2011 LABOR MARKET AND ECONOMIC REPORT

Washington's economy

Unemployment

Occupations

Employment projections

Wages and income

Washington State Employment Security Department

Labor Market and Economic Analysis

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2011 Labor Market and Economic Report

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Washington State Employment Security Department
Paul Trause, *commissioner*

Labor Market and Economic Analysis
Greg Weeks, Ph.D., *director*
Dave Wallace, *labor economist*

Report content based on data available through Sept. 30, 2011.

Report authors:

Fast facts:	Greg Morgan, *economic analyst*
Executive summary:	Dave Wallace, *labor economist*
Chapter 1:	Dave Wallace, *labor economist*
Chapter 2:	Dave Wallace, *labor economist*
Chapter 3:	Keyi Lu, *economic analyst*
Chapter 4:	Chris Thomas, *economic analyst*, and Michele Petritz, *economic analyst*
Chapter 5:	Greg Morgan, *economic analyst*
Chapter 6:	Alex Roubinchtein, Ph.D., *economic analyst*
Chapter 7:	Scott Bailey, *regional labor economist*
Chapter 8:	Alex Roubinchtein, Ph.D., *economic analyst*

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Labor Market Fast Facts

Fast facts 1. Labor force and unemployment, not seasonally adjusted

Washington state, annual data 1980 to 2011*

Source: Employment Security Department/LMEA; Bureau of Labor Statistics; Local Area Unemployment Statistics; Haver Analytics, Inc.

Year	Labor force	Employment	Unemployment	Unemployment rate
1980	1,972,373	1,815,717	156,656	7.9%
1985	2,102,321	1,926,816	175,505	8.3%
1990	2,537,037	2,406,444	130,594	5.2%
1995	2,812,611	2,636,011	176,600	6.3%
2000	3,050,021	2,898,677	151,344	5.0%
2005	3,255,527	3,075,972	179,555	5.5%
2006	3,319,252	3,155,384	163,868	5.0%
2007	3,392,363	3,235,735	156,628	4.6%
2008	3,478,425	3,286,973	191,452	5.5%
2009	3,534,392	3,205,644	328,748	9.3%
2010	3,531,626	3,192,117	339,509	9.6%
2011*	3,482,832	3,156,749	326,083	9.4%

*2011 data are averaged from January through September.

Fast facts 2. Labor force and unemployment, not seasonally adjusted

Washington metropolitan areas, January through September 2011

Source: Employment Security Department/LMEA; Bureau of Labor Statistics; Local Area Unemployment Statistics; Haver Analytics, Inc.

Metropolitan area	Labor force	Employment	Unemployment	Unemployment rate
Washington state	3,483	3,157	326	9.4
Bellingham	105	95	9	8.7
Bremerton	123	113	10	7.9
Richland-Kennewick-Pasco	134	124	10	7.6
Longview-Kelso	43	38	5	12.3
Mount Vernon-Anacortes	58	52	6	10.3
Olympia	129	118	11	8.3
Seattle-Bellevue-Everett**	1,479	1,349	130	8.8
Seattle-Tacoma-Bellevue	1,870	1,701	168	9.0
Spokane	234	212	22	9.5
Wenatchee	64	59	5	8.4
Yakima	123	111	13	10.2

**Metropolitan Division

Fast facts 3. Projected industry average annual growth rates

Washington state, 2009 to 2019
Source: Employment Security Department/LMEA; 2011 Employment Projections; Bureau of Labor Statistics

Industry	2010 Q2 to 2012 Q2	2009 to 2014	2014 to 2019
Total nonfarm	1.5%	1.4%	1.4%
Construction	0.9%	0.2%	2.0%
Manufacturing	2.6%	1.6%	0.6%
Wholesale trade	2.5%	1.5%	1.2%
Retail trade	1.4%	1.3%	0.8%
Transportation, warehousing and utilities	3.1%	1.8%	1.3%
Information	3.0%	2.2%	2.3%
Financial activities	2.2%	0.5%	0.2%
Professional and business services	3.2%	3.0%	2.8%
Education and health services	2.0%	1.8%	2.2%
Leisure and hospitality	1.8%	1.4%	1.3%
Government	-1.0%	0.6%	1.2%

Fast facts 4. Wages and employment by industry

Washington state, 2010 Q4 (preliminary)
Source: Employment Security Department/LMEA; Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Industry	Firms	Wages paid in 2010 Q4	Average employment	Average weekly wages
Total	215,319	$36,056,371,019	2,808,470	$988
Government*	2,096	$6,965,919,044	525,473	$1,020
Healthcare and social assistance	14,464	$3,955,376,999	322,265	$944
Retail trade	14,334	$2,419,816,676	303,051	$614
Manufacturing	6,958	$4,352,282,909	254,831	$1,314
Accommodation and food services	13,058	$998,664,839	218,144	$352
Professional, scientific and technical services	18,965	$3,396,019,467	157,196	$1,662
Other services (except public administration)	68,476	$820,556,756	130,597	$483
Construction	22,042	$1,810,508,192	130,719	$1,065
Administrative, support, waste management and remediation services	9,711	$1,484,840,166	130,261	$877
Wholesale trade	13,313	$2,053,742,496	118,241	$1,336
Information	2,466	$2,453,484,413	102,203	$1,847
Finance and insurance	5,704	$1,612,537,037	88,151	$1,407
Transportation and warehousing	4,030	$1,011,133,558	78,683	$989
Agriculture, forestry, fishing and hunting	7,328	$559,872,961	87,721	$491
Real estate, rental and leasing	6,397	$437,349,089	43,857	$767
Arts, entertainment and recreation	2,473	$290,445,475	44,598	$501
Educational services	2,494	$313,998,986	33,752	$716
Management of companies and enterprises	604	$988,632,709	31,767	$2,394
Utilities	234	$99,332,756	4,815	$1,587
Mining	172	$31,856,491	2,148	$1,141

*Public educatoin is included in government.

Executive Summary

U.S. economy and labor market

In the latter part of 2011, a series of economic reports cast doubt on the strength of the national recovery. Large amounts of outstanding debt, high gasoline prices, natural disasters in Japan and debt woes in Europe held back U.S. economic growth.

The private sector rapidly shed jobs during the recent recession, but led job growth during the recovery period. The government sector lost more jobs than any other over the past year. Growth sectors over the year at the national level were led by professional and business services, which grew by 3.1 percent. The financial activities and information sectors lost jobs both in the recovery period and in the past year.

Washington's economy and labor market

Despite adding jobs every month from August 2010 to August 2011, the average job growth was too slow to significantly decrease the state's unemployment rate. There continues to be a large divergence between the number of job seekers and the number of open positions.

As in the national labor market, the public sector in Washington state has contracted, while the private sector has expanded. Goods-producing industries have begun to add jobs, in large part due to strong growth in the aerospace manufacturing industry. Apart from government, most service-providing sectors have added jobs the past year. Professional and business services led all sectors in job growth between August 2010 and August 2011.

During the recession, job growth expanded in only one region of the state – the Tri-Cities. Over the past year, most regions have started to add jobs, particularly in the central Puget Sound area.

Seasonal, structural and cyclical industry employment in Washington

Washington's agriculture- and tourism-related industries were the most seasonally influenced in terms of employment patterns in 2011 (based on data from 1990 through 2010). Employment in software- and medical-related industries showed the strongest structural influence. Food, administrative and education-services employment was most closely associated with economic growth.

Unemployment in Washington

The standard measure of unemployment was 9.1 percent in September 2011, down from 9.4 percent a year earlier. Unemployment-insurance claims were at 175,000, down from the January 2010 peak of more than 300,000.

The average length of time that unemployment claimants received benefits peaked at 42.2 weeks in 2010, but declined to 36.1 weeks in 2011. The number of unemployed workers who exhausted all of their benefits rose to 69,948 in December 2011.

While the nation and state showed decreasing labor-force participation (the ratio of the labor force divided by the total non-institutionalized population aged 16 and older), Seattle's rose in the second and third quarters of 2011.

Washington state employers reported 148 mass-layoff events between the third quarter of 2010 and the second quarter of 2011, a moderate decline from 2010, yet higher than pre-recession levels.

Occupations After the Great Recession

Occupational data sources showed some labor market improvements in 2011. These sources include Help Wanted OnLine job advertisements (HWOL) and Employment Security's Job-Vacancy Survey (JVS).

How occupations and occupational groups performed relative to each other depended on the data source. Computer and mathematical occupations, management occupations, and occupations in financial and business operations had the most openings, according to HWOL. Food preparation and serving-related occupations had the most openings in the job-vacancy survey, but ranked 11th according to HWOL data. Sales and related occupations and office and administrative support occupations also were ranked highly in the job-vacancy survey.

Washington state employment projections

From 2009 to 2014, Washington employment is projected to grow by an estimated 203,700 new nonfarm jobs – an average annual growth rate of 1.4 percent. This growth rate is significantly higher than the 2008 to 2013 projected growth rate of 0.3 percentage points. Sectors projected to see increasing shares from 2009 to 2014 are the professional and business-services sector and the education and health-services sector. The government and financial-activities sectors are projected to see the largest decrease in shares. In terms of occupational groups, computer and mathematical occupations are expected to see the largest increases in shares, while farming, fishing and forestry occupations likely will see the largest decreases in shares.

Washington wages and income

As the recession deepened in 2009, it took its toll on Washington households. Median incomes declined, poverty rates rose and the number of low-income households increased. More than half of the jobs that disappeared during the Great Recession paid less than $16 per hour, whereas there was a small increase in the number of jobs paying more than $40 per hour.

Per capita income in 2009 declined by 2 percent, the largest drop since 1970.

Chapter 1: U.S. Economy and Labor Market

2011 was marked by a series of disappointing economic reports: a grim manufacturing index, low consumer confidence, bleak home sales, widespread foreclosure activity, high unemployment claims, falling stock values and downgrading of the U.S. credit rating. All of these seemed to confirm a slowing economy and raised fears of a returning recession.

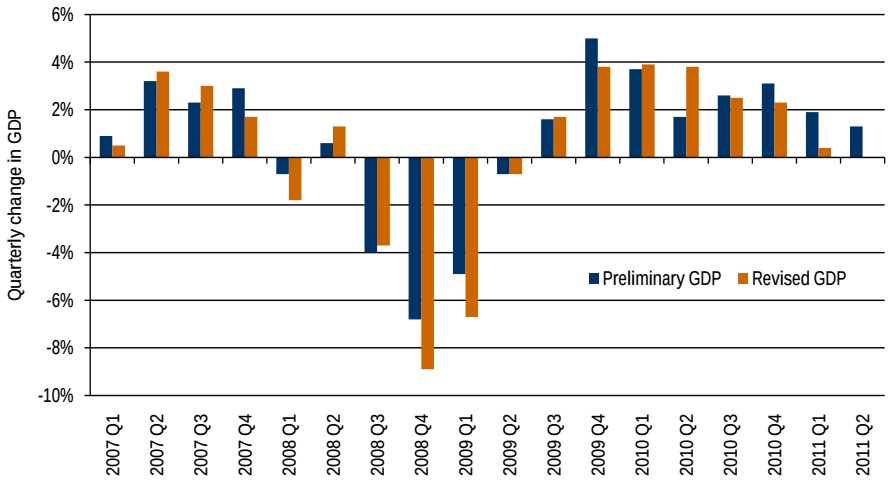
A series of reports and events in 2011 seemed to confirm a slowing economy on a national level.

At the end of July 2011, the federal Bureau of Economic Analysis (BEA)[1] released new gross domestic product (GDP) data for the second quarter of 2011 and revised data for the preceding quarters (*Figure 1-1*). The second-quarter data were somewhat disappointing, showing a growth rate of 1.3 percent, but the downward revision of the first quarter from 1.9 to 0.4 percent was particularly noticeable.

This disappointment deepened in September 2011 when the federal Bureau of Labor Statistics (BLS) announced that zero jobs were added nationally in August 2011. The zero growth in August was later revised upward, but still remained anemic.

Figure 1-1. Preliminary and revised quarterly changes in GDP, seasonally adjusted annualized rate

United States, January 2007 through June 2011
Source: Bureau of Economic Analysis



GDP revisions show the recession deeper and the recovery weaker than initially estimated.

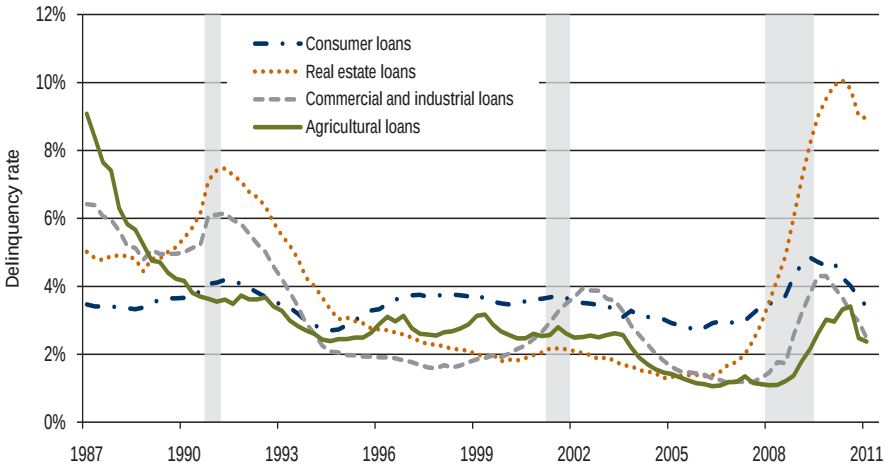
The disappointing news in mid-year 2011 contrasted with late 2009 and early 2010, when the economy experienced solid growth and appeared to be on the way to recovery. Even as GDP slowed in early 2011, other important economic indicators, such as the ISM

[1] The BEA is part of the U.S. Department of Commerce.

manufacturing index,[2] showed that corporate profits and stock prices continued to improve. However, employment growth was unsatisfactory and too slow to substantially decrease unemployment.

One of the largely unresolved economic problems has been the high amount of outstanding private-sector debt, particularly real estate loans (*Figure 1-2*). In addition, housing prices[3] have fallen to approximately 2003 levels. These high debt levels and loss of wealth from declining home values, combined with questionable labor market prospects, have made consumers wary.[4] These conditions, along with a perceived high level of instability, caused firms nationwide to hold back on hiring.

Figure 1-2. Delinquency rates on loans, seasonally adjusted
United States, January 1987 through June 2011
Source: Federal Reserve Board; Haver Analytics, Inc.



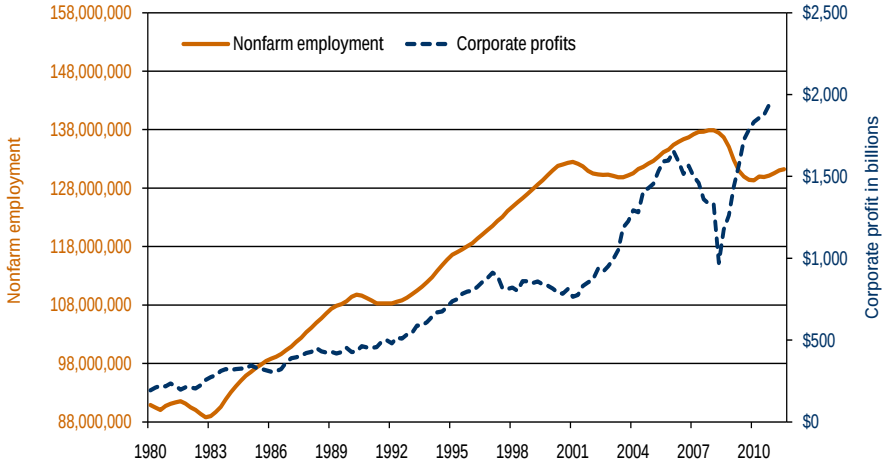
Most debt was falling in 2011, but the nation was still over-leveraged with real estate loans. Gray-shaded areas indicate recessions.

Under typical circumstances, firms with large profits can be expected to increase their hiring. *Figure 1-3* shows that in the fourth quarter of 2008, employment peaked and corporate profits bottomed out. Since then, both of these data series have strongly diverged, indicating that rebounding profits are not translating into more domestic hiring.

[2] This index produced by the Institute of Supply Management tracks the monthly amount of manufacturing activity.
[3] Corelogic: national housing price index.
[4] The Conference Board consumer confidence index fell to 44.5 in August 2011, the lowest level since April 2009. From 1977 to 2011, the consumer confidence index averaged 93.1.

Figure 1-3. Nonfarm employment and corporate profits, quarterly seasonally adjusted

United States, January 1980 through June 2011
Source: Bureau of Economic Analysis; Bureau of Labor Statistics



In the recovery period since the recent recession, rising profits have not translated into increased hiring.

In addition to financial instability in the United States, plus heavy debt loads, several other external factors are contributing to the lack of strong economic recovery. Gasoline prices rose considerably in the early part of 2011, causing consumers to cut back on other purchases. The earthquake and tsunami in Japan also affected the United States, primarily through supply-chain disruptions. Finally, concern over the economic stability of several European nations, including Spain, Portugal, Ireland, Italy, and especially Greece, has added to the economic uncertainty.

Among heavy debt loads and other factors, rising gas prices contributed to the lack of a strong economic recovery and caused consumers to cut back.

National labor market

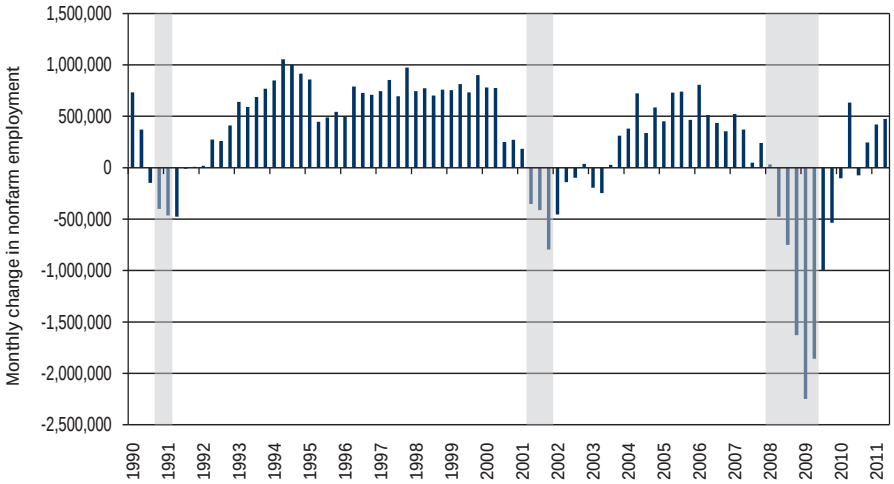
As *Figure 1-4* indicates, national employment patterns are strongly affected by the wider economy. With a few exceptions, and commonly with a short lag, employment rises in growth periods and falls in recessionary periods.

The most noteworthy aspect of the period since the end of the recession in June 2009 is the small amount of employment growth, which nearly came to a standstill in June 2011.[5] There is also a growing issue with a mismatch in the skills that job seekers are

[5] As of October 2011, the revised monthly change for June 2011 employment was a growth of only 20,000 jobs.

offering and employers are seeking. Finally, there has been a loss of middle-income jobs that are skilled, but replaceable by automation, such as accounting and recordkeeping.

Figure 1-4. Quarterly changes in nonfarm employment, seasonally adjusted
United States, January 1990 through June 2011
Source: Bureau of Labor Statistics



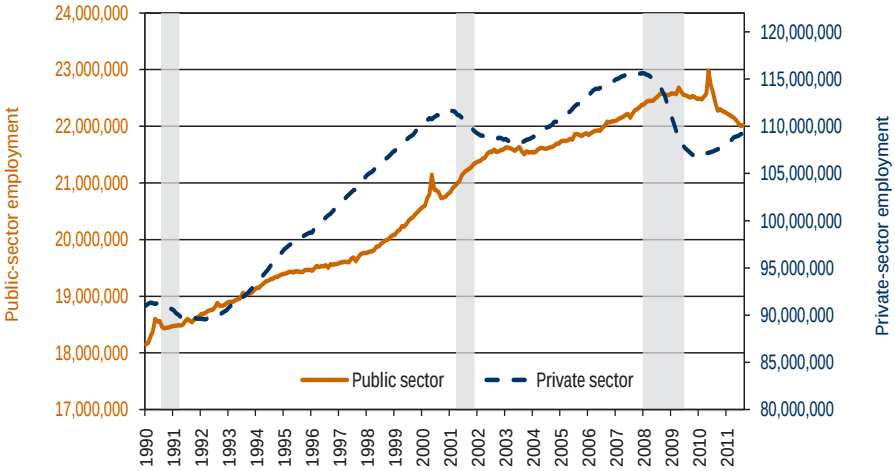
Employment closely follows larger economic trends, but with a small lag. Gray-shaded areas indicate recessions.

Private- and public-sector trends

From the recession through the recovery period, employment patterns between the private and public sectors have been different. Private-sector employment peaked at 115.6 million in January 2008, just one month after the start of the recession. The private sector then shed jobs for 25 consecutive months. Then, from February 2010 to August 2011, the nation added private-sector jobs every month, albeit sometimes very slowly (*Figure 1-5*).

The public sector, on the other hand, added jobs through July 2008. Since then, with the exception of U.S. Census Bureau hiring in the spring of 2010, the public sector has shed jobs. Overall, private-sector employment has been more volatile and attuned to the business cycle. While the public sector has been relatively stable, it has lost a higher share of jobs since the end of the recession (-0.6 percent compared to 0.4 percent in the private sector). Over the past year, the private sector has grown by 1.7 percent as the public sector contracted by 2.4 percent.

Figure 1-5. Private- and public-sector employment trends, seasonally adjusted
United States, January 1990 through August 2011
Source: Bureau of Labor Statistics



Private-sector employment fell sharply in the recession, whereas public-sector losses were concentrated in the recovery period. Gray-shaded areas indicate recessions.

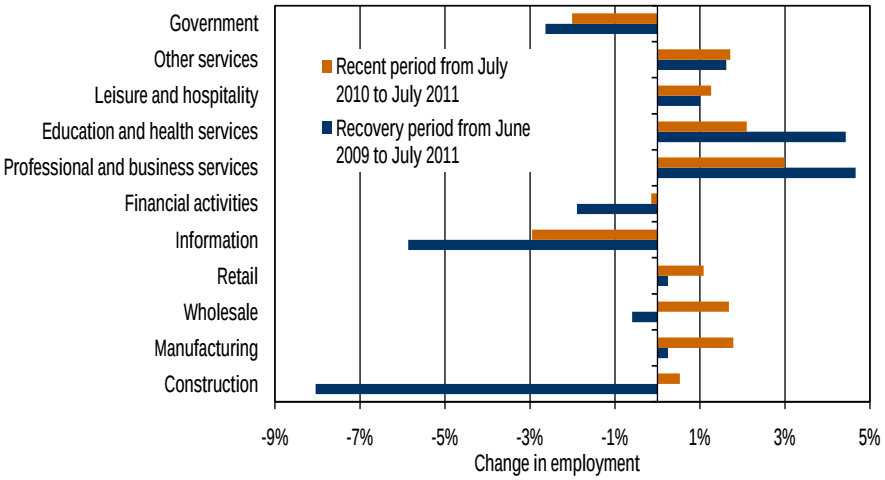
Job growth and losses in industry sectors

In addition to government, two other sectors lost jobs both in the recovery period and in the past year: financial activities and information (*Figure 1-6)*. The financial-activities sector includes banking, mortgage brokers, investments and real estate. The information sector at the national level largely consists of publishing industries (such as newspapers) and telecommunications.

