been trending down with 77 events reported at the start of the recession in the third quarter of 2008, followed by 59, 55, and 41 reported respectively for the first three quarters of 2009.[10]

[10] "Refusal" to provide information and "does not know" contact reason codes were included in the data. Separations data include initial claimants (workers who applied for unemployment benefits) for reason code "refusal" to respond and "does not know."

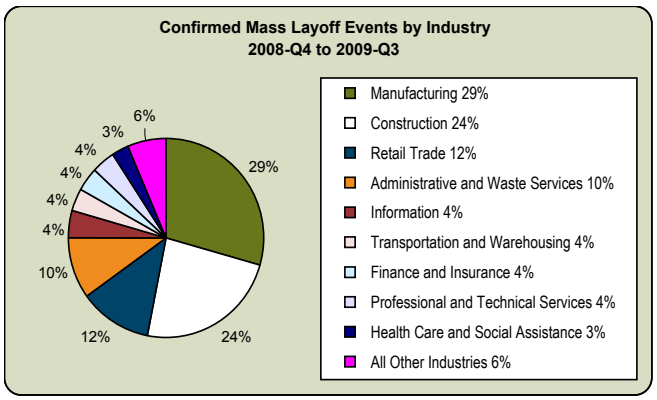
Figure 24
Confirmed Mass Layoff Events
Washington State, 1997-Q2 to 2009-Q3
Source: LMEA/Employment Security Department, Mass Layoff Statistics Program



Mass Layoffs by Industry

The data for fourth quarter 2008 through third quarter 2009 show the top industries reporting mass layoff events to be in the manufacturing, construction, retail trade, and the administrative and waste services industries. In the previous four quarters, manufacturing, construction, retail trade, and administrative and waste services were the top industries reporting mass layoffs.

Figure 25
Confirmed Mass Layoff Events by Industry
Washington State, 2008-Q4 to 2009-Q3
Source: LMEA/Employment Security Department, Mass Layoff Statistics Program



Other Mass Layoff Trends

From fourth quarter 2008 to third quarter 2009, there were six reported mass layoffs that involved the movement of work within the same company or to a different company, whether domestic or outside of the United States. There has been a trend of fewer layoff events that involve the movement of workers since 2005. Last year from fourth quarter 2007 to third quarter 2008, there were no reported mass layoffs that involved the movement of workers domestically or outside of the United States.

In 29 mass layoff events employers anticipated recalling their workers. Thirteen percent of the total events reported were from fourth quarter 2008 to third quarter 2009. These mass layoff events involved an anticipated recall of 7,895 mass layoff separations, or about 33 percent of all reported mass layoff separations. From fourth quarter 2007 to third quarter 2008, employers anticipated recalling workers in 46 mass layoff events, or 54 percent of the total events for the four quarters reported. There was an anticipated recall of 3,522 mass layoff separations or about 35 percent of all reported mass layoff separations for that period in 2008. Between fourth quarter 2008 and third quarter 2009, permanent worksite closures were reported in 18 mass layoff events. From fourth quarter 2007 to third quarter 2008, there were closures reported in less than three mass layoff events.

Mass Layoff Statistics Recession-to-Recession Comparison

There are several distinctions for mass layoffs when comparing the current recession (fourth quarter 2007 to third quarter 2009) with that of 2001. The 2001 recession recorded 236 total mass layoff events and the current recession recorded 245 events to date. However, there were 58,397 reported separations in the 2001 recession and only 25,177 reported separations in the 2007 to 2009 recession, a 57 percent difference.

A possible explanation for this difference in separations between the 2001 and 2008 recessions is the difference in the size of firms laying off workers. The current recession is marked by many smaller events (firms of less than 200 employees), while the 2001 recession saw fewer but larger events (firms of 200 or more). In addition, some smaller layoffs could have fallen below the 50-layoff trigger and were not recorded.

Unemployment Insurance Program Data

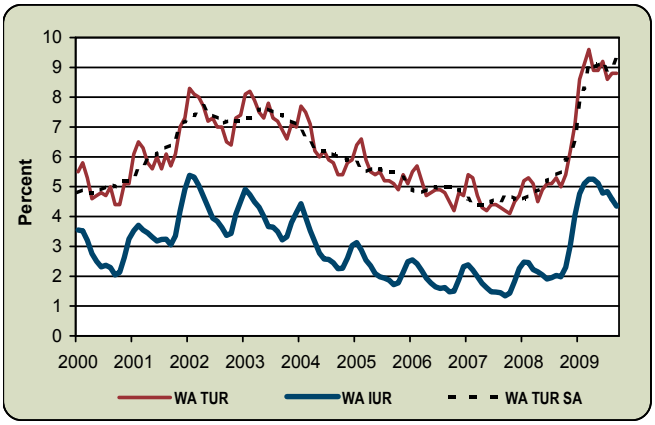
The Insured Unemployment Rate

The *insured unemployment rate*, calculated solely from Unemployment Insurance (UI) program data, is of special importance during times of rising joblessness because the unemployment rate has the potential to trigger an extension of UI benefits. The UI rate does not attempt to represent the entire economy but instead refers to people working in industries that are *covered* by unemployment insurance. In Washington state, more than 86 percent of all workers are estimated to be covered by unemployment insurance.

Figure 26 compares the *insured* (IUR) and *regular* (TUR) unemployment rates for Washington. The rates move in tandem, with the *insured* rate being about half the *regular* unemployment rate. In late 2008, both measures of unemployment began a dramatic and steep rise followed by more moderating changes in the second half of 2009.

Between 2008 and 2009, permanent worksite closures were reported in 18 mass layoff events.

Figure 26
Monthly Unemployment Rates, Total Unemployment Rate (TUR), and Insured Unemployment Rate (IUR) Washington State, January 2000 through September 2009
Source: Haver Analytics



Note: WA TUR - Not Seasonally Adjusted; WA IUR - Not Seasonally Adjusted; WA TUR SA - Seasonally Adjusted

Unemployment Insurance Beneficiaries

A *new* UI beneficiary means the individual has received the first payment on a new unemployment insurance claim. Of all initial (new) unemployment claims filed in 2008, about 66 percent resulted in a first payment. Rising first payments are associated with increasing joblessness.

Figure 27 presents those industries that are experiencing major job loss. In the October 2008 through September 2009 period, the construction industry, for example, has 22.3 percent of all new UI beneficiaries. In contrast, construction's share of total covered employment is only 6.3 percent. The ratio of these two percentage shares (22.3 percent divided by 6.3 percent) yields a factor of 3.5,[11] meaning that construction has a higher share of beneficiaries than employment. Mining, manufacturing, and administrative support and waste management also have high ratios.

[11] Any number higher than 1.0 indicates a higher relative share of beneficiaries, while any number lower than 1.0 indicates a lower relative share.

Figure 27
Unemployment Insurance New Beneficiaries Relative to Covered Employment, Regular UI Benefits Program Washington State, October 2008 through September 2009
Source: Unemployment Insurance Data Warehouse, Continued Claims Database, QCEW 2008 Annual Average, Preliminary (6-Month Lag)

Industry	New Beneficiaries to Employment Ratio	Share of Total Covered Employment	Share of Total New Beneficiaries
Mining	4.4	0.1%	0.4%
Construction	3.5	6.3%	22.3%
Manufacturing	1.7	9.7%	16.7%
Admin. Support and Waste Mgmt.	1.6	4.9%	7.8%
Educational Services	1.4	1.1%	1.6%
Transportation and Warehousing	1.3	2.9%	3.8%
Agric., Forestry, Fishing and Hunting	1.3	2.9%	3.8%
Utilities	1.1	0.2%	0.2%
Wholesale Trade	1.1	4.3%	4.7%
Professional and Technical Services	1.0	5.4%	5.6%
Real Estate and Rental and Leasing	1.0	1.7%	1.7%
Finance and Insurance	0.9	3.4%	3.2%
Arts, Entertainment, and Recreation	0.9	1.6%	1.5%
Retail Trade	0.7	10.9%	8.1%
Information	0.7	3.6%	2.5%
Other Services	0.7	4.0%	2.6%
Accommodation and Food Services	0.6	7.9%	4.5%
Health Care and Social Assistance	0.5	10.5%	4.7%
Government (excl. Educ. Services)	0.1	17.7%	1.9%
Mgmt. of Companies and Enterprises	0.1	1.2%	0.1%
Information Not Available	--	--	2.3%
Total		**100.0%**	**100.0%**

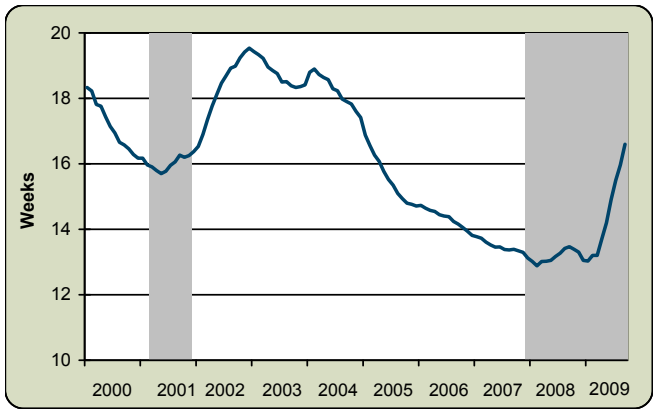
Duration of Unemployment Benefits

Under current state law for the *regular* unemployment insurance program, individuals can receive benefits for up to 26 weeks in any 52-week benefit year. The 52-week benefit year begins upon application for UI benefits, and a person may have one or more episodes of unemployment during a single benefit year. When the benefit year is up, the UI claim expires.

Because of the unusually steep labor market decline in the current recession, additional weeks of unemployment benefits have been made available to workers who are still without a job after *exhausting* (using up) their regular benefits. Due to the economic downturn, once regular benefits are exhausted, current law allows for an additional 33 weeks of *emergency* benefits and 20 weeks of *extended* UI benefits.

Duration of benefits refers to the number of weeks that *regular* UI benefits are paid during the benefit year. *Figure 28* shows that the duration of benefits in Washington state since 2000 was highest immediately following the national recession of 2001 (shaded area) and is once again rising sharply in the current recession. This recession's duration statistic is expected to surpass the 19.5 weeks recorded in December 2002.

Figure 28
Duration of Unemployment Benefits by Month,
Regular UI Benefits Program
Washington State, January 2000 through September 2009
Source: ETA Monthly Program and Financial Data



During second quarter 2009, duration for all 50 states averaged 16.2 weeks. Washington's comparable duration figure is 15.5 weeks, about midway between the range of 11 to 19 weeks for all states.

In difficult economic times when jobs are scarce, UI benefit exhaustees may well become part of the long-term unemployed.

Long-Term Unemployment

Unemployed individuals *exhaust* their benefits when they have received all 26 weeks of their UI payments (regular program) within the benefit year. In difficult economic times when jobs are scarce, UI benefit exhaustees may well become part of the long-term unemployed. *Figure 29* shows the number of UI benefit exhaustees by month for the past three years. Reflecting the current recession's onset in December 2007, the level of exhaustees began to inch up in late 2008 and remains at an elevated level in 2009.

Figure 29
Number of Beneficiaries Who Exhausted Their
Unemployment Insurance Benefits, by Month,
Regular UI Benefits Program
Washington State, January 2007 through September 2009
Source: Unemployment Insurance Data Warehouse,
Continued Claims Database

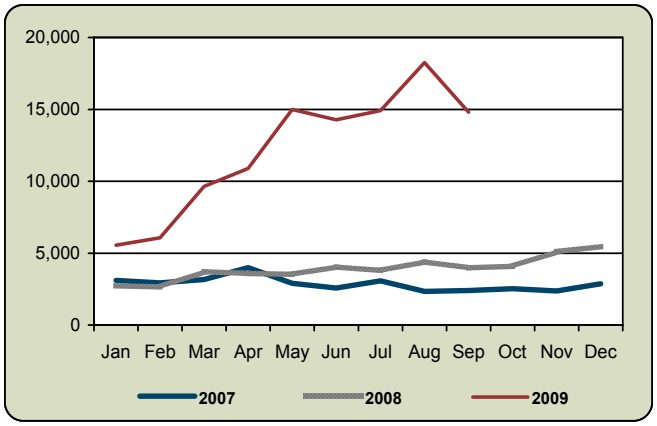
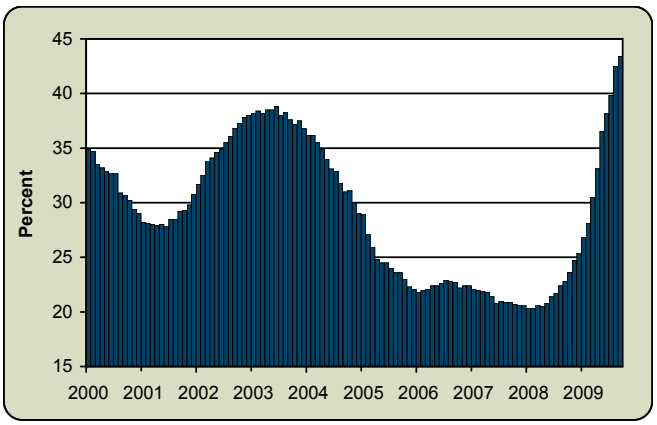


Figure 30 shows the monthly *exhaustion rate* for Washington state. Besides using the number of exhaustees from *Figure 29*, this calculation incorporates first and last UI benefit payments on a claim. In September 2009, Washington's monthly exhaustion rate was 43.4 percent, nearly double that of a year ago.

Figure 30
Unemployment Insurance Exhaustion Rate,
Regular UI Insurance Program
Washington State, January 2000 through September 2009
Source: ETA Monthly Program and Financial Data



UI Exhaustions by Region, Industry, and Occupation

In some cases, higher exhaustion rates are associated with long-term unemployment conditions. Further analyzing the information presented in *Figure 31* by area, industry, and occupation can help to provide more information on those potentially facing long-term joblessness.