Growth sectors at the national level were led by professional and business services, which grew by 3.1 percent over the past year. Education and health services, wholesale trade, and leisure and hospitality also had strong annual growth.

Private-sector employment fell sharply in the recession; public-sector employment fell in the recovery period.

Figure 1-6. Change in employment by industry, seasonally adjusted
United States, June 2009 through July 2011 and July 2010 through July 2011
Source: Bureau of Labor Statistics



Construction lost the most jobs during the recovery period, but the information sector lost the most jobs in the past year.

Chapter 2: Washington's Economy and Labor Market

In August 2011, the state of Washington added jobs for the 12th consecutive month. However, the pace of hiring – averaging about 3,900 jobs per month – was not strong enough to improve the state's high unemployment rate, which was still above the national rate as of September 2011.

These are some of the factors that affected the state's labor market over the past year:

- Weak state revenue leads to budget cuts and public-sector layoffs (*negative*).
- More unemployment-insurance exhaustees (*negative*).
- Housing markets better, but still weak (*mixed*).
- International trade buoys manufacturing and agriculture (*positive*).
- Manufacturing bounces back led by aerospace (*positive*).
- Professional and business services sector adds more jobs than any other (*positive*).
- Rebound in retail trade and leisure and hospitality sectors tied to discretionary spending (*positive*).

Weak revenue and public-sector layoffs

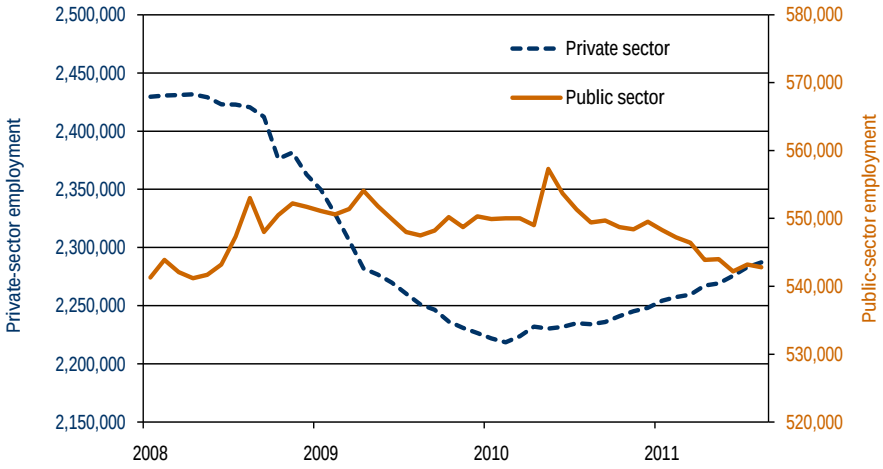
Washington state employment peaked in February 2008 and bottomed out in February 2010. During this period, the private sector lost 212,100 jobs, or 8.7 percent. From February 2010 to August 2011, the private sector grew by 3.1 percent, adding 68,800 jobs.

The public-sector experience is nearly opposite that of the private sector. During that same February 2008 to February 2010 period, the public sector in Washington grew by 1.5 percent, adding 6,100 jobs. In May 2010, public-sector employment peaked at 557,300 jobs, primarily due to U.S. Census Bureau hiring. Since then, and largely because of falling revenue at state and local levels, public-sector entities across the state have cut staff, services and expenditures. From May 2010 to August 2011, public-sector employment fell by 2.6 percent, or 14,500 jobs (*Figure 2-1*).

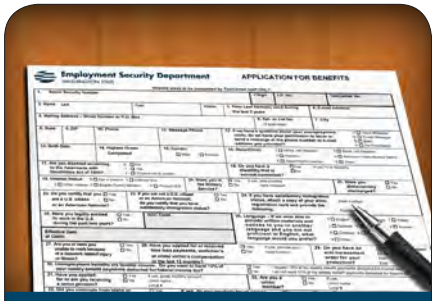
It is fairly certain that the public sector will continue shedding jobs into the foreseeable future. And like the nation as a whole, falling public-sector payrolls likely will act as a drag on economic growth for the state.

Due to falling revenue at state and local levels, public-sector entities across the state have cut staff, services and expenditures.

Figure 2-1. Private- and public-sector employment trends, seasonally adjusted
Washington state, January 2008 through August 2011
Source: Employment Security Department/LMEA



Private-sector employment dipped during the recession but has recovered since. Public-sector employment began declining in May 2010 and isn't likely to turn around soon.



Since 2006, the gap between the number of vacancies and the number of unemployed workers has increased.

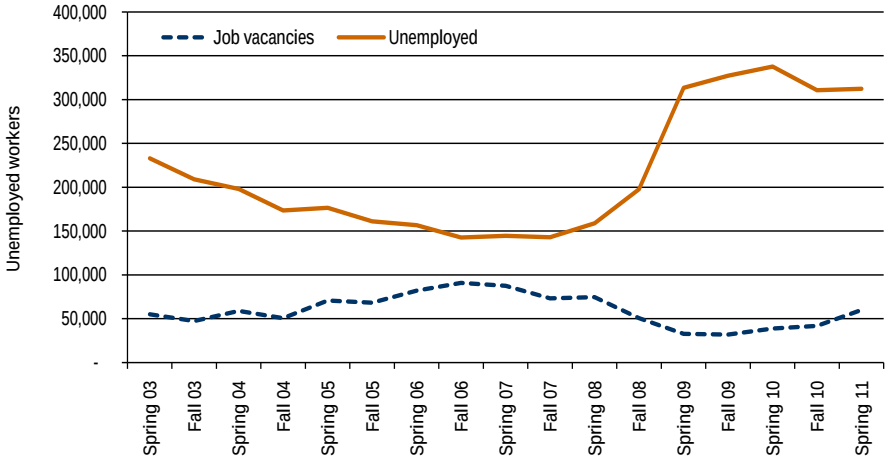
More unemployment exhaustees

By the end of December 2011, approximately 100,000 people in Washington would have lost their extended unemployment benefits if Congress hadn't continued the two extension programs. They received a two-month extension and remain at risk of losing benefits. These folks are representative of the large pool of long-term unemployed in the state.

The gap between people seeking work and employers looking to fill positions can be seen in *Figure 2-2*. The state was slow to recover from the 2001 recession, and there remained a fairly large gap between job seekers and open positions until 2006. The gap reached its narrowest point in the fall of 2006. Then in 2007, unemployment rose slowly before sharply increasing in the fall of 2008. Since the spring of 2010, the gap between job seekers and open positions has narrowed moderately.

The data shown in *Figure 2-2* measure only those people who are actively seeking work, so the picture could be somewhat bleaker, because some of the unemployed have dropped out of the labor force. *Chapter 4* discusses unemployment and unemployment recipients in detail.

Figure 2-2. Job vacancies and unemployment
Washington state, spring 2003 through spring 2011
Source: Employment Security Department/LMEA



After converging from 2003 through 2006, the gap between vacancies and the number of unemployed has increased.

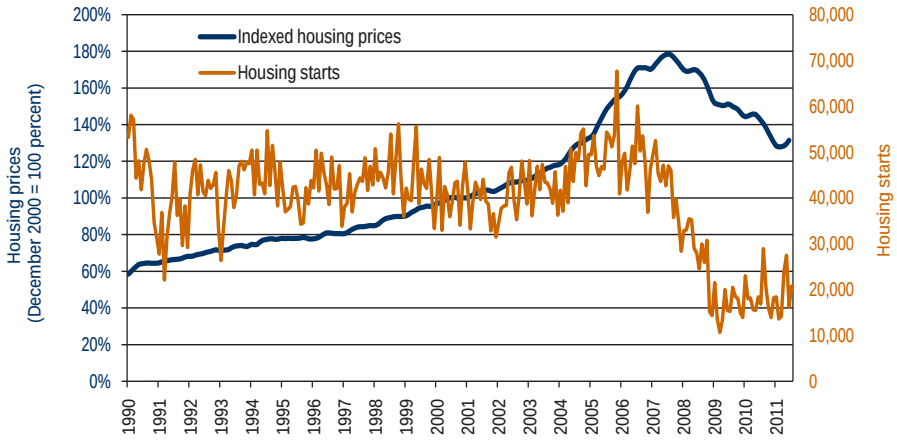
Housing markets better, but still weak

During the economic downturn (February 2008 to February 2010), the construction sector lost 66,300 jobs, accounting for about one-third of all job losses in the state. Construction-sector losses slowed in the year following the downturn, with 5,000 jobs lost from February 2010 to February 2011. From February 2011 to August 2011, the construction sector had only one month of job losses and added 4,300 jobs overall.

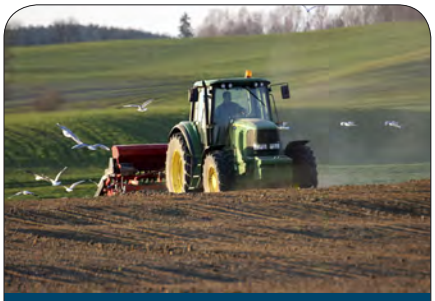
Yet, as *Figure 2-3* indicates, the state's housing market is still not out of the woods. Housing prices[1] have declined from historic highs, but it is unclear whether they have bottomed out yet. Statewide housing starts rose from a low of 10,680 in March 2009 to 25,320 in September 2011, but were still well below the norms of the last several decades.

[1] As represented by the Freddie Mac Home Price Index.

Figure 2-3. Housing prices and starts, seasonally adjusted
Washington state, January 1990 through August 2011
Source: Federal Home Mortgage Corporation; Bank of Tokyo-Mitsubishi UFJ; Haver Analytics, Inc.



Housing prices are down from historic highs and housing starts have yet to recover from the recession.



Demand for Washington's agricultural products has grown due to a series of natural disasters that reduced agricultural output in various parts of the world.

International trade buoys manufacturing and agriculture

While the United States and most of the developed world has been economically stagnant the past several years, the developing world – in particular, countries in Asia – have grown. This has sustained demand for aerospace and agricultural products, products in which Washington is strong.

At the same time, agricultural demand has grown due to a series of natural disasters that reduced agricultural output in various parts of the world. This decreased worldwide supply of food and the increased use of biofuels have increased prices and the value of Washington's agricultural production (*Figure 2-4*). Half of the state's top-10 exports were agriculture-related, and each of them enjoyed growth from 2009 to 2010.

Even though the value of the state's aerospace products fell from 2009 to 2010, aerospace products still accounted for about 44 percent of the state's entire export value in 2010.

Figure 2-4. Top-10 Washington state export commodities in millions of 2010 U.S. dollars

Washington state, 2007 through 2010
Source: U.S. Census Bureau

Commodity	Millions of 2010 Dollars				2010 Percent share	Percent change 2009 to 2010
	2007	2008	2009	2010		
Civilian aircraft, engines and parts	$27,524	$21,426	$26,382	$23,199	43.5	-12.1
Soybeans, whether or not broken	$2,322	$4,469	$3,718	$4,137	7.8	11.3
Corn (maize), other than seed corn	$1,518	$3,118	$1,421	$1,946	3.6	37
Wheat (other than durum wheat), and meslin	$1,260	$2,211	$1,140	$1,275	2.4	11.8
Oil (not crude) from petrol and bitum mineral	$896	$1,932	$1,201	$1,175	2.2	-2.1
Silicon*	$450	$566	$402	$719	1.3	78.9
Coniferous wood in the rough, not treated	$414	$507	$429	$680	1.3	58.4
Apples, fresh	$447	$534	$569	$618	1.2	8.6
Ferrous waste and scrap nesoi	$243	$579	$371	$573	1.1	54.3
Ultrasonic scanning apparatus	$450	$500	$501	$562	1.1	12.2

*Includes products containing at least 99.99 percent silicon by weight.

Aircraft exports made up more than 40 percent of the state's total export value in 2010.

The export strength of aerospace and agriculture also has begun to translate into job growth.

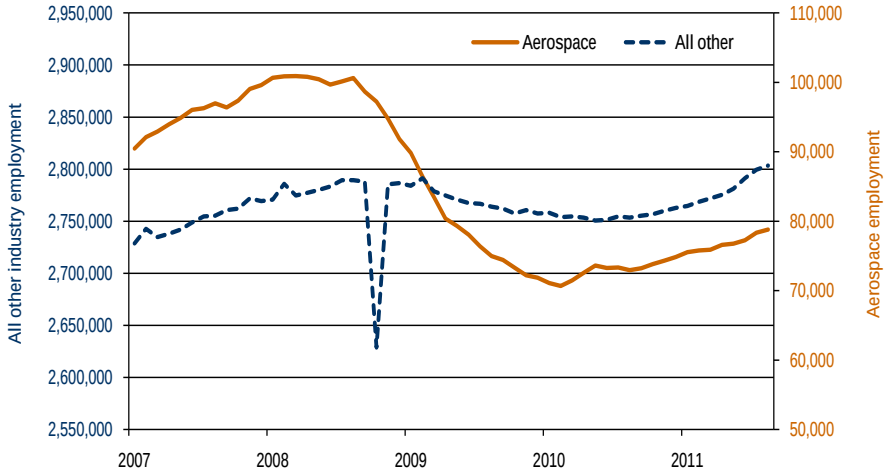
From August 2010 to August 2011, aerospace added jobs every month, reaching a level of 88,000. Aerospace had an annual growth rate of 9.3 percent, which compares favorably to the 1.7 percent growth achieved by all industries over the same period (*Figure 2-5*).

In August 2011, total agricultural employment reached 104,150 jobs, an increase of 8,150, or 8.5 percent, from a year prior.[2]

[2] These data are from the August *2011 Agricultural Labor Employment and Wages* report produced by the Washington State Employment Security Department.

Figure 2-5. Aerospace employment compared to all other industries, seasonally adjusted

Washington state, January 2007 through Augusut 2011
Source: Employment Security Department/LMEA



Aerospace employment grew at a higher rate from August 2010 to August 2011 compared to all other industry employment.

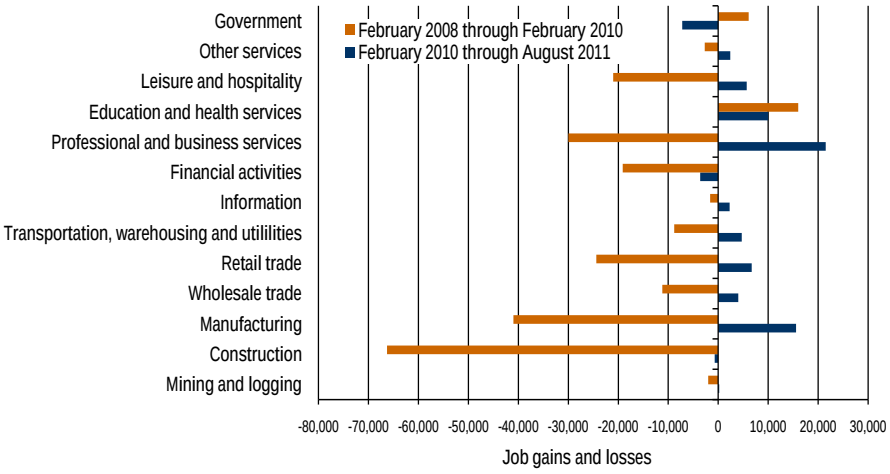
The aerospace industry provided 75 percent of all manufacturing jobs added from August 2010 to August 2011.

Manufacturing bounces back, led by aerospace

During Washington state's economic downturn (February 2008 to February 2010), manufacturing was second only to construction in terms of job losses, down 41,000 (*Figure 2-6*). However, since the low point in the cycle, manufacturing has had a strong turnaround, growing by 15,600 jobs.

The 7,500 jobs added in the aerospace industry provided 75 percent of all manufacturing jobs added in the 12 months ending in August 2011. The only other significant contributor to manufacturing was food manufacturing, which added 1,800 jobs from August 2010 to August 2011.

Figure 2-6. Employment change by industry sector, seasonally adjusted
Washington state, February 2008 through February 2010 and February 2010 through August 2011
Source: Employment Security Department/LMEA



All sectors, except two, lost jobs from February 2008 to February 2010. Most sectors have added jobs since then, including 15,600 jobs in manufacturing.

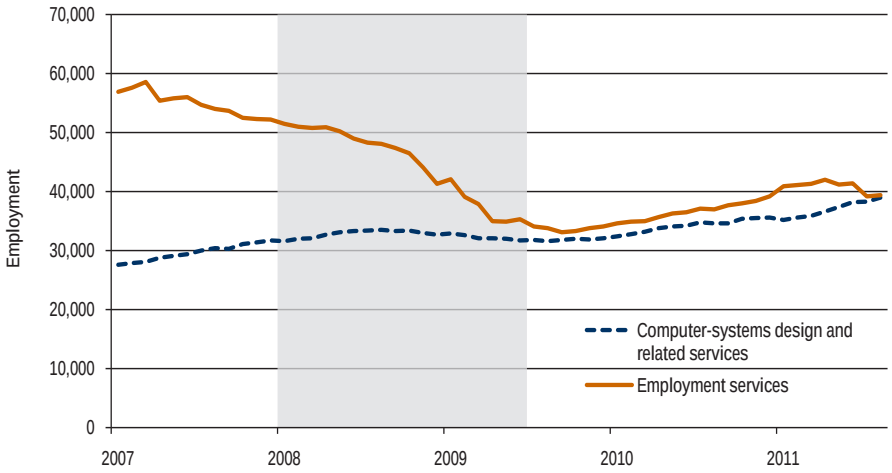
The professional and business-services sector added more jobs than any other

The professional and business-services sector lost the third-most jobs during the recent downturn, 30,000 jobs, yet added the most since, 21,500 jobs. About half of these jobs are attributable to two relatively small industries: employment services and computer-systems design.

While both employment services and computer-systems design have had strong growth, their paths differed during the recession. As shown in *Figure 2-7*, the jobs in the employment-services industry followed overall employment during the recession, but was a growth leader during the recovery period. On the other hand, the computer-systems design industry weathered the recession well and continued to grow during the recovery period.

Figure 2-7. Jobs in employment services and computer-systems design, seasonally adjusted

Washington state, January 2007 through August 2011
Source: Employment Security Department/LMEA



Employment in the employment services industry has largely followed the business cycle,[3] whereas the computer-systems design industry has had consistent growth. The gray-shaded area indicates recession.

Some rebound in sectors tied to discretionary spending

During the economic downturn, sectors closely tied to discretionary spending, such as retail trade and leisure and hospitality, struggled. Retail trade was down 24,400 jobs, and the leisure and hospitality sector lost 21,000 jobs. After February 2010, both sectors started to rebound, adding 6,700 jobs in retail trade and 5,700 jobs in leisure and hospitality as of September 2011.

Food services and drinking places drove growth in the leisure and hospitality sector. Growth in the retail-trade sector was divided among several industries, including clothing and clothing accessories and general merchandise stores. The somber outlook of consumers has had a muted effect on these types of discretionary spending.

[3] The business cycle refers to the periodic ups and downs of an economy, identified by periods of growth and recession.

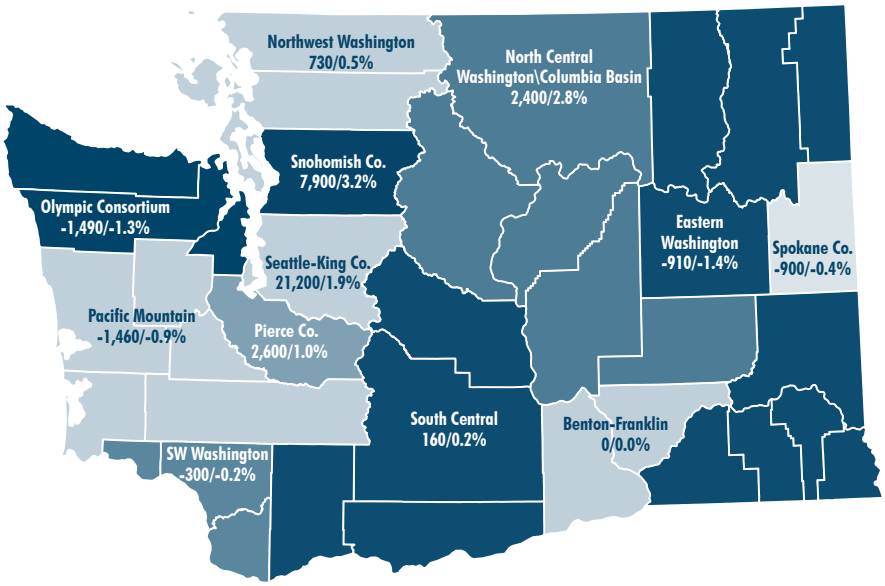
What parts of the state struggled? What parts prospered?

In general, Eastern Washington lost fewer jobs during the recession, but has recovered at a slower pace compared to Western Washington. From July 2008 to July 2010, Eastern Washington lost 3.7 percent of its jobs, whereas Western Washington jobs dropped by 6.8 percent. From July 2010 to July 2011, the eastern region of the state barely grew at 0.1 percent, while the western region grew by 1.3 percent.

Looking at employment change by workforce development area (WDA),[4] only one region added jobs from July 2008 to July 2010. The Benton-Franklin area, in large part spurred by the federal clean-up at the Hanford Nuclear Reservation, saw a jobs increase of 5.9 percent. Overall, jobs in the state were down by 6.2 percent during this period, led by the King, Snohomish and Spokane WDAs, each of which was down by 7.1 percent. This pattern reversed somewhat from July 2010 to July 2011, when Snohomish grew by 3.2 percent, King grew by 1.9 percent, and Benton-Franklin added no jobs (*Figure 2-8*).

Figure 2-8. Employment change by workforce development area, seasonally adjusted

Washington state, July 2010 through July 2011
Source: Employment Security Department/LMEA



From July 2010 to July 2011, Snohomish County had the fastest growth rate.

[4] Workforce development areas are regions of the state with economic similarities. See *Appendix 1* for a map of Washington's workforce development areas.

Chapter 3: Seasonal, Structural and Cyclical Industry Employment

Three factors significantly impact changes in employment and unemployment: *seasonality*, *structural change* and *cyclicality*.

- Seasonal employment changes are fluctuations that tend to happen at the same time each year.
- Structural employment change happens over long periods of time and can be caused by changes in technology, policy and demographics.
- Cyclical employment change is influenced by the ups and downs of the business cycle.

In Washington state, there are a number of industries that are influenced by seasonal and cyclical factors. Structural changes drive long-term employment patterns and, over time, alter the mix of industry and jobs in the state.

Identifying seasonal, structural and cyclical employment change

To identify the major factors that influence monthly employment change, a statistical process[1] was used to determine how much an industry's employment is influenced by irregular, seasonal or trend-cycle[2] factors. Additional work was required to identify how much trend or cycle factors impacted employment growth.

The data used to identify all of these factors were employment from 1990 to 2010 at the three-digit level NAICS[3] (with the addition of some four-digit level detail industries). Private employment was combined with local and state government employment for the education and health industries, and federal employment was combined with private employment for the postal services and boat-building industries. The rest of the government employment was aggregated by federal, state and local levels.

[1] The Census X-12 seasonal adjustment was used to break the time series into three components: irregular, seasonal and trend-cycle; and then used the *Hodrick-Prescott* filter to separate trend and cycle components from the trend-cycle series. The relative contributions of cyclical and trend factors to monthly employment changes are calculated as the average for all months of absolute differences for specific factors divided by the total of absolute differences for both factors. The percentages of relative contributions for cycle components are presented in the third column of *Figure 3-6*.

[2] Trend-cycle means factors that are either long-run trend (structural) or affected by the ups and downs of the economy (cyclical). It differs from irregular factors that are not influenced by trends, the business cycle or seasonal factors.

[3] North American Industrial Classification System.

Retail trade is an example of a seasonal industry in Washington state. It tends to peak in the Christmas season and then decline after the holidays.

Seasonal employment change

Seasonal employment refers to periodic fluctuations in employment that tend to occur at the same time each year. Causes for seasonal change include natural factors such as weather patterns, administrative measures such as the start and end of the school year, and social, cultural and religious traditions such as holidays. According to U.S. Census Bureau definitions, effects associated with the dates of variable holidays like Easter are not seasonal in this sense because they can occur in different calendar months from year to year.

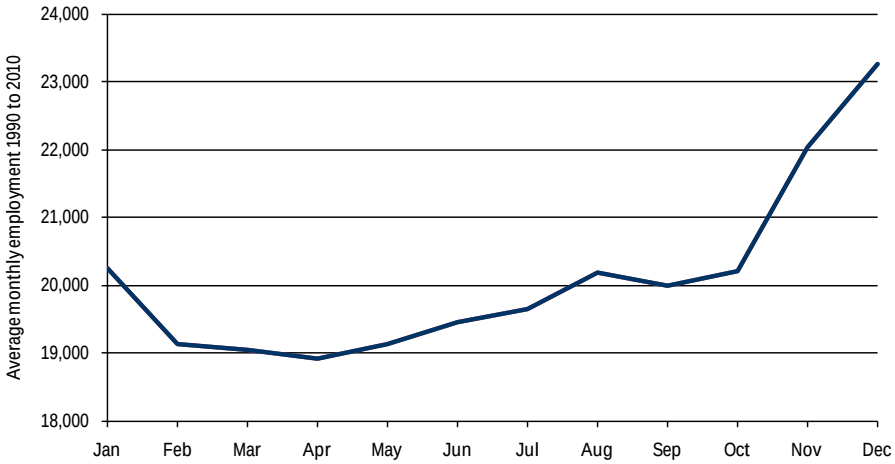
Industries that exhibit strong changes in employment in consistent patterns every year are considered to be seasonal industries. Retail trade is an example of a seasonal industry in Washington state.

Retail trade tends to peak in the Christmas season and then decline after the holidays. Therefore, a retail-sales time series typically shows increasing sales from October through January and declining sales in February and March, as shown in *Figure 3-1*. Construction and educational-service industries also are significantly affected by seasonal factors and have consistent seasonal patterns every year.

Figure 3-1. Average monthly employment in the clothing and clothing-accessories stores industry

Washington state, 1990 through 2010

Source: Bureau of Labor Statistics, Current Employment Statistics (CES); Haver Analytics, Inc.



The clothing and clothing-accessories stores industry is a good example of a seasonal industry. Employment tends to peak in the Christmas season and then declines after the holidays.

Based on our analysis of 97 industries in Washington state, there are 16 industries with a high level of seasonality, 25 industries with a moderate level of seasonality, 26 industries with a low level of seasonality and 30 other industries that were categorized as nonseasonal.

Industries with a seasonal factor indicator of less than 1 percent are identified as nonseasonal; industries with indicator values of 1 to 2 percent have a low level of seasonality; industries with indicator values of 2 to 4 percent have a moderate level of seasonality; and industries with indicator values of more than 4 percent have a high level of seasonality.

Not surprisingly, the crop production industry showed the most seasonal variation among statewide industries (*Figure 3-2*). The second-most seasonal industry was scenic and sightseeing transportation, and the third-most seasonal industry was support activities for agriculture and forestry. It is interesting to note that the food manufacturing and beverage industry and the tobacco-products manufacturing industry are highly seasonal industries due to their dependence on agriculture-related industries (crop production, fishing, hunting and trapping, and support activities for agriculture and forestry).

Figure 3-2. Industries showing the highest degree of seasonality

Washington state, 1990 through 2010
Source: Employment Security Department/LMEA

NAICS	Industry	Seasonal factor
111	Crop production	34.5%
487	Scenic and sightseeing transportation	15.0%
115	Support activities for agriculture and forestry	13.9%
237	Heavy and civil engineering construction	9.0%
213	Support activities for mining	8.5%
114	Fishing, hunting and trapping	8.5%
711	Performing arts, spectator sports and related industries	8.4%
721	Accommodation	5.9%
611	Educational services	4.9%
311	Food manufacturing	4.8%
448	Clothing and clothing accessories stores	4.7%
713	Amusement, gambling and recreation industries	4.5%
512	Motion picture and sound recording industries	4.5%
312	Beverage and tobacco products manufacturing	4.3%
492	Couriers and messengers	4.1%
452	General merchandise stores	4.1%

Crop production; scenic and sightseeing transportation; and support activities for agriculture and forestry are the industries with the highest degree of seasonality in Washington state.

Healthcare-, finance- and high-tech-related industries are all examples of nonseasonal industries.

At the other end of the spectrum are industries with relatively insignificant seasonal factors. Employment in these industries tends not to have periodic fluctuations that occur at the same time each year. In nonseasonal industries, the employment movements usually are attuned to nonseasonal forces, as shown in the following sections. *Figure 3-3* displays industries in Washington with low seasonality.

Healthcare-, finance- and high-tech-related industries are all examples of nonseasonal industries. Hospitals and finance-related industries are common throughout the list. Healthcare-related industries include hospitals, ambulatory healthcare services, and nursing and residential-care facilities. Finance-related industries include credit intermediation and related activities, insurance carriers and related activities, and monetary authorities - central bank. High-tech-related industries include professional, scientific and technical services; computer and electronic products manufacturing; aerospace products and parts manufacturing; chemical manufacturing; machinery manufacturing; and software publishers.

Figure 3-3. Nonseasonal industries

Washington state, 1990 through 2010
Source: Employment Security Department/LMEA

NAICS	Industry	Seasonal factor
5172	Wireless telecommunications carriers (except satellite)	1.0%
488	Support activities for transportation	1.0%
336*	Other transportation equipment manufacturing	0.9%
481	Air transportation	0.9%
486	Pipeline transportation	0.9%
624	Social assistance	0.9%
323	Printing and related support activities	0.8%
5171	Wired telecommunications carriers	0.8%
515	Broadcasting (except internet)	0.8%
562	Waste management and remediation services	0.8%
5112	Software publishers	0.8%
521	Monetary authorities – Central Bank	0.8%
333	Machinery manufacturing	0.7%
325	Chemical manufacturing	0.7%
335	Electrical equipment, appliance and component manufacturing	0.7%
3364	Aerospace products and parts manufacturing	0.6%
518	Data processing, hosting and related services	0.6%
3366	Ship and boat building	0.6%
423	Merchant wholesalers, durable goods	0.6%
331	Primary metal manufacturing	0.6%
511#	Other publishers	0.5%

Figure 3-3 (continued)

NAICS	Industry	Seasonal factor
523	Securities, commodity contracts and other financial investments and related activities	0.5%
551	Management of companies and enterprises	0.4%
541	Professional, scientific and technical services	0.4%
623	Nursing and residential care facilities	0.4%
334	Computer and electronic products manufacturing	0.4%
524	Insurance carriers and related activities	0.3%
621	Ambulatory healthcare services	0.3%
522	Credit intermediation and related activities	0.3%
622	Hospitals	0.3%

* Excludes aerospace.
# Excludes software publishers.

These Washington industries exhibit a low degree of seasonality.

Structural employment change

Structural employment change results from long-term changes in the fundamental structure and productivity in industries, rather than the cyclical fluctuations in employment. Structural change in employment can be initiated by productivity improvement, policy changes or permanent changes in resources, population or society.

In recent years, productivity has become more important to structural changes in employment. A good example of structural change due to increasing productivity is the shift of farmworkers to manufacturing and then to service workers. In the early part of the 20th century, the majority of American workers were engaged in farm work. Currently, agriculture makes up about 3 percent of the workforce in Washington. Another example of structural change is the decline in U.S. manufacturing due to the rise of China as a manufacturing giant.

Another important driver of structural change is technology. Technology has introduced entirely new industries. It also has reshaped the entire labor market through increased efficiencies, such as automated manufacturing, data collection and analysis, and communications. While new industries have had fast employment growth in Washington, the efficiencies also have led to a decrease in some of the historic types of employment.

Another important driver of structural change is technology, which has reshaped the entire labor market through increased efficiencies such as communications.

Long-term demographic changes, such as household formation, the birthrate or the population age structure, also strongly influence structural factors, especially in the ambulatory healthcare services industry, hospitals industry, social assistance industry and educational services industry.

Figure 3-4 lists the industries that are most influenced by structural factors. A structural component above 50 percent indicates an industry more influenced by structural factors, while a structural component below 50 percent indicates a cyclically-oriented industry.

Analysis shows the industry most affected by the structural component is software publishers (69 percent), while scenic and sightseeing transportation is least affected (15.9 percent). On average for all industries, structural changes caused about 42.3 percent of the monthly employment changes, which is a little lower than it was in 2009 (42.4 percent).

Figure 3-4. Industries most influenced by structural factors
Washington state, 1990 through 2010
Source: Employment Security Department/LMEA

NAICS	Industry	Structural component
5112	Software publishers	69.0%
621	Ambulatory health care services	63.3%
622	Hospitals	59.4%
453	Miscellaneous store retailers	58.0%
624	Social assistance	57.8%
425	Wholesale electronic markets and agents and brokers	57.5%
611	Educational services	56.9%
532	Rental and leasing services	56.8%
238	Specialty trade contractors	56.7%
903	Local government (other)	55.9%
423	Merchant wholesalers, durable goods	55.1%
814	Private households	53.5%
323	Printing and related support activities	52.6%
623	Nursing and residential care facilities	51.9%
722	Food services and drinking places	51.6%
523	Securities, commodity contracts, and other financial investments and related activities	50.3%
236	Construction of buildings	50.2%

These Washington industries are most influenced by structural factors such as technology changes, policy changes and changing demographics.

Cyclical employment change

Industries react in different ways to business-cycle fluctuations. Some industries are very vulnerable to economic swings, while others are relatively unaffected by them. These fluctuations occur around a long-term growth trend and typically involve shifts over time between periods of relatively rapid employment growth and decline.

The same method[4] of breaking down contributions to employment growth is used to identify cyclical industries. *Figure 3-5* shows the industries in which demand and employment are most sensitive to business-cycle movements over time.

For instance, the scenic and sightseeing transportation industry has employment that is most attributable to cyclical factors (84.1 percent). Presumably, sightseeing is a discretionary activity and, hence, is more likely to increase in growth periods and decline in recessionary periods. The industry with the next-highest level of cyclicality is crop production. Agricultural industries (such as animal production, fishing, hunting and trapping) and support activities for agriculture and forestry are highly cyclical as well.

Employment in the scenic and sightseeing transportation industry is vulnerable to economic swings.

Figure 3-5. Industries most influenced by cyclical factors
Washington state, 1990 through 2010
Source: Employment Security Department/LMEA

NAICS	Industry	Cyclical component
487	Scenic and sightseeing transportation	84.1%
111	Crop production	81.9%
213	Support activities for mining	81.1%
112	Animal production	77.2%
316	Leather and allied products manufacturing	76.9%
483	Water transportation	75.3%
486	Pipeline transportation	74.4%
221	Utilities	74.1%
324	Petroleum and coal products manufacturing	74.0%
711	Performing arts, spectator sports and related industries	73.3%
115	Support activities for agriculture and forestry	72.6%
446	Health and personal care stores	72.2%
114	Fishing, hunting and trapping	71.3%
512	Motion picture and sound recording industries	70.9%

These Washington industries are most sensitive to business-cycle movements and exhibit shifts of relatively rapid employment growth and decline.

[4] The relative contributions to monthly employment changes are calculated as the average for all months of absolute differences for specific factors divided by the total of absolute differences for both factors. The percentages of relative contributions for cycle components are presented in the third column of *Figure 3-6*.

Figure 3-6 shows industries most influenced by overall economic growth and provides the correlation between industry employment growth and overall economic growth.

Monthly employment in the food-services and drinking-places industry shows the strongest relationship to the state's growth pattern, with a correlation of 98.6 percent. Employment in the administrative and support services industry; educational services industry; and professional, scientific and technical services industry also highly correlate with overall economic growth.

Figure 3-6. Industries most influenced by overall economic growth
Washington state, 1990 through 2010
Source: Employment Security Department/LMEA

NAICS	Industry	Cyclical component	Correlation with total employment
722	Food services and drinking places	48.4%	98.6%
561	Administrative and support services	50.3%	97.5%
611	Educational services	43.1%	97.1%
541	Professional, scientific and technical services	50.1%	97.1%
713	Amusement, gambling and recreation industries	51.1%	97.0%
485	Transit and ground passenger transportation	60.9%	96.9%
5112	Software publishers	31.0%	96.8%
335	Electrical equipment, appliance and component manufacturing	60.3%	96.1%
444	Building materials and garden equipment and supplies dealers	59.0%	95.8%
712	Museums, historical sites and similar institutions	64.7%	95.3%
813	Religious, grantmaking, civic, professional and similar organizations	52.7%	95.3%
903	Local government (other)	44.1%	95.2%
812	Personal and laundry services	53.6%	95.1%
115	Support activities for agriculture and forestry	72.6%	95.0%

These Washington industries are most influenced by overall economic growth and show a correlation between industry employment growth and overall economic growth.

Chapter 4: Unemployment

This chapter discusses three important aspects of Washington's labor market: unemployment benefits, the unemployment rate and mass layoffs.

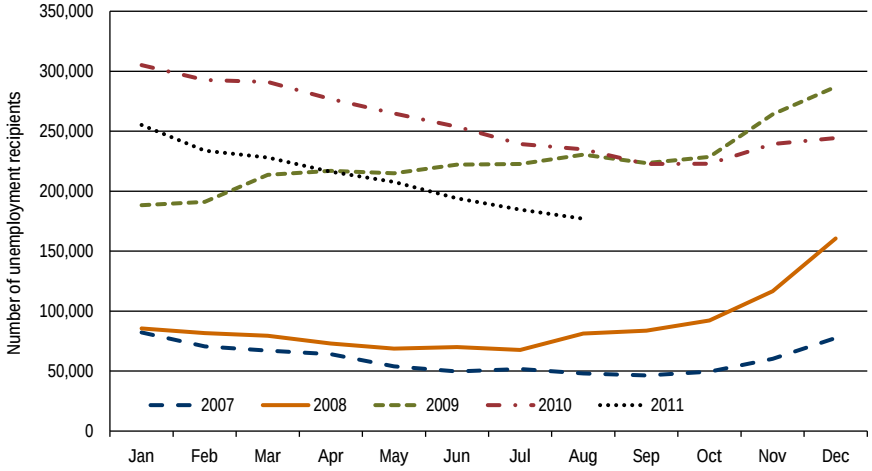
Due to steep labor market decline, additional weeks of unemployment benefits were made available.

Unemployment benefits

In August 2011, more than 175,000 people received unemployment benefits. *Figure 4-1* shows the number of beneficiaries in August 2011 was down sharply from the peak of 300,000 recorded in January 2010. The drop in beneficiaries reflects the fact that some individuals have found jobs, fewer people are applying for benefits and some beneficiaries have exhausted all of their unemployment benefits.

Figure 4-1. Unemployment recipients by month, unduplicated across all entitlements

Washington state, January 2007 through August 2011
Source: Employment Security Department/LMEA



There were fewer unemployment recipients in August 2011 than there were in August 2010 or August 2009.

Duration of unemployment benefits

Typically, unemployed workers covered by unemployment insurance can receive up to 26 weeks of regular unemployment benefits in a 52-week benefit year. The 52-week benefit year begins when an individual applies for unemployment benefits; a person may have one or more episodes of unemployment during a single benefit year. At the end of the benefit year, the claim expires.

More weeks of unemployment available

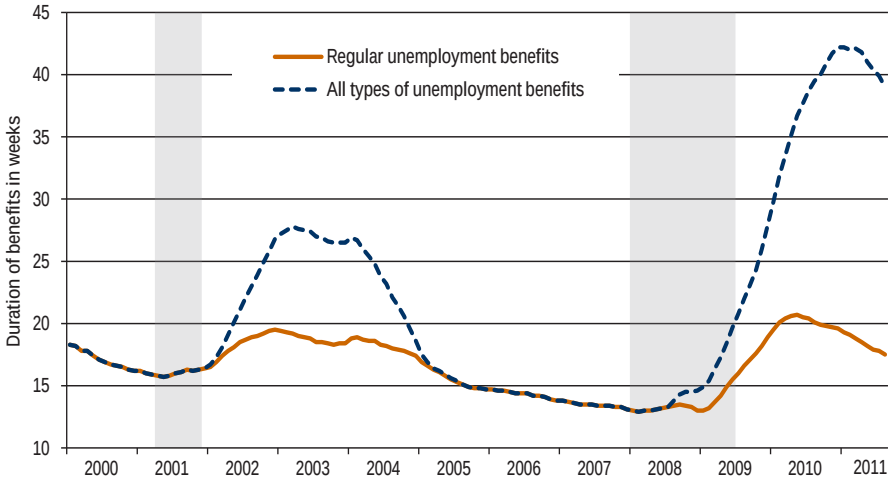
Because of the unusually steep loss of jobs during the Great Recession, additional weeks of unemployment benefits were made available to unemployed workers after they used all of their regular unemployment benefits. These claimants could receive up to an additional 53 weeks of emergency unemployment benefits and 20 weeks of extended benefits.

Duration of benefits is the number of weeks benefits are paid to a claimant during the benefit year. *Figure 4-2* compares the average duration of benefits in Washington state for those who were receiving only regular benefits (up to 26 weeks) to the duration of all benefits, including the emergency and extended benefits.

Average duration for regular benefits and all benefits peaked in 2010 at 19.6 weeks and 42.2 weeks, respectively. In 2011, average duration of regular benefits declined to 17 weeks and average duration of all benefits declined to 36.1 weeks.

Figure 4-2. Duration of regular unemployment benefits compared to all benefits

Washington state, January 2000 through August 2011
Source: U.S. Department of Labor, Education & Training Administration, Monthly Program and Financial Data



When emergency or extended benefits are available, the average duration for all benefits peaks at a much higher level than for regular benefits alone. Gray-shaded areas indicate recessions.

More people have exhausted all benefits

Unemployed individuals exhaust their benefits when they have received all their regular, emergency and extended unemployment benefits. *Figure 4-3* shows the 2011 monthly and cumulative total

of exhaustions for Washington since emergency unemployment compensation was activated in July 2008 and extended benefits were activated in February 2009. As of December 2011, 69,948 people had used all of their available unemployment benefits – regular, emergency and extended.[1]

Figure 4-3. Number of people exhausting all unemployment benefits since emergency and extended unemployment programs were activated

Washington state, December 2009 through December 2011
Source: Employment Security Department/LMEA, Unemployment Insurance Data Warehouse

Month	Monthly total	Cumulative total
2009		
December	2	2
2010		
January	28	30
February	1,380	1,410
March	4,544	5,954
April	2,713	8,667
May	2,170	10,837
June	2,105	12,942
July	2,133	15,075
August	3,213	18,288
September	2,980	21,268
October	4,107	25,375
November	6,135	31,510
December	3,668	35,178
2011		
January	2,788	37,966
February	1,737	39,703
March	1,618	41,321
April	2,589	43,910
May	3,507	47,417
June	2,788	50,205
July	2,712	52,917
August	2,731	55,648
September	4,246	59,894
October	4,467	64,361
November	2,431	66,792
December	3,156	69,948

As of August 2011, 55,648 people had exhausted all of their unemployment benefits – regular, emergency and extended.

[1] Additional information about unemployment insurance exhaustees can be found at http://www.wtb.wa.gov/retool_UIexhaust.asp.

Benefits exhaustions by industry, occupation and area

Higher levels of benefits exhaustion are generally associated with long-term unemployment. Analyzing *Figure 4-3* data by industry, occupation and area provide more information on those who potentially face continued joblessness after receiving all their regular, emergency and extended unemployment benefits.

Exhaustions by industry

Figure 4-4 presents exhaustions by industry. From September 2010 through August 2011, the construction industry accounted for 17.7 percent of all exhaustees. However, construction's share of total covered employment[2] was only 4.7 percent. Calculating the ratio of these two percentages (percent of exhaustees divided by percent of employment) can identify industries where unemployed workers were dealing with long-term unemployment and industries that were still struggling to recover from the recent recession.

Figure 4-4. Unemployment benefits exhaustions by industry, all types of benefits

Washington state, September 2010 through August 2011
Source: Employment Security Department/LMEA, Unemployment Insurance Data Warehouse

Industry sector	Annual exhaustions	Percent of all exhaustions	Industry share of covered employment	Exhaustions to employment ratio
Construction	6,273	17.7%	4.7%	3.8
Mining	60	0.2%	0.1%	2.2
Administrative support and waste management	3,230	9.1%	4.6%	2.0
Real estate and rental and leasing	920	2.6%	1.6%	1.7
Manufacturing	5,139	14.5%	9.1%	1.6
Educational services	575	1.6%	1.2%	1.3
Finance and insurance	1,493	4.2%	3.1%	1.3
Wholesale trade	2,001	5.6%	4.2%	1.3
Arts, entertainment and recreation	610	1.7%	1.6%	1.1
Transportation and warehousing	1,069	3.0%	2.8%	1.1

[2] Covered employment means those jobs covered by unemployment insurance, which exceeds 87 percent of all jobs in the state of Washington. Covered employment is defined as personal service performed for wages or other compensation with the following exceptions: casual labor not in the course of employer's trade or business; railroad employment; employment on a foreign-owned ship; newsboys; those insurance agents, real estate agents and salesmen paid on a commission basis only; enrolled students and family working for a school; religious organizations; employment at physical and mental rehabilitation work shops; patients employed at hospitals; inmates employed at custodial and penal institutions; and all employees of foreign governments. In addition, certain family employment; construction contractors and subcontractors; and barber, hairdressing and cosmetology services are not covered.

Figure 4-4 (continued)

Industry sector	Annual exhaustions	Percent of all exhaustions	Industry share of covered employment	Exhaustions to employment ratio
Professional and technical services	2,072	5.8%	5.6%	1.0
Utilities	60	0.2%	0.2%	1.0
Retail trade	3,506	9.9%	10.8%	0.9
Other services	1,327	3.7%	4.7%	0.8
Information	1,021	2.9%	3.6%	0.8
Accommodation and food services	1,627	4.6%	7.8%	0.6
Management of companies and enterprises	229	0.6%	1.1%	0.6
Healthcare and social assistance	2,118	6.0%	11.5%	0.5
Agriculture, forestry, fishing and hunting	386	1.1%	3.1%	0.3
Government (excl. education services)	1,161	3.3%	18.7%	0.2
Information not available	658	1.9%		--
Total	35,535	100.0%	100.0%	

Note: Employment data are from LMEA's Quarterly Census of Employment and Wages (QCEW), 2010 annual average series. QCEW data, which are available with a six-month lag, is a benchmark count of workers covered by unemployment insurance. More-timely estimates of employment can be obtained from the monthly Current Employment Statistics (CES) series or from examining the most recent quarter of unemployment insurance (UI) wage data. Each data source will generate different levels of employment. For instance, the CES series includes estimates of certain noncovered employment while QCEW does not. Both the QCEW and CES separate education into private (educational services) and public (government) sectors, whereas a tally of the UI wage data may not make this differentiation. Federal nonmilitary employment is reported directly to QCEW and bypasses the UI wage data system except for when a federal nonmilitary individual files for unemployment. Annual average QCEW data smooth out seasonal employment fluctuations, but a quarterly analysis of UI wage data does not. Additionally, the 2010 QCEW annual average series does not reflect increased job growth of more-recent 2011 quarterly wage data.