For example, using Workforce Development Areas (WDAs) as the geographic basis, *Figure 31* shows that the exhaustion rate varied from a low of 28.0 percent in North Central Washington (WDA 8) to a high of 49.3 percent in Seattle-King County (WDA 5) during the 2008 to 2009 period. Fully one quarter of UI recipients in WDA 8 and half of those in WDA 5 used up all their benefits in the regular one-year benefit period. Compared to last year, exhaustion rates rose sharply in all WDAs. For example, last year's exhaustion rates for North Central and Seattle-King County were 15.0 and 24.6 percent, respectively.

Figure 31
Unemployment Insurance Exhaustions by Area,
Regular UI Benefits Program
Washington State, October 2008 through September 2009
Source: Unemployment Insurance Data Warehouse,
Continued Claims Database

Workforce Development Area		Annual Exhaustions	Annual Exhaustion Rate
1	Olympic	4,631	41.2%
2	Pacific Mountain	8,537	38.4%
3	Northwest WA	6,011	37.8%
4	Snohomish County	15,491	46.9%
5	Seattle-King County	34,990	49.3%
6	Pierce County	15,013	45.0%
7	Southwest WA	9,401	43.8%
8	North Central WA	3,828	28.0%
9	South Central WA	4,925	29.8%
10	Eastern WA	2,219	36.3%
11	Benton-Franklin	2,870	28.9%
12	Spokane County	7,694	40.5%
	Information Not Available	3	0.0%
Total		**115,613**	**42.3%**

Figure 32 reports the exhaustion rate by industry for the period between October 2008 and September 2009. Individuals in information; finance and insurance; real estate and rental and leasing; professional and technical services; and management of companies and enterprises had the highest exhaustion rates, with about half the beneficiaries in these industries using up all their unemployment benefits. All industries show substantial increases in their exhaustion rate from last year.

In certain industries, about half the beneficiaries used up all their unemployment benefits.

Figure 32
Unemployment Insurance Exhaustions by Industry, Regular UI Benefits Program
Washington State, October 2008 through September 2009
Source: Unemployment Insurance Data Warehouse, Continued Claims Database

Industry (Two-Digit NAICS)	Annual Exhaustions	Annual Exhaustion Rate
Agric., Forestry, Fishing and Hunting	2,608	22.0%
Mining	462	35.3%
Utilities	200	37.9%
Construction	24,286	38.6%
Manufacturing	18,531	40.8%
Wholesale Trade	6,386	49.7%
Retail Trade	10,581	46.1%
Transportation and Warehousing	3,690	35.9%
Information	3,086	53.3%
Finance and Insurance	4,630	53.1%
Real Estate and Rental and Leasing	2,585	54.7%
Professional and Technical Services	6,976	51.0%
Mgmt. of Companies and Enterprises	160	51.9%
Admin. Support and Waste Mgmt.	10,198	47.7%
Educational Services	1,277	40.6%
Health Care and Social Assistance	5,203	42.4%
Arts, Entertainment, and Recreation	1,645	41.7%
Accommodation and Food Services	4,663	37.4%
Other Services	3,302	47.1%
Government (excl. Educ. Services)	2,163	44.6%
Information Not Available	2,981	41.2%
Total	**115,613**	**42.3%**

Figure 33 examines UI exhaustions by occupation. It shows that there are six occupations with exhaustion rates over 50 percent that may be facing potentially more long-term unemployment. These include: management; business and financial operations; architecture and engineering; arts, design, entertainment, sports, and media; legal; and office and administrative support. The rest of the occupational groups also have substantially higher exhaustion rates compared to a year ago.

Figure 33
Unemployment Insurance Exhaustions by Occupational Group, Regular UI Benefits Program
Washington State, October 2008 through September 2009
Source: Unemployment Insurance Data Warehouse, Continued Claims Database

Occupational Group (Two-Digit SOC)		Annual Exhaustions	Annual Exhaustion Rate
11	Management	12,281	52.1%
13	Business and Financial Operations	4,319	53.8%
15	Computer and Mathematical	2,953	46.3%
17	Architecture and Engineering	3,085	52.2%
19	Life, Physical, and Social Science	721	39.8%
21	Community and Social Services	679	43.5%
23	Legal	586	50.8%
25	Education, Training, and Library	714	27.7%
27	Arts, Design, Entertainment, Sports, and Media	2,221	51.0%
29	Health Care Practitioners and Technical	973	39.3%
31	Health Care Support	1,096	41.4%
33	Protective Service	1,129	46.8%
35	Food Preparation and Serving Related	3,329	35.5%
37	Building and Grounds Cleaning and Maintenance	2,106	33.7%
39	Personal Care and Service	2,008	45.6%
41	Sales and Related	8,327	49.7%
43	Office and Administrative Support	15,889	52.7%
45	Farming, Fishing, and Forestry	2,736	24.7%
47	Construction and Extraction	22,150	38.2%
49	Installation, Maintenance, and Repair	5,272	38.9%
51	Production	14,510	42.2%
53	Transportation and Material Moving	8,400	31.7%
55	Military Specific	129	47.4%
Total		**115,613**	**42.3%**

Architecture/Engineering is one occupation showing exhaustion rates over 50 percent that may be facing potentially more long-term unemployment.

Occupations During the Recession

Introduction

To better understand how occupations are faring during this recession, the ratio of continued unemployment insurance claims to Help-Wanted OnLine advertisements (HWOL) is calculated. A monthly time series of available advertisements[12] using HWOL can be thought of as a partial measure of labor demand. Similarly, labor supply is represented by the number of unemployment insurance (UI) continued claims. Claims are divided by HWOL to produce an index of how well occupations have fared during the recession.

There are some weaknesses with this indicator as UI claims do not represent total labor supply. Some job seekers do not qualify for UI benefits (new entrants, exhaustions, etc.) and some may look for jobs in occupations different from the ones claimed. At the same time, online job advertisements may not necessarily represent job openings (demand) for the following reasons:

- some advertisements are used for marketing purposes;
- occasionally there is a need for a position, but inadequate resources to fill the position; and
- some jobs are not advertised online.

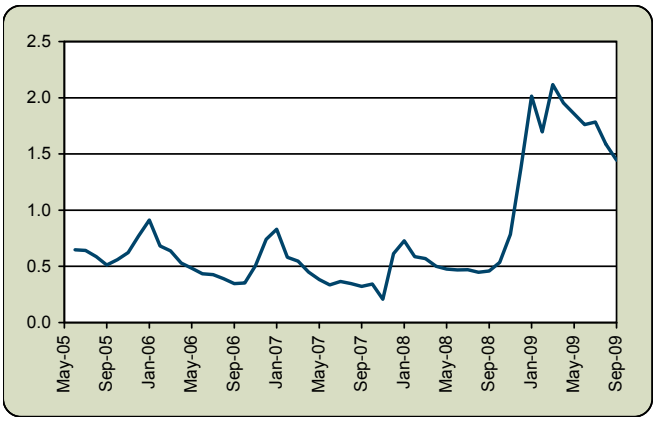
Developers of HWOL attempt to eliminate duplicate job announcements, but it is possible that some duplication remains. Occupational coding for HWOL is based on an auto coder, while UI claimants are manually coded. There is probably a significant number of advertisements and claims that would be mismatched in coding. An additional problem is that HWOL data are not additive between the detailed occupation level and the occupational group level.[13]

Despite these limitations, the claims-to-advertisements ratio remains one of the few indicators for occupational supply and demand. However, since it doesn't fully represent supply and demand, the indicator will hence be referred to as the "claims-to-advertisements ratio."

While absolute numbers should be taken with a high degree of caution, the trend in the ratios calculated are based on a consistent time series and is a reasonable indicator for changes in occupational supply and demand.

The analysis has been conducted for the state and Workforce Development Areas (WDAs) at the following levels of occupational aggregation: two- and six-digit Standard Occupational Classification (SOC).

Figure 34
The Claims-to-Advertisements Ratio
Washington State, May 2005 through September 2009
Source: LMEA/Employment Security Department, Unemployment Insurance Continued Claims/ Help-Wanted OnLine (HWOL) Advertisements



[12] HWOL developers suggest for research purposes that one use the mid points of the month when generating monthly time series data. For example, the month of August is comprised of data from July 14 through August 13; the month of September includes data from August 14 through September 13. The data are available from May 2005.

[13] Continued claims data are completely additive between different levels of occupational and geographical aggregation. However, HWOL data are not additive between different occupational and area levels of aggregation. For occupational hierarchies, differences are relatively small for the two- and three-digit SOC levels. However, this difference is very large at the six-digit level. The sum of the six-digit occupational data is significantly larger than independently estimated totals and subtotals for two- and three-digit levels of aggregation. For example, the sum for counties could differ from the state total; and the sum for six-digit SOC occupations may not equal the sum for three-digit SOC occupations.

As shown, from the Washington state claims-to-advertisements ratio presented in *Figure 34*, the ratio is below 1.0 until December 2008, and then exhibits a sharp increase to more than 2.0 in January and March 2009. This coincides with overall employment patterns, which registered sharp declines during the fourth quarter of 2008. Supply remains larger than demand through September 2009. However, the ratio has a declining trend from March 2009. If it reaches 1.0, it could be an indicator of stabilization for Washington's labor market.

All Occupations

To analyze the impact of the recession on occupations for the various levels of aggregation, we compared the average ratios for the available nine months of 2009 (January to September) to the average for the same period in 2007.

The claims-to-advertisements ratio for total occupational employment for Washington state and its WDAs is presented in *Figure 35*.

Figure 35
The Claims-to-Advertisements Ratio for Total Occupational Employment
Washington State, First Nine Months of 2007 and 2009
Source: LMEA/Employment Security Department, Unemployment Insurance Continued Claims/ Help-Wanted OnLine (HWOL) Advertisements

Area	2007	2009	Ratio Change
Washington State	0.45	1.79	4.02
Olympic Consortium	0.65	1.78	2.74
Pacific Mountain	2.48	2.66	1.07
Northwest Washington	0.63	2.33	3.67
Snohomish County	0.86	4.35	5.07
Seattle-King County	0.20	1.06	5.43
Pierce County	0.47	1.45	3.08
Southwest Washington	0.68	3.51	5.18
North Central Washington	1.66	3.48	2.10
South Central	1.49	2.42	1.63
Eastern Washington	0.99	1.85	1.87
Benton-Franklin	0.82	1.19	1.45
Spokane County	0.66	1.89	2.86

Note: Data in all three columns are rounded.

These can be used as one way to gauge the recession's impact on the labor markets across the state. Between 2007 and 2009, these ratios increased sharply for all areas except the Pacific Mountain WDA. The Washington state claims-to-advertisements ratio increased more than four times. Seattle-King County, Southwest Washington, and Snohomish County have the largest increases in ratios, increasing by more than five times. For Pacific Mountain, the claims-to-advertisements ratio did not increase significantly, but the ratio was the largest in 2007 (the base year for comparison). The three other areas with the smallest (less than two times) increases were Benton-Franklin, South Central, and Eastern Washington.

Although King County had the largest increase in the claims-to-advertisements ratio, the absolute value of the ratio in 2009 remained the lowest among all areas; supply was just slightly larger than demand (ratio 1.06). Benton-Franklin (1.19) had the second lowest ratio followed by Pierce County (1.45).

Two-Digit SOC (Occupational Groups)

At the two-digit level of occupational aggregation, with a few exceptions, the claims-to-advertisements ratio across almost all occupational groups[14] was rising in all areas. The exceptions are concentrated in the Pacific Mountain area, where the claims-to-advertisements ratio decreased for health care practitioners and technical, health support, and sales and related. In addition, the ratio fell for personal care and service occupations in Spokane County.

However, between 2008 and 2009, the claims-to-advertisements ratio increased for all significant occupational groups in all areas without exception.

[14] This only includes occupations with sufficient numbers to be considered significant. We define numbers as significant if the average minimum among continued claims and HWOL advertisements during the 27 months analyzed (9 months each in 2007, 2008, and 2009) was larger than 50. We consider such occupations as representative and comparable.

The occupational groups most affected by the recession were those with the largest absolute increase in the claims-to-advertisements ratio (excluding farming[15]). Statewide, this includes the construction and extraction; production; transportation and material moving; installation, maintenance, and repair; and building and grounds cleaning and maintenance occupational groups.

The occupational groups least affected by the recession are those with the smallest absolute increases in their ratios. For the state, this includes health care practitioners and technical occupations; health care support; computer and mathematical; life, physical, and social science; and education, training, and library occupational groups.

We can also look at occupations that continued to experience a shortage of supply in comparison to demand. The occupational groups in 2009 with the smallest ratios were health care practitioners and technical; computer and mathematical; health care support; life, physical, and social science; and community and social services. Note that four of these occupational groups are also among those with the smallest increases in their ratios (previous paragraph).

Six-Digit SOC (Detailed Occupations)

Analysis at the six-digit level should be done with caution. The total advertised numbers of openings at the six-digit level (statewide) in 2009 is more than 50 percent larger than the total number of openings at the aggregate level. These differences increase as one drills down to specific areas. This increase is probably due to the high level of duplication of announcements data when looking at detailed occupations and specific areas.

At the state level, there is only one detailed occupation where the ratio of claims to advertisements slightly decreased from 2007 to 2009 – loan interviewers and clerks (*Figure 36*). This is a relatively small occupation, and the number of claims still exceeded the number of advertised openings in 2009.

Based on this claims-to-advertisements indicator, we can conclude no occupation (other than loan interviewers and clerks) was completely recession resistant in Washington state. At the same time, in 2009, about one-third (36 of 123) of occupations with a significant number (*footnote 12*) have fewer continued claims than advertised openings and remain an attractive target for job seekers. However, this is a significant drop from 2007 when 97 of 123 occupations had less claims than the number of advertised openings.

The top ten detailed occupations with the smallest absolute increase in the claims-to-advertisements ratio between 2007 and 2009 are presented in *Figure 36*. These detailed-level occupations are found to be the most recession resistant.

Figure 36
Top Ten Detailed Occupations with the Smallest Absolute Increase, in Claims-to-Advertisements Ratio
Washington State, First Nine Months of 2007 and 2009
Source: LMEA/Employment Security Department, Unemployment Insurance Continued Claims/ Help-Wanted OnLine (HWOL) Advertisements

SOC	Title	2007	2009	Difference
43-4131	Loan Interviewers and Clerks	1.23	1.19	-0.04
29-1111	Registered Nurses	0.02	0.03	0.02
29-2061	Licensed Practical and Licensed Vocational Nurses	0.11	0.15	0.04
11-9111	Medical and Health Services Mgrs.	0.06	0.11	0.05
15-1099	Computer Specialists, All Other	0.02	0.09	0.07
39-5012	Hairdressers, Hairstylists, and Cosmetologists	0.26	0.35	0.09
29-2071	Medical Records and Health Information Technicians	0.21	0.30	0.09
29-2052	Pharmacy Technicians	0.27	0.39	0.13
47-2082	Tapers	0.37	0.53	0.16
31-9092	Medical Assistants	0.32	0.51	0.19

Note: The SOC codes used for the HWOL are SOC-ONET and are originally eight-digit, whereas the claims are based on six-digit SOC codes. For the purpose of this table only six-digit SOC codes are displayed.

The top ten six-digit SOC occupations that contrast average number of claims to advertised openings in 2009 are shown in *Figure 37*. These occupations may be attractive targets for job seekers. Presumably, firms continue to hire at a relatively healthy pace for these jobs.

[15] This occupational group was excluded from all further analysis because internet advertisements do not represent actual demand in this field.

Figure 37
Top Ten Occupations with the Lowest Number of Claims Relative to Advertised Openings
Washington State, 2009
Source: LMEA/Employment Security Department, Unemployment Insurance Continued Claims/ Help-Wanted OnLine (HWOL) Advertisements

SOC	Title	Average Number of Advertised Openings in 2009	Average Number of Claims in 2009
29-1111	Registered Nurses	7,961	266
15-1099	Computer Specialists, All Other	2,476	223
11-9111	Medical and Health Services Managers	1,604	171
29-2061	Licensed Practical and Licensed Vocational Nurses	813	123
15-1051	Computer Systems Analysts	2,073	460
41-3021	Insurance Sales Agents	585	175
29-2071	Medical Records and Health Information Technicians	373	112
39-5012	Hairdressers, Hairstylists, and Cosmetologists	262	93
29-2052	Pharmacy Technicians	209	82
43-3071	Tellers	508	201

Note: The SOC codes used for the HWOL are SOC-ONET and are originally eight-digit, whereas the claims are based on six-digit SOC codes. For the purpose of this table only six-digit SOC codes are displayed.

The ten occupations most affected by the recession based on the absolute difference between the claims-to-advertisements ratio in 2007 and 2009 are presented in *Figure 38*.

No table has been included showing occupations with the highest ratio. The reason for this is that it would be nearly identical[16] to the data shown in *Figure 38*. These occupations are likely the most challenging for job seekers because the number of job seekers (continued claims) far outweighs the number of advertised openings (HWOL).

[16] Only machinists and shipping, receiving, and traffic clerks switched order.

[17] To calculate the estimates for the current recession, the difference between maximum employment from December 2007 to June 2008 and minimum employment between July 2008 and September 2009 (preliminary CES estimations), is divided by 2007 average annual employment. Trend-cycle series are used for this analysis. A negative number shows that the occupation did not experience a decline. It is recession resistant.

Figure 38
Ten Occupations with the Largest Absolute Increase in the Claims-to-Advertisements Ratio
Washington State, 2008 compared to 2009
Source: LMEA/Employment Security Department, Unemployment Insurance Continued Claims/ Help-Wanted OnLine (HWOL) Advertisements

SOC	Title	2008	2009	Difference
47-2031	Carpenters	4.17	53.34	49.17
47-2061	Construction Laborers	5.83	48.78	42.94
43-9199	Office and Administrative Support Workers, All Other	8.20	36.45	28.25
51-4121	Welders, Cutters, Solderers, and Brazers	1.57	24.30	22.74
47-2152	Plumbers, Pipefitters, and Steamfitters	3.67	19.92	16.24
11-9199	Managers, All Other	3.84	19.88	16.05
47-2111	Electricians	2.05	17.52	15.46
51-4041	Machinists	0.66	15.66	15.00
43-5071	Shipping, Receiving, and Traffic Clerks	1.12	15.88	14.76
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	1.75	14.54	12.79

Note: The SOC codes used for the HWOL are SOC-ONET and are originally eight-digit, whereas the claims are based on six-digit SOC codes. For the purpose of this table only six-digit SOC codes are displayed.

Occupational Claims-to-Advertisements Ratio and Industry Employment Trends

Trends for the occupational claims-to-advertisements ratio are consistent with estimated industry employment trends. Occupations related to the construction industry are hardest hit based on the claims-to-advertisements ratio. Thus, employment in construction industries has one of the largest declines in employment[17] during the current recession. This decline is about 24 percent; almost four times larger than in previous recessions. Among major sectors, this is the second largest employment decline after mining and logging.

In contrast are health-related occupations and some computer-related occupations which show the smallest recession impact on the occupational claims-to-advertisements ratio. Software publishers and all estimated sub-industries of health services, so far, have had negative indexes of employment declines and are estimated to be recession resistant.

Washington State Projections: 2007 to 2017

Introduction

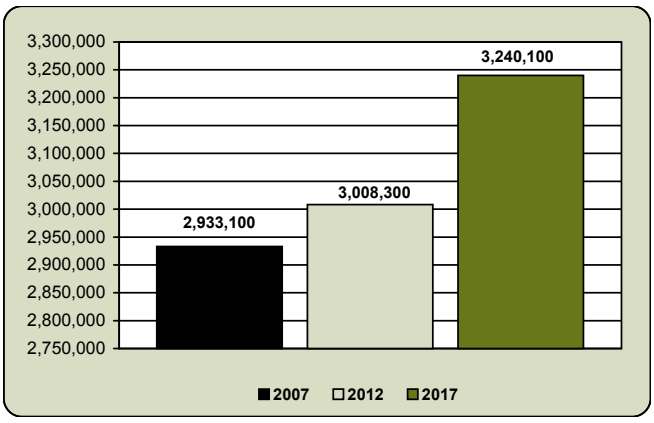
Industry and occupational employment projections are used by policymakers, business planners, job seekers, and economic analysts.

Producing accurate employment projections at the state and sub-state levels in a rapidly changing economy is a challenging task. Currently, industry forecasts are produced looking two, five, and ten years into the future. The occupational staffing pattern for each industry is then used to convert the industry projections into occupational projections.

Industry Projections Results

By 2017, total nonfarm industry employment in Washington is projected to reach 3,240,100 jobs (*Figure 39*).

Figure 39
Industry Employment
Washington State, 2007 to 2017
Source: LMEA/Employment Security Department



Washington state is projected to have an estimated 307,000 net new nonfarm jobs between 2007 and 2017, with an average annual growth rate of 1 percent.

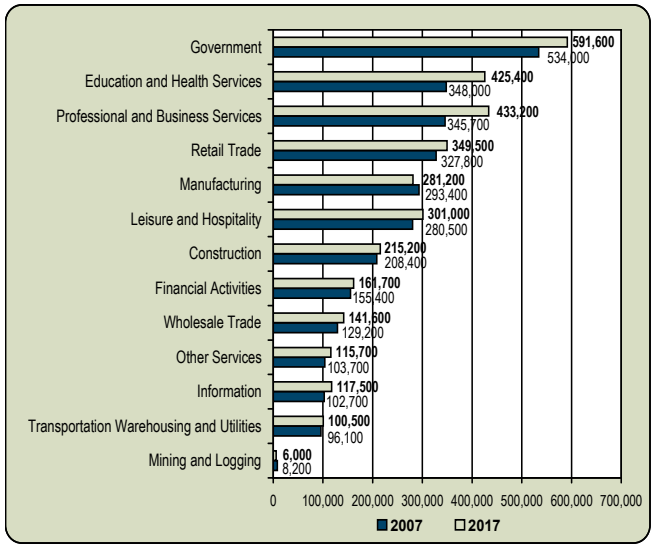
Services-providing industries account for more than 82 percent of total employment in 2007. This share of employment is expected to increase to more than 84 percent by 2017.

- Employment in goods-producing industries is expected to fall slightly (about 1.5 percent) from 510,000 jobs in 2007 to 502,400 jobs by 2017.
- The majority of job growth is expected in services-providing industries; a trend that has continued over the last few decades as Washington and the nation, alike, have been moving toward a more services-providing economy.
- Eight of 13 industry groups are expected to lose in shares of total industry employment.
    - Education and health care services is projected to have the largest increase in its share of total employment (1.1 percentage points).
- The remaining five industry groups are projected to increase in their share of total employment.
    - Manufacturing is expected to experience the largest drop in employment share (-0.9 percentage points).
- Manufacturing and leisure and hospitality are the only industries to change their ranking in terms of employment shares.
    - Manufacturing is expected to move from the fifth highest share in employment to sixth in 2017. Almost 85 percent of employment losses, by industry sector, are expected to come from manufacturing.
    - Leisure and hospitality is expected to move to fifth place (2017) from its sixth place ranking (2007).

With the exception of mining and logging and manufacturing, all major sectors are projected to grow from 2007 to 2017 (*Figure 40*). Within the

services-providing industries, most job growth is expected to come from professional and business services (+87,500) and education and health services (+77,400). These two industries are expected to account for over half of all job growth through 2017.

Figure 40
Industry Employment by Super-Sector[18]
Washington State, 2007 to 2017
Source: LMEA/Employment Security Department

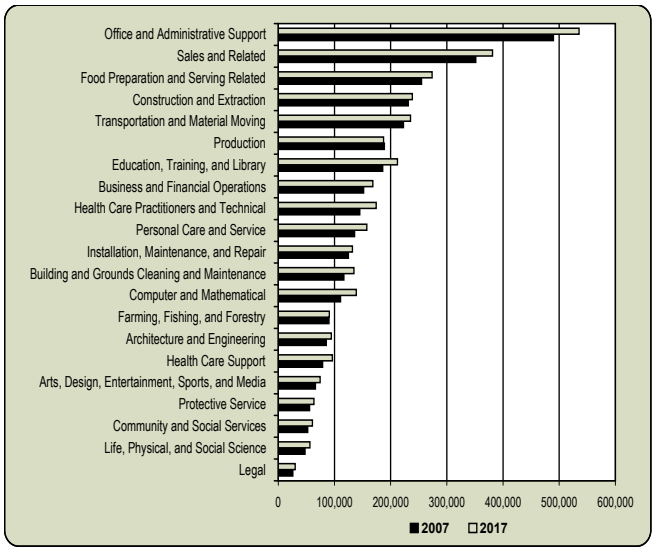


- Construction is the only goods-producing industry expected to grow (+6,800).
- All negative growth is projected to come from manufacturing (-12,200) and mining and logging (-2,200).

Occupational Projections Results

The majority of occupational groups is projected to grow over the ten-year projection period (2007 to 2017). Some groups, however, will grow at a faster rate (or by more jobs) than others. *Figure 41* displays a comparison of 2007 employment to projected 2017 employment by two-digit Standard Occupational Classification (SOC) code.

Figure 41
Employment by Major Occupational Groups
Washington State, 2007 to 2017
Source: LMEA/Employment Security Department



The top five occupational groups, by employment level, will remain the same in 2017 as they are in 2007 (*Figure 41*):

- Office and Administrative Support
- Sales and Related
- Food Preparation and Serving Related
- Construction and Extraction
- Transportation and Materials Moving

As noted, production is the only occupational group expected to lose employment between 2007 and 2017.

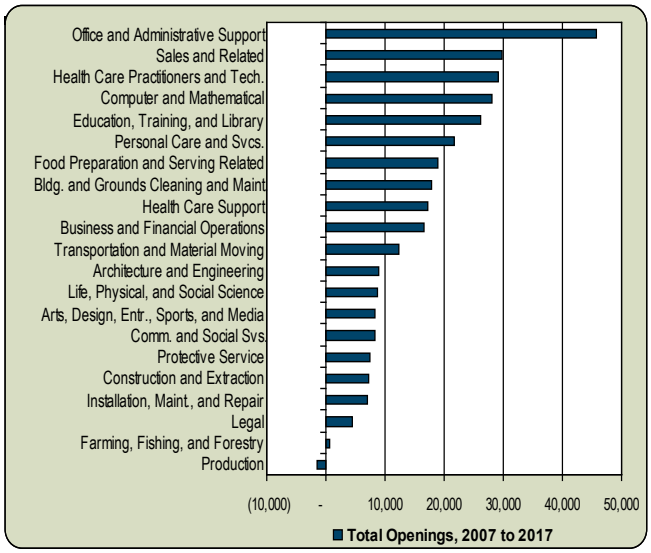
As illustrated in *Figure 42*, office and administrative support occupations are estimated to post the largest number of openings (more than 45,000).

[18] Super-sector consists of two-digit North American Industry Classification System (NAICS) codes except for manufacturing; retail trade; and transportation and warehousing. Manufacturing consists of two-digit NAICS codes 31, 32, and 33. Retail trade consists of the two-digits NAICS codes 44 and 45. Transportation and warehousing consists of NAICS codes 48 and 49.

Occupational groups in which employment is projected to grow by more than 20,000 over this ten-year period include:

- Office and Administrative Support
- Sales and Related
- Health Care Practitioners and Technical
- Computer and Mathematical
- Education, Training, and Library
- Personal Care and Services

Figure 42
Total Openings by Occupational Group
Washington State, 2007 to 2017
Source: LMEA/Employment Security Department

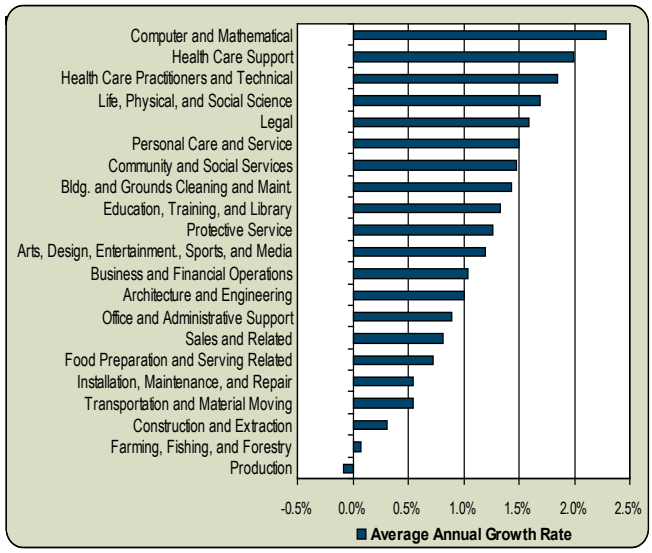


The top two occupational groups, by employment (*Figure 41*) are also projected to post the largest number of openings in 2017 (*Figure 42*).