Among all industries, the construction industry had the highest ratio of benefit exhaustions to employment. Construction had 17.7 percent of all exhaustees, but only 4.7 percent of total covered employment.

Exhaustions by occupation

Figure 4-5 examines unemployment exhaustions by occupation. More than half of all exhaustions occurred in four occupational groups combined: administrative support, construction, production and management.

Exhaustions-to-employment ratios are not available for *Figure 4-5* because total employment is reported only by industry, not by occupation.

Figure 4-5. Unemployment benefits exhaustions by major occupational group, all types of benefits

Washington state, September 2010 through August 2011
Source: Employment Security Department/LMEA, Unemployment Insurance Data Warehouse

Major occupational group	Annual exhaustions, **all types of benefits**	Percent of all exhaustions
Office and administrative support	5,721	16.1%
Construction and extraction	5,569	15.7%
Production	4,108	11.6%
Management	3,863	10.9%
Sales and related	2,950	8.3%
Transportation and material moving	2,207	6.2%
Installation, maintenance and repair	1,515	4.3%
Business and financial operations	1,386	3.9%
Food preparation and serving related	1,271	3.6%
Architecture and engineering	1,047	2.9%
Personal care and service	934	2.6%
Computer and mathematical	839	2.4%
Arts, design, entertainment, sports and media	697	2.0%
Building and grounds cleaning and maintenance	667	1.9%
Healthcare support	468	1.3%
Protective service	395	1.1%
Healthcare practitioners and technical	376	1.1%
Farming, fishing and forestry	360	1.0%
Education, training and library	309	0.9%
Community and social services	286	0.8%
Life, physical and social science	211	0.6%
Legal occupations	181	0.5%
Military specific	175	0.5%
Total	35,535	100.0%

More than half of all exhaustions occurred in four occupational groups combined: administrative support, construction, production and management.

Exhaustions by area

Figure 4-6 shows exhaustions by workforce development area (WDA) for September 2010 through August 2011.[3] Seattle-King WDA, Pierce County WDA and Snohomish County WDA collectively accounted for nearly 61 percent of all exhaustions. Seattle-King County also had twice as many exhaustions as either the Pierce or Snohomish WDAs. The lowest levels of exhaustions occurred in the Benton-Franklin WDA and Eastern Washington WDA.

[3] Workforce development areas are regions of the state with economic similarities. See *Appendix 1* for a map of Washington's 12 workforce development areas.

Figure 4-6. Unemployment exhaustions by workforce development area, all types of benefits

Washington state, September 2010 through August 2011
Source: Employment Security Department/LMEA, Unemployment Insurance Data Warehouse

Workforce development area	Annual exhaustions, **all benefits types**	Percent of all exhaustions
Seattle-King County	10,970	30.9%
Pierce County	5,323	15.0%
Snohomish County	5,286	14.9%
Southwest WA	2,749	7.7%
Spokane County	2,550	7.2%
Pacific Mountain	2,519	7.1%
Northwest WA	1,799	5.1%
Olympic	1,310	3.7%
South Central WA	1,129	3.2%
North Central WA	804	2.3%
Eastern WA	595	1.7%
Benton-Franklin	501	1.4%
Total	35,535	100.0%

Collectively, Seattle-King County WDA, Pierce County WDA and Snohomish County WDA accounted for nearly 61 percent of all exhaustions statewide from September 2010 to August 2011.

Unemployment rate

The *insured unemployment rate*, calculated only from unemployment-insurance program data, is a ratio of the insured unemployed (those drawing unemployment benefits) divided by the number of employees (working and not working) covered by unemployment insurance.[4]

The *total unemployment rate* is a ratio of the estimated number of unemployed individuals actively looking for work divided by the labor force. Total unemployment includes both workers covered by unemployment insurance and those not covered by unemployment insurance. The labor force includes both those working and those who are looking for work.

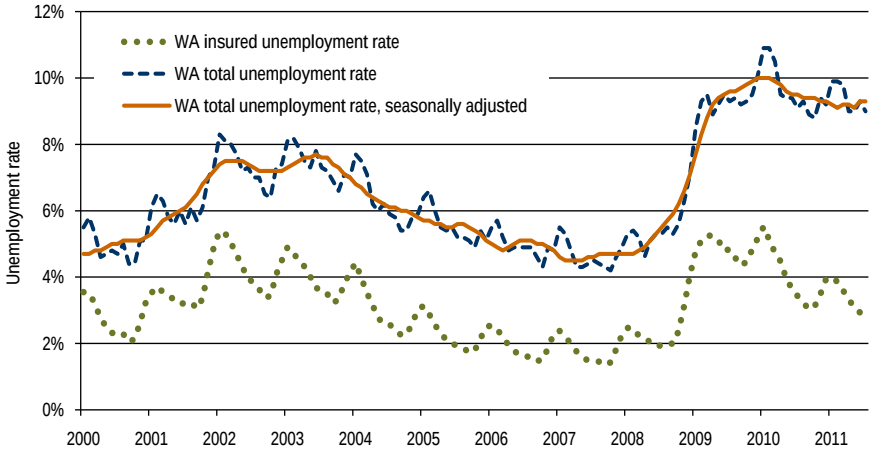
Only individuals who are actively looking for work are counted as unemployed.

[4] Included in this are individuals whose employees are covered by the Washington Employment Security Act. Also included are data for federal government agencies or departments covered by Title 5, U.S.C. 85. This includes supervisory personnel, clerical workers, employees on paid vacations, piece workers, part-time workers and some corporate officials. Partners, proprietors and people who earned no wages during the applicable pay period because of work stoppages are excluded. Noncovered employment includes some state of Washington jobs, elected officials, railroad employment, religious organizations, private education and exempted corporate officers.

Figure 4-7 compares the *insured* and *total* unemployment rates for Washington. The rates move in tandem, with the insured rate historically about half the total unemployment rate. In late 2008, both measures of unemployment began a dramatic rise, with the rates peaking in early 2010. Since 2009, the gap between the insured and total unemployment rates has also widened. This means there were increasing numbers of unemployed workers not insured or receiving benefits relative to the number of unemployed workers that were insured.

Figure 4-7. Total unemployment rate seasonally and not seasonally adjusted, and the insured unemployment rate

Washington state, January 2000 through August 2011
Source: Employment Security Department/LMEA; Haver Analytics, Inc.



Since 2009, the gap between the insured unemployment rate and total unemployment rate has widened.

The regular or total unemployment rate

The total unemployment rate is widely used in economic analysis as a lagging indicator of the overall direction of the economy. As noted previously, the unemployment rate is a ratio of the estimated number of unemployed divided by the labor force. Only individuals who are actively looking for work are counted as unemployed.

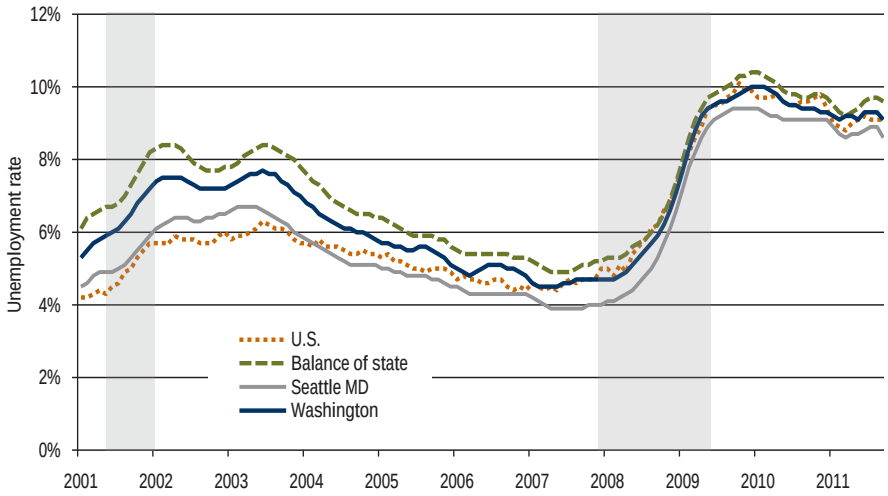
The total unemployment rate comes from the Local Area Unemployment Statistics (LAUS) program. LAUS is a federal-state cooperative program that estimates total employment and unemployment. LAUS data come from the Current Population Survey (CPS), the household survey that is the official measure of the labor force for the nation. For the state, the unemployment rate is a model-based estimation. Statistical models combine current and historical data from the CPS, the Current Employment Statistics (CES) program and state unemployment-insurance systems to calculate the regular

unemployment rate. Results from the state models are adjusted to the national totals. The Employment Security Department reports this rate each month as part of the *Monthly Employment Report*.

As shown in *Figure 4-8*, the state unemployment rate declined slightly from 9.4 percent in September 2010 and remained relatively flat, going from 9.2 percent in January 2011 to 9.1 percent in September 2011.

The total unemployment rate for Washington state as a whole and for the balance of the state (the state minus the Seattle area) remained higher than the national rate through September 2011. The Seattle area reported a lower rate than the national average throughout the first three quarters of 2011. Overall, the Seattle area had lower unemployment than the rest of Washington and the nation from 2004 to 2011.

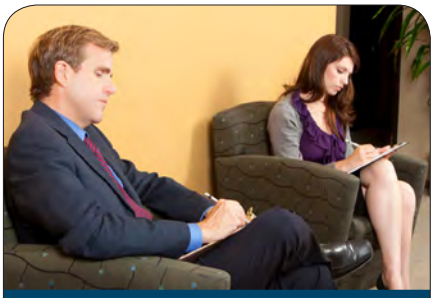
Figure 4-8. Historical unemployment rates, seasonally adjusted
United States and Washington state, January 2001 through September 2011
Source: Bureau of Labor Statistics, Local Area Unemployment Statistics; Haver Analytics, Inc



Washington's total unemployment rate was mostly flat from January 2011 to September 2011. Gray-shaded areas indicate recessions.

Other measures of unemployment and employment

Less commonly used than the regular unemployment rate, but no less important, are other economic measures such as alternative unemployment rates, the labor-force participation rate and the employment-population ratio.



Persons marginally attached to the labor force are those who currently are neither working nor looking for work but indicate that they are available for a job and have looked for work sometime in the past 12 months.

Persons employed part time for economic reasons are those who want and are available for full-time work but have had to settle for a part-time schedule.

Alternative measures of unemployment

The Bureau of Labor Statistics (BLS) reports six "alternative measures for labor underutilization," or unemployment. The commonly used definition of the unemployment rate is the number of people able to work and seeking work divided by the civilian labor force and is equivalent[5] to U-3 listed below. The general criticism of the standard measurement of unemployment is that it is too narrow.

In answer to these criticisms, BLS has made available alternative measurements that are progressively more inclusive than the commonly reported unemployment rate. Three of the six alternative measurements are defined as:

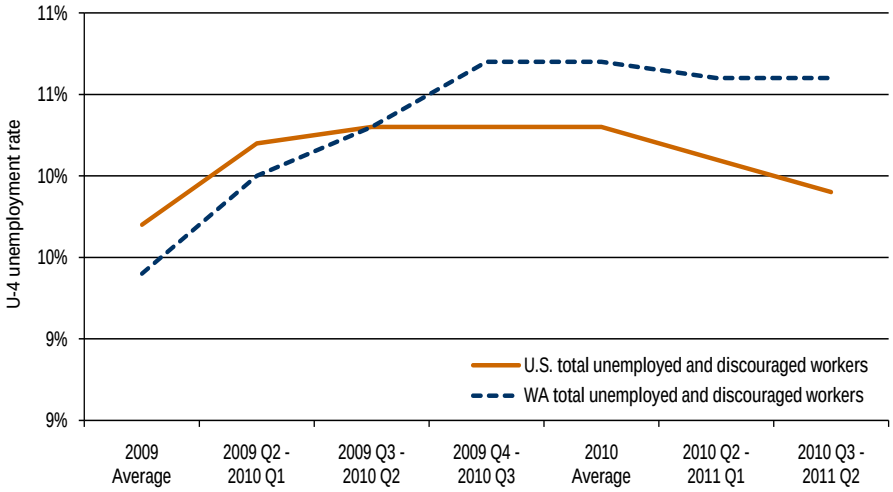
- U-3 – Total unemployed as a percent of the civilian labor force.
- U-4 – Total unemployed plus discouraged workers, as a percent of the civilian labor force, plus discouraged workers.
- U-6 – Total unemployment plus all marginally-attached workers and employees working part time involuntarily, all as a percent of the civilian labor force plus all marginally-attached workers.

The U-4 measure rose faster and remained higher in Washington than for the country as a whole (*Figure 4-9*). The moving average for the third quarter of 2009 to the second quarter of 2010 had the state and the nation both at 10.3 percent. But from the third quarter of 2010 to the second quarter of 2011, the Washington state rate increased to 10.6 percent while the nation's rate decreased to 9.9 percent. This is an indicator that relatively more Washington residents have given up looking for work and have dropped out of the labor force.

[5] U-3 rates published statewide are not exactly equivalent. The U-3 rate is estimated based strictly on the Current Population Survey, whereas the commonly published unemployment rates are based on a model which also includes nonfarm employment estimates and unemployment-insurance claims.

Figure 4-9. U-4 unemployment rate (includes discouraged workers)

United States and Washington state, four-quarter moving averages from 2009 Q2 through 2011 Q2
Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

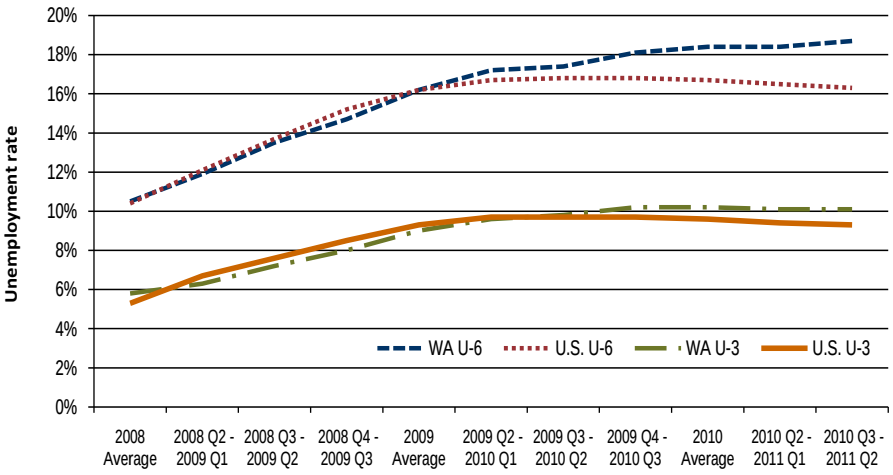


The gap between the state and national U-4 rate (which includes discouraged workers) has widened over the last several years, indicating relatively more Washingtonians have given up looking for work and dropped out of the labor force.

U-6 is the widest measure of unemployment. Its increase implies that the ranks of discouraged workers, marginally attached workers and those working part-time involuntarily have risen even more dramatically than has the number of unemployed (*Figure 4-10*). This holds true even more strongly for the state of Washington than for the nation.

Figure 4-10. Trends in U-3 and U-6 alternate measures of unemployment

United States and Washington state, four-quarter moving averages from 2008 Q2 through 2011 Q2
Source: Bureau of Labor Statistics



Washington state has a relatively high share of involuntarily part-time workers.

Labor force participation rate

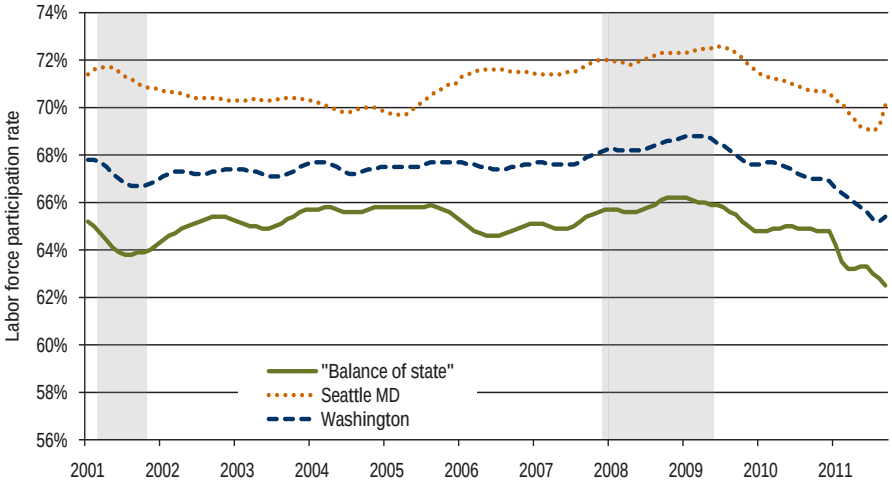
The labor-force participation rate is the ratio of the labor force divided by the total non-institutionalized population aged 16 and older. A higher participation rate means that a larger percent of a given population is either working or seeking work. Lower participation rates indicate that fewer people in the economy are actively employed or seeking work.

The state unemployment rate fell by only 0.1 percentage points over the first three quarters of 2011. However, looking at the labor-force participation rate, more residents of the Seattle area actively participated in the labor market compared to the rest of the state. A decline in the state's labor-force participation rate could be caused by increasing numbers of discouraged workers, people going back to school, people migrating out of state or an increase in retirements.

As shown in *Figure 4-11*, the Seattle area had a higher labor-force participation rate (70.1 percent in September 2011) than the overall state (65.4 percent) and the balance of the state (62.5 percent). From September 2010 to September 2011, the participation rate in the state minus the Seattle area ("balance of state" in *Figure 4-11*) continued to decline, while the Seattle area and the state as a whole began to show increasing participation rates. Although the participation rate is still less than what it was in September 2010, the September 2011 increase was the first increase since November 2009.

During the same period, the U.S. labor-force participation rate (not shown) gradually declined from 64.7 percent in September 2010 to 64.2 percent in September 2011.

Figure 4-11. Labor-force participation rate
Washington state, January 2001 through September 2011
Source: Bureau of Labor Statistics; Local Area Unemployment Statistics; Haver Analytics, Inc.



Labor force participation rates declined in most of 2011, indicating a higher rate of idle labor in the economy. However, the participation rate in the Seattle area and the state as a whole began to increase in the third quarter of 2011. Gray-shaded areas indicate recessions.

Mass-layoff statistics

The Mass Layoff Statistics (MLS) program is a federally-funded program that collects data on establishments that have at least 50 initial unemployment claims within a five-week period. When initial claims total 50 or more, the MLS program contacts those establishments to determine whether the separations lasted at least 31 days. The program also asks the employer:

- What was the reason for the layoff?
- Do you expect to recall workers?
- Is the layoff associated with the movement of work domestically or globally?

MLS program data are used to help identify economically distressed areas and industries in the state. The data also are used to help allocate re-employment services and resources to those distressed workers and areas.

To protect employer confidentiality, as guaranteed by the federal Bureau of Labor Statistics, mass-layoff information is reported by industry statewide, not by workforce development area.

Even though mass layoffs have declined in the last year, the number of events is still higher than before the Great Recession.

Mass layoff trends

Movement of work associated with mass layoffs increased

From the third quarter of 2010 to the second quarter of 2011, there were seven reported mass layoffs that involved work being moved within the same company or to a different company, whether domestically or outside of the United States. This was a marked increase from the previous four quarters (2009 Q3 to 2010 Q2), when fewer than four were reported. From the third quarter of 2008 to the second quarter of 2009, there were six mass layoffs associated with work being moved elsewhere.

Recall of laid-off workers remains about the same

In the most-recent four-quarter period (2010 Q3 to 2011 Q2), employers expected to recall workers in 57 percent of mass layoffs. This is close to the 59 percent recall rate reported in the previous four-quarter period (2009 Q3 to 2010 Q2), but up from the 30 percent recall rate reported from the third quarter of 2008 to the second quarter of 2009.

Worksite closures increased

Employers reported 11 worksite closures associated with mass layoffs from the third quarter of 2010 to the second quarter of 2011. In the previous four quarters (2009 Q3 to 2010 Q2), permanent worksite closures were reported in four mass-layoff events. From the third quarter of 2008 to the second quarter of 2009, 19 worksite closures were reported.

Mass layoffs and separations fall only slightly in 2011

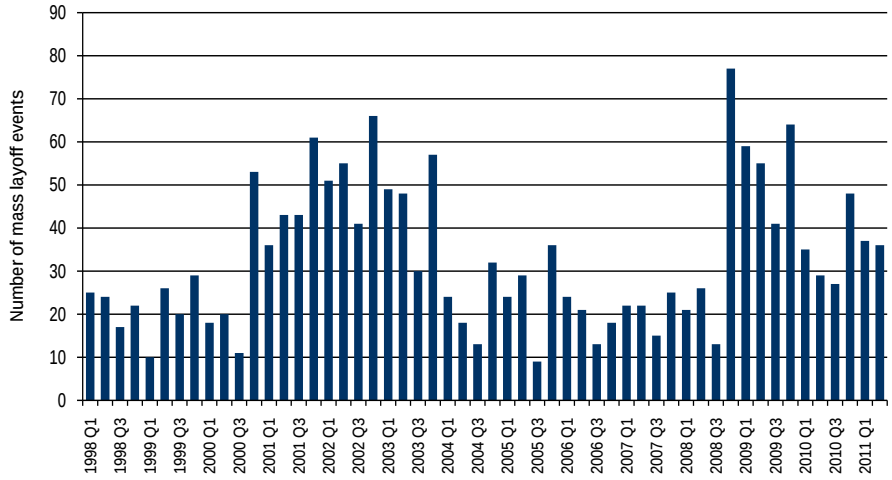
From the third quarter of 2010 to the second quarter of 2011,[6] Washington state employers reported 148 mass layoffs. These events resulted in 15,099 workers losing their jobs for at least 31 days.

Mass layoffs have declined moderately in the last year (2010 Q3 to 2011 Q2) compared to the four quarters that preceded it. However, the number of events is still higher than before the Great Recession (*Figure 4-12*). The number of layoffs associated with these events also declined slightly, but still was higher than pre-recession levels.

[6] At the writing of this report, MLS data were available through the second quarter of 2011. As a result, we compare four-quarter years from the third quarter of one year to the second quarter of the following year.

Mass layoffs decreased by 12, or 21 percent, and separations decreased by 4 percent in the recent four-quarter period (2010 Q3 to 2011 Q2) compared to the prior period (2009 Q3 to 2010 Q2).

Figure 4-12. Confirmed mass layoff events
Washington state, 1998 Q1 through 2011 Q2
Source: Employment Security Department/LMEA, Mass Layoff Statistics Program

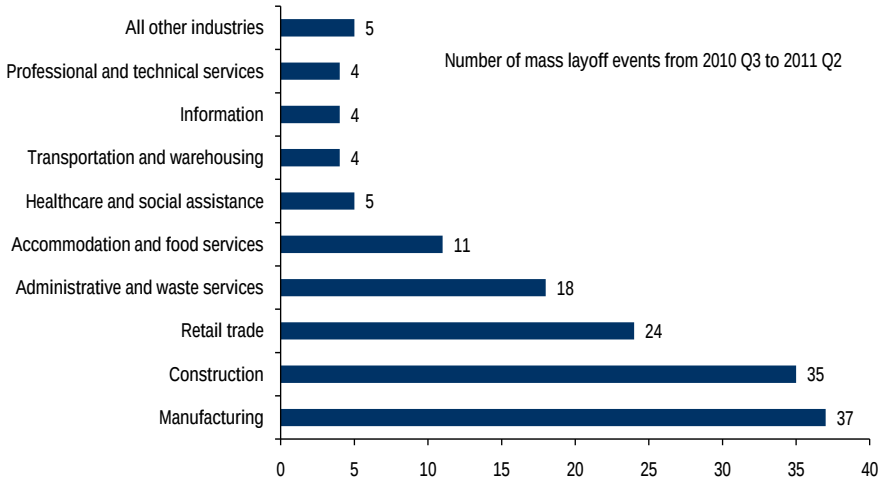


Confirmed mass-layoff events declined in the first two quarters of 2011, though they remain higher than pre-recession levels.