Figure 43 displays occupational groups sorted by average annual growth rate.

- On an average annual basis, computer and mathematical jobs are projected to grow the fastest.
- Twelve occupational groups are expected to grow above the state average (1 percent).
- Eight occupational groups are projecting below average growth.
- The production occupational group is the only group to post negative growth during this projection period.

Figure 43
Average Annual Growth Rate by Major Occupational Group
Washington State, 2007 to 2017
Source: LMEA/Employment Security Department



Detailed Occupations

Figure 44 displays the 20 fastest growing occupations at the detailed occupational level. Combined, health care and computer-related occupations account for more than half of the occupations on this list (13 of 20).

Figure 44
Fastest Growing Occupations
Washington State, 2007 to 2017
Source: LMEA/Employment Security Department

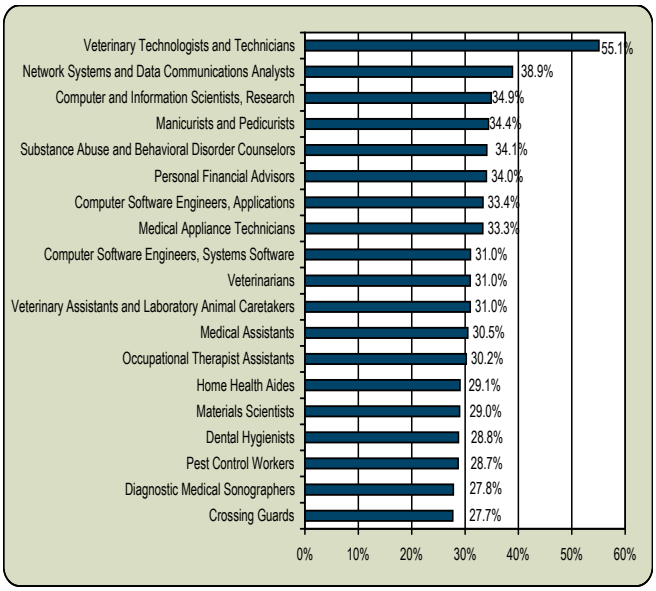
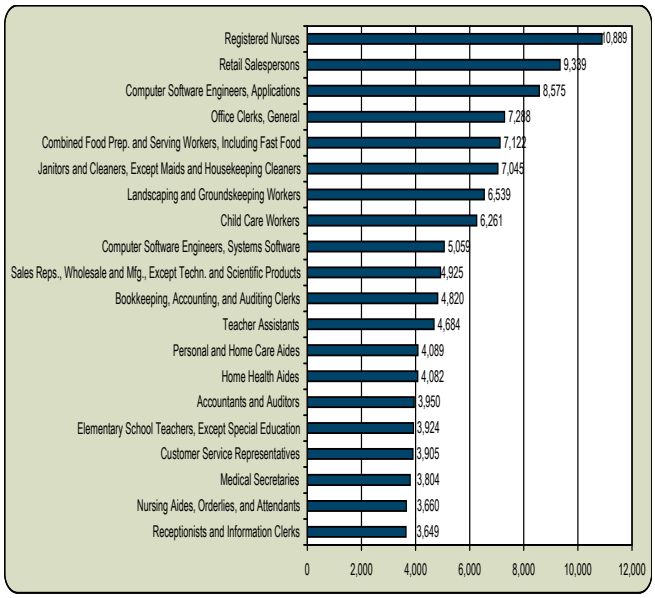


Figure 45
Occupations with the Largest Increase in Employment
Washington State, 2007 to 2017
Source: LMEA/Employment Security Department



Fast growth is not synonymous with the largest absolute increases. Many of these occupations (*Figure 44*) are small in number and as such, the level of employment growth will be relatively low. Three occupations are, however, within the top 20 for both lists (*Figures 44 and 45*):

- Computer Software Engineers, Applications
- Computer Software Engineers, Systems Software
- Home Health Aides

Computer software engineers, applications and computer software engineers, systems software are within the top ten for growth rate (*Figure 44*), level of employment (*Figure 45*), and annual wages.

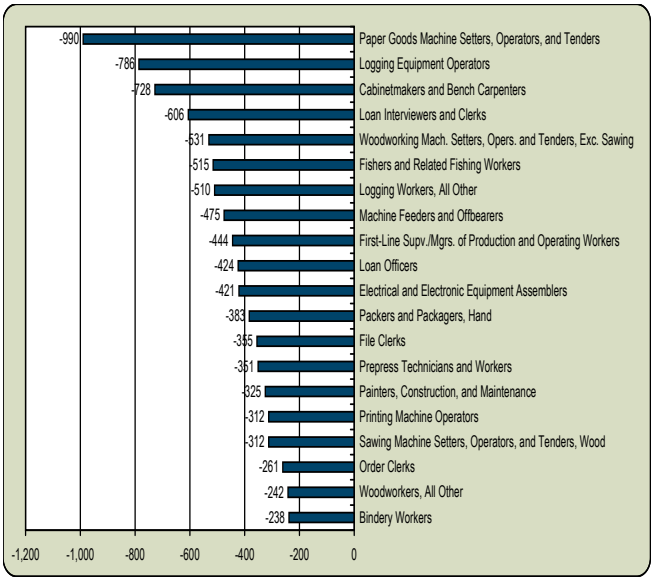
- Computer Software Engineers, Applications: mean annual wages = $90,885
- Computer Software Engineers, Systems Software: mean annual wages = $100,474

The 20 occupations in *Figure 45* represent more than one-third of all projected growth in 2017.

- Registered Nurses are projected to have the highest number of jobs, reaching 63,056 jobs by 2017.
- More than half of the jobs are low-skill, low-wage occupations.
- Only five of the occupations in *Figure 45* have annual wages above the state average.
    - Computer Software Engineers, Systems Software: mean annual wages = $100,474
    - Computer Software Engineers, Applications: mean annual wages = $90,885
    - Registered Nurses: mean annual wages = $72,334
    - Accountants and Auditors: mean annual wages = $66,295

- Sales Representatives, Wholesale and Manufacturing, except Technical and Scientific Products: mean annual wages = $61,779

Figure 46
Occupations with the Most Total Job Losses
Washington State, 2007 to 2017
Source: LMEA/Employment Security Department



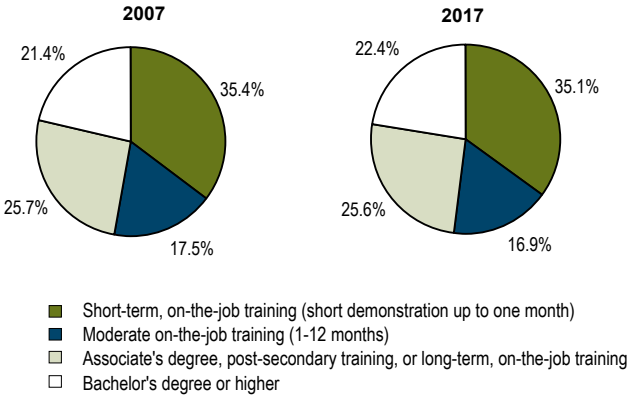
Half the occupations in *Figure 46* are production occupations, reflective of Washington state's downward trend within this occupational group. These 20 occupations represent more than 60 percent of all projected losses.

In 2007, more than half of jobs in Washington were in occupations that did not require formal education beyond high school.

Educational Attainment

In 2007, more than half of jobs in Washington were in occupations that did not require formal education beyond high school. While workers in these occupations held the largest share of jobs in 2007, their share of jobs is expected to decline from 52.9 percent in 2007 to 52 percent in 2017 (*Figure 47*).

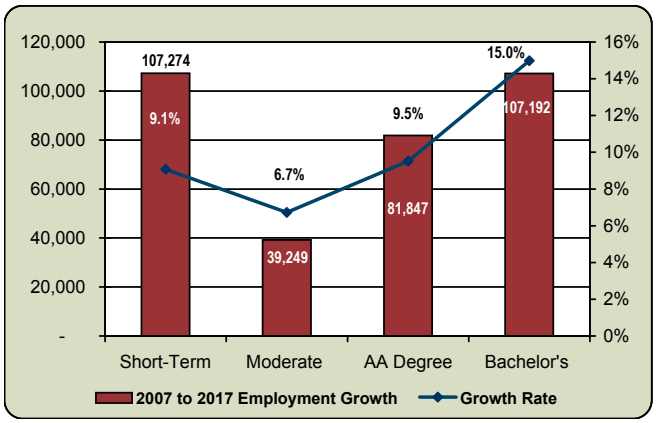
Figure 47
Employment Share by Educational Attainment
Washington State, 2007 to 2017
Source: LMEA/Employment Security Department



Occupations requiring an associate's degree made up 25.7 percent of occupational employment in 2007 and are expected to remain relatively stable, with a 0.4 percent drop in 2017. The largest share increase is expected for occupations requiring a bachelor's degree or higher. Employment for this occupational group is projected to increase by about 15 percent from 2007 to 2017 (more than 107,000 jobs).

Occupations requiring short-term, on-the-job training are projected to account for the largest portion of the 2007 to 2017 total job growth. However, this group accounts for the second slowest growth of all educational groups (*Figure 48*).

Figure 48
Employment Growth by Educational Attainment
Washington State, 2007 to 2017
Source: LMEA/Employment Security Department



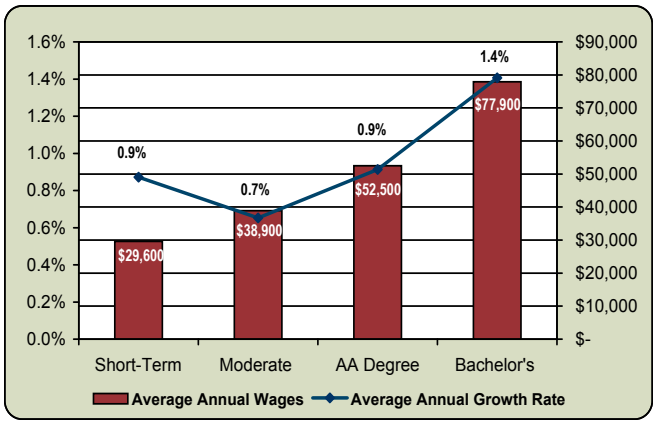
Notes: **Short-Term:** Short-term, on-the-job training (short demonstration up to one month)
Moderate: Moderate on-the-job training (1-12 months)
Associate's Degree: AA degree, post-secondary training, or long-term, on-the-job training
Bachelor's: Bachelor's degree or higher

Occupations requiring a bachelor's degree or higher, however, are projected to have the highest growth rate and the second highest employment level in comparison to all categories.

Occupations requiring associate's degrees, post-secondary training, and long-term, on-the-job training are expected to grow at a healthy pace (9.5 percent) over the projected ten-year period. This growth accounts for just under one-quarter (24.4 percent) of expected growth for all education levels combined.

A bachelor's degree or higher is the education level that has the highest average annual wages.

Figure 49
Average Annual Openings and Wages by Education Level
Washington State, 2007 to 2017
Source: LMEA/Employment Security Department



Notes: **Short-Term:** Short-term, on-the-job training (short demonstration up to one month)
Moderate: Moderate on-the-job training (1-12 months)
Associate's Degree: AA degree, post-secondary training, or long-term, on-the-job training
Bachelor's: Bachelor's degree or higher

Openings requiring a bachelor's degree or higher are the only group projected to grow faster than the state average of 1 percent over the projection period. This education level also has the highest average annual wages.

Occupational groups requiring college education or post-secondary training are among the highest paid, whereas, occupations that do not require post-secondary education or training are generally among the lowest paid (*Figure 49*).

Details of the methods and the data used to produce industry and occupational projections can be found at:

http://www.workforceexplorer.com/article.asp?PAGEID=94&SUBID=149&ARTICLEID=9725

Detailed Employment Projections can be found online:

Medium- and long-term industry projections:

http://www.workforceexplorer.com/admin/uploadedPublications/5004_indlongp.xls

Short-term industry projections:

http://www.workforceexplorer.com/admin/uploadedPublications/5003_indshortp.xls

Industry control total files:

http://www.workforceexplorer.com/admin/uploadedPublications/4957_ictall.xls

Medium- and long-term industry control totals:

http://www.workforceexplorer.com/admin/uploadedPublications/1608_long.xls

Short-term industry control totals:

http://www.workforceexplorer.com/admin/uploadedPublications/1609_short.xls

Combined occupational projections:

http://www.workforceexplorer.com/admin/uploadedPublications/4960_alloccupproj.xls

Medium- and long-term occupational projections:

http://www.workforceexplorer.com/admin/uploadedPublications/1647_longoccupt.xls

Short-term occupational projections:

http://www.workforceexplorer.com/admin/uploadedPublications/1646_shortoccupt.xls

Staffing patterns used for employment estimates and projections:

http://www.workforceexplorer.com/admin/uploadedPublications/4959_ocup_indmatrixes.xls

Full report on employment projections, methodology, and results:

http://www.workforceexplorer.com/admin/uploadedPublications/9738_Projections_June_09.pdf

Due to confidentiality requirements, staffing patterns for some industries are not published.

Washington Income and Wages, 2008

Highlights

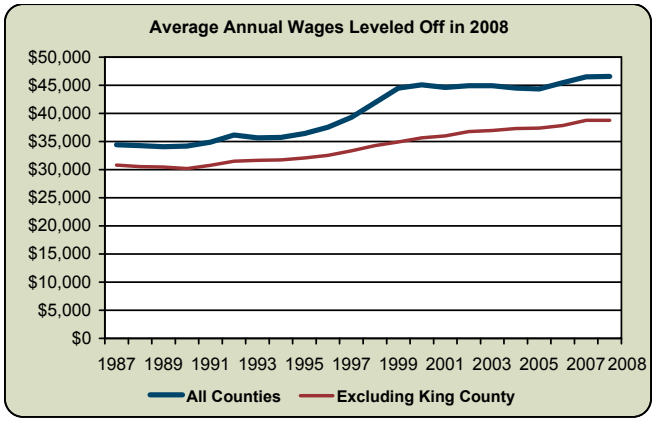
- Many measures of income and wages stagnated in 2008 as the new recession began.
- Despite the stagnation, both average annual wages and the median hourly wages reached all-time highs – though barely above year-ago levels.
- The number of hours worked and the average hours per worker were the highest on record going back to 1990.
- From 2002 to 2008, most new jobs were on the upper end of the wage spectrum. There was a smaller increase in lower-wage jobs, and the number of mid-wage jobs changed little. Wage inequality increased.
- Wage progression – the median increase in average hourly wages for full-time workers – was smaller from 2003 to 2008 than in any five-year period dating back to 1990.
- The percentage of full-time workers suffering a decline in average hourly wages was the highest on record dating back to 1990.
- State per capita income in 2008 declined slightly, with earned income and investment income dropping and transfer payments increasing.
- Median household income and median family income both increased in 2008.
- The poverty rate did not change significantly in 2008 and remained higher than in 2000.
- The number and percent of households paying more than 30 percent of their income in housing costs – a sign of economic distress – have increased substantially in the past decade, and have remained at high levels in 2008.

All data in this chapter have been adjusted for inflation to 2008 constant dollars, with the exception of personal income data at the county level, where 2007 is the latest year of data available.[19]

Average Annual Wages

Most jobs in the state are covered by unemployment insurance. In 2008, monthly covered employment averaged over 2.9 million jobs, with a total payroll of $137 billion. The average annual wage, derived by dividing total payroll by total employment, was $46,559. This was only a tenth of a percent above the 2007 inflation-adjusted figure. Nevertheless it was the highest on record. Annual wages were relatively flat from 1999 to 2005; rose over the next two years; and leveled off as the recession took hold in 2008, as shown in *Figures 50* and *51*.

Figure 50
Average Annual Wages, Adjusted for Inflation
Washington State, 1987 to 2008
Source: LMEA/Employment Security Department



Note: All data adjusted for inflation to 2008 constant dollars.

[19] The U.S. Implicit Price Deflator for Personal Consumption Expenditures is used to adjust for inflation. Other sources sometimes use the Consumer Price Index (CPI), but many economists believe that the CPI overstates inflation. Using different deflators can lead to different conclusions about wage trends. The underlying data are unchanged, however.

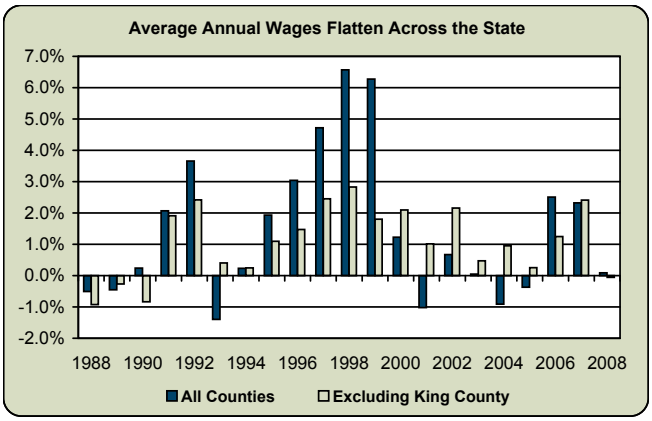
If King County is taken out of the picture, things look different. Average annual wages have increased steadily since the early 1990s. After the biggest increase of the decade in 2007, the average slid down by a tenth of a percent in 2008.

Average Hourly Wages

Washington is one of three states in the nation that collects data on hours worked on a job,[20] allowing the calculation of average hourly wages, median hourly wages, and a mapping of the full spectrum of average hourly wages for over three million jobs each year.

- In 2008, over 3.49 million individuals collectively worked 4.9 billion hours, equal to 2.3 million jobs on a full-time equivalency (FTE) basis. All three data points were the highest recorded going back to 1990. The average hours per worker (1,385) inched above the previous high from 2007, and is 11 percent above the 1990 figure. The increase is likely due to workers working more hours, but could also be due to a change in the number of workers entering and leaving employment in Washington.[21]

Figure 51
Change in Average Annual Wages, Adjusted for Inflation
Washington State, 1988 to 2008
Source: LMEA/Employment Security Department



Note: All data adjusted for inflation to 2008 constant dollars.

- The average work week, derived by dividing total hours worked by average monthly jobs, was 32.5 hours in 2008. This was an hour lower than in 2007, which remains the highest on record. The average work week ranged from 40 hours in corporate offices to 21.9 hours in arts, entertainment, and recreation, which has a substantial number of seasonal and part-time jobs.

- The number of individuals working more than a 40-hour work week, which spiked upward in 2007, dropped back to customary levels in 2008, falling from 27 percent of all workers to 21 percent.

- Average hourly wages are calculated by dividing total payroll by total hours worked. The average jumped in the late 1990s when stock options were the rage, reaching an inflation-adjusted peak of $26.93 per hour in 2000. New regulations have excluded stock options from wage data since 2004, so the past four years cannot be fairly compared with the 1998 to 2004 period. However, the 2008 average hourly wage of $27.41 per hour was the all-time high; it was less than 1 percent higher than the year before.

- The median hourly wage is the average hourly wage at which half of all jobs pay more and half pay less.[22] In 2008, the median reached $20.11 per hour, only three cents more than the previous year but still an all-time high.

- The median average hourly wage increased by 18 percent from 1990 to 2008, considerably less than the average wage (31 percent) over that same period.

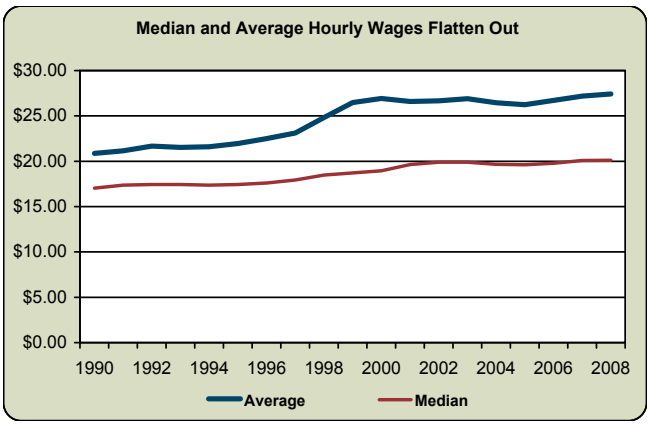
[20] The calculation includes all jobs covered by unemployment insurance, with the exception of federal jobs and private household employers (NAICS 814). It does not include workers not covered by unemployment insurance, including the self-employed, 100 percent sales agents (most real estate and insurance brokers, for example) and most corporate officers (generally the highest-paid positions in a corporation).

[21] Fewer workers entering and leaving the workforce throughout the year would lower the number of workers who work less than full time.

[22] Jobs are calculated on a full-time equivalent (FTE) basis with 2,080 hours per year equal to one FTE job.

- Average hourly wages were 23 percent above the median in 1990, before rising to 42 percent in 2000. This measure has been close to 35 percent higher over the past six years.

Figure 52
Average Hourly Wages and Median Hourly Wages, Adjusted for Inflation
Washington State, 1990 to 2008
Source: LMEA/Employment Security Department



The Wage Distribution

In 2008, the lowest-paid 10 percent of jobs averaged $8.54 per hour (*Figure 53*) – 14 cents (1.5 percent) below the 2007 average hourly wage after adjustment for inflation. The best-paid 10 percent of jobs averaged $84.59 per hour, nearly a dollar per hour higher than in the previous year. This amount represents a 1.1 percent increase, but is $16.56 below the inflation-adjusted 2000 peak of $101.15 per hour. The decline of stock options in the intervening years, and the elimination of stock options from the reporting system after 2004 had an impact on the upper end, both in real terms (less paid out in stock options) and due to a definitional change (stock options are no longer included).

In between the top and bottom, average hourly wages below the median changed little (plus or minus two tenths of a percent), while average hourly wages above the median increased by about 1 percent. In other words, wage disparity increased once again in 2008.

The disparity in wages widened from 1990 (the first year data were available) through 2000, but narrowed for the next five years before widening again beginning in 2006. In 1990, the average hourly wages for the top 10 percent of jobs were 7.6 times the average wage for the lowest-paid 10 percent (the 90/10 ratio). By 2000, this ratio increased to 12.4, before narrowing in the next five years to 9.3. In 2006, the gap between low-wage and high-wage jobs began widening again, and the ratio reached 9.9 in 2008. The gap is 30 percent larger than in 1990. The distance between the median wage and the top 10 percent similarly expanded and contracted, and in 2008 reached 4.2, a 30 percent increase over 1990. The gap between the bottom 10 percent and the median widened slightly in the early 1990s, closed somewhat in the late 1990s, and was essentially the same in 2008 as it was in 1990. The closing and stabilization of this gap was due to the increase and indexing of the state minimum wage rate in recent years (*Figure 53*). If King County is removed from the picture, there is still a modest increase in inequality across the wage spectrum, but it is not as pronounced – the 90/10 ratio increased by 13 percent from 1990 to 2008.

Figure 53
Average Hourly Wages, by Decile for FTE Jobs
Washington State, 2008
Source: LMEA/Employment Security Department

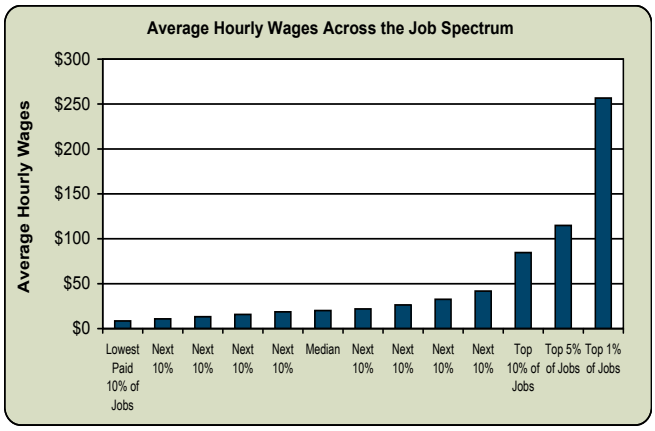


Figure 54
Increase in Average Hourly Wages, by Decile of FTE Jobs
Washington State, 2002 to 2008 and 2007 to 2008
Source: LMEA/Employment Security Department

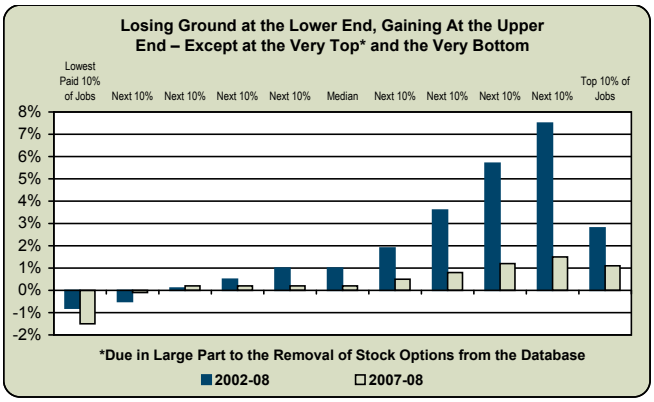


Figure 55
Measuring the Wage Gap in 2008 Constant Dollars
Washington State, 1990 to 2008
Source: LMEA/Employment Security Department

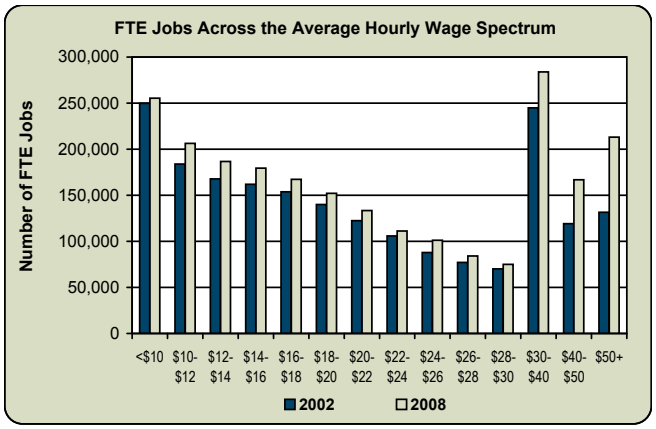
	All Counties		All Except King County	
	1990	2008	1990	2008
Average Hourly Wages for…				
Lowest-Paid 10 Percent of Jobs	$7.23	$8.54	$6.95	$8.29
Median Jobs	$17.04	$20.11	$15.59	$17.91
Highest-Paid 10 Percent of Jobs	$54.89	$84.59	$47.02	$63.79
Highest 10/Lowest 10 Ratio	7.6	9.9	6.8	7.7
Highest 10/Median Ratio	3.2	4.2	3	3.6
Median/Lowest 10 Ratio	2.4	2.4	2.2	2.2

Since 2002, then, there has been fairly weak wage growth for the bottom half of the job distribution, and more robust increases for the top 40 percent of jobs. While last year's data show a near-linear relationship between deciles and loss or gain in the 2002 to 2007 period (if the results for the top decile are adjusted to compensate for stock options), this year the relationship looks more like an exponential curve, as the returns to labor have accelerated on the upper end. It will be interesting to see how the numbers play out in 2009 as the new recession has taken hold.

Wages by Wage Range

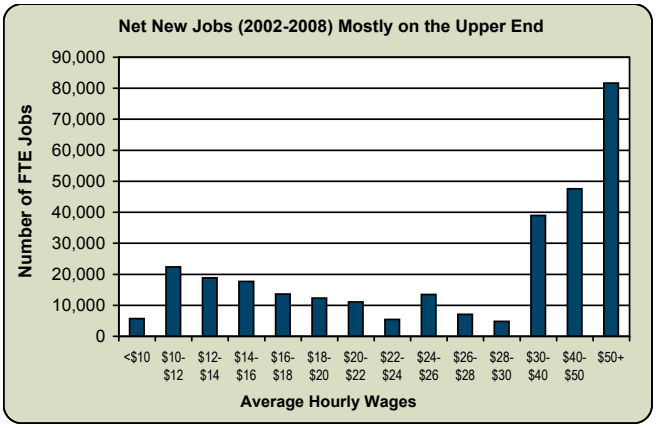
Another way to describe the structure of wage data is to look at the number of jobs within a given range of average hourly wages. In 2007, over 255,000 jobs (11 percent of the total) paid below $10.00 per hour. Another 206,000 jobs (9 percent) paid between $10.00 and $11.99 per hour. *Figure 56* shows the full distribution of jobs for 2002 and 2008, with the last three ranges having a wider span ($30.00 to $39.99, $40.00 to $49.99, and $50.00 per hour and above).