Mass layoffs occurred mostly in four industry sectors

From the third quarter of 2010 to the second quarter of 2011, the top industry sectors reporting mass layoffs were manufacturing, construction, retail trade, and administrative and waste services (*Figure 4-13*). These were the same sectors that reported the majority of layoff events in the four most-recent quarters (2010 Q3 to 2011 Q2), but with the retail trade sector and administrative and waste services sector exchanging rankings.

Figure 4-13. Confirmed mass layoffs, by industry
Washington state, 2010 Q3 through 2011 Q2
Source: Employment Security Department/LMEA, Mass Layoff Statistics Program



From July 2010 through June 2011, mass layoffs occurred primarily in four industry sectors: manufacturing, construction, retail trade, and administrative and waste services.

Chapter 5: Occupations After the Great Recession

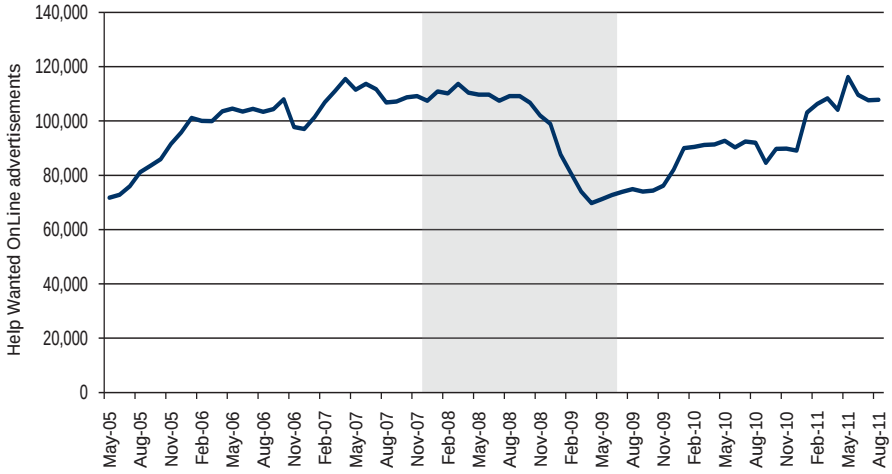
Despite many poor economic reports, there is some good news for Washington's labor market. Online job advertisements and vacancies showed improvements in 2011 (through August).

Two years of data show job postings moving in a positive direction.

More online job advertisements and increased job vacancies

Since the bottom of the recession in 2009, Help Wanted OnLine (HWOL) advertisements have increased and were higher in August 2011 than they were prior to the Great Recession. In May 2011, Washington state had 116,000 postings, which is approximately 45,000 more postings than at the lowest point in the recession and roughly 500 more (115,464) postings compared to April 2007. Two years of data show this trend moving in a positive direction.

Figure 5-1. Help Wanted OnLine advertisements, seasonally adjusted
Washington state, May 2005 through August 2011
Source: The Conference Board



Help Wanted OnLine advertisements gradually have rebounded to levels seen prior to the Great Recession. Gray-shaded area indicates recession.

Based solely on year-over-year growth in job advertisements, the top-five major occupational groups were computer and mathematical occupations, management occupations, business and financial operations occupations, architecture and engineering occupations, and transportation and material-moving occupations. As shown in *Figure 5-2*, most of these occupational groups had high average hourly wages. Work in these occupational groups typically requires more education or related work experience.

Interestingly, healthcare support occupations, healthcare practitioners and technical occupations had relatively high counts of job advertisements in August 2011, but negative year-over-year growth.

It's possible that worker supply has caught up or surpassed demand in certain fields.

Data gathered in the Employment Security Department's Spring 2011 Job-Vacancy Survey showed a similar drop in jobs for these occupations, especially registered nurses. It's possible that worker supply has caught up or surpassed demand in these fields.

Figure 5-2. Help Wanted OnLine advertisements[1] by major occupational group, not seasonally adjusted

Washington state, 2010 and 2011

Source: Bureau of Labor Statistics, Occupational Employment and Wage Estimates; The Conference Board, Help Wanted OnLine advertisements

Occupations[2]	August 2010	July 2011	August 2011	Year-over-year change	Average hourly wage[3]
Total	99,331	109,771	116,604	17,273	$23.53
Computer and mathematical	17,928	24,683	23,893	5,965	$40.86
Management	11,078	13,384	13,372	2,294	$53.99
Business and financial operations	4,838	6,335	7,070	2,232	$33.38
Architecture and engineering	3,012	3,796	4,243	1,231	$38.35
Transportation and material moving	3,070	3,530	4,282	1,212	$17.59
Sales and related	11,682	11,557	12,580	898	$18.57
Production	1,909	2,325	2,789	880	$18.80
Office and administrative support	10,293	9,807	11,017	724	$17.43
Installation, maintenance, and repair	2,700	2,953	3,411	711	$23.00
Construction and extraction	1,467	1,707	2,092	625	$25.09
Food preparation and serving related	2,961	3,717	3,462	501	$11.83
Arts, design, entertain., sports and media	2,587	2,547	2,982	395	$24.61
Life, physical and social science	1,592	1,764	1,949	357	$30.97
Building and grounds cleaning and maintenance	1,228	1,435	1,551	323	$13.72
Protective service	623	778	859	236	$25.17
Education, training and library	1,710	1,467	1,939	229	$24.18
Personal care and service	1,577	1,502	1,759	182	$13.35
Legal	512	632	691	179	$40.82
Farming, fishing and forestry	138	195	184	46	$14.57
Community and social services	1,318	1,205	1,340	22	$20.91
Other/uncoded	-1,549	-1,626	-1,732	-183	N/A
Healthcare support	3,643	3,161	3,321	-322	$15.03
Healthcare practitioners and technical	15,014	12,917	13,550	-1,464	$37.14

1. Approximately 95 percent of all ads are coded to the six-digit SOC level.
2. Occupational categories use the 2000 Standard Occupational Classification (SOC) codes.
3. Wage data are from the BLS Occupational Employment Statistics (OES) program's May 2010 estimates.

Help Wanted OnLine advertisements show negative year-over-year growth in the healthcare practitioners and technical occupational group. Data from the Spring 2011 Job-Vacancy Survey also show a drop in open positions for this occupational group.

Different data sources show different rankings for the same occupations

There is a marked difference between the rankings of occupational groups when comparing JVS and HWOL data. For example, food preparation and serving-related occupations are ranked first in the JVS and 11th in HWOL. These differences are explained by how the job is advertised and when the data are collected.

In the fast-food industry, for example, companies typically advertise at the store, often posting a "Help Wanted" sign. However, in more-professional occupational groups, most of the vacancies/ advertisements are posted online. In the same vein, the farming, fishing and forestry industry came in 16th on the JVS. Most farmers don't advertise for help; rather, they often hire through other methods, such as word of mouth. These advertising methods can account for the different occupation ranking results in the data sources.

The time of year the data are collected is also important. For example, the data for the JVS were collected in the spring when there is typically a seasonal increase in vacancies for the food-preparation and serving-related occupational group due to the summer travel season. The results for construction and agricultural occupations also would be affected by the time of year the data are collected, since they also have a high degree of seasonality.

Job-Vacancy Survey results for major occupational groups

Based on data collected in the Spring 2011 Job-Vacancy Survey, of the 22 major occupational groups,[1] the top five combined had about half of the reported vacancies statewide (*Figure 5-3*). From spring 2010 to spring 2011, vacancies increased in all major occupational groups.

Vacancies in the food preparation and serving-related occupational group grew by 155 percent between the fall 2010 (3,069) and spring 2011 (7,823) surveys, more than any other occupational group.

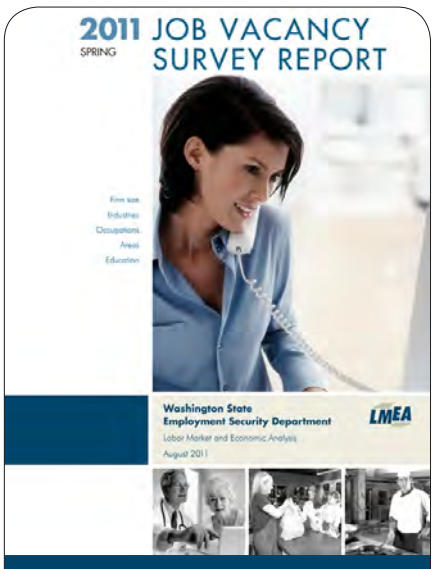
[1] A major occupational group is the broadest occupational group defined by the Standard Occupational Classification (SOC) system. To learn more about SOC, go to www.bls.gov/SOC/.

Figure 5-3. Vacancies by major occupational group, not seasonally adjusted
Washington state, spring 2011
Source: Employment Security Department/LMEA, Spring 2011 Job-Vacancy Survey

SOC	Major occupational group	Spring 2011 vacancies
35	Food preparation and serving related	7,823
41	Sales and related	6,542
43	Office and administrative support	5,685
29	Healthcare practitioners and technical	4,598
15	Computer and mathematical	4,420
53	Transportation and material moving	3,552
13	Business and financial operations	3,268
11	Management	2,684
25	Education, training and library	2,652
31	Healthcare support	2,620
39	Personal care and service	2,231
51	Production	2,180
49	Installation, maintenance and repair	1,957
17	Architecture and engineering	1,672
37	Building and grounds cleaning and maintenance	1,648
45	Farming, fishing and forestry	1,446
27	Arts, design, entertainment, sports and media	1,389
47	Construction and extraction	1,086
21	Community and social service	982
33	Protective service	912
19	Life, physical and social science	466
23	Legal	273
	Total	60,087

Due to rounding, columns may not add to total.

In the Spring 2011 Job-Vacancy Survey, the top-five occupational groups accounted for about half of all vacancies statewide.



The Spring 2011 Job-Vacancy Survey found more vacancies in all major occupational groups.

Job-Vacancy Survey results for specific occupations

In the Spring 2011 Job-Vacancy Survey (JVS), retail salespersons (2,334) had the largest number of vacancies, followed by registered nurses (1,651), combined food preparation and serving workers, including fast food (1,595), waiters and waitresses (1,478), and cashiers (1,408) (*Figure 5-4*). With a few exceptions, most of these occupations require only short- or moderate-term on-the-job training.

Vacancies in healthcare occupations may be starting to decline. In spring 2011, vacancies for registered nurses fell by 667, year over year. The fall 2010 survey had similar findings. The reason for the decline is unclear, but it is possible that after several years of shortages, the number of hired qualified healthcare workers is beginning to reach a sufficient level. This could be the result of newly trained workers entering the workforce, some healthcare workers staying in the workforce longer due to economic conditions, hiring freezes due to budget constraints or a combination of all three.

Figure 5-4. Occupations with the most vacancies, not seasonally adjusted
Washington state, spring 2011
Source: Employment Security Department/LMEA, Spring 2011 Job-Vacancy Survey

SOC	Specific occupation	Vacancies
412031	Retail salespersons	2,334
291141	Registered nurses	1,651
353021	Combined food preparation and serving workers, including fast food	1,595
353031	Waiters and waitresses	1,478
412011	Cashiers	1,408
452092	Farmworkers and laborers, crop, nursery and greenhouse	1,320
434051	Customer service representatives	1,286
351012	First-line supervisors of food preparation and serving workers	1,110
533032	Heavy and tractor-trailer truck drivers	1,089
537062	Laborers and freight, stock, and material movers, hand	883
353022	Counter attendants, cafeteria, food concession and coffee shop	869
311014	Nursing assistants	753
433071	Tellers	720
395012	Hairdressers, hairstylists and cosmetologists	695
373011	Landscaping and groundskeeping workers	685
131199	Business operations specialists, all other	679
311011	Home health aides	673
533033	Light truck or delivery services drivers	612
113031	Financial managers	604
339032	Security guards	588
272022	Coaches and scouts	555
352021	Food preparation workers	548
413099	Sales representatives, services, all other	545
151199	Computer occupations, all other	542
151133	Software developers, systems software	533
	Total vacancies	60,087

Due to rounding, columns may not add to total.

Most of the top occupations only require short- or moderate-term on-the-job training.

Chapter 6: Employment Projections

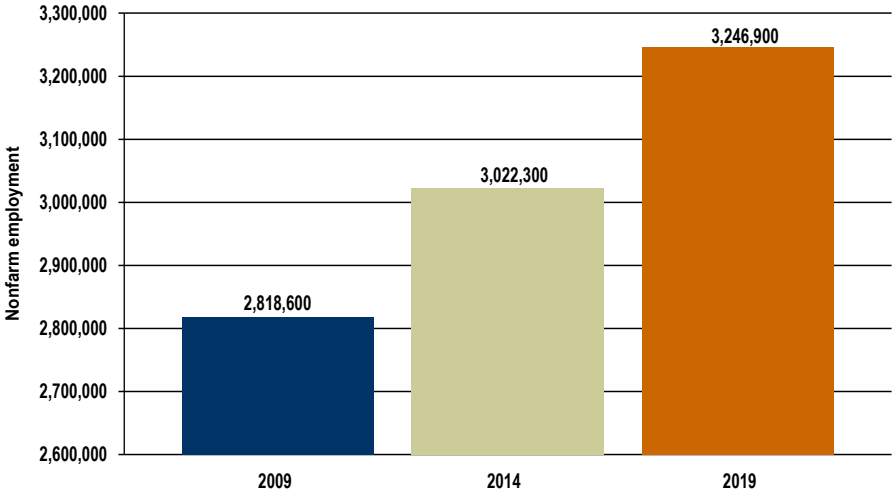
Information in this chapter is from the Employment Security Department's (ESD) *2011 Employment Projections*.

Each year, ESD produces industry and occupational employment forecasts for two, five and 10 years into the future from the base period (2009). For the purpose of this report, the focus is on 2011's five-year employment projections.[1]

Industry employment projections

Total nonfarm industry employment in Washington is projected to reach more than 3 million jobs by 2014 and 3.2 million jobs by 2019 (*Figure 6-1*).

Figure 6-1. Nonfarm industry employment
Washington state, 2009, 2014 and 2019
Source: Employment Security Department/LMEA



Nonfarm employment in Washington is expected to reach 3,246,900 jobs by 2019.

Washington state is projected to gain an estimated 203,700 new nonfarm jobs from 2009 to 2014, with an average annual growth rate of 1.4 percent. This growth rate is significantly larger than the growth rate of about 0.3 percentage points projected for the state for 2008 to 2013 in ESD's previous round of employment projections. This is due to a significant drop in total employment between 2008 and 2009 (about 4.1 percent).

[1] In our projections, we use the North American Industry Classification System (NAICS) to classify industries and the Standard Occupational Classification (SOC) system to group occupations. Both systems are used by public statistical agencies for data collection and reporting. To learn more about NAICS and SOC, visit www.bls.gov. The complete report is available online at https://fortress.wa.gov/esd/employmentdata/reports-publications/occupational-reports/employment-projections.

Statewide industry employment estimates for 2009 and projected employment for 2014 and 2019 are presented in *Figure 6-2*. Significant increases in employment shares are expected in the professional and business services sector and in the education and health services sector. The largest decreases in employment shares are projected for the government sector and financial activities sector.

Figure 6-2. Base and projected statewide industry employment
Washington state, 2009, 2014 and 2019
Source: Employment Security Department/LMEA

Industry sector	Estimated employment 2009	Employment shares 2009	Employment shares 2014	Employment shares 2019
Government	550,300	19.5%	18.8%	18.5%
Education and health services	371,500	13.2%	13.5%	13.9%
Professional and business services	323,600	11.5%	12.4%	13.3%
Retail trade	309,200	11.0%	10.9%	10.6%
Leisure and hospitality	269,200	9.6%	9.5%	9.5%
Manufacturing	265,400	9.4%	9.5%	9.1%
Construction	158,700	5.6%	5.3%	5.5%
Financial activities	141,600	5.0%	4.8%	4.5%
Wholesale trade	122,600	4.3%	4.4%	4.3%
Other services	106,400	3.8%	3.6%	3.4%
Information	103,500	3.7%	3.8%	4.0%
Transportation, warehousing and utilities	90,500	3.2%	3.3%	3.3%
Natural resources and mining	6,100	0.2%	0.2%	0.2%

Government had the largest share of industry employment in 2009, but that share is projected to decline by 1 percent by 2019, more than any other industry.

The Great Recession had a significant impact on historical growth rates.

The affect of the recession on growth rates

The Great Recession had a significant impact on historical growth rates for the 10 years preceding 2009 and put most areas of the state well below long-term historical trends. *Figure 6-3* shows the historical and projected growth rates for the state and Washington's 12 workforce development areas (WDAs).[2]

Projected growth rates for a majority of the areas are significantly higher than the rates achieved in the previous 10 years. The largest difference between the growth for the previous 10 years and projected growth rates is expected to be in the King County WDA.

[2] Workforce development areas are regions within Washington state with economic and geographic similarities. See map in *Appendix 1*.

The total nonfarm employment for the area did not change from 1999 to 2009, but the average annual employment growth rate in the future is projected to be 1.3 percent.

There are only three areas where projected growth is below that achieved in the previous 10 years. The largest difference is in the Benton-Franklin WDA, where the growth for the previous 10 years was very significant. This area is still projected to have the highest growth rate, although it will be about 0.6 percentage points below the growth rate achieved in the previous 10 years.

Projected employment growth is also slightly lower than that of the 10 years prior in the Olympic Consortium WDA and Northwest WDA.

Figure 6-3. Historical and projected employment growth
Washington state and workforce development areas, various years
Source: Employment Security Department/LMEA

Workforce development area	Historical growth rate 1999 to 2009	Projected growth rate 2009 to 2014	Projected growth rate 2014 to 2019
Washington state	0.6%	1.4%	1.4%
Benton-Franklin	2.6%	2.4%	1.6%
Northwest	1.7%	1.5%	1.7%
Snohomish County	1.3%	1.7%	1.6%
Olympic Consortium	1.3%	1.0%	1.3%
Pierce County	1.2%	1.5%	1.5%
Pacific Mountain	1.0%	1.3%	1.3%
Spokane	0.9%	1.3%	1.4%
Southwest Washington	0.7%	1.8%	1.8%
Eastern Washington	0.6%	1.3%	1.3%
North Central	0.6%	1.3%	1.4%
South Central	0.5%	1.2%	1.2%
Seattle-King County	0.0%	1.3%	1.4%

Benton-Franklin WDA's exceptional growth rate is projected to moderate after 2014.

Occupational employment projections

Figure 6-4 shows occupational employment estimates and long-term projections at the state level. The largest increase in employment shares is expected in computer and mathematical occupations. The largest decrease in employment shares is expected in farming, fishing and forestry occupations.

Figure 6-4. Estimated and projected occupational employment
Washington state, 2009, 2014 and 2019
Source: Employment Security Department/LMEA; Bureau of Labor Statistics

Major occupational group	Estimated employment 2009	Employment shares 2009	Employment shares 2014	Employment shares 2019
Office and administrative support	450,095	13.9%	13.8%	13.7%
Sales and related	334,300	10.3%	10.2%	10.0%
Food preparation and serving related	244,931	7.6%	7.5%	7.5%
Transportation and material moving	200,451	6.2%	6.3%	6.2%
Education, training and library	191,341	5.9%	5.8%	5.8%
Construction and extraction	178,767	5.5%	5.2%	5.3%
Production	161,261	5.0%	5.0%	4.9%
Management	159,137	4.9%	4.9%	4.9%
Business and financial operations	151,011	4.7%	4.7%	4.7%
Healthcare practitioners and technical	149,966	4.6%	4.7%	4.9%
Personal care and service	138,618	4.3%	4.5%	4.5%
Installation, maintenance and repair	121,241	3.7%	3.7%	3.6%
Building and grounds cleaning and maintenance	120,400	3.7%	3.9%	4.0%
Computer and mathematical	117,557	3.6%	3.9%	4.1%
Farming, fishing and forestry	93,345	2.9%	2.7%	2.6%
Architecture and engineering	83,948	2.6%	2.6%	2.6%
Healthcare support	83,555	2.6%	2.6%	2.7%
Arts, design, entertainment, sports and media	65,258	2.0%	2.0%	2.1%
Protective service	57,069	1.8%	1.7%	1.7%
Community and social services	56,446	1.7%	1.7%	1.7%
Life, physical and social science	49,726	1.5%	1.6%	1.6%
Legal	27,304	0.8%	0.8%	0.8%

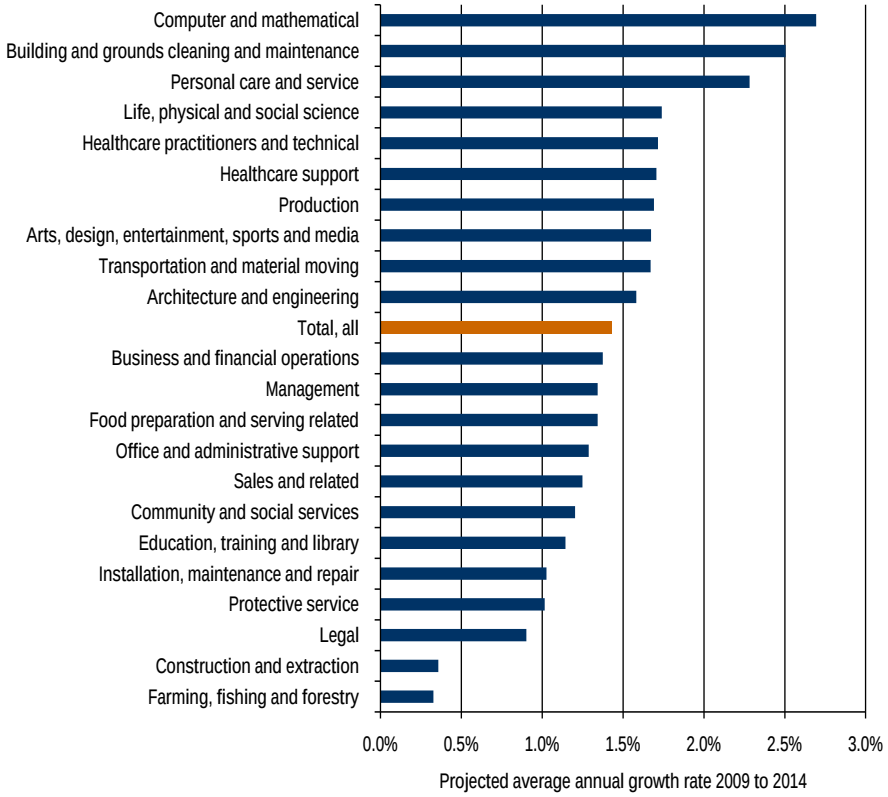
The largest projected increases in employment shares are expected to be in computer and mathematical occupations.

Major occupational groups

At the state level, 12 of the 22 major occupational groups have projected growth rates for the 2009 to 2014 period lower than the growth rate for total employment, while 10 have projected growth rates higher than the rate for total employment (*Figure 6-5*). The growth rate for total employment is projected at 1.4 percentage points.

The fastest-growing groups are projected to be computer and mathematical occupations; building and grounds cleaning and maintenance occupations; and personal care occupations. The slowest growth is expected in farming, fishing and forestry occupations; construction and extraction occupations; and legal occupations.

Figure 6-5. Average annual projected occupational growth rates
Washington state, 2009 to 2014
Source: Employment Security Department/LMEA



Farming, fishing and forestry occupations are projected to have the slowest growth rate from 2009 to 2014, while computer and mathematical occupations are projected to have the fastest growth rate.

Employment projections for specific occupations

The top-20 specific occupations by total average projected annual openings for the 2009 to 2014 period are presented in *Figure 6-6*.

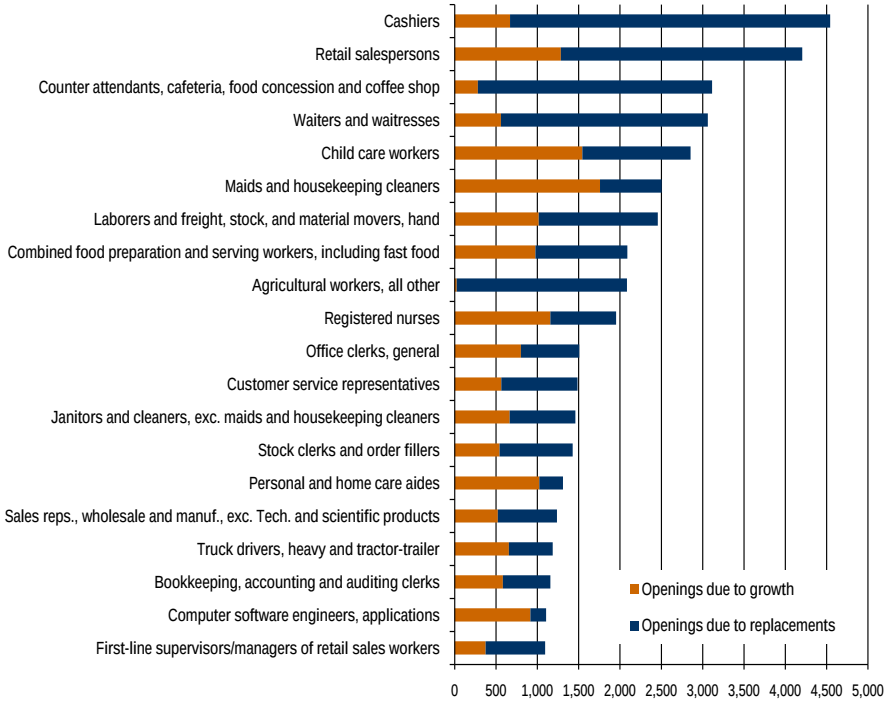
At the most detailed occupational level (six-digit SOC), cashiers and retail salespersons are projected to have the largest number of openings. For only eight of the top-20 occupations, the number of openings due to growth is larger than that due to replacement. For

the other 12 occupations of the top 20, the number of openings due to replacement is greater (in many cases significantly greater) than the number of openings due to growth.

The largest absolute and relative difference is for the computer software engineers, applications occupation, where the number of openings due to growth is 3.5 times larger than the number of openings due to replacement.

For total employment, about 61.6 percent of openings are due to replacement and 38.4 percent due to growth.[3]

Figure 6-6. Projected top-20 specific occupations by total openings
Washington state, 2009 to 2014
Source: Employment Security Department/LMEA

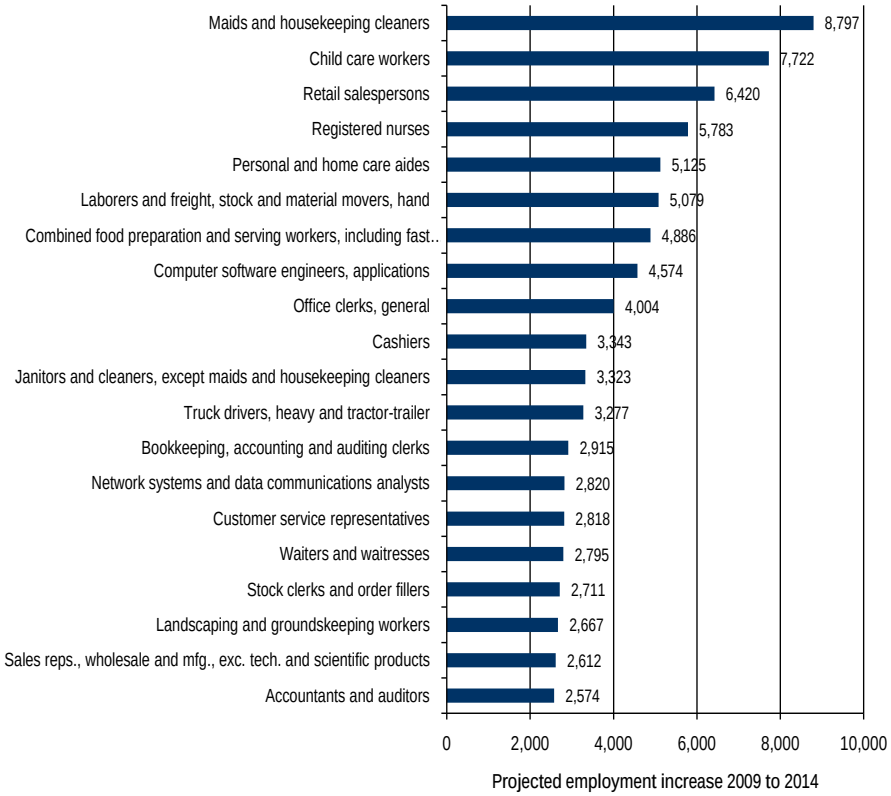


For only eight of the top-20 occupations the number of projected openings due to growth is larger than projected number of openings due to replacement.

Occupations with the largest projected increase in employment are presented in *Figure* 6-7. These 20 occupations represent 35.4 percent of all projected job growth by 2014. Maids and housekeeping cleaners, child care workers, retail salespersons and registered nurses are projected to have the largest increase in employment by 2014.

[3] Due to reasons explained in the technical appendix of ESD's *2011 Employment Projections,* the number of openings due to replacement is not additive between different levels of aggregation.

Figure 6-7. Occupations with the largest projected employment increase
Washington state, 2009 to 2014
Source: Employment Security Department/LMEA



Service-oriented occupations such as maids and housekeeping cleaners and child care workers are projected to have the most job growth from 2009 to 2014.

Employment and earnings by education level

To analyze employment growth by education, we divided all occupations into four educational categories. We found higher education levels were associated with higher wages for all areas of the state.[4] *Figure 6-8* shows statewide average employment and estimated wages by education level.[5]

Higher education levels were associated with higher wages for all areas of the state.

[4] Wages are not part of the occupational projections. Source data for wages come from the Occupational Employment Statistics (OES) survey and are subject to exclusions, restrictions and limitations of the OES survey. All wage estimations are adjusted as of March 2011.

[5] The education categories for specific occupations are an aggregated version of education clusters from the Bureau of Labor Statistics' Occupational Outlook Handbook. They are estimates of typical preparation levels required for the occupation. Only occupations for which educational codes and wages are identified are included in the calculations.

Figure 6-8. Projected employment and wages by education level
Washington state, 2009 to 2014
Source: Employment Security Department/LMEA; Bureau of Labor Statistics

Education level	Estimated employment 2009	Average annual growth rate 2009 through 2014	Average annual total openings 2009 through 2014	Average annual wages (estimated for March 2011)
Short-term on-the-job training (short demonstration up to one month)	1,128,054	1.56%	54,329	$28,282
"Moderate on-the-job training (1-12 months)"	530,524	1.32%	16,902	$39,450
Associate degree, post-secondary training or long-term on-the-job training	820,470	1.18%	25,995	$54,800
Bachelor's degree or higher	754,971	1.57%	26,892	$81,805

Projections show that higher wages are associated with more education.

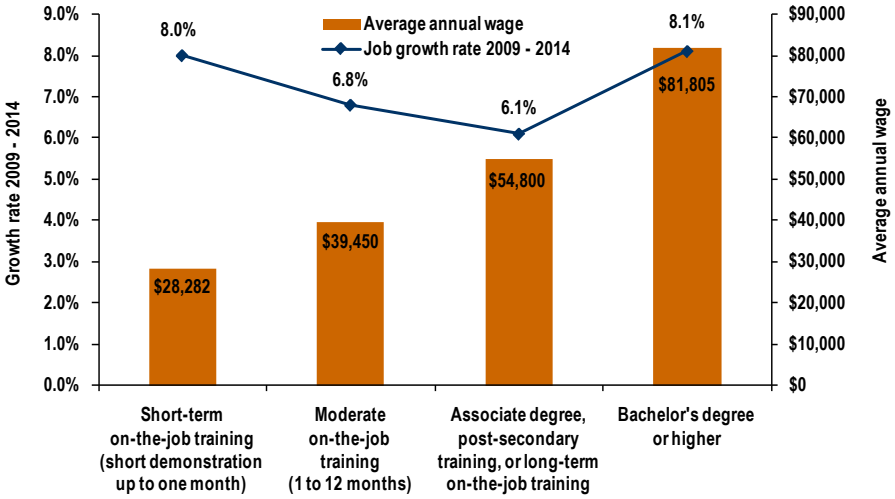
From 2009 to 2014, jobs requiring short-term, on-the-job training are projected to increase the most – averaging more than 54,000 opening s a year.

In 2009, more than half of the jobs in Washington were in occupations that did not require formal education beyond high school. No significant changes in employment shares by education groups are expected between 2009 and 2014. Occupations requiring short-term on-the-job training are projected to account for the largest portion of 2009 to 2014 total job growth.

Five-year occupational growth rates by education level are presented in *Figure 6-9*. While more jobs are likely to require only short-term training, the highest job-growth rate will be among jobs requiring a bachelor's degree or higher.

Average annual growth rates and average wages by education level for 2009 to 2014 are also shown in *Figure 6-9*. In Washington state, the largest gain in wages is with the transition from an associate degree to a bachelor's degree, equal to $27,005.

Figure 6-9. Projected employment growth rates and wages by education level
Washington state, 2009 to 2014
Source: Employment Security Department/LMEA



From 2009 to 2014, the highest job growth rate will be among jobs requiring a bachelor's degree or more education.

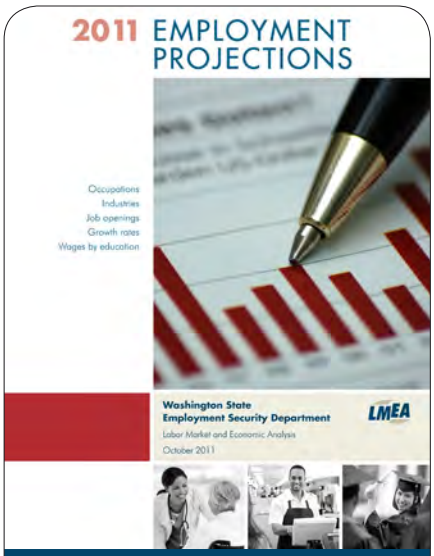
Use and misuse of industry and occupational projections

The purpose of the Employment Security Department's projections is to provide a general outlook for industries and occupations in Washington. For any serious decisions, multiple sources should be consulted.

Occupational projections show how many job openings are expected due to occupational employment growth and decline, and replacement needs. Replacement includes openings created by retirements and separations. It does not include normal turnover as workers go from one employer to another, or from one geographic area to another without changing their occupation. Total openings from occupational projections do not represent the total demand, but can be used as an indicator of the demand.

Observed and predicted extremes in employment growth and other indicators, such as fastest-growing occupations and shortage of skills, can be used for placement and short-term training decisions. However, their use should be limited in developing long-term education programs. There are two main reasons for this limitation:

- First, with more education targeting occupations with skills shortages, there is a higher probability that this will cause an oversupply in those occupations and skill sets.



Detailed methodology and results for our 2011 Employment Projections can be found online.

- Second, the general development of transferable skills is much more productive than trying to catch-up with specific skill shortages.

Occupational details for employment (not less than 10 jobs) are presented for the state and all workforce development areas in ESD's projection data files. The detailed methodology and results of industry and occupational employment projections are found in ESD's *2011 Employment Projections* and online at www.esd.wa.gov/employmentdata.

Chapter 7: Income and Wages

This chapter discusses incomes and wages[1] for Washington state. Statewide data are for 2010, the most recent year of complete data. For personal income data at the county level, the most recent available data are for 2009. All data in this chapter have been inflation-adjusted to 2010 dollars with the exception of personal income data at the county level, where the latest year of data is for 2009.[2]

By just about any metric, things have gotten worse for Washingtonians as a whole since the onset of the recession.

Key facts

- The recession continued to wreak havoc in Washington in 2010. For the second consecutive year, median family and household incomes declined, poverty rates rose and the number of low-income households increased. Ever more families turned to public assistance to make ends meet. Half of all renters and 40 percent of all mortgage-holders met the housing stress definition of 30 percent or more of income used for housing costs.
- Job losses and cutbacks in the workweek in the 2008-through-2010 period predominantly affected low-wage jobs and, thus, lower-income families. More than half the jobs that disappeared in the recent recession paid less than $16 per hour, well below the median wage. In contrast, there was a small increase in the number of jobs paying more than $40 per hour.
- While the median hourly wage for jobs declined slightly in 2010, the overall result of the recession thus far has been an increase in the median wage, due to the concentration of losses in lower-paying jobs. The statewide median hourly wage in 2010 was $21.01 per hour.
- Per capita income in 2009 declined by 2 percent, the largest drop since 1970. Earned income and investment income fell but transfer payments, especially unemployment-insurance benefits and food stamps, grew dramatically.

Household and family incomes

Estimates for household and family income[3] are available from the U.S. Census Bureau's annual American Community Survey (ACS[4]).

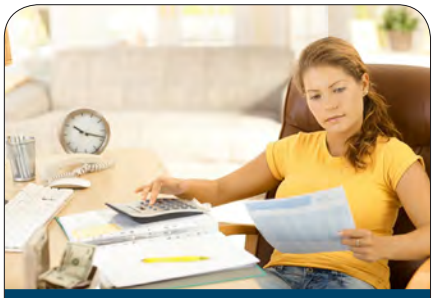
1 Income can come from various sources, whereas wages are compensation strictly from work.
2 Throughout this chapter, the U.S. personal consumption expenditure price deflator was used to adjust for inflation. Using another index could lead to different conclusions about wage trends.
3 Family income is the combined income of the householder and members of the household age 15 and older who are related to the householder. Household income is the combined income of everyone in a household age 15 years and older, regardless of relation to the householder.
4 It is advisable to use three-year averages when using ACS data because of sampling error. The single-year results discussed in this section should be viewed as provisional.

By just about any metric, things have gotten worse for Washingtonians as a whole since the onset of the recession. After falling by 1.8 percent in 2009, the state's median household income dropped by 3.1 percent in 2010 (*Figure 7-1*). The two-year decline of 4.9 percent was slightly above the nation's 4.7 percent decline. Median family income followed a similar trend, with a 5.4 percent drop.

Figure 7-1. Change in household incomes, poverty rates and housing costs
Washington state, 2008 and 2010
Source: U.S. Census Bureau, American Community Survey

	2008	2010	Change from 2008 to 2010
Median household income	$58,488	$55,631	-4.9%
Median family income	$71,155	$67,328	-5.4%
Households with income less than $10,000	150,335	172,053	10.0%
Poverty rate	11.40%	13.40%	+2.0 points
Poverty rate, children under 5	17.40%	21.80%	+4.4 points
Percent of households receiving food stamps	8.70%	13.30%	+4.6 points
Percent of households receiving welfare benefits	3.40%	4.60%	+1.2 points
Residents without health insurance	12.50%	14.20%	+1.7 points
Renters paying more than 30 percent of their income for housing	47.90%	51.10%	+3.2 points
Homeownership	65.30%	63.10%	-2.2 points
Homeowners paying more than 30 percent of their income for housing	34.10%	33.50%	-0.6 points

By just about any metric, things have gotten worse for Washingtonians since the onset of the recession. Income has declined, poverty has increased and more residents are receiving food stamps.



In 2010, more than 1 million Washington homeowners and renters were in financial distress due to high housing costs.

Since the recession, the number of lower-income households has risen markedly (*Figure 7-2*). Compared with 2008, in 2010 there were 14 percent more households with incomes less than $10,000, 10 percent more in the $10,000 to $15,000 range, and 18 percent more in the $15,000 to $25,000 range. On the other end of the spectrum, there were 15 percent fewer households with incomes of $200,000 or more.

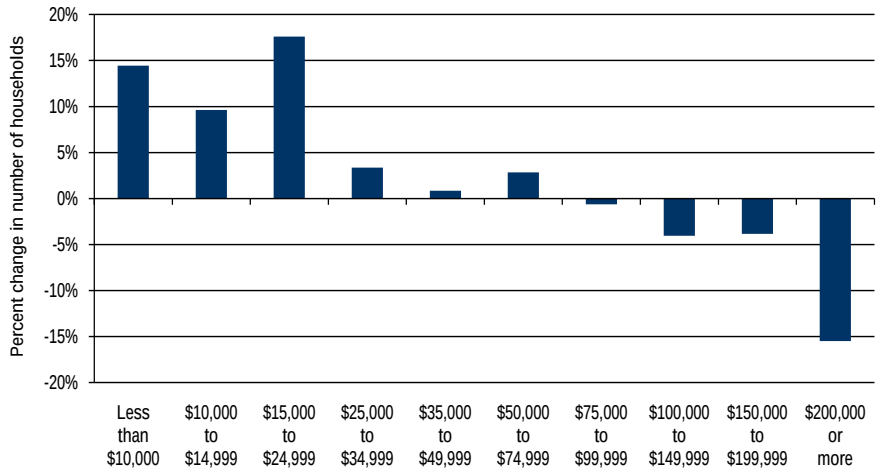
Incomes trended upward in only one county (Benton) in the 2009-through-2010 period, while six counties – Clallam, Clark, Cowlitz, King, Kitsap and Lewis – trended downward.[5]

[5] Single-year estimates of county median household and family incomes are available for larger counties. These estimates should be interpreted with caution because of the large margin of error and the lack of data consistency from year to year in some of the counties.

Washington's poverty rate[6] increased in 2009 and again in 2010, rising to 13.4 percent. More than one in five children under the age of 5 was living in poverty in 2010. In 2008, 8.7 percent of Washington households received food stamps, the same rate as the national average; by 2010, that had increased to 13.3 percent, 2 points above the national average. In 2010, the percentage of households who received welfare rose by more than 1 point to 4.6 percent, above the nation's 2.9 percent.

Housing experts consider a household to be under economic stress if housing-related costs[7] take up 30 percent or more of household income. By that measure, 51 percent of renters were feeling the squeeze in 2010 – up from 48 percent in 2008 and 42 percent in 1999. They were joined by nearly 34 percent of homeowners, down slightly from 2008 but up from 26 percent in 1999 and 16 percent in 1989. The "improvement" from 2008 could largely be traced to the decline in homeownership of almost 20,000 over that period. In 2010, more than 1 million Washington homeowners and renters, comprising 40 percent of all households in the state, were in financial distress due to high housing costs.

Figure 7-2. Percent change in number of households by income range
Washington state, 2008 to 2010
Source: U.S. Census Bureau, American Community Survey



Growth in the number of households was highest among low-income households.

[6] Poverty rate is the percent of a given population that is considered to be in poverty. In the United States, the federal government establishes a poverty threshold based on household income.

[7] Housing costs for homeowners include mortgages, real estate taxes, various insurances, utilities, fuels, mobile home costs and condominium fees. For renters, they include rent, utilities and heating-fuel costs.

The economic situation for people of color in Washington is often much worse than for the general population. To take just one dimension, the median income for Latino families in 2010 was barely half (54 percent) of that of white non-Latino families, while the median for African American families was 61 percent of that of whites; the median income for American Indian families was only 58 percent of white families. All three percentages were lower than in 2008.

2010 job losses were predominantly on the low end of the wage spectrum.

Average wages

Average annual wages

In 2010, a little more than 2.8 million Washington jobs were covered[8] by unemployment insurance, with a total payroll of $135 billion. Though this was the second consecutive annual decline in the average monthly number of jobs and total payroll, the average annual wage increased in 2010. As in 2009, the increase in the average annual wage coupled with a decrease in jobs indicates that job loss was predominantly on the low end of the wage spectrum.

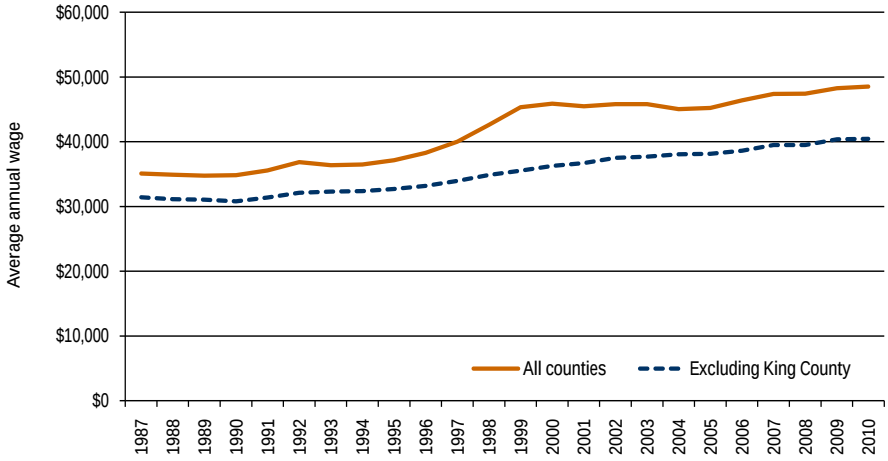
The average annual wage, derived by dividing payroll by employment, was $48,519, up 0.5 percent from 2009 and the highest on record. Annual wages were relatively flat from 1999 to 2005, rose over the next two years, leveled off as the recession took hold in 2008 and then jumped in 2009, as shown in figures *7-3* and *7-4*.

If King County is taken out of the picture, things look different. The average annual wage for the rest of the state increased steadily since the early 1990s, but with a small increase in 2010 of 0.1 percent.

[8] Covered employment exceeds 87 percent of total employment in the state of Washington. Covered employment is defined as personal service performed for wages or other compensation with the following exceptions: casual labor not in the course of employer's trade or business; railroad employment; employment on a foreign-owned ship; newsboys; those insurance agents, real estate agents and salesmen paid on a commission basis only; enrolled students and family working for a school; religious organizations; employment at physical and mental rehabilitation work shops; patients employed at hospitals; inmates employed at custodial and penal institutions; and all employees of foreign governments. In addition, certain family employment; construction contractors and subcontractors; and barber, hairdressing and cosmetology services are not covered.

Figure 7-3. Average annual wage in 2010 dollars

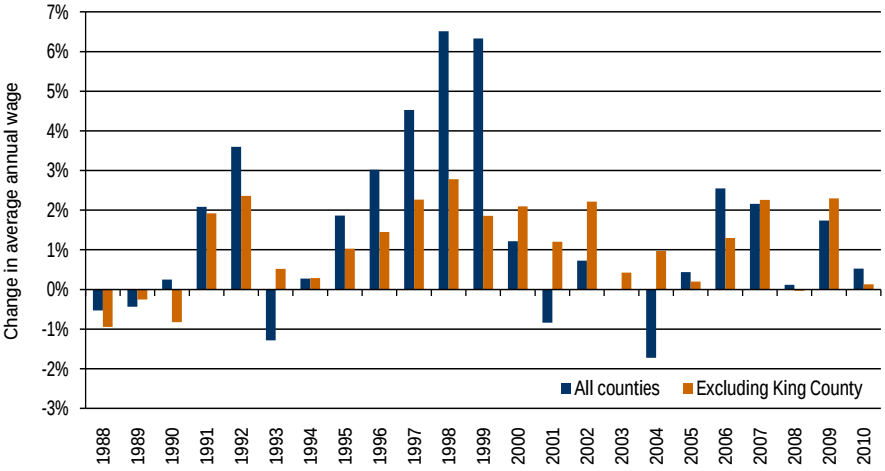
Washington state, 1987 through 2010
Source: Employment Security Department/LMEA



Without King County, wage growth in the state was flat in 2010.