Figure 56
FTE Jobs by Average Hourly Wages
Washington State, 2002 to 2008
Source: LMEA/Employment Security Department



The number of jobs has increased in every wage range, but the change is smaller in the middle. As *Figure 57* shows, net new jobs are mostly at the upper end, which is to be expected – 2002 is the bottom of the last recession, and 2008 includes the peak before the current recession started. FTE employment as a whole grew by 15 percent over the six-year period. The number of jobs paying below $30 per hour grew by only 9 percent, however, and jobs in the middle of the spectrum (around $20 per hour) grew by 8 percent. Meanwhile the number of jobs paying $50 or more per hour grew by 39 percent.

Figure 57
Change in FTE Jobs by Average Hourly Wages
Washington State, 2002 to 2008
Source: LMEA/Employment Security Department



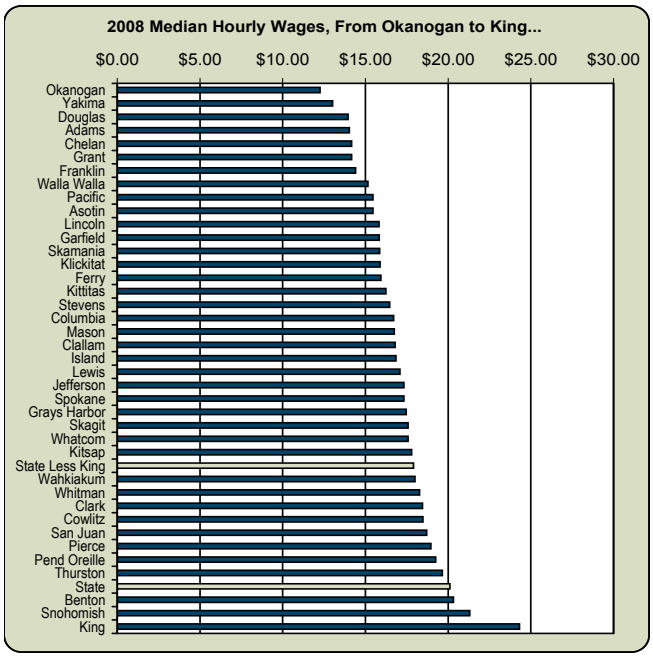
From the vantage point of what jobs pay, we can say that 2008 completed the recovery from the 2001 recession, just in time for the onset of the new recession. There has been job growth across the wage spectrum, but predominantly at the upper end.

Average Hourly Wages by Area

Average hourly wages vary widely across the state. In 2008, King County once again topped the state with a median wage per hour of $24.31. And once again, only two other counties, Snohomish and Benton, topped the state median. Excluding King County, the rest of the state had a median hourly wage of $17.91. Okanogan County had by far the lowest median hourly wage at $12.26. Out of the 18 lowest hourly wage counties, 17 were located east of the Cascades.

Median hourly wages rose in 23 of Washington's 39 counties in 2008. Grant County had the largest increase (+49 cents), while Clallam had the largest decline (-31 cents).

Figure 58
Median Hourly Wages by County
Washington State, 2008
Source: LMEA/Employment Security Department



Since 1990, the state median hourly wage has increased by 18 percent after adjustment for inflation. A handful of smaller counties had large increases led by Columbia County's 59 percent jump. Among the larger counties, King County's median hourly wage increased by 28 percent. Two counties had a lower median in 2008: Ferry County (-5 percent) and Klickitat County (-3 percent).

A comparison of 1990 to 1995 with 2003 to 2008 shows that the median hourly wage increase was lower for workers earning below $24 per hour, and was higher for those earning above $24 per hour.

Average Hourly Wages for Full-Time Workers

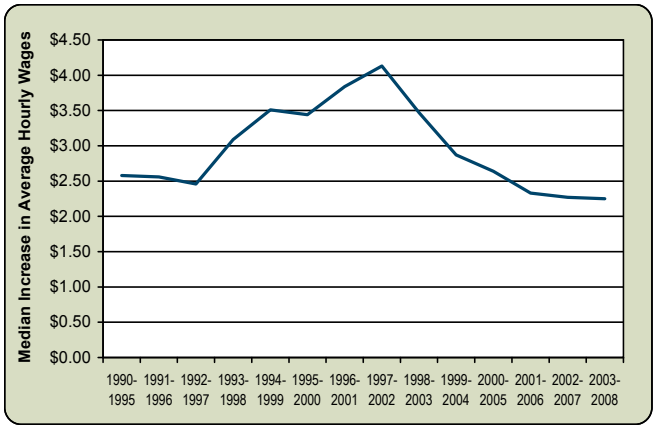
The preceding sections looked at jobs. This section looks at individual workers. Of the 3.4 million individuals who were employed in the state at some point in 2008, 32 percent worked at least 2,000 hours, the equivalent of working full time for 50 weeks. Half worked at least 1,560 hours, the equivalent of working full time for nine months of the year. More than a fifth worked fewer than 520 hours (one full quarter).

For the purpose of this report, anyone who worked 1,560 hours or more in a year is considered a "full-time" worker. A comparison of 2003 and 2008 shows that 21 percent of the full-time workers in 2008 were not in the 2003 database. Similarly, 18 percent of the full-time workers from 2003 were not employed in Washington in 2008. About a million workers were full time in both 2003 and 2008. The median change in hourly wages for these workers was $2.20 per hour. Seventy percent of full-time workers had higher wages in 2008, while 27 percent suffered a decline in hourly pay.

How do these figures stack up? To add context, these two statistics for median hourly wages and full-time workers were calculated for each five-year time span starting in 1990. Did workers employed full-time in both 1990 and 1995 have a higher or lower median increase in average hourly wages? Did more workers experience a drop in hourly wages from 1993 to 1998?

Figure 59 shows that the 2003 to 2008 time span had the lowest median increase for the study period. As *Figure 60* shows, the results differed somewhat depending upon the worker's hourly wages in the base year. Median wages decreased for all wage groups after the 1997 to 2002 period, until the latest period in which the median hourly wage increased for those earning $24 or more per hour. But a comparison of 1990 to 1995 with 2003 to 2008 shows that the median wage increase is lower for workers earning below $24 per hour, and is higher for those earning above $24 per hour.

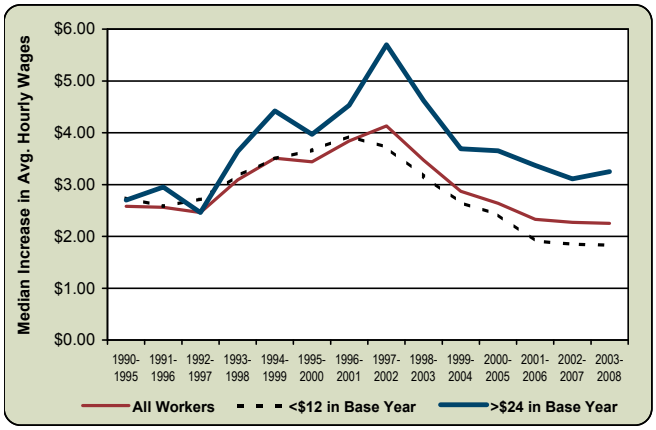
Figure 59
Median Increase in Average Hourly Wages for Full-Time Workers over Five-Year Spans
Washington State, 1990 to 1995 to 2003 to 2008
Source: LMEA/Employment Security Department



Similarly, the percent of full-time workers with falling hourly wages was higher in the 2003 to 2008 period than any preceding five-year period. In the 1990 to 1995 period, 23 percent of full-time workers suffered a decline in wages. As the labor market improved during the 1990s, that percentage fell. Seven years later, in the 1997 to 2002 period, only 16 percent of full-time workers experienced a decline. Since that time period, however, there has been a steady increase in the percent of workers whose hourly wages have fallen, with 28 percent of full-time workers in this category in the latest (2003 to 2008) period.

Finally, we can look at the wage progression for low-wage workers from the standpoint of welfare reform, and its guiding principle of getting welfare recipients into the labor force so they can attain self-sufficiency. WorkFirst program clients who find jobs usually start at less than $9 per hour. There were just over 16,000 individuals working full time in both 2003 and 2008 who earned below $9 per hour in 2003. Five years later, 28 percent of these individuals were still earning below $9 per hour. More than half were earning below $10.20 per hour. Two-thirds were earning less than $12 per hour. Only 17 percent earned above $15 per hour.

Figure 60
Median Increase in Average Hourly Wages over Five-Year Spans, by Wage Range in Base Year
Washington State, 1990 to 1995 to 2003 to 2008
Source: LMEA/Employment Security Department



In summary, the recovery from 2001 to 2008 generated many new jobs, which are mostly on the upper end of the pay scale. Median hourly wages rose in almost every county. Compared with past years, the wage ladder was more compressed in the 2003 to 2008 period, and more full-time workers suffered a decline in hourly wages. Finally, prospects for low-wage workers gaining a self-sufficient wage through wage progression appear to be as bleak as ever.

Per Capita Income

In Washington state, after growing rapidly during the 1990s, inflation-adjusted per capita personal income peaked in 2000 at $36,438 (in 2006 constant dollars), 6.5 percent above the national average. Income then declined over the next three years, more so than for the rest of the nation. In 2004, the Microsoft dividend gave some Washington residents a huge shot in the arm; as a result, per capita income jumped by 3.6 percent before falling in the next year. If the dividend is factored out, per capita income increased in both years, and recovered to pre-recession levels in 2005. In 2006, per capita income grew by a substantial 4.4 percent; the 2007 gain was also quite strong at 3.1 percent. In 2008, however, per capita income declined slightly, by a tenth of a percentage point, to $42,857. Both earned income and investment income have fallen on a per capita basis, while transfer payments like Social Security and unemployment compensation have increased.

Personal Income

Personal income data are compiled by the U.S. Bureau of Economic Analysis. Personal income reflects pre-tax income received by or on behalf of individuals from all sources:

1) Earned income, including:
   a. wages and salaries,
   b. proprietors' income, and
   c. employer payments for employee insurance ("other labor income");
2) Investment income; and
3) Government transfer payments.

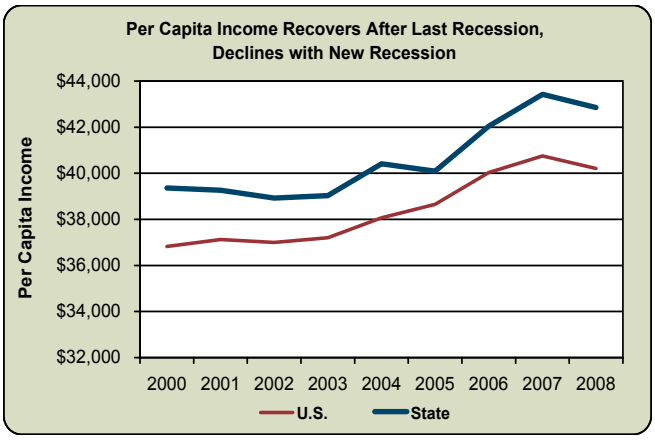
Adjustments are made for contributions to Social Security and for cross-border commuters, so that income is measured on a residency basis.

Pension checks are not tracked in personal income; instead, the net earnings of pension funds are allotted to counties and states in proportion to actual payments of interest and dividends.

The most commonly used measure from personal income is per capita income, which equals total personal income divided by total population. The advantages of using per capita income as an economic measure include its broad definition (more than wages) and its comparability across all geographic areas. The main disadvantage is that it is an average, while income is highly skewed.

All personal income data have been adjusted for inflation using the U.S. Implicit Price Deflator for Personal Consumption.

Figure 61
Inflation-Adjusted Per Capita Income
United States and Washington State, 2000 to 2008
Source: U.S. Bureau of Economic Analysis



As noted in the sidebar on the previous page, personal income is the sum of earned income (from owning a business or holding a job), investment income, and transfer payments, chiefly from government programs such as Social Security, Medicare and Medicaid, welfare, and unemployment insurance. Each of these three types of personal income contributed to the rapid climb in Washington's per capita income during the 1990s.

- Beginning in 2001, however, per capita wages decreased for three consecutive years, followed by two years of weak recovery. Gains are stronger in 2006 and 2007, but overall, wages grew much slower from 2000 to 2007 than from 1995 to 2000, and then declined in 2008 with the onset of the recession.

- Per capita investment income followed a similar but more volatile pattern with a steeper decline during the recession, but a stronger recovery. Like wages, investment income declined slightly in 2008.

- Transfer payments played a counter-cyclical role, expanding sharply in 2001 and declining slightly in 2004, as unemployment insurance payments ratcheted up and down. The increase during the 2004 to 2008 period was driven primarily by Medicare. Interestingly, both welfare payments and unemployment insurance benefits declined in 2008. Welfare payments have been cut by more than half since the mid-1990s, even though population has grown and the poverty rate has increased.