Figure 7-4. Change in average annual wage in 2010 dollars

Washington state, 1988 through 2010
Source: Employment Security Department/LMEA



Excluding King County, Washington's average annual wage rose in 2010, but by only one-tenth of 1 percent.

The information sector paid the highest average annual wage in 2010, $109,777.

Average hours and hourly wages

Washington is one of only three states in the nation that collects data on hours worked on a job,[9] allowing the calculation of an average hourly wage, median hourly wage and a mapping of the full spectrum of hourly wages for more than 3 million jobs each year.

In 2010, 3.31 million Washingtonians collectively worked 4.5 billion hours, equal to 2.17 million jobs on a full-time equivalent (FTE) basis. This was 1.6 percent fewer workers than in 2009 and 5.2 percent fewer than in 2008. In 2010, FTE employment dropped 1.7 percent from 2009 and 6.7 percent from 2008, the only declines since the start of the data series in 1990.

The average work week decreased 0.4 hours in 2010. The average work week, derived by dividing total hours worked by average monthly jobs, was 32.3 hours in 2010, compared with a revised 32.7 hours in 2009.

Average hourly wages slipped by $0.03 to $28.69 in 2010. The average hourly wage was 23 percent above the median in 1990, before rising to 42 percent in 2000 (when stock options were included in wages), and has been about 35 percent higher over the past eight years. Average hourly wages are calculated by dividing total payroll by total hours worked.

In 2010, the median hourly wage fell by $0.23 to $21.01 per hour. The median wage increased by 21 percent from 1990 to 2010, considerably less than the average wage, which increased 35 percent over that same period, reflecting the growing inequity in wages. The median hourly wage is the wage at which half of all jobs pay more and half pay less.[10]

Wages by industry

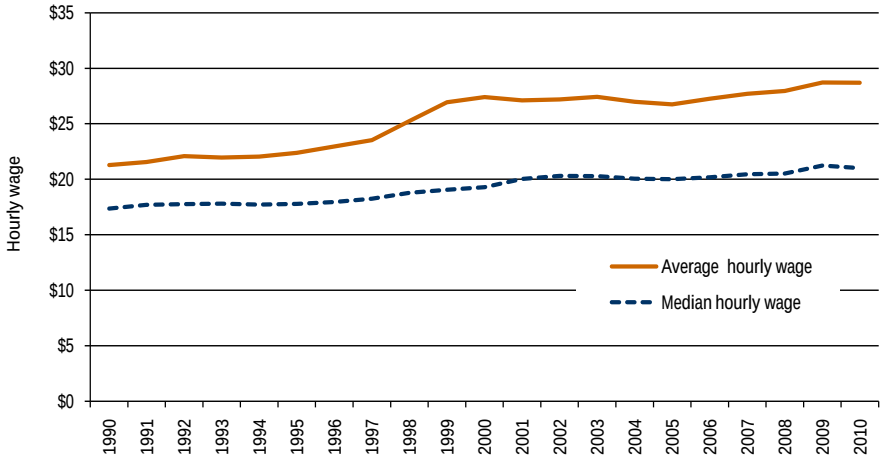
Figure 7-6 displays average annual wages by industry sector in Washington state. The information sector paid the highest average annual wage, $109,777, and the accommodation and food services sector paid the lowest average annual wage, $17,632.

[9] 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).

[10] Jobs in this case are calculated on an FTE basis with 2,080 hours (in most years) equal to one full-time job.

Figure 7-5. Average and median hourly wages in 2010 dollars

Washington state, 1990 through 2010
Source: Employment Security Department/LMEA



Average and median hourly wages decreased in 2010.

Figure 7-6. Average annual wages by industry sector

Washington state, 2010
Source: Employment Security Department/LMEA

NAICS	Industry sector	Average annual wages
51	Information	$109,777
55	Management of companies and enterprises	$95,731
22	Utilities	$77,591
54	Professional, scientific and technical services	$75,376
52	Finance and insurance	$70,137
31	Manufacturing	$64,925
42	Wholesale trade	$63,348
21	Mining	$55,654
23	Construction	$51,127
48	Transportation and warehousing	$47,743
62	Healthcare and social assistance	$44,673
56	Administrative, support, waste management and remediation services	$41,466
53	Real estate, rental and leasing	$38,359
61	Educational services	$35,158
44	Retail trade	$30,021
71	Arts, entertainment and recreation	$25,121
81	Other services (except public administration)	$24,227
11	Agriculture, forestry, fishing and hunting	$24,034
72	Accommodation and food services	$17,632

From industry to industry, there was a wide disparity in average annual wages.

Wages by occupational group

Figure 7-7 displays average and median hourly and annual wages for each major occupational group. Overall, the average hourly wage in Washington is $23.80 per hour, nearly $5 per hour more than the median hourly wage of $19. The median annual wage is $39,507.[11]

Figure 7-7. Average and median hourly and annual wages for major occupational groups

Washington state, 2010

Source: Employment Security Department/LMEA, Occupational Employment and Wage Survey

Major occupational group	Average		Median	
	Hourly	Annual	Hourly	Annual
All occupations	$23.80	$49,514	$19.00	$39,507
Management	$54.61	$113,588	$49.46	$102,885
Computer and mathematical	$41.44	$86,190	$41.01	$85,301
Architecture and engineering	$38.89	$80,890	$37.71	$78,429
Legal occupations	$41.40	$86,099	$33.50	$69,677
Healthcare practitioners and technical	$37.66	$78,350	$32.93	$68,494
Business and financial operations	$33.77	$70,235	$31.29	$65,067
Life, physical and social science	$31.41	$65,337	$29.10	$60,528
Construction and extraction	$25.36	$52,744	$24.17	$50,275
Protective service	$25.51	$53,045	$23.60	$49,078
Education, training and library	$24.52	$51,009	$22.71	$47,224
Installation, maintenance and repair	$23.12	$48,103	$22.26	$46,299
Arts, design, entertainment, sports and media	$24.96	$51,909	$22.05	$45,861
Community and social services	$21.21	$44,101	$20.44	$42,520
Production	$18.99	$39,489	$16.92	$35,190
Office and administrative support	$17.72	$36,845	$16.73	$34,795
Transportation and material moving	$17.82	$37,064	$15.98	$33,244
Healthcare support	$15.23	$31,684	$14.22	$29,579
Sales and related	$18.55	$38,572	$13.41	$27,889
Building and grounds cleaning and maintenance	$13.90	$28,917	$12.85	$26,716
Farming, fishing and forestry	$14.73	$30,642	$11.50	$23,919
Personal care and service	$13.53	$28,147	$11.38	$23,663
Food preparation and serving-related	$12.00	$24,952	$10.65	$22,149

Service-related occupations such as food preparation and maintenance had the lowest wages.

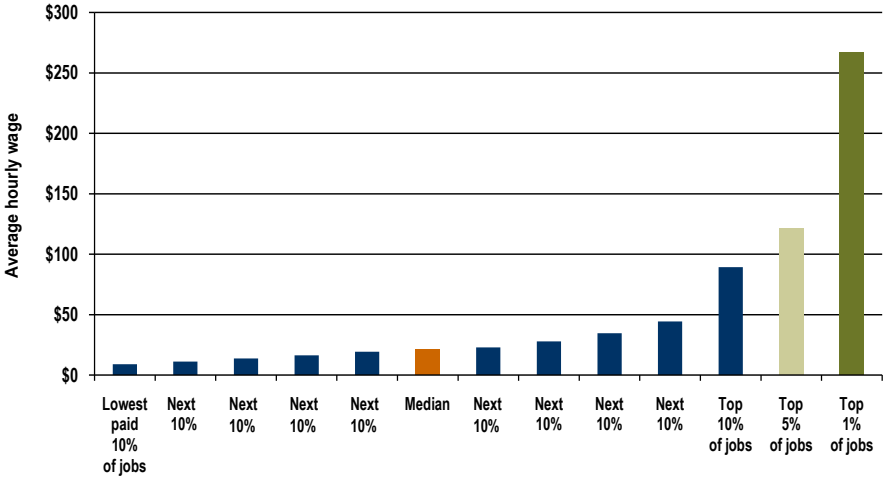
[11] The occupational average and median wage will differ from the wages quoted above because they are based on a survey of employers, which asks for the number of jobs in each occupation within wage ranges. The data in the average and median hourly and annual wage section above are based on individual wage records and so are more comprehensive and more accurate. However, there is no occupational identifier in the wage records.

Wage distribution

Wage records include all jobs covered by unemployment insurance. Most corporate officers (usually the best-compensated employees) opt out of unemployment-insurance coverage, so the wage-distribution data presented here do not include most jobs at the top of the pyramid.

In 2010, the lowest-paid 10 percent of jobs averaged $8.96 per hour, $0.09 (1 percent) below the 2009 average after adjustment for inflation (*Figure 7-8*). The best-paid 10 percent of jobs averaged $89.24 per hour, almost 2 percent above the 2009 average. The average decreased from 1 to 2 percent for all but the two highest wage deciles.

Figure 7-8. Average hourly wages by decile (10 percent) of FTE jobs
Washington state, 2010
Source: Employment Security Department/LMEA



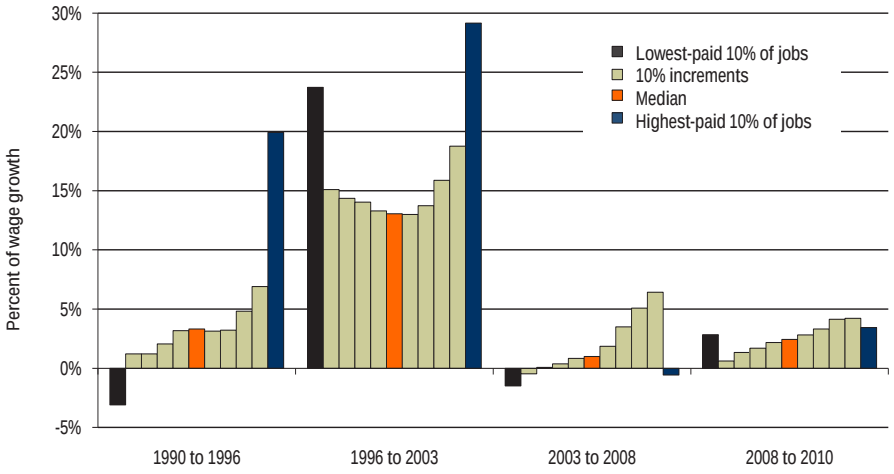
Average hourly wages for the top 1 percent of wage earners was more than double that of the top 5 percent of earners.

Since 1990, the state has gone through three recessions with two intervening periods of relatively low unemployment. As a result, wage growth has gone through three distinct periods, and a fourth may have begun in 2009, as shown in *Figure 7-9*.

- In the 1990 to 1996 period, wages for the bottom 70 percent of jobs grew slowly (1 to 3 percent), with the exception of the bottom 10 percent of jobs, which suffered a 3 percent decline. Wages in the second- and third-highest deciles grew a bit more rapidly, while the average wage for the top decile of jobs rose by 20 percent. Outside of King County, the same pattern held but was muted somewhat at the top, with the average for the top 10 percent increasing by 11 percent.

- There were broad-based wage gains from 1996 through 2001 that tapered off over the next two years. Wages for the middle 80 percent of jobs climbed by about 15 percent. At the bottom, average hourly pay surged by 24 percent, not as much as the top tier where the average jumped by 29 percent. Outside of King County, the pattern was similar but wage hikes were generally smaller. The middle 80 percent of jobs was up by about 10 percent, and the top decile by 15 percent. Only the jobs at the bottom, boosted initially by tight labor markets and subsequently by increases in the state minimum wage, kept close to the statewide average with a 23 percent rise. Stock options were excluded from the reporting system after 2004; the 1998 to 2001 period was especially influenced by their inclusion, as wages at the top ballooned with the stock market bubble.
- After 2003, wage growth slowed substantially. Wages at the median inched up by only 1 percent, while pay in the bottom fifth of the distribution declined slightly. Gains were larger in the upper half of the spectrum, except for the top 10 percent, where there was a slight decline influenced by the exclusion of stock options from the data collected after 2004.
- In 2009, wages seemingly increased across the board, while in 2010, there was some retrenchment except at the upper two deciles. Overall, from 2008 to 2010, there was a net increase in wages.

Figure 7-9. Increase in average hourly wage by decile (10 percent) of FTE jobs
Washington state, 1990 to 1996, 1996 to 2003, 2003 to 2008 and 2008 to 2010
Source: Employment Security Department/LMEA



Wage growth for all groups was greatest in the 1996 to 2003 period.

The wage gap increases

The growing inequality in wages is also seen by tracking the ratio of wages for the top decile to wages for the bottom decile.

In 1990, the average wage for the top 10 percent of jobs was 7.6 times the average wage for the lowest-paid 10 percent (the 90/10 ratio). By 2000, that ratio had increased to 12.4 before dropping in 2001. After 2001 it averaged 9.6 before jumping to 10 in 2010. The gap in 2010 was 31 percent greater than in 1990.

The distance between the median wage and the top 10 percent similarly expanded and contracted, and in 2010 reached 4.2, a 32 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 2010 at 2.3 as it was in 1990. The closing and stabilization of this gap was due to the increase and indexing of the minimum wage in recent years.

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 ratio of the top 10 percent of wages to the bottom 10 percent of wages increased by 14 percent from 1990 to 2010.

Figure 7-10. Measuring the wage gap, in 2010 dollars
Washington state, 1990 and 2010
Source: Employment Security Department/LMEA

	All counties		All except King County	
	1990	2010	1990	2010
Average wage for…				
Lowest-paid 10 percent of jobs	$7.37	$8.96	$7.09	$8.72
Median job	$17.36	$21.01	$15.89	$18.68
Highest-paid 10 percent of jobs	$55.95	$89.24	$47.92	$67.35
Wage gap ratios…				
Highest 10/lowest 10 ratio	7.6	10	6.8	7.7
Highest 10/median ratio	3.2	4.2	3	3.6
Median/lowest 10 ratio	2.4	2.3	2.2	2.1

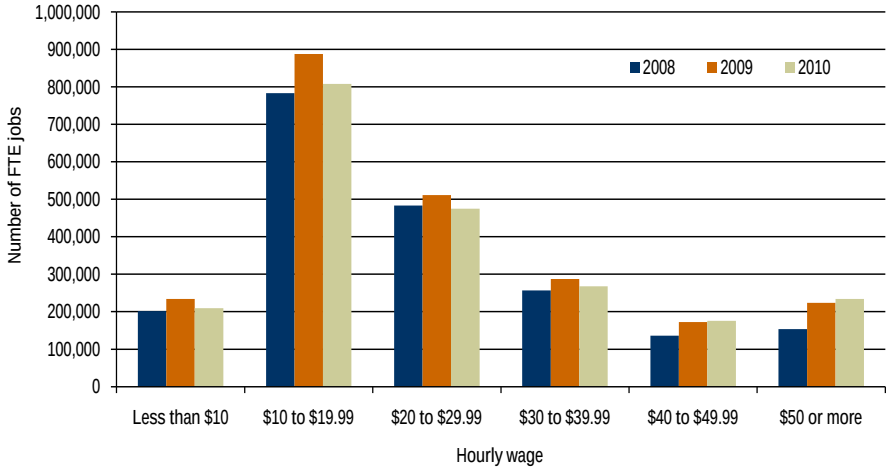
The gap between high-wage jobs and low-wage jobs has broadened.

The effect of the Great Recession on wages

The average annual wage, average hourly wage, and median hourly wage were all higher in 2010 than in 2008. These measures went up in the middle of the worst recession of our lifetime because job losses were more prevalent for jobs paying less than the median wage.

In 2009, more than 234,000 jobs (10 percent of the total) paid less than $10 per hour. By 2010, that number had dropped by 25,000. *Figure 7-11* shows the full distribution of jobs for 2008, 2009 and 2010.

Figure 7-11. FTE jobs by hourly wage
Washington state, 2008, 2009 and 2010
Source: Employment Security Department/LMEA



In 2010 there were fewer jobs in each wage range than in 2009, except for jobs paying $40 per hour or more.

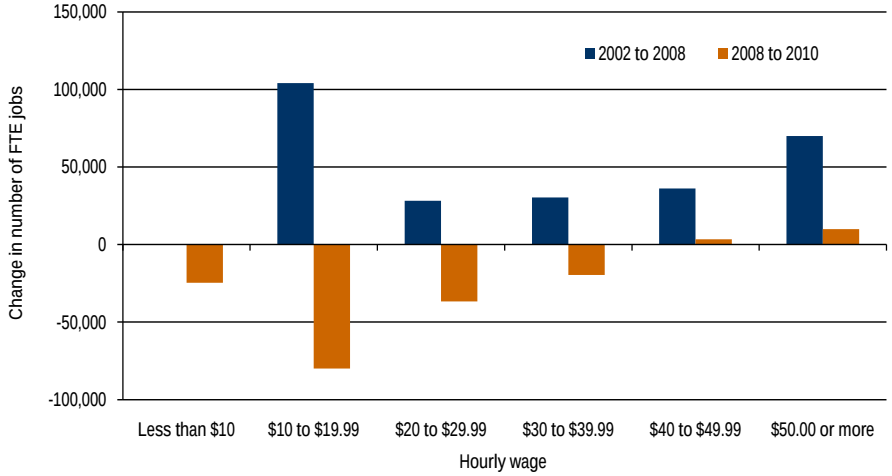
King County's median hourly wage has increased by 32 percent, driven by wage hikes in software and aerospace.

From 2002 to 2008, the number of jobs increased in every wage range, but the change was smaller in the middle (in terms of both absolute numbers and percentage change). As *Figure 7-12* shows, net new jobs were mostly at the upper end and lower end. FTE employment as a whole grew by 15 percent over the six-year period. The number of jobs paying less than $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.

The recent recession wreaked havoc on lower-wage jobs, wiping out most (85 percent) of the job growth from the 2002 to 2008 period for jobs paying less than $30 per hour. More than half of the job losses in the recent recession were in jobs that paid less than $16 per hour. Collectively, these jobs made up 28 percent of the 2008 jobs base. On the other end of the spectrum, the number of jobs paying $40 per hour or more increased by 3 percent from 2008 to 2010.

Ironically, the heavy loss of low-wage jobs pushed up the median and average hourly wage. It wasn't that there was a wealth of new high-wage jobs; it was that a disproportionate share of job losses came from low-wage jobs.

Figure 7-12. Change in FTE jobs by hourly wage
Washington state, 2002 to 2008 and 2008 to 2010
Source: Employment Security Department/LMEA



The recession wiped out jobs at the lower end of the wage spectrum, leaving most net new jobs on the upper end.

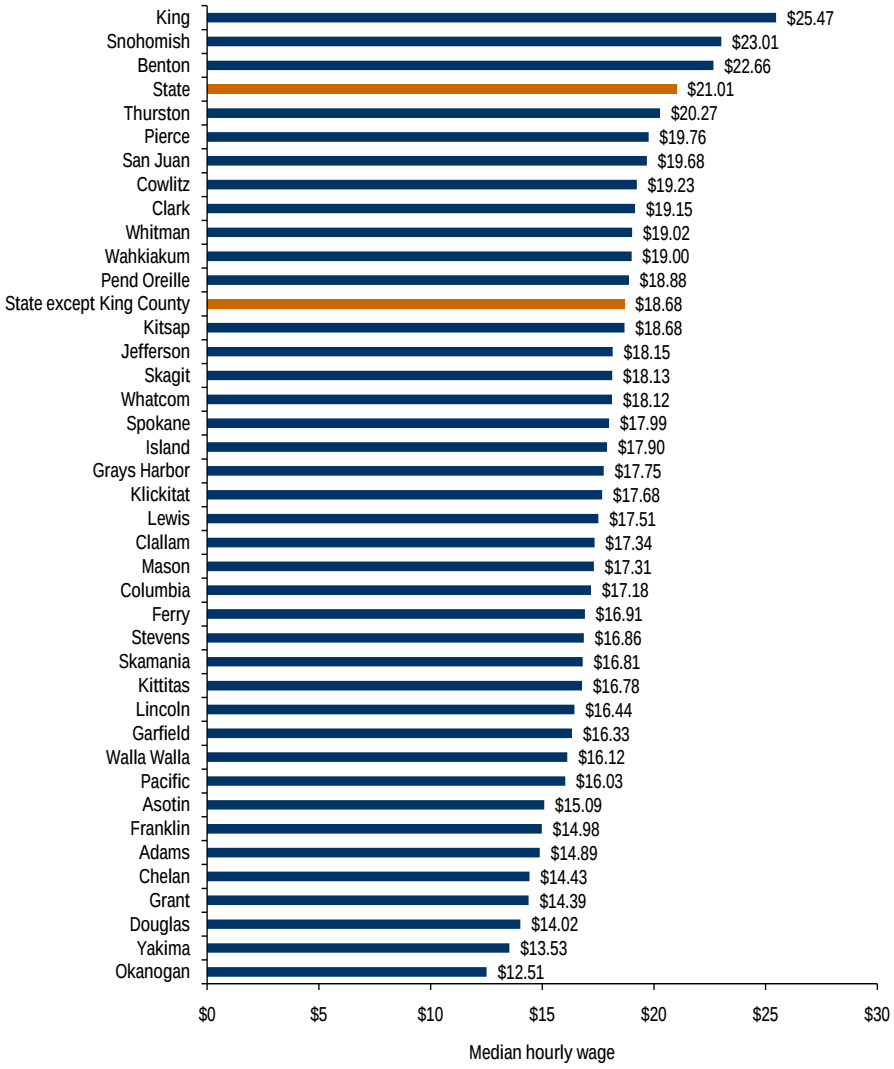
Wages by area

Hourly wages vary widely across the state. In 2010, King County once again topped the state with a median wage of $25.47 (*Figure 7-13*). 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 $18.68. Okanogan County had by far the lowest median hourly wage at $12.51. Out of the 17 lowest-wage counties, only Pacific County was located west of the Cascades.

Median wages rose in 11 of Washington's 39 counties in 2010. Two counties, Benton (+$0.66, 3 percent) and Klickitat (+$0.47, 2.7 percent) had substantial increases; the rest were 1 percent or less. Asotin County (-$0.89, -5.6 percent) and Stevens County (-$0.72, -4.1 percent) were the only two counties with large declines.

Since 1990, the state median hourly wage has increased by 21 percent after adjustment for inflation. King County's median hourly wage has increased by 32 percent, driven by wage hikes in software and aerospace. Ferry County was the only county with a lower median in 2010 ($16.91) than in 1990 ($17.05).