Figure 62
Selected Per Capita Measures, Adjusted for Inflation
Washington State, 1995 to 2008
Source: U.S. Bureau of Economic Analysis

				Average Annual Growth Rate		
Type of Payment	**1995**	**2002**	**2008**	**1995-2002**	**2002-2008**	**1995-2008**
Earned Income	$21,305	$27,022	$28,655	3.5%	1.0%	2.3%
Investment Income	$6,065	$6,733	$8,482	1.5%	3.9%	2.6%
Total Transfer Payments	$4,231	$5,169	$5,720	2.9%	1.7%	2.3%
Retirement and Disability	$1,808	$2,051	$2,264	1.8%	1.7%	1.7%
Medical Benefits	$1,388	$1,757	$2,204	3.4%	3.9%	3.6%
Income Support	$433	$384	$466	-1.7%	3.3%	0.6%
Family Support (Welfare)	$149	$80	$62	-8.5%	-4.1%	-6.5%
Food Stamps	$102	$64	$108	-6.4%	9.2%	0.5%
Unemployment Insurance	$225	$471	$189	11.1%	-14.1%	-1.3%
Veterans' Benefits	$129	$175	$201	4.5%	2.3%	3.5%

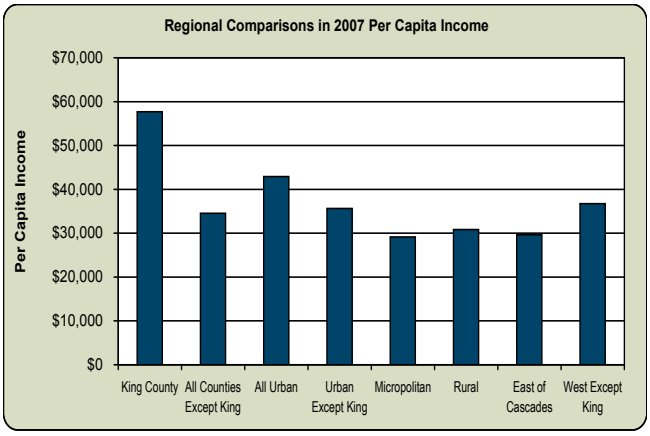
Regions and Counties, 2007

Personal income data at the county level become available a year later than the state due to the enormous amount of source data that are analyzed (e.g., all Schedule C tax returns from the IRS).

Thirty-one counties reached their all-time high for per capita income in 2007, led by King County, which again had the highest per capita income in the state at $57,710. Ferry County had the lowest per capita income in the state at $21,520.

All of the usual groupings of counties peaked in per capita income in 2007, including rural counties ($30,844), metropolitan areas ($33,679 when King, Snohomish, and Pierce were excluded), counties east of the Cascades ($29,661), counties west of the Cascades ($36,740, excluding King), and micropolitan counties ($29,123).

Figure 63
Per Capita Income for Selected Sub-State Areas
Washington State, 2007
Source: U.S. Bureau of Economic Analysis



Cross-county commuting: For 2007, in Skamania County, 66 percent of earned income came from residents working in a different county. Douglas and Asotin also had a majority of wages from jobs outside the county, and Mason was at 49 percent. On the other hand, 39 percent of wage-related income in Franklin County went to residents of other counties. On a net basis, Skamania County has the biggest inflow of earnings (58 percent) and King County has the biggest outflow (19 percent).

Household Income, Family Income, and Poverty Rates

Annual estimates of median and family income and poverty rates are now available through the U.S. Census Bureau's American Community Survey. The Census Bureau recommends looking at a three-year moving average as opposed to year-to-year due to the fluctuations in the data.

Median household income for the state was $58,078 in 2008, a 1 percent increase over 2007 after adjusting for inflation. The three-year average (2005 to 2007) was 3.1 percent above the previous three-year period (2004 to 2006).[23] In 2008, Washington exceeded the national average by over $6,000 or 11 percent.

Median family income, at $70,498, rose by 2.4 percent in 2008; the three-year average is 2.7 percent higher. Non-family household income declined slightly in 2008, down to $36,825, but had a three-year upward trend similar to median family income.[24] The poverty rate is estimated at 11.3 percent in 2008, not significantly different from 2007.

In each of these measures of income, there are significant disparities by race and ethnicity. For example, median household income for African Americans is only two-thirds that of whites ($39,727 vs. $60,403), and the poverty rate for Latinos is 23.5 percent, vs. 9.1 percent for whites.

Income and Housing Costs

As a rule of thumb, if housing costs exceed 30 percent of household income, then a household can be considered under economic distress. One way to gauge the impact of rising housing costs, then, is to use the 30 percent measure as a barometer.[25]

According to the 1990 Census, 39 percent of renters in Washington paid 30 percent or more of their income in housing costs. That figure was slightly higher at 42 percent in the next Census. However, by 2002, 49 percent of renters were in distress. The number crested at 51 percent in 2004 before declining to 47 percent in 2006 and 2007, but then inched up to 48 percent in 2008 – more than 400,000 households. A similar trend had occurred nationally.

[23] Comparing income data from the 2000 Census with the annual American Community Survey (ACS) should be done "with caution," according to the Census Bureau. The 2000 Census asked about income from the calendar year 1999, while the ACS collects data throughout the year, asking respondents about their income in the past 12 months. The Census Bureau then corrects the data for inflation, and combines it to produce an annual average. A test comparison showed the decennial census figure to be 4.6 percent higher than the ACS estimate.

[24] Most non-family households are single persons living alone.

[25] Housing costs for homeowners include mortgage payments, real estate taxes, various insurances, utilities, fuels, mobile home costs, and condominium fees. For renters, costs include rent, utilities, and heating fuel.

When it comes to homeowners, 20 percent of homeowners with a mortgage met the distressed criterion in the 1990 Census. By 2000, the percentage jumped to 31 percent, and had climbed steadily since then, reaching 41 percent in 2007 and 42 percent in 2008 – over 500,000 households. All told, nearly a million homeowners and renters, comprising 39 percent of all households, were paying 30 percent or more of their income in housing costs.

What do we Mean by a Job?

Everybody knows what a job is, right? Well, yes, sort of. In fact, we tend to use the term quite loosely, and it can take on different meanings in different contexts.

Let's start with a fairly straightforward definition: a job is a relationship between a particular employer and a particular employee. At any point in time, we can tally the number of jobs within an industry or a geographic area.

Things get more complicated when we compare jobs over time. When we say that the number of aerospace jobs went up this year, we're really talking about the net number of jobs in the industry. Some aerospace jobs that existed a year ago don't exist today due to turnover. Some aerospace firms have expanded, others have contracted, some may have closed, others may be brand new, and some may have restructured. They may have the same number of employees, but the occupational and wage distribution may be substantially different.

So, when we're talking about industry employment over time, we're using a different definition of jobs, where the actual individuals and the actual employers don't factor in.

Full-time equivalent (FTE) jobs involve another definition. Instead of a count of individual employees, the FTE is a count based on hours worked, with one FTE job defined as 2,080 hours worked in a year's time. The concept of an individual worker is even more abstracted here, because one FTE job can be an amalgamation of a number of different individuals. The advantage of using FTE employment is that it adjusts for turnover and part-time jobs.

A potential pitfall comes into play when we compare two different periods and start drawing conclusions based on an analysis of net new jobs. If the economy grows from 2.0 million jobs to 2.2 million, it is tempting to focus on the net new 0.2 million jobs and assume that the 2.0 million jobs are unchanged; we might even harbor the assumption that it's the same 2.0 million individuals working at the same jobs at the same employer. In fact, many of those 2.0 million jobs are different – different individuals at different employers with different job titles and responsibilities, with different work schedules (e.g., part time vs. full time) and with different wages – even if, by industry, the job count hasn't changed.

Economic Comparisons with Other States

How does Washington rank relative to other states in the nation? This chapter presents economical social data that show how Washington ranks relative to other states in terms of:

- State Minimum Wage (Dollars)
- Unemployment Rate (Percent)
- Nonfarm Employment – Average Annual Job Growth and Share of U.S. Total
- Real GDP – Average Annual Job Growth
- Real GDP/Job – Average Annual Job Growth
- Per Capita Personal Income (Dollars)
- Exports (Dollars)
- New Privately-Owned Building Permits Average Annual Growth
- Existing House Sales (Level)
- Median House Prices (Dollars)
- Population (Level and Share of U.S.)
- High School (Percent of Persons 25 Years and Older)
- College (Percent of Persons 25 Years and Older)

Figure 64
States with a Higher Minimum Wage than the Federal Minimum Wage
Source: U.S. Department of Labor

Rank	State	Minimum Wage (as of July 24, 2009)
1	Washington	$8.55
2	Oregon	$8.40
3	District of Columbia	$8.25
4	Vermont	$8.06
5	California	$8.00
5	Connecticut	$8.00
5	Illinois	$8.00
5	Massachusetts	$8.00
9	Nevada*	$7.55
10	New Mexico	$7.50
11	Michigan	$7.40
11	Rhode Island	$7.40
13	Ohio	$7.30
14	Colorado	$7.28

*With no health insurance benefits provided by employer

Figure 65
Ten Highest/Lowest Unemployment Rates, 2008
Source: U.S. Bureau of Labor Statistics

Rank	State	Unemployment Rate
	U.S.	5.8%
1	South Dakota	3.0%
2	Wyoming	3.1%
3	North Dakota	3.2%
4	Nebraska	3.3%
5	Utah	3.4%
6	New Hampshire	3.8%
6	Oklahoma	3.8%
8	Hawaii	3.9%
9	Virginia	4.0%
10	Iowa	4.1%
25	Washington	5.3%
42	Illinois	6.5%
42	Ohio	6.5%
44	Alaska	6.7%
44	Nevada	6.7%
46	Mississippi	6.9%
46	South Carolina	6.9%
48	District of Columbia	7.0%
49	California	7.2%
50	Rhode Island	7.8%
51	Michigan	8.4%

Figure 66
Ten Highest/Lowest States: Nonfarm Employment Average Annual Job Growth, 1998 to 2008
Source: U.S. Bureau of Labor Statistics, Haver Analytics

Rank	State	Growth Rate
	U.S.	0.9%
1	Nevada	3.2%
2	Wyoming	2.7%
3	Arizona	2.3%
4	Idaho	2.2%
5	Utah	2.1%
6	Montana	1.7%
7	Texas	1.7%
8	New Mexico	1.6%
9	Alaska	1.6%
10	Florida	1.6%
16	Washington	1.3%
42	Alabama	0.5%
43	Missouri	0.4%
44	Connecticut	0.3%
45	Massachusetts	0.3%
46	Louisiana	0.3%
47	Indiana	0.1%
48	Mississippi	0.1%
49	Illinois	0.1%
50	Ohio	-0.2%
51	Michigan	-0.8%

Figure 67
Ten Highest/Lowest States: Real GDP Average Annual Job Growth, 1998 to 2008
Source: Bureau of Economic Analysis

Rank	State	Growth Rate
	U.S.	2.5%
1	Nevada	4.4%
2	Idaho	4.3%
3	Arizona	4.2%
4	Oregon	3.8%
5	South Dakota	3.7%
6	California	3.4%
7	Utah	3.4%
8	Texas	3.3%
9	Florida	3.3%
10	North Dakota	3.3%
22	Washington	2.6%
42	Illinois	1.6%
43	West Virginia	1.3%
44	Indiana	1.3%
45	Mississippi	1.3%
46	Missouri	1.2%
47	Kentucky	1.2%
48	Alaska	1.1%
49	Louisiana	0.7%
50	Ohio	0.6%
51	Michigan	0.1%

Figure 68
Ten Highest/Lowest States: Real GDP/Job*
Average Annual Job Growth, 1998 to 2008
Source: Bureau of Economic Analysis

Rank	State	Growth Rate
	U.S.	1.1%
1	Oregon	2.3%
2	South Dakota	2.3%
3	California	2.0%
4	New York	2.0%
5	North Dakota	1.9%
6	Iowa	1.7%
7	Massachusetts	1.7%
8	Idaho	1.7%
9	Vermont	1.7%
10	District of Columbia	1.6%
30	Washington	0.9%
42	Wyoming	0.4%
43	Missouri	0.4%
44	New Jersey	0.4%
45	Ohio	0.3%
46	Georgia	0.2%
47	Kentucky	0.2%
48	South Carolina	0.1%
49	Michigan	0.1%
50	Louisiana	-0.2%
51	Alaska	-0.6%

*GDP/Job – indicator of labor productivity

Figure 69
Ten Highest/Lowest Per Capita Personal Income, 2008
Source: Bureau of Economic Analysis

Rank	State	Per Capita Income
	U.S.	$40,208
1	District of Columbia	$66,119
2	Connecticut	$56,272
3	New Jersey	$51,358
4	Massachusetts	$51,254
5	New York	$48,753
6	Wyoming	$48,608
7	Maryland	$48,378
8	Virginia	$44,224
9	Alaska	$44,039
10	California	$43,641
14	Washington	$42,857
42	Arizona	$34,335
43	Alabama	$33,768
44	New Mexico	$33,430
45	Idaho	$33,074
46	South Carolina	$32,666
47	Arkansas	$32,397
48	Kentucky	$32,076
49	Utah	$31,944
50	West Virginia	$31,641
51	Mississippi	$30,399

Figure 70
Top/Bottom Ten States: 2008 Exports
Source: WISER, Haver Analytics

Rank	State	State Exports (in Thousands)
1	Texas	$192,080,760
2	California	$144,813,261
3	New York	$79,596,242
4	Washington	$66,884,590
5	Illinois	$53,444,520
6	Florida	$46,050,017
7	Ohio	$45,487,881
8	Michigan	$44,871,359
9	Louisiana	$41,926,763
10	New Jersey	$35,478,961
42	Alaska	$3,569,105
43	Maine	$3,011,498
44	New Mexico	$2,779,522
45	North Dakota	$2,759,652
46	Rhode Island	$1,976,690
47	South Dakota	$1,644,608
48	Montana	$1,390,444
49	District of Columbia	$1,195,896
50	Wyoming	$1,080,993
51	Hawaii	$963,995

Figure 71
Ten Highest/Lowest States: New Privately-Owned Building Permits, Average Annual Growth, 1998 to 2008
Source: U.S. Bureau of the Census, Haver Analytics

Rank	State	Growth Rate
	U.S.	-5.6%
1	Wyoming	3.6%
2	New York	3.0%
3	District of Columbia	2.3%
4	Hawaii	2.2%
5	South Dakota	1.2%
6	Louisiana	-0.1%
7	North Dakota	-0.5%
8	Montana	-0.7%
9	West Virginia	-1.0%
10	Mississippi	-1.2%
22	Washington	-4.5%
42	Florida	-8.5%
43	Indiana	-8.6%
44	Arizona	-8.6%
45	Nevada	-8.7%
46	Rhode Island	-8.7%
47	Minnesota	-9.2%
48	Colorado	-9.4%
49	Ohio	-9.5%
50	Alaska	-11.0%
51	Michigan	-14.9%

Figure 72
Existing House Sales, 2008
Source: National Association of Realtors

Rank	State	House Sales (in Thousands)
1	Texas	474.8
2	California	439.9
3	Florida	262.5
4	New York	255.4
5	Ohio	229.7
6	Illinois	183.1
7	Georgia	174.9
8	Pennsylvania	174.7
9	North Carolina	157.1
10	Michigan	155.6
21	Washington	86.9
42	Hawaii	20.0
43	Montana	19.9
44	New Hampshire	18.4
45	South Dakota	16.3
46	Rhode Island	13.4
47	North Dakota	12.4
48	Delaware	11.5
49	Vermont	10.7
50	Wyoming	10.0
51	District of Columbia	7.1

Figure 73
Median House Prices, Single-Family, in Thousands
Washington State, Other State Metro. Areas, 2008
Source: National Association of Realtors

Rank	Metropolitan Area	2008
1	San Jose-Sunnyvale-Santa Clara, CA	$668.0
2	Honolulu, HI	$624.0
3	San Francisco-Oakland-Fremont, CA	$622.0
4	Anaheim-Santa Ana, CA (Orange Co.)	$533.2
5	New York-Wayne-White Plains, NY-NJ	$494.3
15	Seattle-Tacoma-Bellevue, WA	$357.2
20	Portland-Vancouver-Beaverton, OR-WA	$280.1
60	Spokane, WA	$191.2
70	Kennewick-Pasco-Richland, WA	$166.1
81	Yakima, WA	$153.3
151	Elmira, NY	$87.7
152	Decatur, IL	$87.4
153	South Bend-Mishawaka, IN	$86.0
154	Youngstown-Warren-Boardman, OH-PA	$71.7
155	Saginaw-Saginaw Township North, MI	$62.2

Figure 74
Ten Most/Least Populated States, 2008
Source: U.S. Bureau of the Census, Haver Analytics

Rank	State	Population (in Thousands)	Share of U.S.
1	California	36,757	12.1%
2	Texas	24,327	8.0%
3	New York	19,490	6.4%
4	Florida	18,328	6.0%
5	Illinois	12,902	4.2%
6	Pennsylvania	12,448	4.1%
7	Ohio	11,486	3.8%
8	Michigan	10,003	3.3%
9	Georgia	9,686	3.2%
10	North Carolina	9,222	3.0%
13	Washington	6,549	2.2%
42	Hawaii	1,288	0.4%
43	Rhode Island	1,051	0.3%
44	Montana	967	0.3%
45	Delaware	873	0.3%
46	South Dakota	804	0.3%
47	Alaska	686	0.2%
48	North Dakota	641	0.2%
49	Vermont	621	0.2%
50	Dist.of Columbia	592	0.2%
51	Wyoming	533	0.2%

Figure 75
High School Completion Rates (Includes Equivalency)
Source: U.S. Bureau of the Census – 2008 American Community Survey

Rank	State	Percent (25 Years and Older)
	U.S.	85.0
1	Wyoming	91.7
2	Alaska	91.6
2	Minnesota	91.6
4	Montana	90.9
4	New Hampshire	90.9
6	Vermont	90.6
7	Utah	90.4
8	Hawaii	90.3
8	Iowa	90.3
8	South Dakota	90.3
13	Washington	89.6
42	Tennessee	83.0
43	New Mexico	82.4
44	West Virginia	82.2
45	Arkansas	82.0
46	Alabama	81.9
47	Kentucky	81.3
48	Louisiana	81.2
49	California	80.2
50	Mississippi	79.9
51	Texas	79.6

Figure 76
Percent Completing a Bachelor's Degree
Source: U.S. Bureau of the Census – 2008 American Community Survey

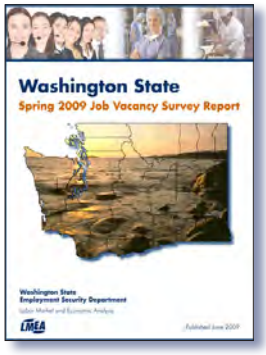
Rank	State	Percent (25 Years and Older)
	U.S.	27.7
1	District of Columbia	48.2
2	Massachusetts	38.1
3	Colorado	35.6
4	Connecticut	35.6
5	Maryland	35.2
5	New Jersey	34.4
7	Virginia	33.7
8	New Hampshire	33.3
9	Vermont	32.1
10	New York	31.9
12	Washington	30.7
42	Indiana	22.9
43	Tennessee	22.9
44	Oklahoma	22.2
44	Alabama	22.0
46	Nevada	21.9
47	Louisiana	20.3
48	Kentucky	19.7
49	Mississippi	19.4
50	Arkansas	18.8
51	West Virginia	17.1

LMEA Publications and Online Reports

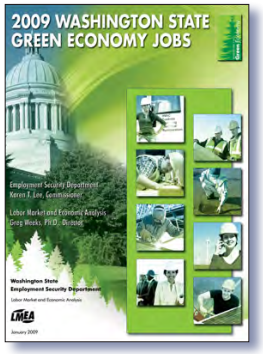
The Labor Market and Economic Analysis (LMEA) branch of the Employment Security Department has primary responsibility for providing occupational information analysis and commentary on Washington's current labor market situation. These publications and others are available on Workforce Explorer (www.workforceexplorer.com).

- Washington Labor Market Quarterly Review – A quarterly report that covers labor market issues affecting state employers and policymakers in the current economy.
- Washington State Labor Market and Economic Report – An annual report that includes the year in review on a national level; Washington's labor market in recession; seasonal, structural, and cyclical industry employment; unemployment and its dimensions; occupations during the recession; employment projections; income and wages; and economic comparisons with other states.

- Washington State Employee Benefits Report – An overview of health insurance, retirement plans, and paid leave for workers and their dependents. Information is displayed by industry, region, and size of business.
- Washington State Job Vacancy Survey Report – A snapshot of demand for workers taken each spring and fall. Results are broken down by several characteristics of available jobs such as wage offered, educational requirement, and length of time job has been vacant.



- Washington State Employment Situation Report – A monthly tool giving you an up-to-date report on the state of the state economy as reflected in our labor market data. Employment by industry and labor force data at the state and substate level are displayed.
- Agricultural Workforce in Washington State – A report that brings together all relevant information on this critical industry's workforce. The report includes employment by industry and location, wage information by activity, farm worker demographic information, and industry outlook.

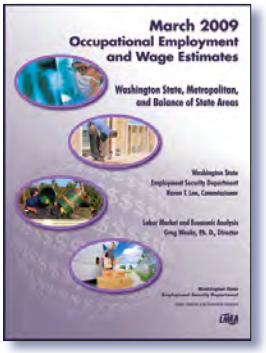


- Green Jobs Survey Report – This report shows the number of jobs that directly support environmental protection and clean energy goals. Firms that produce any goods or provide services that support four core areas: increasing energy efficiency, producing renewable energy, preventing and reducing environmental pollution, and/or provides mitigation or clean-up of environmental pollution have been surveyed. The new updated version will be available in early 2010.

LMEA Publications and Online Reports (*Continued*)

- Pacific County Profile – One of 32 online reports profiling individual or groups of counties. Each report deals with the economic health of a specific area – including employment trends, demographics, wages, and changes in labor force and population.

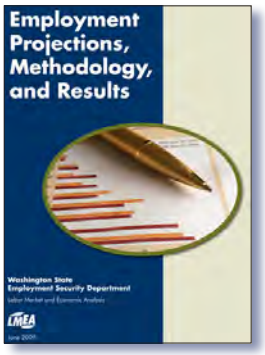
- Quarterly Census of Employment and Wages – Measures covered employment and wages by industry and by county. We focus on the wage portion of this report and cover information on the total number of firms in the state, total wages paid for the quarter, and average employment.



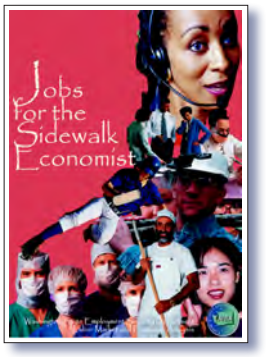
- Occupational Employment and Wage Estimates – Data which are presented by area for statewide, metropolitan statistical areas, and four balance-of-state areas.

- Agricultural Labor Employment and Wages – A monthly online report that covers total and seasonal agricultural employment, statewide and regional employment and wage trends, crop area harvest periods, weather conditions by area, and factors affecting farm labor supply and demand. Provides the methodology behind the Farm Labor Survey data.

- Occupational Outlooks – These online updates are short extracts from occupational projections on approximately 750 occupations. The occupations are ranked based on the average of three criteria: average annual growth rate, number of job openings due to growth, and total number of job openings due to growth and replacement. They show typical preparation levels required of those currently working in the occupations.



- Employment Projections, Methodology, and Results – An online report explaining employment projections, methodology, and results that are used by policymakers, job seekers, and economic analysts. Currently, industry forecasts are produced for two, five, and ten years into the future.



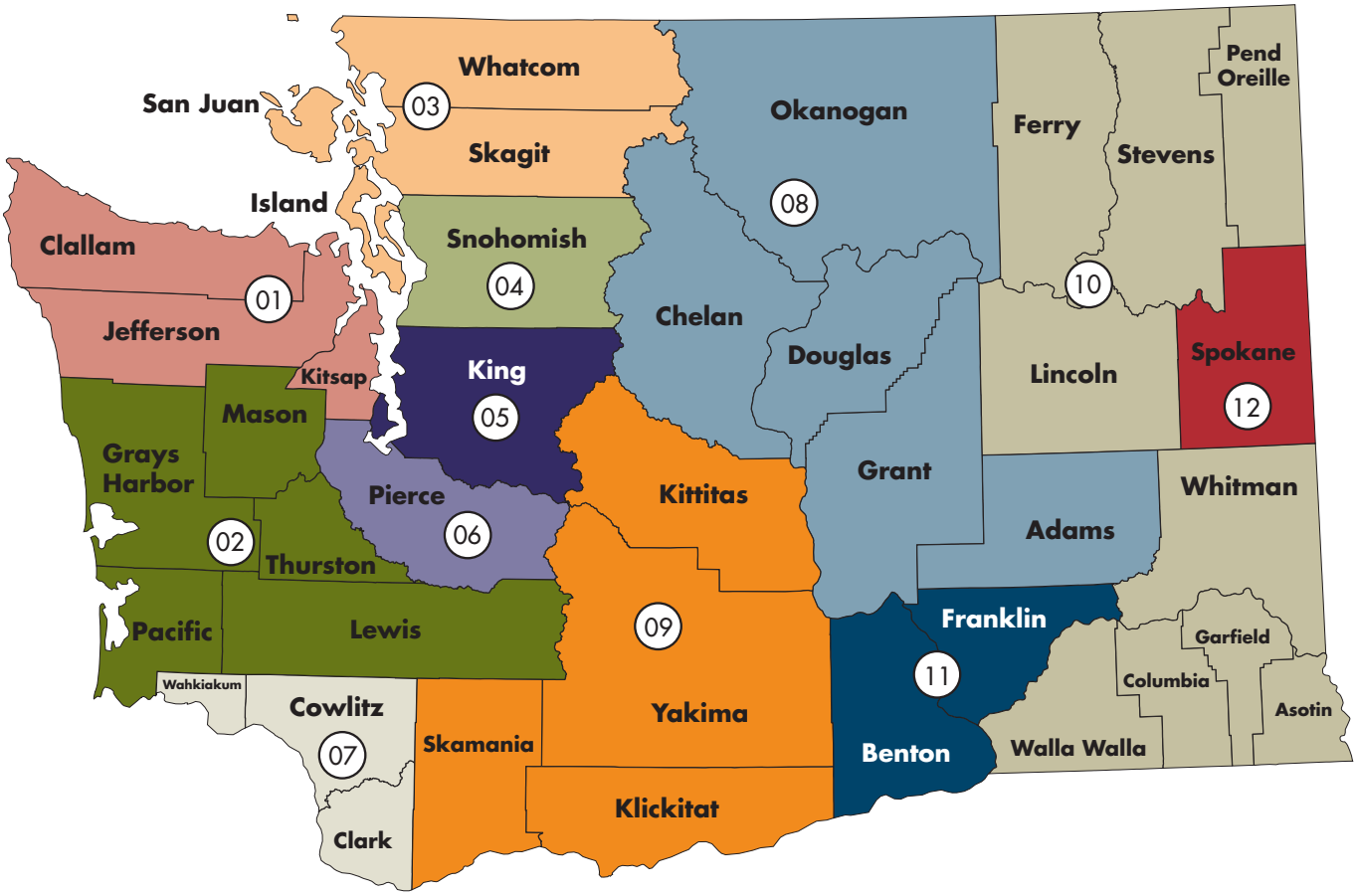
- Jobs for the Sidewalk Economist – High school students who need to prepare a post high school plan prior to graduation can get step-by-step quidance to explore the job market and understand the key elements for mapping out a strategy to make choices about their future.

- Labor Area Summaries – These online reports provide an analysis of labor market trends for monthly nonagricultural employment by industry in different metropolitan areas and counties.

- Five Tools for Rapid Reemployment – This booklet helps job seekers and WorkSource staff make better use of the Workforce Explorer Web site. It contains employment data, jobs, wages paid, types of businesses, numbers employed, and forecasts for employment in every area of the state.

Workforce EXPLORER
www.workforceexplorer.com

WASHINGTON STATE WORKFORCE DEVELOPMENT AREAS



- WDA 1 — Olympic Consortium (Clallam, Jefferson, and Kitsap)
- WDA 2 — Pacific Mountain (Grays Harbor, Lewis, Mason, Pacific, and Thurston)
- WDA 3 — Northwest Washington (Island, San Juan, Skagit, and Whatcom)
- WDA 4 — Snohomish County
- WDA 5 — Seattle-King County
- WDA 6 — Pierce County
- WDA 7 — Southwest Washington (Clark, Cowlitz, and Wahkiakum)
- WDA 8 — North Central Washington/Columbia Basin (Adams, Chelan, Douglas, Grant and Okanogan)
- WDA 9 — South Central (Kittitas, Klickitat, Skamania, and Yakima)
- WDA 10 — Eastern Washington (Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Stevens, Walla Walla, and Whitman)
- WDA 11 — Benton-Franklin
- WDA 12 — Spokane County