Figure 7-13. Median hourly wage by county
Washington state, 2010
Source: Employment Security Department/LMEA



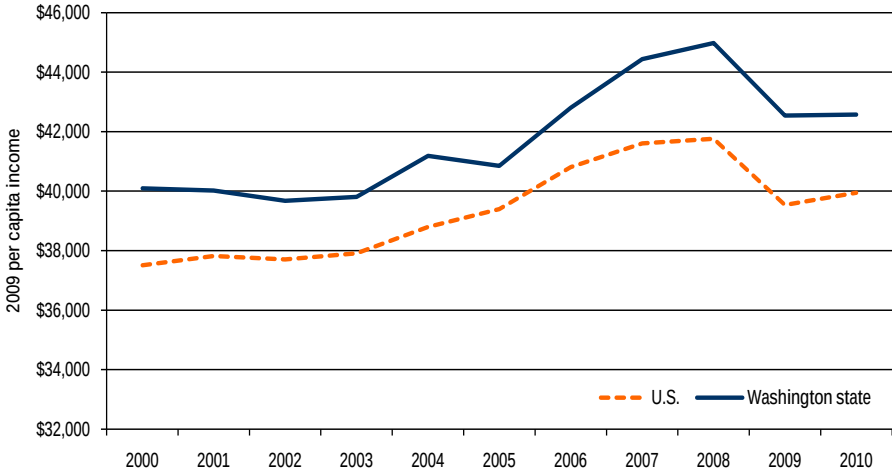
In 2010 Okanogan County had the lowest median hourly wage, while King County had the highest.

Personal income

After a big drop in 2009, per capita income stabilized in Washington in 2010, rising by less than one-tenth of 1 percent. For the 2008 to 2010 period, the state fared a bit worse (-5.3 percent) than the nation (-4.4 percent), because the state's earned income continued to decline in 2010, while the nation's increased (*Figure 7-14*).

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. Per capita income is the personal income of a geographic area divided by the population of the area. Because per capita income is an average, it is influenced by factors such as relative concentration of high-income households, family size and the number of retirees in an area.

Figure 7-14. Per capita income, in 2010 dollars
United States and Washington state, 2000 through 2010
Source: U.S. Bureau of Economic Analysis



Per capita income in Washington was flat in 2010 after declines in 2008 and 2009.

Earned income accounted for 64 percent of total income in 2010. This is the lowest percentage on record. In 1969, the first year for which data are available, earnings accounted for 79 percent of income. Earnings ebbed slightly in 2010, more so on a per capita basis (since population grew). Overall, per capita earnings fell by 6.1 percent from 2008 to 2010, with proprietors absorbing 29 percent of the loss. Investment income rose by 1 percent in 2010, following a huge 18 percent decline in 2009.

Total transfer payments, after rising by 18 percent in 2009, popped up another 9 percent in 2010. Medicaid, food stamps, unemployment benefits and veterans benefits all grew much faster than average. Social Security and Medicare expanded at a slow pace, while TANF (welfare) payouts actually declined.

Finally, the early estimates for 2011 were not encouraging. Washington personal income declined in the second quarter of the year, lagging behind all other states.

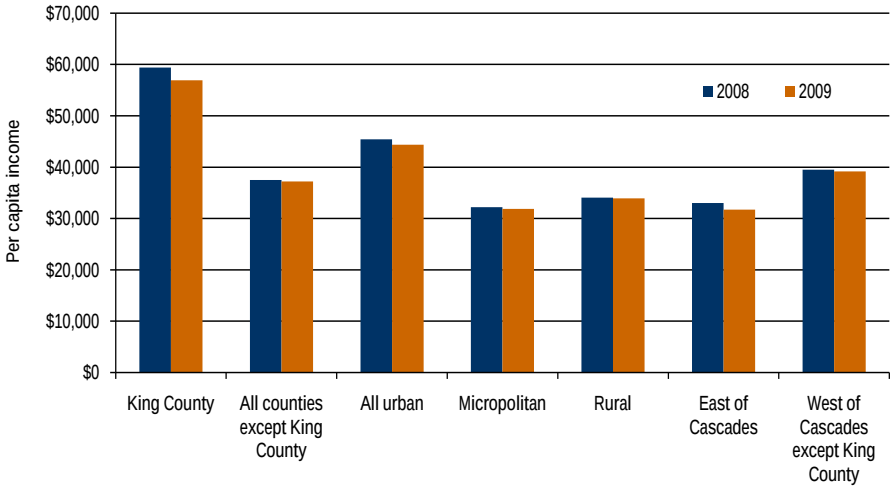
Income and wages by region and county, 2009

Personal income data at the county level become available a year later than the state-level data due to the enormous amount of source data that is analyzed (e.g. all Schedule C tax returns from the IRS). Therefore, data presented in this section are from 2009 whereas statewide data presented earlier in this chapter are from 2010.

Per capita income declined in 23 counties in 2009, while 15 counties had their per capita income increase to an all-time high. However, in most of the counties with an increase in per capita income, earned income and investment income declined and it was only a sizable increase in transfer payments that pushed up the average income. Despite a sizable 4 percent decline, King County again had the highest per capita income in the state at $56,904. Ferry County again had the lowest per capita income in the state at $25,284.

Every grouping of counties – rural, micropolitan, metropolitan, west and east of the Cascades – suffered a decline in per capita income in 2009 (*Figure 7-15*).

Figure 7-15. Per capita income
Selected Washington state areas, 2008 and 2009
Source: U.S. Bureau of Economic Analysis



Every grouping of counties suffered a decline in per capita income in 2009.

Chapter 8: Economic Comparisons with Other States

Exhibit 8-1. Most and least populated states and average annual growth rates, based on 2010 ranking

United States and Washington state, 2000 and 2010
Source: U.S. Census Bureau; Haver Analytics, Inc.

Population Growth

Rank	State	2000 Population	2000 Share of U.S. population	2010 Population	2010 Share of U.S. population	Average annual growth rate
1	California	33,994,383	12.0%	37,266,600	12.1%	0.9%
2	Texas	20,944,937	7.4%	25,213,445	8.2%	1.9%
3	New York	18,996,959	6.7%	19,577,730	6.3%	0.3%
4	Florida	16,046,148	5.7%	18,678,049	6.0%	1.5%
5	Illinois	12,437,568	4.4%	12,944,410	4.2%	0.4%
6	Pennsylvania	12,283,881	4.4%	12,632,780	4.1%	0.3%
7	Ohio	11,363,136	4.0%	11,532,111	3.7%	0.1%
8	Michigan	9,954,984	3.5%	9,931,235	3.2%	0.0%
9	Georgia	8,230,306	2.9%	9,908,357	3.2%	1.9%
10	North Carolina	8,080,253	2.9%	9,458,888	3.1%	1.6%
13	Washington	5,911,439	2.1%	6,746,199	2.2%	1.3%
42	Hawaii	1,212,396	0.4%	1,300,086	0.4%	0.7%
43	Rhode Island	1,050,607	0.4%	1,056,870	0.3%	0.1%
44	Montana	903,305	0.3%	980,152	0.3%	0.8%
45	Delaware	786,417	0.3%	891,464	0.3%	1.3%
46	South Dakota	755,707	0.3%	820,077	0.3%	0.8%
47	Alaska	627,748	0.2%	708,862	0.2%	1.2%
48	North Dakota	641,298	0.2%	653,778	0.2%	0.2%
49	Vermont	609,658	0.2%	622,433	0.2%	0.2%
50	District of Columbia	571,776	0.2%	610,589	0.2%	0.7%
51	Wyoming	493,980	0.2%	547,637	0.2%	1.0%

Exhibit 8-2. States with minimum wage higher than federal minimum wage, based on 2011 ranking

United States and Washington state, 2001, 2006 and 2011
Source: U.S. Department of Labor

Minimum Wage

Rank	State	2001	2006	2011
1	Washington	$6.72	$7.63	$8.67
2	Oregon	$6.50	$7.50	$8.50
3	Connecticut	$6.40	$7.40	$8.25
3	District of Columbia	$6.15	$7.00	$8.25
3	Illinois	N/A	$6.50	$8.25
3	Nevada	N/A	N/A	$8.25
7	Vermont	$6.25	$7.25	$8.15
8	California	$6.25	$6.75	$8.00
8	Massachusetts	$6.75	$6.75	$8.00
10	Alaska	$5.65	$7.15	$7.75
11	Maine	N/A	$6.50	$7.50
11	New Mexico	N/A	N/A	$7.50
13	Michigan	N/A	N/A	$7.40
13	Ohio	N/A	N/A	$7.40
13	Rhode Island	$6.15	$6.75	$7.40
16	Colorado	N/A	N/A	$7.36
17	Arizona	N/A	N/A	$7.35

N/A = Wages were not above federal minimum.

Unemployment Rates

Exhibit 8-3. 10 Highest and lowest unemployment rates, based on 2010 ranking

United States and Washington state, 2000, 2005 and 2010
Source: Bureau of Labor Statistics

Rank	State	2000	2005	2010
	United States	4.0%	5.1%	9.6%
1	North Dakota	2.9%	3.4%	3.9%
2	Nebraska	2.8%	3.9%	4.7%
3	South Dakota	2.7%	3.7%	4.8%
4	Iowa	2.8%	4.3%	6.1%
4	New Hampshire	2.7%	3.6%	6.1%
6	Vermont	2.7%	3.5%	6.2%
7	Hawaii	4.0%	2.8%	6.6%
8	Virginia	2.3%	3.5%	6.9%
9	Kansas	3.8%	5.1%	7.0%
9	Wyoming	3.8%	3.7%	7.0%
33	Washington	5.0%	5.5%	9.6%
42	Mississippi	5.7%	7.8%	10.4%
43	Kentucky	4.2%	6.0%	10.5%
44	North Carolina	3.7%	5.3%	10.6%
45	Oregon	5.1%	6.2%	10.8%
46	South Carolina	3.6%	6.8%	11.2%
47	Florida	3.8%	3.8%	11.5%
48	Rhode Island	4.2%	5.1%	11.6%
49	California	4.9%	5.4%	12.4%
50	Michigan	3.7%	6.8%	12.5%
51	Nevada	4.5%	4.5%	14.9%

Nonfarm Employment

Exhibit 8-4. 10 Highest and lowest average annual job growth rates (nonfarm employment)

United States and Washington state, 2000 to 2010
Source: Bureau of Labor Statistics; Haver Analytics, Inc.

Rank	State	Average annual growth rate
	United States	-0.2%
1	Wyoming	1.7%
2	North Dakota	1.4%
3	Alaska	1.3%
4	Utah	0.9%
5	Texas	0.9%
6	Montana	0.9%
7	District of Columbia	0.9%
8	Nevada	0.8%
9	Idaho	0.7%
10	New Mexico	0.7%
17	Washington	0.2%
42	Rhode Island	-0.4%
43	California	-0.4%
44	Tennessee	-0.4%
45	Massachusetts	-0.4%
46	Connecticut	-0.5%
47	Mississippi	-0.6%
48	Indiana	-0.7%
49	Illinois	-0.7%
50	Ohio	-1.1%
51	Michigan	-1.9%

Exhibit 8-5. 10 Highest and lowest average annual growth rate by real GDP

United States and Washington state, 2000 to 2010
Source: Bureau of Economic Analysis

Job Growth by Real GDP

Rank	State	Average annual growth rate
	United States	1.6%
1	Wyoming	4.0%
2	North Dakota	3.9%
3	Oregon	3.2%
4	South Dakota	3.1%
5	Alaska	2.8%
6	District of Columbia	2.6%
7	Utah	2.6%
8	Idaho	2.6%
9	Virginia	2.5%
10	Arizona	2.5%
26	**Washington**	**1.7%**
42	New Jersey	1.1%
43	Wisconsin	1.1%
44	South Carolina	1.0%
45	Indiana	1.0%
46	Maine	1.0%
47	Georgia	0.9%
48	Illinois	0.8%
49	Missouri	0.6%
50	Ohio	-0.1%
51	Michigan	-0.7%

Exhibit 8-6. 10 Highest and lowest average annual growth rates by real GDP per job*

United States and Washington state, 2000 to 2010
Source: Bureau of Economic Analysis

Real GDP Per Job

Rank	State	Average annual growth rate
	United States	1.1%
1	Oregon	2.7%
2	North Dakota	2.6%
3	Wyoming	2.3%
4	South Dakota	2.3%
5	Iowa	1.8%
6	Nebraska	1.6%
7	Virginia	1.6%
8	District of Columbia	1.5%
9	California	1.5%
10	Alaska	1.5%
34	**Washington**	**0.9%**
42	Maine	0.8%
43	Texas	0.8%
44	New Hampshire	0.6%
45	Nevada	0.6%
46	New Jersey	0.6%
47	Missouri	0.5%
48	Ohio	0.4%
49	Michigan	0.3%
50	South Carolina	0.3%
51	Georgia	0.1%

*GDP per job is an indicator of labor productivity.

Annual Exports

Exhibit 8-7. 10 Highest and lowest annual exports in thousands of current dollars, based on 2010 ranking

United States and Washington state, 2000, 2005 and 2010
Source: Haver Analytics, Inc.; WISER

Rank	State	2000	2005	2010
1	Texas	$103,865,691	$129,308,894	$206,607,508
2	California	$119,640,422	$116,689,908	$143,268,865
3	New York	$42,845,962	$51,840,963	$67,686,044
4	Florida	$26,542,977	$33,443,891	$55,226,962
5	Washington	$32,214,698	$33,078,178	$53,243,848
6	Illinois	$31,437,609	$36,168,604	$49,767,014
7	Michigan	$33,845,301	$37,848,628	$44,504,081
8	Ohio	$26,322,246	$35,110,497	$41,436,946
9	Louisiana	$16,814,283	$19,403,627	$41,347,736
10	Pennsylvania	$18,792,447	$22,333,835	$34,826,239
42	Alaska	$2,464,139	$3,613,087	$4,151,684
43	Maine	$1,778,690	$2,332,083	$3,148,444
44	North Dakota	$625,918	$1,191,202	$2,521,781
45	Rhode Island	$1,185,570	$1,268,447	$1,946,386
46	New Mexico	$2,390,545	$2,542,941	$1,561,696
47	District of Columbia	$1,003,173	$823,173	$1,500,732
48	Montana	$540,640	$715,016	$1,422,379
49	South Dakota	$679,369	$948,200	$1,263,390
50	Wyoming	$502,453	$670,612	$983,348
51	Hawaii	$386,820	$1,032,143	$685,098

Personal Income

Exhibit 8-8. 10 Highest and lowest per capita personal income, in 2010 dollars, based on 2010 ranking

United States and Washington state, 2000 and 2010
Source: Bureau of Economic Analysis

Rank	State	2000	2010	Annual average growth rate
	United States	$38,392	$40,584	0.6%
1	District of Columbia	$51,265	$71,044	3.3%
2	Connecticut	$53,083	$56,001	0.5%
3	Massachusetts	$48,385	$51,552	0.6%
4	New Jersey	$48,963	$50,781	0.4%
5	Maryland	$43,916	$49,025	1.1%
6	New York	$43,852	$48,821	1.1%
7	Wyoming	$37,078	$47,851	2.6%
8	Virginia	$40,066	$44,762	1.1%
9	Alaska	$38,661	$44,174	1.3%
10	New Hampshire	$43,164	$44,084	0.2%
11	Washington	$41,037	$43,564	0.6%
42	Indiana	$34,772	$34,943	0.0%
43	Alabama	$30,478	$33,945	1.1%
44	New Mexico	$28,809	$33,837	1.6%
45	Kentucky	$31,386	$33,348	0.6%
46	South Carolina	$31,760	$33,163	0.4%
47	Arkansas	$28,589	$33,150	1.5%
48	West Virginia	$28,079	$32,641	1.5%
49	Utah	$31,046	$32,595	0.5%
50	Idaho	$31,256	$32,257	0.3%
51	Mississippi	$27,295	$31,186	1.3%

Exhibit 8-9. 10 Highest and lowest average annual growth rates for new, privately-owned building permits

United States and Washington state, 2000 to 2010
Source: U.S. Census Bureau; Haver Analytics, Inc.

Building Permits

Rank	State	Average annual growth rate
	United States	-9.2%
1	North Dakota	6.1%
2	Wyoming	3.8%
3	District of Columbia	-0.9%
4	Montana	-2.4%
5	Arkansas	-2.5%
6	Louisiana	-2.6%
7	Oklahoma	-3.1%
8	South Dakota	-3.5%
9	Hawaii	-3.5%
10	Delaware	-4.0%
16	Washington	-6.1%
42	California	-11.3%
43	Minnesota	-11.3%
44	Ohio	-12.1%
45	Florida	-13.0%
46	Illinois	-13.4%
47	Colorado	-14.4%
48	Arizona	-14.8%
49	Nevada	-14.9%
50	Georgia	-15.4%
51	Michigan	-16.1%

Exhibit 8-10. 10 Highest and lowest counts of existing home sales, based on 2010 ranking

United States and Washington state, 2008, 2009 and 2010
Source: National Association of Realtors

Home Sales

Rank	State	2008	2009	2010
1	California	439,800	510,400	468,400
2	Texas	474,900	443,300	420,500
3	Florida	262,800	357,700	396,500
4	New York	255,300	253,900	242,000
5	Ohio	229,800	248,700	231,900
6	Illinois	183,100	184,500	176,700
7	Georgia	174,800	176,600	162,700
8	Pennsylvania	175,100	176,500	160,200
9	Michigan	155,600	167,100	150,800
10	Arizona	116,000	150,800	147,500
21	Washington	87,000	82,300	83,700
42	Hawaii	20,100	18,400	20,900
43	Montana	19,800	21,700	20,400
44	New Hampshire	18,400	19,600	18,900
45	South Dakota	16,300	17,400	14,300
46	Rhode Island	13,500	15,400	13,600
47	North Dakota	12,400	13,000	12,500
48	Vermont	10,600	11,200	11,300
49	Delaware	11,400	12,500	10,900
50	District of Columbia	7,100	8,400	8,700
51	Wyoming	10,000	9,000	8,500

Home Prices

Exhibit 8-11. Median single-family home prices in current dollars, based on 2010 ranking

Selected U.S. metropolitan areas, 2008, 2009 and 2010
Source: National Association of Realtors

Rank	Metropolitan area	2008	2009	2010
1	Honolulu, HI	$624,000	$596,200	$607,600
2	San Jose-Sunnyvale-Santa Clara, CA	$668,000	$530,000	$602,400
3	San Francisco-Oakland-Fremont, CA	$533,200	$477,240	$544,700
4	Anaheim-Santa Ana, CA (Orange Co.)	$622,000	$493,310	$525,300
5	New York-Wayne-White Plains, NY-NJ	$494,300	$437,200	$450,000
17	Seattle-Tacoma-Bellevue, WA	$357,200	$306,200	$295,700
21	Portland-Vancouver-Beaverton, OR-WA	$280,100	$244,100	$237,300
56	Kennewick-Richland-Pasco, WA	$166,100	$167,100	$177,600
58	Spokane, WA	$191,200	$175,200	$172,200
68	Yakima, WA	$153,300	$155,200	$155,700
150	Decatur, IL	$87,400	$86,700	$86,500
151	Lansing-E.Lansing, MI	$97,700	$80,700	$84,400
152	South Bend-Mishawaka, IN	$86,000	$85,200	$83,100
153	Toledo, OH	$91,200	$83,400	$81,500
154	Youngstown-Warren-Boardman, OH-PA	$71,700	$66,500	$67,200

Share of Homes Sold

Exhibit 8-12. Share of homes sold that are affordable to a family earning median income

Washington state, selected metropolitan areas, 2006 through 2011
Source: National Association of Home Builders

Metropolitan statistical area	2006	2007	2008	2009	2010	2011
Bellingham	28.5	26.4	35.7	55.6	60.5	65.8
Bremerton-Silverdale	27.0	27.3	46.2	62.3	66.3	74.4
Mount Vernon-Anacortes	26.6	22.5	37.2	56.6	71.1	72.6
Olympia	27.6	24.9	41.4	63.7	75.5	79.1
Seattle-Bellevue-Everett	22.8	19.3	32.3	55.7	62.4	67.5
Spokane	52.8	54.6	57.9	76.3	79.3	83.0
Tacoma	22.0	23.3	46.2	65.2	76.5	79.7

Exhibit 8-13. 10 Highest and lowest high school completion rates, percent of people 25 years and over (includes equivalency)

United States and Washington state, 2010
Source: U.S. Census Bureau, 2010 American Community Survey

High School Completion

Rank	State	Completion rate
	United States	85.6%
1	Wyoming	92.3%
2	Minnesota	91.8%
3	Montana	91.7%
4	New Hampshire	91.5%
5	Alaska	91.0%
5	Vermont	91.0%
7	Iowa	90.6%
7	Utah	90.6%
9	Nebraska	90.4%
10	Maine	90.3%
10	North Dakota	90.3%
14	Washington	89.8%
42	Rhode Island	83.5%
43	New Mexico	83.3%
44	West Virginia	83.2%
45	Arkansas	82.9%
46	Alabama	82.1%
47	Kentucky	81.9%
47	Louisiana	81.9%
49	Mississippi	81.0%
50	California	80.7%
50	Texas	80.7%

Exhibit 8-14. 10 Highest and lowest bachelor's degree completion rates, percent of people 25 years and over

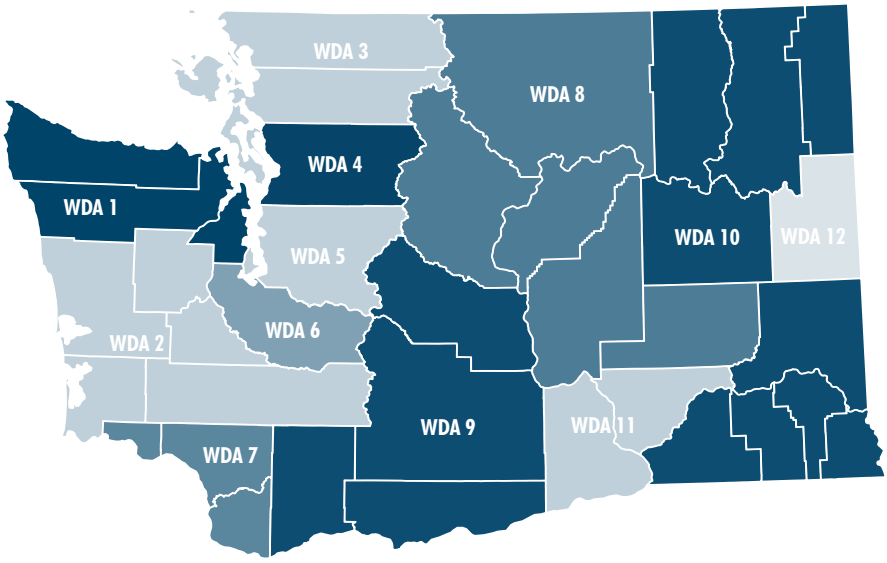
United States and Washington state, 2010
Source: U.S. Census Bureau, 2010 American Community Survey

Bachelor's Degree

Rank	State	Completion rate
	United States	28.2%
1	District of Columbia	50.1%
2	Massachusetts	39.0%
3	Colorado	36.4%
4	Maryland	36.1%
5	Connecticut	35.5%
5	New Jersey	35.4%
7	Virginia	34.2%
8	Vermont	33.6%
9	New Hampshire	32.8%
10	New York	32.5%
12	Washington	31.1%
42	Tennessee	23.1%
43	Oklahoma	22.9%
44	Indiana	22.7%
44	Alabama	21.9%
46	Nevada	21.7%
47	Louisiana	21.4%
48	Kentucky	20.5%
49	Arkansas	19.5%
50	Mississippi	19.5%
51	West Virginia	17.5%

Appendix 1– Washington's Workforce Development Areas

Washington state is divided into 12 workforce development areas (WDA). WDAs are regions within Washington state with economic and geographic similarities, generally comprised of a county or group of counties.



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